Traffic Management Plan
Canterbury to Campsie Bulk Power Supply Investigations

Line Wide Works Contract Sydney Metro City & southwest.

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<td>SMCSWLWC-SYC-CTC-TF-PLN-000457</td>
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<tr>
<td>Revision date:</td>
<td>04/07/2019</td>
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Document Approval

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<th>Rev.</th>
<th>Date</th>
<th>Prepared by</th>
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<td>00</td>
<td>04/07/19</td>
<td>J Luna</td>
<td>W Tee</td>
<td>M Billings</td>
<td>RMS</td>
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Signature: J.Luna

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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, as required.

Amendments

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

Revision Details

<table>
<thead>
<tr>
<th>Revision</th>
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<tr>
<td>A</td>
<td>Amend comments from SCO/SM/RMS – Jonathan Luna – 28/5/19</td>
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<td>B</td>
<td>Issued to RMS /SCO for review/Approval</td>
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<td>C</td>
<td>Stakeholder comments addressed. For Endorsement/Approval</td>
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1. Project Overview

1.1 Abbreviations

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Definition</th>
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<tr>
<td>AADT</td>
<td>Annual average daily traffic</td>
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<tr>
<td>AS 1742.3</td>
<td>Australian Standard 1742.3</td>
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<tr>
<td>CEMP</td>
<td>Construction Environmental Management Plan</td>
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<td>Ch</td>
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<td>ESCP</td>
<td>Erosion and Sediment Control Plan</td>
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<td>ESD</td>
<td>Entering sight distance</td>
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<tr>
<td>FAS</td>
<td>Flashing Arrow Signs</td>
</tr>
<tr>
<td>G1</td>
<td>Road and Maritime “JOB Specific Requirements”</td>
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<td>G10</td>
<td>Roads and Maritime QA Specification g10 Traffic Management</td>
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<td>PMP</td>
<td>Pedestrian Management Plan</td>
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<td>R141</td>
<td>Pavement Marking</td>
</tr>
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<td>R142</td>
<td>“Retro reflective raised pavement markers”</td>
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<td>Road and Maritime Services</td>
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<td>ROL</td>
<td>Road Occupancy Licence</td>
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<td>SISD</td>
<td>Safe Intersection Sight Distance</td>
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<td>SZA</td>
<td>Speed Zone Authorisation</td>
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<tr>
<td>TCP</td>
<td>Traffic Control Plan</td>
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<td>TCWS</td>
<td>Traffic Control at Work Sites Manual</td>
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<td>TMP</td>
<td>Traffic Management Plan</td>
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<td>TR</td>
<td>Thermal Resistivity</td>
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<td>TRSB</td>
<td>Temporary Road Safety Barrier</td>
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<td>VMP</td>
<td>Vehicle Management Plan</td>
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<td>VMS</td>
<td>Variable Message Sign</td>
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1.2 References

- TCAWS Traffic Control at Worksites Manual V.5 (July 2018)
- Workplace Health and Safety Traffic Management for Construction or Maintenance Work Code of Practice 2008

1.3 Executive Summary

The purpose of this Traffic Management Plan is to ensure that, Systems Connect commitment to safety, traffic management, reporting and reviewing, is met during the life of this project.

This will be accomplished with consideration given to; Traffic Plans, Traffic Demands, Traffic Routing, Traffic Control Devices, Other road users and stake holder, Special (emergency) vehicle requirements and access, Accredited Traffic Controllers

Early work services investigation includes potholing, slit trenching, surveying, soil testing TR Testing (Thermal Resistivity) and GPR (Ground Penetration Radar). The investigation results will be used to finalise the design routes for the bulk power supply (BPS). See attached “Services Investigation Route” shown the activity types and indicative durations.

This plan aims to identify the risks to persons undertaking work on, or adjacent to, a road. It shall ensure that appropriate control measures for any identified hazard are assessed,
controlled, implemented, monitored, and reviewed by elimination, substitution, engineering, administration or by using personal protective equipment.

The legislative and reference documents used in conjunction with this plan include, but are not limited to:

- WH&S Act and Regulations (New South Wales)
- Transport Operations (Road Use Management) Act and Regulations (New South Wales)
- Traffic Control at Worksites Manual (TCAWS)
- Australian Standard AS1742.3 Traffic Control Devices (2009)

All contractors, subcontractors, employers, self-employed persons, workers and other persons will be bound by the requirements set out in this plan.

This plan forms the basis of ongoing programmes in continuous improvement of traffic management and the required ongoing training and commitment of all personnel involved in this project.

Risk assessments will be conducted before Traffic Guidance Schemes are prepared and prior to erecting any traffic control device on site. This will determine a safe environment of workers and a safe route for pedestrians and on-coming vehicular traffic.

2. Project Details

Project Name Line Wide Works Contract Sydney Metro City & southwest

Project Location Campsie/Canterbury

3. Description of Proposed Works and Lane/Road Closures

The Traffic Management Plan has been prepared for Systems Connect specific to Campsie/Canterbury works location as per TCPs attached. It addresses the traffic management requirements as specified in the Traffic Control at Worksites manual Provision for traffic.

Works entail GPR/3D Surveying, Soil Testing, TR Testing, Pothole & Still Trenching (Non-Destructive Excavation) will be taking place as part of this scope of works.

3.1 Stage Work (Early works investigation) – Indicative Duration

- Beamish St – 1x Shift
- Lilian St – 3x Shifts
- South Pde – 2x Shifts
- Gould St – 8x Shifts
- Canterbury Rd – 2x Shifts
- Cooks Ave – 3x Shifts
- High St – 1x Shift
- Anzac St – 1x Shift
- Existing Ausgrid OH easement – 2x Shifts

To be used in conjunction with all TCP stages (see Appendix A, 13.1). Duration will be based on site specific works that need to be completed.

3.2 Working Hours

Works will be conducted in daylight hours from 07:00am-18:00pm Mon-Sat. Works located on Canterbury Rd carriageway will be conducted during nights from 21:00pm-05:00am Mon-Sun, based on Approval from Transport Management Centre (TMC).

It has been prepared in accordance with Include all the following elements as detailed in TCAWS.

The TCP contained herein shall show traffic control device layouts (including TRSB, temporary pavement marking and temporary islands), be fully dimensioned and shall generally agree with the construction sequence and other requirements shown elsewhere.
4. Identification and Assessment of Traffic Impacts of Proposed Works

4.1 Road Network
A description of the surrounding road network, which details the various roads and their classifications, level in road hierarchy, lane configurations, cross sections, junction types, speed zones, traffic controls etc., will be incorporated within the (TMP).

4.2 Identified Impacts
Systems Connect will conduct the required assessments of the road network directly affected by the construction activities, which will be documented in the (TMPs). This assessment will assist in determining the need for specific mitigation measures. The facilities to be assessed will include, but are not limited to:

- Existing on-street parking (including type and associated time limits)
- Existing traffic controls
- Existing junction configurations
- Restrictions on existing traffic movements (right turn bans etc)
- Existing road occupancies
- Public transport (buses, including bus stops, taxis)
- Traffic generating developments, (e.g. schools, shopping centres, churches, industrial areas, sporting complexes, clubs etc)
- Temporary access arrangements or restrictions for residents, businesses, traffic generating developments, major and special events etc
- Emergency vehicle access points
- Heavy vehicle movement restrictions, including over dimension vehicle loads
- Pedestrians, including disabled persons
- Cyclists, (general road, cycle and share way facilities).

5. Detail Traffic Management Measures to Ameliorate the Impacts of Proposed Works

5.1 Minimising Delay during Implementation of Road Occupancies
The delay minimization strategies to be applied by Systems Connect project team will not delay the free flow of traffic in any direction more than 500 meters in accordance to G10 through the following strategies:

- Minimising the impacts of each work area;
- Maximising the operating performance of the individual routes;
- Eliminate the need to work adjacent to live traffic as far as possible through the construction techniques and traffic phasing;
- Undertaking an AM and PM drive through as part of the maintenance plan to ensure no debris, detritus, broken down vehicle are not impeding traffic which may lead to traffic delays;
- Aiming to maintain access;
- Over Dimensional movements to be conducted at pre-dawn or pre-dusk outside of peak times and under escort; and
- Coordinating works at each work area to ensure road users do not encounter several delays in quick succession.
- Police will be contacted for illegal parking to contact the vehicle owners.
- Situation will be re-assessed if there is breakdown vehicle. Stop/Slow traffic will be maintained if possible. Otherwise, works will be stopped until the path is clear.

Systems Connect acknowledge there are various measures that can be applied to minimise road user delays, and these are generally divided into four categories:

- Design;
- Isolation of work areas (the hierarchy of controls);
- Work methods; and
- Planning road occupancies during times of low traffic volumes.
Where practical, Systems Connect will apply the measures below via Systems Connect Traffic representative/coordinator:

Ensure road user delays are given consideration during the concept phase (i.e.; develop alignments to avoid conflicts and potential impact with the existing road network);

- Ensure that road user delay is given consideration during the construction of vehicle movement planning development;
- Develop traffic staging and temporary works; avoid conflicts with the existing road network, maximises separation between work areas and travel lanes or isolates work areas and maintain existing “LOS” of the road network;
- Isolate work areas from traffic flows (e.g.; using alternative routes, temporary side-tracks, lane deviations / widenings and temporary safety barriers);
- Develop alternative work methods to minimise impact (e.g.; utilise more efficient plant/equipment, apply different design solutions, enclosed work platforms, time of day applications);
- Plan all lane closures/road occupancies with the aim to: minimise the actual work area, limit obstructions and restrictions, maximise the road’s capacity and avoid peak traffic flow periods;
- Provide road users with changed traffic condition information to enable them to plan their journey ahead and avoid the roadwork impact.

Despite the importance of minimising road user delays, Systems Connect will not pursue the minimization of delays to the extent that it will compromise the safety of workers or road users.

5.2 Closure of Shoulders or Auxiliary Lanes

Road occupancies involving closure of any shoulder or auxiliary lane, where auxiliary lane(s) exist, Systems Connect will always consider providing a minimum of one travel lane in each direction through the road occupancy.

For partial closures of any length of auxiliary lanes; it may only be implemented if the remaining open length of the auxiliary lane is equal to or greater than 600m where the posted speed is 100km/h or equal to or greater than 400m where the posted speed is 80km/hr. (According to G10.2.2.3)

6. Assessment of Public Transport Services Affected

Some of the routes will have buses operating. For example, at the South Parade. Depending on the works and the closures of lanes and roads. Different implementation strategies will be used in order assist Public Transport services. Such as detour routes and/or Traffic controllers positioned at bus stops to assist passengers at bus stops.

Systems Connect will need to consult with STA regarding impacts on bus services and Bus Stops.

7. Public Car Parking

Public car parking will be accessible around sites.

For example; the public will be able to gain access to the parking spots at Lilian St/Lilian Ln traffic controllers will be utilized in order to assist the public with easy access and are able to safely access their vehicles that may be near work zones. Lilian St/Lilian Ln will be nightshift only. The carpark will be an hourly rate for a maximum of 2hr parking.

Public car parking on South Parade will need 24-hour access due to works needed to be completed during both day and night shift, traffic controllers will be around the work zones assisting the public with accessing parking.

8. Impact on Cycleway

When provided with a scope of works on the cycle way specific implementation controls will be in effect. Traffic controllers to assist cyclists and pedestrians and the work crew on cycle way during investigations along the routes.
9. Details of Provisions Made For Emergency Vehicles, Heavy Vehicles, Cyclist and Pedestrians

9.1 Maintaining Access for Heavy Vehicle

The effective management of loads carried by the heavy vehicles vary considerably and over-dimension loads may be transported within Campsie/Canterbury location. These loads vary in width, height, length and mass. For Systems Connect to safely and efficiently facilitate the movement of heavy vehicles, (TMPs) will:

- Consider the movement of heavy vehicles and over-dimension loads when preparing temporary works drawings and TCPs (adopting designs which provide a minimum lane width of 3.5 m and can accommodate the turning movements of a 26 m long B-Double heavy vehicle).
- Limit obstructions and restrictions on the carriageways, and when required, provide alternatives.
- Liaise with the police, permit authority and operators, as well as provide up-to-date information of any obstructions (specify minimum dimensions) which may impact on the movement of over dimension vehicles. (To be actioned only if required)
- Keep a register of proposed over-dimension vehicle movements, determine the best opportunity to proceed through the work site and advise the transport operator accordingly. (To be actioned only if required)
- When traffic control operations are in place, traffic controllers will effectively co-ordinate the movement of over-dimension vehicles through the work site.
- Assist the Special Permits Unit and over-dimension operators by notifying the relevant authority of any obstructions which may impact on over-dimension vehicle movements.
- Arrange the removal and re-instatement of roadside furniture and traffic control devices which impede over-dimension vehicle movements.
- Regularly monitor heavy vehicle movements through the work site and when required, implement the appropriate controls to mitigate potential hazards and/or congestion.

Systems Connect will liaise with Roads and Maritime’s Representatives to establish communication protocols for the passage of over-dimension heavy vehicle prior to any deliveries.

9.2 Managing Pedestrians

When planning construction activities, Systems Connect will consider the following:

- Number of pedestrians.
- Type of pedestrian activity: whether commercial, retail, residential or recreational.
- Origin and destination points of the pedestrians, as well as their desired travel path.
- Needs of vulnerable pedestrians such as young children, the elderly, vision impaired, disabled people, people with prams and trolleys.
- Proximity of pedestrian generation developments such as schools, shopping centres, railway stations, bus terminals etc.

Understanding that unlike motor vehicles, pedestrian movements within and outside of the road reserve are generally unrestricted, with free access available to most areas. Because of this and to ensure provision of a safe environment to all pedestrians, Systems Connect will ensure provisions will be made for the safe ongoing access by pedestrians. Appropriate barrier or Fencing will be installed to restrict physical access to hazardous areas as well as for site security, which will be appropriately sign posted. Various types of temporary and semipermanent fencing may be installed, including plastic mesh, water filled plastic delineators, weldmesh, pool fencing, chain wire mesh and so on. All physical barriers will be maintained during the project and appropriately secured to prevent injury to the public.

To implement these requirements, all temporary footpaths will be:

- Clearly defined and revised locations of these routes will be developed in consultation with Road and Maritime and forwarded to the local council for review and acceptance if it applies to a Local Road;
- Advice of pending changes to the routes will be provided to the users, together with signage detailing the changes when implemented;
• Signposted appropriately to indicate the direction of the footpath;
• Constructed with an all-weather surface, free of trip hazards;
• Designed to accommodate the type of pedestrians to be encountered within the area;
• Where required, provided with pram ramps, hand rails and street lighting;
• The minimum width specified by the relevant authority;
• Where pedestrian and cyclist flow are in a direction that may not satisfy a clear desire line, special provisions for notification will be made; and
• Kept well maintained while in operation.

Where feasible, Systems Connect aim will be to maintain all existing pedestrian crossing facilities. Where this cannot be achieved, alternative facilities which are a similar standard to the present facility will be provided. Types of temporary crossing facilities may include pedestrian refuges, marked foot crossings, pedestrian-actuated traffic signals, temporary grade separated pedestrian bridges and so on.

9.3 Managing Bicycles

When planning construction activities, Systems Connect will consider the following:

• Number of cyclists.
• Type of cycling activity: school children, recreational, commuter, utility, touring or sport training.
• Origin and destination points of the cyclists and the connectivity of their routes.
• Needs of vulnerable cyclists, such as young children under 14 years.
• Proximity of cyclist generating developments, such as schools, universities, public transport terminals, shopping precincts and CBDs, etc.
• The travel speed of cyclists.

Systems Connect appreciate that unlike motor vehicles, bicycle movements can be either on or off road. Cyclists generally travel along footpaths, cycle ways, shared paths, road shoulders or within travel lanes. To provide a safe environment for cyclists, the boundaries of all work areas will be clearly defined and measures to mitigate any hazards will be implemented. The speed of cyclists can be high, at around 50 km/h on downhill grades, and most bicycles have no suspension. Any hazards, whether rough and loose surfaces, squeeze points, obstacles, low clearance heights and so on can be potentially dangerous.

Where possible, the introduction of hazards into the travel path of cyclists will be avoided. Where this is not feasible, appropriate physical barriers, treatments and/or warning signs will be implemented. Fencing will be installed to restrict physical access to hazardous areas and for site security, which will be appropriately sign posted. All physical barriers must be maintained during the project and appropriately secured to prevent injury to the public.

Where work areas restrict access to cycle paths, alternative routes and facilities will be implemented.

Alternatives may include using the opposite side of the road, detours via other streets/cycle routes, or the provision of temporary cycle paths through the work area.

Systems Connect will ensure that all temporary cycle paths will be:

• Clearly defined.
• Signposted appropriately to indicate the direction of the cycle path.
• Constructed of an asphalt or concrete with a smooth surface, equivalent to the section of path on each approach to the temporary path.
• Free of loose materials and obstacles.
• Designed to accommodate the type of cyclists to be encountered along the route.
• Where required, provided with ramps, holding rails and street lighting.
• Kept well maintained while in operation.

The provision of on-road cycle facilities requires careful assessment and the factors below will be strictly considered by Systems Connect:

• On-street parking conditions
• Travel speed of traffic
• Traffic volumes
• Bicycle volumes
• Experience of the cyclists
• Percentage of heavy vehicles
• Carriageway, lane and parking lane widths available
• The alignment of the road.

Where feasible, Systems Connect will aim to maintain all existing cycle crossing facilities. Where this cannot be achieved, alternative facilities which are a similar standard to the present facility will be provided.

10. Managing Unplanned Incidents

The occurrence of unexpected incidents listed below, within the project boundary or any adjacent site will potentially have a negative impact on the operation of the road network and might temporarily restrict construction activities. Systems Connect will create and plan an emergency response procedure which will incorporate standard operating procedures for managing any unexpected construction site emergencies/incident that may occur during the project delivery. Systems Connect will provide traffic control by qualified controller for emergencies and develop strategies to manage:

• Unplanned incidents on the road network
• Construction site emergencies/unplanned incidents.

10.1 Types Of Incidents

Different types of emergencies/unplanned incidents that may occur include, but are not limited to:

• Motor vehicle accidents;
• Bush fires;
• Environmental spills;
• Construction-type incidents;
• Catastrophic structural failures;
• Inclement weather conditions;
• Flooding;
• Anti-social behaviour;
• Terrorist attacks; and Bomb threats.

10.2 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:

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<thead>
<tr>
<th>Unplanned Incident Agency Responsibility</th>
<th>NSW Police Force</th>
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<tbody>
<tr>
<td>Law Enforcement / Emergencies</td>
<td>Fire Brigades / Rural Fire Service</td>
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<tr>
<td>Fire</td>
<td>Fire Brigades</td>
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<tr>
<td>Hazardous Materials</td>
<td>State Emergency Service</td>
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<tr>
<td>Flood</td>
<td>State Emergency Service</td>
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<tr>
<td>Storm and Tempest</td>
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10.3 Roads & Maritime Services / Local Council Responsibilities

In accordance with its statutory obligations, Roads and Maritime Services and the local councils are responsible for road safety and traffic management of the road network. In
conjunction with emergency service agencies, this includes the management of incidents and emergencies.

Systems Connect understand the detailed management of large-scale emergencies and incidents happening within the boundary of the site shall be in accordance with the State requirements as laid out in the State Disaster Plan. Systems Connect will provide support to emergency service agencies and/or the Roads and Maritime Services/local councils when emergencies/incidents occur within or adjacent to the construction site.

10.4 **Manage Unplanned Incidents on the Road Network**

The occurrence of unplanned incidents within the construction site may impact on the operation of the road network. Similarly, incidents occurring on the surrounding road network may restrict construction activities. To address this issue, Systems Connect Traffic Representative will:

- Apply and maintain communication protocols.
- Inform the road authority of any incident and provide assistance.
- If resources are available, provide initial response to unplanned incidents with the aim of making the scene of the incident safe and prevent further harm to persons or property.
- Provide support to emergency services, including traffic control, near the incident.
- During major incidents, provide a senior construction representative on-site to liaise with the road authority and emergency service agencies.
- Reschedule planned works that will interfere with the incident or create additional delays to those road users already affected by the incident.
- Disseminate road condition information to Roads and Maritime Services and the local council for their distribution to road users.

11. **Proposed Public/Tenant Notification Process**

11.1 **General**

A cooperative and coordinated approach among traffic and transport providers and Systems Connect will enable the public and freight transport operators to receive timely, accurate and credible information.

All information intended for release to the community in relation to the management of the roadways in the project area will be submitted to the Roads and Maritime Services for approval before it is distributed. Roads and Maritime Services & Canterbury Bankstown Council will be informed immediately of any changes to information provided to the community.

Approval will be obtained from the Transport Management Centre for all communications related to changes affecting the operation of the carriageway. The Systems Connect Project Manager will submit all traffic communication via the normal approval process to the Roads and Maritime Services.

11.2 **Consultation**

Systems Connect will regularly consult with relevant stakeholders directly, or through the forum provided by the community consultative committees, ahead of construction to ensure all appropriate management and mitigation measures are adopted where possible. Systems Connect Traffic Representative will regularly attend and update the local council Traffic Committees and provide regular information sessions and workshops with key stakeholders.

11.3 **Altered Traffic Arrangements**

The project team will be required to:

- Be available at all reasonable times to address any community questions concerning planned traffic arrangements including any traffic switches;
- Establish Stakeholder or Issues Groups to inform the community on:
  - Traffic management (including property access);
  - Cyclist needs
11.4 Notifications and Advertising

The project team will be required to:

- Notify residents and businesses about construction activities which will affect access to their properties or otherwise significantly disrupt use of their premises. Such notification shall be made at least five working days before commencing work affecting the premises and shall advise the nature of the work, why it is necessary, indicate the expected duration plus any changes to arrangements for traffic or property access. Contact details for the Project team shall also be provided;
- Advertise significant traffic management changes, detours, traffic disruptions and work outside the working hours contained in the environmental assessment documents.
- Advise (RMS) if any part of the Temporary Works that is the subject of an advertisement is to be changed or varied to make the advertisement substantially incorrect.
- Notify Canterbury Bankstown Council as the road manager for local and regional roads.

11.5 Media and Community Events

The project team will be required to:

- Hold on-going discussions with RMS and respective Council regarding dates, commencing prior to the anticipated occurrence of the event, for major milestones / traffic switches and the opening of the Works or any stage of the Works and Local Road Works to traffic;
- Plan for an event of some form to mark the opening of the works to traffic; and
- Not announce the proposed opening of the Works and / or any stage of the works or Local Road Works to traffic without the approval of RMS and/or respective Council.

11.6 Identification of Key Stakeholders

Systems Connect recognise a critical first step is to identify the audience and key stakeholders. The following stakeholders will be consulted when preparing long term (TCPs). As required;

- (RMS); STA
- Fire & Rescue NSW;
- NSW Police; and Ambulance NSW
- Councils: Canterbury Bankstown Council

11.7 Communication Methods

Systems Connect will consult with community members to ensure there is minimum disruption and inconvenience and alternative routes publicised and sign posted accordingly. The Traffic Representative in conjunction with the Community Relations Officer will disseminate changed traffic condition information using the methods below as required:

- Consultation with key stakeholders.
- Temporary roadwork information signage.
- Changed traffic condition advertising.
- Community letterbox notifications.
- Project information signage.

11.8 Notification Requirements to Authorities

Systems Connect acknowledge the importance of keeping (RMS) and all stakeholders regularly informed. Therefore, during section 4 construction work, the project team will report to RMS, TMOC, SCO, Council & community consultative committees and other relevant stakeholders on all road safety and traffic management issues that may impact the road network.

Any unplanned closure of lanes or imposed restrictions in the flow of traffic occurs on the exiting Highway or adjacent local road within the project boundaries, the Systems Connect project team will immediately advise (RMS) of the nature of the closure or restriction and of the schedule for reopening of the lanes. The project team will take all the required measures to open the lane as quickly as possible.
12. Specific Method of Traffic Control

12.1 Speed Restrictions

Speed limit reductions shall be kept to a minimum. 40kph should only be used when personnel are working closer than 1.2 meters to the nearest edge of a traffic lane. These reductions should commence just prior to the work (area) and concluding immediately at the end of the work (area).

12.2 Traffic Guidance Schemes

Schedule of included Traffic Guidance Schemes;
TCP 1 (184846 REV 00) - STOP_SLOW - LILIAN STREET, CAMPSIE
TCP 2 (184847 REV 00) - ROAD CLOSURE - LILIAN STREET, CAMPSIE
TCP 3 (184848 REV 01) - STOP_SLOW - LILIAN STREET, CAMPSIE
TCP 4 (184849 REV 00) - CONTRAFLOW - SOUTH PARADE, CAMPSIE
TCP 6 (184851 REV 00) - STOP_SLOW - SOUTH PARADE, CAMPSIE
TCP 7 (184852 REV 00) - STOP_SLOW - SOUTH PARADE, CAMPSIE
TCP 8 (184853 REV 00) - STOP_SLOW - SOUTH PARADE, CAMPSIE
TCP 9 (184854 REV 01) - STOP SLOW - GOULD ST, CAMPSIE
TCP 10 (184855 REV 01) - CONTRAFLOW - GOULD ST, CAMPSIE
TGS 11.1 (184856 REV 01) - HALF ROAD CLOSURE - GOULD ST, CAMPSIE
TGS 11.2 (186228 REV 00) - HALF ROAD CLOSURE - GOULD ST, CAMPSIE
TGS 11.3 (184857 REV 01) - HALF ROAD CLOSURE - COOKS AVE, CANTERBURY
TGS 11.4 (189229 REV 00) - HALF ROAD CLOSURE - COOKS AVE, CANTERBURY
TCP 12 (184858 REV 00) - STOP SLOW - COOKS AVE, CANTERBURY
TCP 13 (184858 REV 00) - STOP SLOW - COOKS AVE, CANTERBURY
TCP 14 (184860 REV 00) - STOP SLOW - ANZAC ST, CANTERBURY
TCP 15 (184903 REV 00) - VERGE CLOSURE - ANZAC AVE, CANTERBURY

12.3 Site Access

All Site access is to be followed as set out in TGS provided. (Refer to Appendix)

12.4 Vehicles Movements

All works vehicles are to enter and exit the site under traffic control/site marshals’ directions or under signage display only (under 20 movements and forward entry/exit).

12.5 Restrictions to Traffic Lanes

Single lane reversible flow – Where single lane reversible flow (to serve both directions) is allowed, the Contractor shall maintain traffic flow under the control of traffic controllers or portable traffic signals in such a way that no road user is unduly delayed. In all cases, the length of one-lane, two-way operation shall be limited to one kilometer.

Stopping traffic in both directions – The Contractor may stop traffic in both directions simultaneously only for purposes of construction of specific work and during the specific period. Where it is necessary to stop traffic then the time should not extend greater than three minutes. Longer periods may require the installation of a suitable detour so as to avoid extensive queueing and impacts on intersections.

Specific periods where lane closures are not permitted – Work not under the Contract involving lane closures, stop/slow arrangements or construction traffic entering or leaving any through traffic lanes shall not be carried out during any periods and unless otherwise stated.

Days during which lanes shall not be closed and work involving stop/slow arrangements shall not be carried out as below unless specific approval is granted by the Superintendent prior to commencement of the works.
• All Public Holidays, plus the preceding and succeeding days to the public holidays
• Other Public events not mentioned could also be deemed a special case for stopping the closure of lanes

12.6 Road Closures and Detouring Traffic
Detours and Rd closures at Lilian St and Lilian Ln as shown in TCPs. (Refer to Appendix A)

12.7 Access to Private Property
Existing accesses to private properties affected by the work shall be maintained in useable condition during the construction, or alternative access arrangements acceptable to the property owners/tenants shall be made.

The Contractor shall permit and provide for the free movement of traffic in and out of the properties at all times except as otherwise agreed to by the property owners/tenants.

The Contractor shall, at no expense to the Principal, make good any damage to accesses to private properties which results from the Contractor’s operations during the construction of the work under the Contract.

12.8 Night Works
Construction work that is likely to cause noise is to be restricted to day time operations only. City and Southwest Out of Hours Work Protocol to be followed.

12.9 Preventing End of Que Collisions
Additional traffic controllers, or other end of queue risk control measures deemed to be adequate for the site circumstances, shall be used in high speed situations or where sight-distance is restricted, to prevent rear end collisions where vehicles are stopped or slowed by the work under the Contract. Additional traffic controllers shall also be used in other situations where described in AS 1742.3. Additional guidance is provided in TCAWS regarding supplementary devices at roadworks to reduce speed.

12.10 Delineation of Traffic Corridors
Where described in Traffic Control at Worksites Manual, direction hazard markers, temporary raised reflective pavement markers, line marking, reflective mesh fencing and/or other such delineation devices shall be used in addition to the requirements of the AS1742.3 to delineate trafficked corridors. Where star pickets are used they shall be kept 1 meter or more from an adjacent traffic lane where the speed is 80kph or less.

12.11 Lighting of Work Site
Where roadway lighting currently exists, lighting shall generally be provided during roadworks. Ideally, existing lighting shall not be removed until alternative temporary lighting is provided to at least the same standard as the existing lighting. If temporary lighting is not provided, the associated risk must be managed.

Temporary road lighting may include conflict points and potential hazards and it shall include two spans of lead-in lighting in advance of the conflict point, including: significant changes in carriageway width, changes from single to divided carriageway, on verging and diverging traffic streams, crests and humps, curves below 100m radius, and road sections with high night time crash rates.

The Contractor shall install, operate and maintain the temporary road lighting installations for the full period during which the relevant road is required and/or until the permanent road lighting is installed and becomes operational.

The lighting over the work area will be such as to provide a minimum intensity of 20 lux at road level. Artificial lighting shall be arranged in such a manner as to avoid creating levels of glare arising from shallow angles of incidence towards the drivers of vehicles using the adjacent traffic lanes. At no time shall artificial lighting be directed towards oncoming traffic.

12.12 Direction and Street Signage
Where access to streets and side roads has been altered during the construction of the Works, the Contractor shall supply and erect all such temporary signs necessary to assist the travelling public to find their way to such streets and roads.
12.13 Temporary Road Safety Barriers & End Treatments

Temporary Road Safety Barriers (TRSB) shall be used to contain and redirect errant vehicles so as to reduce the likelihood of them entering the work site. They may also be used to separate opposing traffic. Where TRSB are shown on the TCP, the type and location of barriers shall be as shown on those TCP. Opposing flows of traffic may be separated with TRSB with sufficient offset provided to reduce the likelihood that TRSB deflect into opposing traffic flow in the event of impact.

When TRSB are used to protect the works site, the requirements to maintain a clearance zone behind the TRSB as specified in the TCAWS shall apply. The maximum dynamic deflection is specified by the manufacturer. Provision shall be made to treat the approach and/or departure ends of both permanent and TRSB that are exposed to on-coming traffic, including barriers that are flared to terminate outside the clear zone.

The ends of TRSB shall be protected using appropriate end treatments. End treatments to be used should comply with the list of end treatments provided in "RMS Safety Barrier Products (Terminals) accepted for use on classified Roads in NSW".

12.14 Dust and Sediment Control

Prior to work commencing on site sediment and erosion control measures shall be installed along the contoured edges immediately down slope of any future disturbed areas.

The controls shall be maintained in an operational condition until the development activities have been completed.
13.  Appendix A

13.1  Traffic Guidance Schemes
SCHOOL
ZONE
SURVEYING / INVESTIGATION WORKS

STAGE 2

LILIAN ST CLOSURE
TO BE COMPLETED IN SECTIONS.
ALLOWING RESIDENTS ACCESS
to Properties / Parking

TRAFFIC CONTROL
TO ASSIST PEDESTRIANS & CYCLISTS THROUGH WORK AREA AS REQUIRED.

“LOCAL ACCESS ONLY”

Slit trench in roadway

DETOUR MAP

MINIMUM REQUIREMENTS

2 - Traffic Controller(s) (inc Team Leader)
1 - Vehicle/s (B Class Arrow Board)
0 - Cone Truck / POD Truck
0 - C Class Arrow Board (Trailer)
0 - Truck Mounted Attenuator
0 - VMS Board/s (Trailer)
0 - Light Tower/s (Trailer)
0 - Portable Traffic Signal/s (set of 2)

STREETVIEW

IMPORTANT

TRAFFIC CONTROLLERS ARE TO CONE WARNER AROUND WORK AREA ON FOOTPATH TO FORCPEDESTRIANS AWAY FROM THE WORKSITE.
ADVANCE WARNING SIGNAGE TO BE USED FOR PEDESTRIAN MOVEMENTS

TRAFFIC CONTROL SHALL GUIDE OR DIRECT PEDESTRIANS AND CYCLISTS PAST, AROUND OR THROUGH THE WORK AREA AS REQUIRED TO MAINTAIN A SAFE ENVIRONMENT IN CONSULTATION WITH THE WORK CREW, SIGNAGE AND DELINEATION PROVIDED AS REQUIRED.
SURVEYING / INVESTIGATION WORKS
STAGE 3

TRAFFIC CONTROL
TO ASSIST PEDESTRIANS & CYCLIST THROUGH WORK AREA.

ALSO TO ASSIST EXITING
RESIDENTS/VEHICLES
AGAINST ONE-WAY TRAFFIC
WHEN SAFE TO DO SO.

700mm TRAFFIC CONES
WILL BE POSITIONED
AT A MAX 4m APART.
(AS 1742.3 CLAUSE 3.9.1 - TABLE 3.7)

DETOUR MAP

MINIMUM REQUIREMENTS

6 - Traffic Controller's (incl Team Leader)
2 - Vehicle/s (B Class Arrow Board)
0 - Cone Truck / POD Truck
0 - C Class Arrow Board (Trailer)
0 - Truck Mounted Attenuator
0 - VMS Board/s (Trailer)
0 - Light Tower/s (Trailer)
0 - Portable Traffic Signals (set of 2)

WORKER SYMBOLIC (T1-4): AS1742.3 3.4.4
This sign is utilized to advise traffic of the presence of workers on or adjacent to the travel path. It shall be removed or covered when workers are no longer working, have left the work area or are no longer visible to traffic.

LEGEND:

NORTHbound
SOUTHbound

PLAN # 184848

REV. DATE DESCRIPTION
00 02/04/19 DRAWN: HERNIE JAN D.CABE

Client: CPB UGL JV - SYSTEMS CONNECT LINE WIDE

Road Name: BEAMISH STREET

Suburb: CAMPBIE

Map Reference: -33.910757, 151.102507

Term: SHORT TERM

50KPH

Operation: STOP/SLOW

WORKER SYMBOLIC (T1-4): AS1742.3 3.4.4
This sign is utilized to advise traffic of the presence of workers on or adjacent to the travel path. It shall be removed or covered when workers are no longer working, have left the work area or are no longer visible to traffic.

MINIMUM REQUIREMENTS

6 - Traffic Controller's (incl Team Leader)
2 - Vehicle/s (B Class Arrow Board)
0 - Cone Truck / POD Truck
0 - C Class Arrow Board (Trailer)
0 - Truck Mounted Attenuator
0 - VMS Board/s (Trailer)
0 - Light Tower/s (Trailer)
0 - Portable Traffic Signals (set of 2)

WORKER SYMBOLIC (T1-4): AS1742.3 3.4.4
This sign is utilized to advise traffic of the presence of workers on or adjacent to the travel path. It shall be removed or covered when workers are no longer working, have left the work area or are no longer visible to traffic.

MINIMUM REQUIREMENTS

6 - Traffic Controller's (incl Team Leader)
2 - Vehicle/s (B Class Arrow Board)
0 - Cone Truck / POD Truck
0 - C Class Arrow Board (Trailer)
0 - Truck Mounted Attenuator
0 - VMS Board/s (Trailer)
0 - Light Tower/s (Trailer)
0 - Portable Traffic Signals (set of 2)

WORKER SYMBOLIC (T1-4): AS1742.3 3.4.4
This sign is utilized to advise traffic of the presence of workers on or adjacent to the travel path. It shall be removed or covered when workers are no longer working, have left the work area or are no longer visible to traffic.

MINIMUM REQUIREMENTS

6 - Traffic Controller's (incl Team Leader)
2 - Vehicle/s (B Class Arrow Board)
0 - Cone Truck / POD Truck
0 - C Class Arrow Board (Trailer)
0 - Truck Mounted Attenuator
0 - VMS Board/s (Trailer)
0 - Light Tower/s (Trailer)
0 - Portable Traffic Signals (set of 2)
SURVEYING / INVESTIGATION WORKS
STAGE 4

THE WORK AREA MAY BE MIRRORED TO ALLOW WORKS ON THE OPPOSITE SIDE OF THE ROAD. SIGNAGE WILL REMAIN IN PLACE.

ADJUSTMENTS TO THE END OF TEMPORARY SPEEDS SHALL BE MADE WHEN SCHOOL ZONES ARE IN OPERATION (0800-0930, 1430-1600 SCHOOL DAYS). OUTSIDE THE SCHOOL ZONE SPEEDS WILL BE REINSTATED ONCE THE TRAFFIC HAS PASSED THE WORK AREA.

TRAFFIC CONTROL TO ASSIST PEDESTRIANS AT TEMPORARY BUS STOPS

TRAFFIC CONTROL SHALL GUIDE OR DIRECT PEDESTRIANS AND CYCLISTS PAST OR THROUGH THE WORK AREA AS REQUIRED TO MAINTAIN A SAFE ENVIRONMENT IN CONSULTATION WITH THE WORK CREW. SIGNAGE AND DELINEATION PROVIDED AS REQUIRED.

TRAFFIC SHADOWS IDENTIFY WORK AREAS ENCLOSED BY FENCES OR OTHER TEMPORARY OBSTACLES.

MINIMUM REQUIREMENTS

3 - Traffic Controller/s (inc Team Leader)
1 - Vehicles (B Class Arrow Board)
0 - Cone Truck / POD Truck
0 - C Class Arrow Board (Trailer)
0 - Truck Mounted Attenuator
0 - VMS Board/s (Trailer)
0 - Light Tower/s (Trailer)
0 - Portable Traffic Signal/s (set of 2)

RECOMMENDED TAPER LENGTH

APPROPRIATE TAPER LENGTH BASED ON TRAFFIC FLOW
- 40m
- 30m
- 20m
- 10m
- N/A

TOLERANCES

POSITIONING OF SIGNS
- MINIMUM 10% LESS THAN the distance of the given maximum 20% more than the distance of the given maximum 10% less than the spacing given minimum

LANE WIDTH

THE MINIMUM WIDTH TO BE PROVIDED THROUGH or PAST THE WORKS SHALL BE 3.0m (3.5m DESIRABLE).

SIGNAGE DISTANCE

- SPEED LIMIT: 40km/h
- 160m
- 15m
- 15m
- 15m

APPROXIMATED WORK ZONE SPEEDS

- 0800-0930: 30km/h
- 1430-1600: 30km/h
- 1600-1800: 30km/h

ADDITIONAL INFORMATION

TRAFFIC CONTROLLERS ARE TO CONSIDER PEDESTRIANS AROUND WORK AREA ON FOOTPATH TO FORCE PEDESTRIANS AWAY FROM THE WORKSITE. ADVANCE WARNING SIGNAGE TO BE USED FOR PEDESTRIAN MOVEMENTS.

WORKER SYMBOLIC (T1-4) AT1742.3 3.4.4

This sign is utilized to advise traffic of the presence of workers on or adjacent to the travel path. It shall be shall be removed or covered when workers are no longer working, have left the work area or are no longer visible to traffic.

REVISIONS

REV.  DATE  DESCRIPTION  CLIENT  CPB UGL IV - SYSTEMS CONNECT LINE WILD  TERM
00 25/3/19  DRAWN: RONNIE DINGLE  Road Name: SOUTH PARADE  Road Type: TWO WAY
01 11/04/19  REVISED  Works Location: BETWEEN BEAMISH STREET & BEAMISH STREET  Speed Limit: 50KPH
Suburb: CAMPSIE  Travelled Path: PAST
Map Reference: -33.910469, 151.104475  Operation: CONTRAFLOW

JOBS # 44034866  PLAN #: 184849

STEVE ROBERTS
0049937533
PWZTMP-RICWD0503D
51 HEATHCOTE ROAD, MOOREBANK, NSW, 2170
PH: 1300 880 481

www.invarion.com
SURVEYING / INVESTIGATION WORKS
STAGE 6

Traffic Control
To assist pedestrians & cyclists through the work area as required.

Worker symbol (T1-5) AS1742.3 3.4.4
This sign is utilized to advise traffic of the presence of workers on or adjacent to the travel path. It shall be blanked removed or covered when workers are no longer working, have left the work area or are no longer visible to traffic.

T1-5

3-Way Stop/Slow
Buses to be given priority, setup to allow easy passage for bus operators in and around roundabout.

700mm Traffic Cones will be positioned at a max 4m apart. (AS 1742.3 CLAUSE 3.9.1 - TABLE 3.7)

Minimum Requirements

1. Traffic Controller/s (inc Team Leader)
2. Vehicle/s (B Class Arrow Board)
3. Cone Truck / POD Truck
4. C Class Arrow Board (Trailer)
5. Truck Mounted Attenuator
6. VMS Board/s (Trailer)
7. Light Tower/s (Trailer)
8. Portable Traffic Signal/s (set of 2)

Additional Information
Traffic controllers are to convene around work area on footpaths to force pedestrians away from the worksite.
Advance warning signage to be used for pedestrian movement.

Traffic control shall guide or direct pedestrians and cyclists past, around or through the work area as required to maintain a safe environment in consultation with the work crew, signage and delineation provided as required.

Legend

Traffic Control Vehicle
Traffic Cones
Proposed Work Area
Proposed Exclusion Zone
Property Boundary
Water Filled Barriers

Streetview

General Notes
1. This drawing is to be used in conjunction with DRP 6/2013.
2. All traffic control devices to be read in conjunction with the signs, roadworks, and TNM.
3. Non-conforming existing signage shall be covered up speed limit signs due to the temporary speed zone.
4. All speed limits shall remain as per the temporary speed zone.
5. In accordance with traffic signs, temporary or permanent speed zones shall be used to help v

Surveying / Investigation Works
Stage 6

3-Way Stop/Slow
Buses to be given priority, setup to allow easy passage for bus operators in and around roundabout.

700mm Traffic Cones will be positioned at a max 4m apart. (AS 1742.3 CLAUSE 3.9.1 - TABLE 3.7)

Minimum Requirements

1. Traffic Controller/s (inc Team Leader)
2. Vehicle/s (B Class Arrow Board)
3. Cone Truck / POD Truck
4. C Class Arrow Board (Trailer)
5. Truck Mounted Attenuator
6. VMS Board/s (Trailer)
7. Light Tower/s (Trailer)
8. Portable Traffic Signal/s (set of 2)

Additional Information
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Advance warning signage to be used for pedestrian movement.

Traffic control shall guide or direct pedestrians and cyclists past, around or through the work area as required to maintain a safe environment in consultation with the work crew, signage and delineation provided as required.

Legend

Traffic Control Vehicle
Traffic Cones
Proposed Work Area
Proposed Exclusion Zone
Property Boundary
Water Filled Barriers

Streetview

General Notes
1. This drawing is to be used in conjunction with DRP 6/2013.
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4. All speed limits shall remain as per the temporary speed zone.
5. In accordance with traffic signs, temporary or permanent speed zones shall be used to help v
**SURVEYING / INVESTIGATION WORKS**

**STAGE 7**

700mm TRAFFIC CONES WILL BE POSITIONED AT A MAX 4m APART. (AS 1742.3 CLAUSE 3.9.1 - TABLE 3.7)

GPR/3D survey

**TRAFFIC CONTROL**

TO ASSIST PEDESTRIANS & CYCLISTS
THROUGH THE WORK AREA AS REQUIRED.

**MINIMUM REQUIREMENTS**

1. Traffic Controller/s (inc Team Leader)
2. Vehicle/s (B Class Arrow Board)
3. Cone Truck / POD Truck
4. Vehicle Mount Attenuator
5. Light Tower/s (Trailer)
6. Portable Traffic Signal/s (set of 2)

**GENERAL NOTES**

1. TRAFFIC MANAGEMENT DESIGNED IN CONJUNCTION WITH 07/22430
2. TRAFFIC MANAGEMENT TO BE EMBOSSED ON THE WORK AREA
3. NON-PORTABLE WORK SIGNS WILL BE ELIMINATED WHERE APPROPRIATE
4. ALL WORK ZONES TO BE MARKED WITH 150m RED ZONE
5. TRAFFIC CONTROLLER TO ASSIST PEDESTRIANS & CYCLISTS

**RECOMMENDED TAPER LENGTHS**

<table>
<thead>
<tr>
<th>SPEED LIMIT</th>
<th>TAPER LENGTH</th>
<th>LANE WIDTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 40 km/h</td>
<td>&lt; 50 m</td>
<td>≥ 3.0 m</td>
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<tr>
<td>40 km/h</td>
<td>50 - 75 m</td>
<td>2.5 - 2.9 m</td>
</tr>
<tr>
<td>50 km/h</td>
<td>75 - 100 m</td>
<td>2.5 - 2.9 m</td>
</tr>
<tr>
<td>60 km/h</td>
<td>100 - 150 m</td>
<td>≥ 2.5 m</td>
</tr>
</tbody>
</table>

**TOLERANCES**

Positioning of Signs:
- Minimum 15% less than the distance or length given
- Maximum 20% more than the distance or length given

Lane Widths:
The minimum width to be provided through or past the workzone shall be ≥ 2.5 m (3.0 m desirable)

**DESIGN BOUNDARY PLAN**

- All work must be executed within the boundary plan
- All work vehicles to enter and exit worksite under the direction of traffic controller with control of traffic flow or designated left channel

**TRAFFIC CONTROL**

- TRAFFIC CONTROLLER SHALL GUIDE OR DIRECT PEDESTRIANS AND CYCLISTS PAST OR THROUGH THE WORK AREA AS REQUIRED.
- TO MAINTAIN A SAFE ENVIRONMENT WITHIN THE WORK AREA, WORKERS SHOULD BE PROVIDED WITH ADVANCE WARNING OF WORK ZONE AND DELINEATION PROVIDED AS REQUIRED.

**WORKER SYMBOLIC (T1-T5) AS 1742.3 3.4.4**

- This sign is utilized to advise traffic of the presence of workers on or adjacent to the travel path. It shall be removed or covered when workers are no longer working, have left the work area or are no longer visible to traffic.
SURVEYING / INVESTIGATION WORKS
STAGE 8

TRAFFIC CONTROL TO ASSIST PEDESTRIANS & CYCLISTS THROUGH THE WORK AREA AS REQUIRED.

MINIMUM REQUIREMENTS
1. Traffic Controller(s) (inc Team Leader)
2. Vehicle(s) (B Class Arrow Board)
3. Cone Truck / POD Truck
4. C Class Arrow Board (Trailer)
5. Truck Mounted Attenuator
6. VMS Board(s) (Trailer)
7. Light Tower(s)
8. Portable Traffic Signal(s) (set of 2)

SOUTH PARADE

Pedestrian pathway

**700mm TRAFFIC CONES WILL BE POSITIONED AT A MAX 4m APART.**

(AS 1742.3 CLAUSE 3.9.1 - TABLE 3.7)

**TRAFFIC CONTROL SHALL GUIDE OR DIRECT PEDESTRIANS AND/OR CYCLISTS PAST, AROUND OR THROUGH THE WORK AREA AS REQUIRED TO MAINTAIN A SAFE ENVIRONMENT IN CONSULTATION WITH THE WORK CREW, SIGNAGE AND DELINEATION PROVIDED AS REQUIRED.**

**ADDITIONAL INFORMATION:** TRAFFIC CONTROLLERS AID TO CONE BARRIERS AROUND WORK AREA ON APPROACH TO PROTECT PEDESTRIANS AND CYCLISTS FROM THE WORKSITE, ADVANCE WARNING SIGNAGE TO BE USED FOR PEDESTRIAN MOVEMENTS.

**WORKER SYMBOLIC:**

**T1:**

- **TRAFFIC CONTROL:**
  - Portable Light VMS Board(s) (T Class)
  - Truck(s) (B Class)
  - Traffic Signal(s) (set of 2)
  - VMS Board/s (T Class)
  - Traffic Controller/s (inc LSA Controller/s)

**RECOMMENDED PAPER LENGTH:**

<table>
<thead>
<tr>
<th>TOLERANCES</th>
<th>APPARENT SPEED OF TRAFFIC</th>
<th>CONTROL</th>
<th>LENGTH</th>
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</thead>
<tbody>
<tr>
<td>MIN./MAX.</td>
<td>10%</td>
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<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

**SOUTH PARADE**

**SHOR**

15m 15m 15m CLEARANCE

GPR/3D survey

TR test location

Slit trench in footpath

**Gould St**

**Park St**

**PREPARE TO STOP**

**PAVEMENT MARKING**

- **T1:**
  - Attenuator
  - Portable Light VMS Board(s) (T Class)
  - Truck(s) (B Class)

**LINE MARKING**

- The width of lines to be provided through or past the work site shall be 3m (3m Cornelius size)

**SOUTH PARADE**

**LOCALITY MAP**

**STREETVIEW**

**REVISIONS**

<table>
<thead>
<tr>
<th>REV</th>
<th>DATE</th>
<th>DESCRIPTION</th>
<th>Term</th>
<th>Client: CPB UGL JV - SYSTEMS CONNECT LINE WIDE</th>
</tr>
</thead>
<tbody>
<tr>
<td>00</td>
<td>02/04/19</td>
<td>DRAWN: SHARYLL GUBAT</td>
<td>SHORT</td>
<td></td>
</tr>
<tr>
<td>11/04/19</td>
<td>AMENDED BY JONATHAN LUNA - 0038127305</td>
<td>TWO WAY</td>
<td>SOUTH PARADE</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Works Location: BETWEEN WONGA ST &amp; PARK ST</td>
<td>Speed Limit: 50KPH</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Suburb: CAMPIE</td>
<td>Travelled Path: PAST</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Map Reference: -33.910091, 151.106953</td>
<td>Operation: STOP, SLOW</td>
<td></td>
</tr>
</tbody>
</table>

**REV:**

00

**DATE:**

02/04/19

**DESCRIPTION:**

DRAWN: SHARYLL GUBAT

**Term:**

SHORT
**SURVEYING / INVESTIGATION WORKS**  
**STAGE 10**

---

**HOLD & RELEASE AS REQUIRED**

- **Pedestrian pathway**
- **Pothole (footpath)**
- **Slit trench in footpath**

**TRAFFIC CONTROL TO ASSIST PEDESTRIANS & CYCLISTS THROUGH THE WORK AREA AS REQUIRED.**

**PROGRESSIVE WORKS**

---

**RECOMMENDED TAPER LENGTH**

<table>
<thead>
<tr>
<th>CONSTRUCTION TYPE</th>
<th>TAPER LENGTH</th>
<th>TAPER VALUE</th>
<th>SPEED LIMIT</th>
<th>MINIMUM SWEEP</th>
<th>MINIMUM TAPER LENGTH</th>
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<tbody>
<tr>
<td>Small</td>
<td>5</td>
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<td>Medium</td>
<td>5</td>
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<td>20</td>
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<tr>
<td>Large</td>
<td>10</td>
<td>50</td>
<td>30</td>
<td>30</td>
<td>30</td>
</tr>
</tbody>
</table>

---

**TRAFFIC CONTROL**

- **TAPER**
- **LATERAL SHIFT**
- **PREPARE TO STOP**
- **END ROAD WORK**

---

**ADDITIONAL INFORMATION**

**TRAFFIC CONTROL**

- **Small**
- **Medium**
- **Large**

---

**WEBSITE**

www.invarion.com

---

**SUPPORT**

- **Accredited Traffic Controller**
- **Precast Concrete Manhole**
- **Traffic Control Vehicle**
- **Traffic Control Signs**
- **Traffic Control Equipment**
- **Traffic Control Barriers**

---

**CUSTOMER SERVICE**

- **Phone:** 1300 880 481
- **Email:** contact@invarion.com

---

**LEGAL NOTICE**

- **Terms and Conditions**
- **Privacy Policy**
- **Disclaimer**

---

**ABN:** 15 007 320 357

---

**INVARION**

51 Heathcote Road, Moorabbin, VIC, 3189

---

**PLAN**

- **100m**
- **50m**
- **25m**

---

**DRAWN:**

- **HERNIE JAN D.CABE**
- **REVISED:**
  - **01 11/04/19**

---

**DESIGNATED AREA**

- **ROADWAY**
- **WORK AREA**
- **SAFE ENVIRONMENT IN CONSULTATION WITH WORKERS UNDER THE DIRECTION OF TRAFFIC CONTROLLER WITH THE ROAD WORKERS AND OR PEDESTRIANS IN THE WORK AREA OR AT THE WORK AREA ENTRANCE TO TRAFFIC TO BE USED FOR PEDESTRIAN MOVEMENTS**

---

**TERMS OF USE**

- **Short Term**
- **Long Term**

---

**CONTACT**

- **STEVE ROBERTS**
- **0049937533**
- **WWW.INVARION.COM**

---

**REVOLUTION**

51 Heathcote Road, Moorabbin, VIC, 3189

---

**REVISIONS**

- **PLAN NOT TO BE SCALE**
- **SITE PLAN**
- **SIDE PLAN**
- **3D PLAN**

---

**REFERENCES**

- **T1**
- **T2**
- **T3**
TRAFFIC CONTROL
TO ASSIST PEDESTRIANS & CYCLISTS
THROUGH THE WORK AREA AS REQUIRED.

700mm TRAFFIC CONES
WILL BE POSITIONED
AT A MAX 12m APART.
(AS 1742.3 CLAUSE 3.9.1 - TABLE 3.7)

REMAINING LANE WIDTH
SHALL BE 3.0m MINIMUM
(SEE CLAUSE 4.13.3)

7. REMOVE THE WORKSITE.
TRAFFIC CONTROLLERS
SHALL BE USED FOR PEDESTRIAN
AND CYCLIST MOVEMENTS.

- Traffic Controller/s (inc Team Leader)
  - Vehicle/s (B Class Arrow Board)
  - Cones Truck / POD Truck
  - C Class Arrow Board (Trailer)
  - Truck Mounted Attenuator
  - VMS Boards (Trailer)
  - Light Tower/s (Trailer)

KNOWLEDGEABLE WORKERS UNDER THE DIRECTION OF
TRAFFIC CONTROLLER WITH THE TRAFFIC FLOW ON DESIGNATED LANE/channels.

TOLERANCES

POSITIONING OF SIGNS
- MINOR 15° TO HORIZONTAL
- MINOR 15° TO VERTICAL
- MINOR 15° TO TRAFFIC FLOW

APPROXIMATE TRAFFIC CONTROL ZONE

- N/S
- RECOMMENDED TRAFFIC
- SPEED ZONE
- APPROXIMATE TRAFFIC
- CONTROL ZONE
- SPEED ZONE

TRAFFIC CONTROL SHALL BE TO
ASSIST PEDESTRIANS & CYCLISTS
THROUGH THE WORK AREA AS REQUIRED.

- Traffic Controller/s (inc Team Leader)
- Vehicle/s (B Class Arrow Board)
- Cones Truck / POD Truck
- C Class Arrow Board (Trailer)
- Truck Mounted Attenuator
- VMS Boards (Trailer)
- Light Tower/s (Trailer)
- Portable Traffic Signal/s (set of 2)

MINIMUM REQUIREMENTS

- Traffic Controller/s (inc Team Leader)
- Vehicle/s (B Class Arrow Board)
- Cones Truck / POD Truck
- C Class Arrow Board (Trailer)
- Truck Mounted Attenuator
- VMS Boards (Trailer)
- Light Tower/s (Trailer)
- Portable Traffic Signal/s (set of 2)

- Traffic Controller/s (inc Team Leader)
- Vehicle/s (B Class Arrow Board)
- Cones Truck / POD Truck
- C Class Arrow Board (Trailer)
- Truck Mounted Attenuator
- VMS Boards (Trailer)
- Light Tower/s (Trailer)
- Portable Traffic Signal/s (set of 2)

- Traffic Controller/s (inc Team Leader)
- Vehicle/s (B Class Arrow Board)
- Cones Truck / POD Truck
- C Class Arrow Board (Trailer)
- Truck Mounted Attenuator
- VMS Boards (Trailer)
- Light Tower/s (Trailer)
- Portable Traffic Signal/s (set of 2)
TRAFFIC CONTROL
TO ASSIST PEDESTRIANS & CYCLISTS
THROUGH THE WORK AREA AS REQUIRED.

700mm TRAFFIC CONES
WILL BE POSITIONED
AT A MAX 12m APART.
(AS 1742.3 CLAUSE 3.9.1 - TABLE 3.7)

REMAINING LANE WIDTH SHALL BE 3.0m MINIMUM
(SEE CLAUSE 4.13.3)

LEGEND:
NORTHBOUND
SOUTHBOUND

ADDITIONAL INFORMATION
TRAFFIC CONTROLLER(Ms) TO PLACE BAROMETER AROUND WORK AREA ON FOOTPATH TO FORCE PEDESTRIANS AWAY FROM THE WORKSITE.
ADVANCE WARNING SIGNAGE TO BE USED FOR PEDESTRIAN MOVEMENTS.

MINIMUM REQUIREMENTS
2 - Traffic Controller/s (inc Team Leader)
1 - Vehicle/s (B Class Arrow Board)
1 - Cone Truck / POD Truck
1 - C Class Arrow Board (Trailer)
1 - Truck Mounted Attenuator
1 - S / M / V / S Boards (Trailer)
1 - Light Tower/s (Trailer)
1 - Portable Traffic Signal/s (set of 2)

WORKER SYMBOLIC (T1-5) AS1742.3.3.4.4
This sign is utilized to advise traffic of the presence of workers on or adjacent to the travel path. It shall be shall be removed or covered when workers are no longer working, have left the work area or are no longer visible to traffic.

33KV BULK POWER SUPPLY FEEDS
STAGE 11.2

DETOUR MAP

RECOMMENDED TAPER LENGTH
APPROXIMATE TAPER LENGTH
= 0.4 x (MINIMUM WIDTH/10)
= 0.3 x (MINIMUM WIDTH/10)

DIMENSION “A” (SYSTEM CLAUSES)
WIDTH OF ZONE = 2x (MINIMUM WIDTH/10)

LANE WIDTH
MINIMUM LANE WIDTH
= 0.35 x WIDE LANE WIDTH
= 0.30 x WIDE LANE WIDTH

TOLERANCES
POSITIONING OF SIGNS
MINIMUM 5m LESS THAN
THE DISTANCE OR LENGTH GIVEN
MAXIMUM 2% MORE THAN
THE DISTANCE OR LENGTH GIVEN
SPACING OF DELINEATING DEVICES
MAXIMUM 5% MORE THAN
THE SPACING GIVEN
NO MINIMUM

LANE MANAGEMENT PLAN
ALL TIMES DURING THE COURSE OF THE WORK TRAFFIC DUE TO BE DIVERTED TO THE WORK AREA ON FOOTPATHS AND ROAD WORK DOES NOT EXTEND BEYOND THE LIMITS OF ADVANCE WARNING SIGNS.

VEHICLE MOVEMENT PLAN
ALL WORK VEHICLES ENTER AND EXIT WORKSITE UNDER THE DIRECTION OF TRAFFIC CONTROLLER WITH THE TRAFFIC CONTROL SWITCHED ON UNLESS OFF-CHANNEL.
SURVEYING / INVESTIGATION WORKS
STAGE 13

STREETVIEW

MINIMUM REQUIREMENTS

1. Traffic Controller/s (Inc Team Leader)
2. Vehicle/s (B Class Arrow Board)
3. Cone Truck / POD Truck
4. C Class Arrow Board (Trailer)
5. Truck Mounted Attenuator
6. VMS Board/s (Trailer)
7. Light Tower/s (Trailer)
8. Portable Traffic Signal/s (set of 2)

TRAFFIC CONTROL TO ASSIST PEDESTRIANS & CYCLISTS PAST THE WORK AREA AS REQUIRED.

Notes:
- 5 x traffic controllers + 1 team leader to implement stop/slow when working in intersection of HIGH ST & COOKS Ave carriage-way.
- 2 x traffic controllers + 1 team leader to implement stop/slow within outside this intersection.
- work zone to be coned of by traffic controllers.

WORKER SYMBOLIC (11-5) AS1742.3.3.4.4
This sign is utilized to advise traffic of the presence of workers on or adjacent to the travel path. It shall be shall be removed or covered when workers are no longer working, have left the work area or are no longer visible to traffic.

TRAFFIC CONTROL
SMALL GUIDE OR DIRECT PEDESTRIANS AND OR CYCLISTS PAST, AROUND OR THROUGH THE WORK AREA AS REQUIRED TO MAINTAIN A SAFE ENVIRONMENT IN CONSULTATION WITH THE WORK CREW. SIGNAGE AND DELINEATION PROVIDED AS REQUIRED.

GPR/3D survey

TR test location

Slit trench in roadway
SURVEYING / INVESTIGATION WORKS STAGE 14

STREET VIEW

MINIMUM REQUIREMENTS

- Traffic Controller(s) (inc Team Leader)
- Vehicle(s) (B Class Arrow Board)
- Cone Truck / POD Truck
- C Class Arrow Board (Trailer)
- Truck Mounted Attenuator
- VMS Board(s) (Trailer)
- Light Tower(s) (Trailer)
- Portable Traffic Signals (set of 2)

TRAFFIC CONTROL SHALL GUIDE OR DIRECT PEDESTRIANS AND OR CYCLISTS PAST, AROUND OR THROUGH THE WORK AREA AS REQUIRED TO MAINTAIN A SAFE ENVIRONMENT IN CONSULTATION WITH THE WORK CREW. SIGNAGE AND DIRECTION PROVIDED AS REQUIRED.

TRAFFIC CONTROLLER TO ASSIST PEDESTRIANS & CYCLISTS PAST THE WORK AREA AS REQUIRED.

TRAFFIC QUEUES SHALL BE PROCESSED THROUGH OR PAST THE WORKSITE UNTIL 6.00 AM (MORNING).
### 14. Appendix B

#### 14.1 Consultation Records

<table>
<thead>
<tr>
<th>No.</th>
<th>DATE</th>
<th>COMPANY</th>
<th>RAISED BY</th>
<th>REVIEW DOC. NO.*</th>
<th>DOCUMENT REF*</th>
<th>DEED REF*</th>
<th>COMMENTS / RESPONSE</th>
<th>COMMENT CATEGORY*</th>
<th>CLOSED OUT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>15/05/2019</td>
<td>SCO</td>
<td>S.Brown</td>
<td>SMCSWLWC-SYC-CTC-TF-PLN-000457</td>
<td>Executive Summary (p6)</td>
<td></td>
<td>The executive summary does not provide any detail about the type of work being carried out, why it is being carried out, the geographical locations, and the duration of the works</td>
<td>Additional info added in executive summary: Early work services investigation include potholing, slit trenching, surveying, soil testing TR Testing (Thermal Resistivity) and GPR (Ground Penetration Radar). The investigation results will be used to finalise the design routes for the bulk power supply (BPS). See attached “Services Investigation Routes” in TMP shown the activity types and indicative durations.</td>
<td>Yes</td>
</tr>
<tr>
<td>2</td>
<td>15/05/2019</td>
<td>SCO</td>
<td>S.Brown</td>
<td>SMCSWLWC-SYC-CTC-TF-PLN-000457</td>
<td>Description of Proposed Works and Lane/Road Closures (p8)</td>
<td></td>
<td>This section needs more detail to describe each work site, proposed closures and the duration of work at each site. Reference should be made to the TCPs at the end of the document.</td>
<td>Indicative duration included in section 3.1 and TCPs showing the road closures arrangement.</td>
<td>Yes</td>
</tr>
<tr>
<td>3</td>
<td>15/05/2019</td>
<td>SCO</td>
<td>S.Brown</td>
<td>SMCSWLWC-SYC-CTC-TF-PLN-000457</td>
<td>Description of Proposed Works and Lane/Road Closures (p8)</td>
<td></td>
<td>Approval for night time lane closures on Canterbury Rd may be subject to variation depending on day of the week and time of year</td>
<td>ROL to be submitted for approval Canterbury Rd at night time. Dates will be nominated in ROL application.</td>
<td>Yes</td>
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<tr>
<td>No.</td>
<td>DATE</td>
<td>COMPANY</td>
<td>RAISED BY</td>
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<tr>
<td>4</td>
<td>15/05/2019</td>
<td>SCO</td>
<td>S.Brown</td>
<td>SMCSWLWC-SYC-CTC-TF-PLN-000457</td>
<td>5.1 Minimising Delay During Implementation of Road Occupancies</td>
<td></td>
<td>It is unclear what is meant by delaying the &quot;free flow of traffic in any direction by more than 500m&quot;. Also what is the plan should there be broken down vehicles or illegally parked vehicles adjacent to the work area or within road corridor. Police will be contacted to advise of illegally parked vehicles and assist in contacting owners. Broken down vehicles if affecting carriage-way will need to re-assess the situation and if possible stop/slow if not works will need to stop until path is cleared.</td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>5</td>
<td>15/05/2019</td>
<td>SCO</td>
<td>S.Brown</td>
<td>SMCSWLWC-SYC-CTC-TF-PLN-000457</td>
<td>Assessment of Public Transport Services Affected (p12)</td>
<td></td>
<td>The contractor will need to consult with STA regarding impacts to bus services and Bus Stops. Reference included in section 6. Assessment of public transport services affected. Consulted Transit Systems, suggested night time where the works affecting the bus stops.</td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>6</td>
<td>15/05/2019</td>
<td>SCO</td>
<td>S.Brown</td>
<td>SMCSWLWC-SYC-CTC-TF-PLN-000457</td>
<td>11.6 - Identification of Key Stakeholders</td>
<td></td>
<td>The contractor will also need to consult STA and Ambulance NSW noted - Reference to Transit Systems and Ambulance added to Section 11.6. Consulted Transit Systems, suggested night time where the works affecting the bus stops.</td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>7</td>
<td>15/05/2019</td>
<td>SCO</td>
<td>S.Brown</td>
<td>SMCSWLWC-SYC-CTC-TF-PLN-000457</td>
<td>Public Parking / TCP Stage 2</td>
<td></td>
<td>How will access to driveways/properties be managed within the closed section of Lilian St Lilian st will be broken down into sections, driveways &amp; properties will be maintained under direction of traffic controller. &quot;Local Access Only&quot;. TCP has been revised.</td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>8</td>
<td>15/05/2019</td>
<td>SCO</td>
<td>S.Brown</td>
<td>SMCSWLWC-SYC-CTC-TF-PLN-000457</td>
<td>Stages 6, 7, 8, 9, 12 &amp; 13</td>
<td></td>
<td>Further detail is required to show how traffic is managed through the various Work Zones TCP's have been amended for more details.</td>
<td></td>
<td>Yes</td>
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<td>No.</td>
<td>DATE</td>
<td>COMPANY</td>
<td>RAISED BY</td>
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<tr>
<td>9</td>
<td>15/05/2019</td>
<td>SCO</td>
<td>S.Brown</td>
<td>SMCSWLWC-SYC-</td>
<td>Stages 11.1 &amp; 11.2</td>
<td></td>
<td>Will right turns still be permitted from both Cooks Ave and Howard St? Additional signage is needed to make it clearer for motorists. If right turns are not permitted, detour signage will be required.</td>
<td>Yes</td>
<td></td>
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<td></td>
<td>CTC-TF-PLN-000457</td>
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<tr>
<td>10</td>
<td>15/05/2019</td>
<td>SCO</td>
<td>S.Brown</td>
<td>SMCSWLWC-SYC-</td>
<td>General</td>
<td></td>
<td>For works on Canterbury Rd or on any other roads where the works are within 100m of traffic signals, Road Occupancy Licences must be obtained through the TMC.</td>
<td>Yes</td>
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<td></td>
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<tr>
<td>11</td>
<td>17/05/2019</td>
<td>S Metro</td>
<td>PAB</td>
<td>SMCSWLWC-SYC-</td>
<td></td>
<td></td>
<td>I agree with the above SCO comments. The exec summary needs to explain what works this document relates to. The document is generic and does not appear to relate specifically to the proposed works. I note that in the Council feedback no reference is made to the need for referral of the full road closures to the local traffic committee. The TMP makes reference to regularly attending the local traffic committee although the need / reason for this is unclear.</td>
<td>No action required. As per SCO comments.</td>
<td>Yes</td>
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<td>CTC-TF-PLN-000457</td>
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<tr>
<td>12</td>
<td>17/05/2019</td>
<td>S Metro</td>
<td>PAB</td>
<td>SMCSWLWC-SYC-</td>
<td></td>
<td></td>
<td>Seek guidance from SCO and RMS at the next Metro TCG meeting regarding the suitability of the proposed emergency response arrangements. SCO and RMS may request specifics from the relevant contract documentation.</td>
<td>Discussed with SCO/RMS in TCG meeting. Escalation procedure and project emergency response plan will be followed and access will be maintained during emergency.</td>
<td>Yes</td>
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<tr>
<td>No.</td>
<td>DATE</td>
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<td>13</td>
<td>16/05/2019</td>
<td>S Metro</td>
<td>KH</td>
<td>SMCSWLWC-SYC-CTC-TF-PLN-000457</td>
<td>Section 1.1.1 Abbreviations, p.5</td>
<td>AS’ - If to be used for a specific Australian Standard then should include the Standard number e.g. AS 1742.3</td>
<td>Revised as per request (Section 1.1)</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>16/05/2019</td>
<td>S Metro</td>
<td>KH</td>
<td>SMCSWLWC-SYC-CTC-TF-PLN-000457</td>
<td>Section 1.1.1 Abbreviations, p.5</td>
<td>SISD’ - delete the word ‘provide’</td>
<td>Revised as per request (Section 1.1)</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>16/05/2019</td>
<td>S Metro</td>
<td>KH</td>
<td>SMCSWLWC-SYC-CTC-TF-PLN-000457</td>
<td>Section 1.1.1 Abbreviations, p.5</td>
<td>VMS’ - is Variable Message Sign, not Vehicle Message Sign</td>
<td>Revised as per request (Section 1.1)</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>16/05/2019</td>
<td>S Metro</td>
<td>KH</td>
<td>SMCSWLWC-SYC-CTC-TF-PLN-000457</td>
<td>Section 1.1.2, References, p.5</td>
<td>TCAWS should reference the latest version (v.5, July 2018)</td>
<td>Revised as per request (Section 1.1)</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>16/05/2019</td>
<td>S Metro</td>
<td>KH</td>
<td>SMCSWLWC-SYC-CTC-TF-PLN-000457</td>
<td>Description of Proposed Works and Lane/road closures, p.8</td>
<td>Provide definition of ‘TR Testing’ as not included in definitions.</td>
<td>Revised as per requested. TR - Thermal Resistivity (Section 1.1)</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>16/05/2019</td>
<td>S Metro</td>
<td>KH</td>
<td>SMCSWLWC-SYC-CTC-TF-PLN-000457</td>
<td>Section 1.1.6, p.8, 1st para</td>
<td>TMC is Transport Management Centre, not Traffic Management Centre.</td>
<td>Revised as per request (Section 3.2)</td>
<td>Yes</td>
<td></td>
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<tr>
<td>19</td>
<td>16/05/2019</td>
<td>S Metro</td>
<td>KH</td>
<td>SMCSWLWC-SYC-CTC-TF-PLN-000457</td>
<td>Section 1.1.9, 6th dot point, p.10.</td>
<td>“pre-duck”?</td>
<td>pre-duck (early evening) - (Section 5.1)</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>16/05/2019</td>
<td>S Metro</td>
<td>KH</td>
<td>SMCSWLWC-SYC-CTC-TF-PLN-000457</td>
<td>Assessment of Public Transport Services Affected, p.12</td>
<td>Impacts on bus routes and services are to be minimised as much as possible. South Parade is a busy bus route and any changes or restrictions could have significant impact on passengers, particularly elderly and less abled passengers.</td>
<td>Consulted Transit Systems, suggested night time where the works affecting the bus stops.</td>
<td>Yes</td>
<td></td>
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<tr>
<td>21</td>
<td>16/05/2019</td>
<td>S Metro</td>
<td>KH</td>
<td>SMCSWLWC-SYC-CTC-TF-PLN-000457</td>
<td>Public Car Parking, p.12</td>
<td>Last sentence does not make sense. Please clarify.</td>
<td>Commuter carpark on south parade, will require 24hr access, traffic controllers will assist public with accessing carpark due to works happening during day shift and night shift.</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>16/05/2019</td>
<td>S Metro</td>
<td>KH</td>
<td>SMCSWLWC-SYC-CTC-TF-PLN-000457</td>
<td>Section 1.1.18, p.18, 2nd para &amp; Section 1.1.21, p.19</td>
<td>Should also include Canterbury Bankstown council as the road manager for local and Regional roads.</td>
<td>Revised as per request, Included Canterbury Bankstown Council (Section 11)</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>No.</td>
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<td>COMPANY</td>
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<td>REVIEW DOC. NO.*</td>
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<td>23</td>
<td>16/05/2019</td>
<td>S Metro</td>
<td>KH</td>
<td>SMCSWLWC-SYC-CTC-TF-PLN-000457</td>
<td>Section 1.1.23, p.19, Identification of key stakeholders, 2nd dot point</td>
<td>Should be 'Fire &amp; Rescue NSW' not Bush Fire Brigade</td>
<td>Revised as per request (Section 11.6)</td>
<td>Yes</td>
<td></td>
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<td>24</td>
<td>16/05/2019</td>
<td>S Metro</td>
<td>KH</td>
<td>SMCSWLWC-SYC-CTC-TF-PLN-000457</td>
<td>Section 1.1.25, p.19 notification Requirements to Authorities</td>
<td>Should include TMC, SCO &amp; Council as relevant stakeholders.</td>
<td>Revised as per request (Section 11.8)</td>
<td>Yes</td>
<td></td>
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<tr>
<td>25</td>
<td>16/05/2019</td>
<td>S Metro</td>
<td>KH</td>
<td>SMCSWLWC-SYC-CTC-TF-PLN-000457</td>
<td>Section 1.1.30. Restrictions of Traffic Lanes, p.21</td>
<td>Stopping traffic in both directions' - &quot;for a period no longer than is deemed necessary&quot; is a vague statement. Where it is necessary to stop traffic then the time should not extend greater than three minutes. Longer periods may require the installation of a suitable detour so as to avoid extensive queueing and impacts on intersections.</td>
<td>Revised as per request. Not more than 3 mins. (Section 12.5)</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>16/05/2019</td>
<td>S Metro</td>
<td>KH</td>
<td>SMCSWLWC-SYC-CTC-TF-PLN-000457</td>
<td>Section 1.1.38, Temporary Road Safety Barriers &amp; End Treatments, 3rd para, p.23</td>
<td>End treatments to be used should comply with the list of end treatments provided in &quot;RMS Safety Barrier Products (Terminals) accepted for use on classified Roads in NSW&quot;</td>
<td>Revised as per request. (Section 12.13)</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>27</td>
<td>16/05/2019</td>
<td>S Metro</td>
<td>KH</td>
<td>SMCSWLWC-SYC-CTC-TF-PLN-000457</td>
<td>Section 1.1.40 Traffic Guidance Schemes, Plan 184847, Stage 2 TCP</td>
<td>Why detour signs in South Parade and Beamish Street as vehicles cannot enter Lilian Lane from these streets.</td>
<td>TCP has been revised without detour signs.</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>28</td>
<td>16/05/2019</td>
<td>S Metro</td>
<td>KH</td>
<td>SMCSWLWC-SYC-CTC-TF-PLN-000457</td>
<td>Section 1.1.40 Traffic Guidance Schemes, Plan 184848, Stage 3 TCP</td>
<td>At Dewar St/Lilian Lane intersection should include a sign &quot;No access to Beamish St&quot;.</td>
<td>Not required as detour signs are in place to guide vehicles back to beamish st.</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>29</td>
<td>16/05/2019</td>
<td>S Metro</td>
<td>KH</td>
<td>SMCSWLWC-SYC-CTC-TF-PLN-000457</td>
<td>Section 1.1.40 Traffic Guidance Schemes, Plan 184848, Stage 3 TCP</td>
<td>How will local traffic be controlled in Lilian Lane as they will need to exit to the west, against the One Way restriction.</td>
<td>Traffic controllers will assist on stop/slow to allow exit from vehicles exiting</td>
<td>Yes</td>
<td></td>
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<tr>
<td>No.</td>
<td>DATE</td>
<td>COMPANY</td>
<td>RAISED BY</td>
<td>REVIEW DOC. NO.*</td>
<td>DOCUMENT REF*</td>
<td>DEED REF*</td>
<td>COMMENTS / RESPONSE</td>
<td>COMMENT CATEGORY*</td>
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<td>30</td>
<td>16/05/2019</td>
<td>S Metro</td>
<td>KH</td>
<td>SMCSWLWC-SYC-CTC-TF-PLN-000457</td>
<td>Section 1.1.40 Traffic Guidance Schemes, Plan 184849, Stage 4 TCP</td>
<td></td>
<td>The 15m taper in South Parade at Beamish Street is not sufficient to allow a bus to pull clear of the traffic lane to pull up at the proposed temporary stop. This could create traffic congestion along South Parade. TCP has been revised to allow for more distance for the temporary bus stop.</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>31</td>
<td>16/05/2019</td>
<td>S Metro</td>
<td>KH</td>
<td>SMCSWLWC-SYC-CTC-TF-PLN-000457</td>
<td>Section 1.1.40 Traffic Guidance Schemes, Plan 184849 and 184850, Stage 4 &amp; 5 TCP</td>
<td></td>
<td>There is no plan provided for traffic control for the crossing of the Harold Street intersection. stage 5 not required for early works. Removed, traffic control will be provided should there be a crossing situated within workzone.</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>32</td>
<td>16/05/2019</td>
<td>S Metro</td>
<td>KH</td>
<td>SMCSWLWC-SYC-CTC-TF-PLN-000457</td>
<td>Section 1.1.40 Traffic Guidance Schemes, Plan 184856 and 186228, Stage 11.1 &amp; 11.2 TCP</td>
<td></td>
<td>If lane closures on Canterbury Road are during bus operating hours then 3.2m should be provided as the minimum lane width. 3.2m will be maintained. TCP has been revised with no road closure at junction of South Parade and Beamish St.</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>33</td>
<td>15/05/2019</td>
<td>RMS</td>
<td>Chao Chen</td>
<td>PWZTMP - 0038127305</td>
<td>General TCP</td>
<td></td>
<td>What are the duration of each stages? How many shifts are anticipated? Noted - Indicative duration included in section 3.1 and attachment &quot;Services Investigation Routes&quot;</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>34</td>
<td>15/05/2019</td>
<td>RMS</td>
<td>Chao Chen</td>
<td>PWZTMP - 0038127305</td>
<td>General TCP</td>
<td></td>
<td>Detour plan / road closures need to be reviewed and approved by the LTC. Noted - road closures and detour plans are being reviewed LTC. TCP has been revised with no road closure at junction of South Parade and Beamish St.</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>35</td>
<td>15/05/2019</td>
<td>RMS</td>
<td>Chao Chen</td>
<td>PWZTMP - 0038127305</td>
<td>Stage 3 TCP</td>
<td></td>
<td>Suggest advance warning sign to be placed at the first side street to avoid vehicle entering and make u turn. TCP has been revised with no road closure at junction of South Parade and Beamish St.</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>36</td>
<td>15/05/2019</td>
<td>RMS</td>
<td>Chao Chen</td>
<td>PWZTMP - 0038127305</td>
<td>Stage 4 TCP</td>
<td></td>
<td>Temporary Bus stop location close to the intersection. Will this bus turn left or right at the intersection? Is there enough space for the bus to make the turn without impacting the cars behind. Noted - TCP has been revised. Temporary bus stop relocated to allow more distance.</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>37</td>
<td>15/05/2019</td>
<td>RMS</td>
<td>Chao Chen</td>
<td>PWZTMP - 0038127305</td>
<td>Stage 4 TCP</td>
<td></td>
<td>STA review and approval Consulted Transit Systems, suggested night time where the works affecting the bus stops. TCP has been revised with no road closure at junction of South Parade and Beamish St.</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>No.</td>
<td>DATE</td>
<td>COMPANY</td>
<td>RAISED BY</td>
<td>REVIEW DOC. NO.*</td>
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<tr>
<td>38</td>
<td>15/05/2019</td>
<td>RMS</td>
<td>Chao Chen</td>
<td>PWZTMP - 0038127305</td>
<td>Stage 6, 7, 8, 9 TCPs</td>
<td></td>
<td>The PINK highlighted area includes the intersection with Stop and Slow. Will the traffic controller stop all direction and hold traffic? For how long?</td>
<td>3minutes, buses will be given priority</td>
<td>Yes</td>
</tr>
<tr>
<td>39</td>
<td>15/05/2019</td>
<td>RMS</td>
<td>Chao Chen</td>
<td>PWZTMP - 0038127305</td>
<td>Stage 11</td>
<td></td>
<td>ROL to be approved by TMC prior to commencement</td>
<td>Noted - Observation - ROL will be submitted for approval</td>
<td>Yes</td>
</tr>
<tr>
<td>40</td>
<td>15/05/2019</td>
<td>RMS</td>
<td>Chao Chen</td>
<td>PWZTMP - 0038127305</td>
<td>Stage 11</td>
<td></td>
<td>Property access to be maintained</td>
<td>Noted - Property access will be maintained with the assistance of traffic controllers.</td>
<td>Yes</td>
</tr>
<tr>
<td>41</td>
<td>13/05/2019</td>
<td>CBC</td>
<td>James Nguyen</td>
<td>SMCSWLWC-SYC-CTC-TF-PLN-000457</td>
<td>Campsie - Canterbury BPS Route Investigations Traffic Management Plan</td>
<td>A.02</td>
<td>Ensure the bus service operator is notified of any works that would impact bus services</td>
<td>Consulted Transit Systems, suggested night time where the works affecting the bus stops. Dates will be discussed and confirmed with Transit Systems.</td>
<td>Yes</td>
</tr>
<tr>
<td>42</td>
<td>13/05/2019</td>
<td>CBC</td>
<td>James Nguyen</td>
<td></td>
<td></td>
<td></td>
<td>How long do you need the parking spaces in the public car park on South Parade</td>
<td>Vehicles can get in and out the car park with traffic controller assistance.</td>
<td>Yes</td>
</tr>
<tr>
<td>43</td>
<td>13/05/2019</td>
<td>CBC</td>
<td>James Nguyen</td>
<td></td>
<td></td>
<td></td>
<td>Provide swept paths for all routes</td>
<td>There is no 26m long B double heavy vehicle. Vacuum truck are around ~ 7-8m. Swept path will be provided as required for long/heavy vehicles.</td>
<td>Yes</td>
</tr>
<tr>
<td>44</td>
<td>13/05/2019</td>
<td>CBC</td>
<td>James Nguyen</td>
<td></td>
<td></td>
<td></td>
<td>Any roadside furniture or traffic control devices that are to be removed due to impeding over-dimension vehicles MUST be re-instated.</td>
<td>Revised as per request. (Section 9.1)</td>
<td>Yes</td>
</tr>
</tbody>
</table>
14.2 RMS Approval
To: Coordinator General CBD Co-ordination Office  
    Director South East Precinct, Sydney Division  
From: Senior Manager Sydney Metro Management  
Date: 27 June 2019  
Pages: 2 (Plus Attachment)  

MEMO

Issue
Roads and Maritime has received the Early Works Traffic Management Plan (TMP) prepared on behalf of Sydney Metro Line Wide Works Contract (LWC). Sydney Metro is seeking approval of Construction Traffic Management Plan SMCSWLWC-SYC-CTC-TF-PLN-000457 Rev D.

Background
The TMP related to the works required for the Canterbury to Campsie Bulk Power Supply works, received on 6 May 2019, was prepared in consultation with key stakeholders including Roads and Maritime, Sydney Coordination Office, Inner West Council, Canterbury Barkstown Council and Sydney Metro staff and contractors.

Comment
The objective of the TMP is to ensure the safe and timely delivery of the early works whilst minimising the impact of these works on pedestrians, public transport, cyclists and other road users in the vicinity of the subject site through the implementation of traffic and pedestrian management initiatives.

This TMP will cover the early work service investigation for Canterbury to Campsie Bulk Power Supply, works including potholing, slit trenching, surveying, soil testing TR Testing (Thermal Resistivity) and GPR (Ground Penetration Radar).

Works will commence in early July 2019. Approved working hours are 7AM to 6PM Monday to Friday; 7AM to 1PM Saturday. Works located on Canterbury Rd carriageway will be conducted during nights from 21:00 PM – 05:00 AM Mon – Sun, based on Approval from Transport Management Centre (TMC).

Recommendation
It is recommended that approval to the Construction Traffic Management Plan for the Tranche 1B Early Works is granted subject to:

- obtaining Road Occupancy Licenses (RoL’s) from the Transport Management Centre as required;
- addressing any safety issues identified within the Road Safety Audit review for the project prior to 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 Pedestrian, Cycling and Traffic Calming Committee meeting;
- promptly addressing any SCO and/or TMC and/or RMS issue that eventuates during the works;
Attachments


Anthony McMahon
Recommended

Nicolas Kocoski
Senior Manager
Network & Safety Services
South East Precinct

Nicolas Kocoski
Approved / Not Approved

M Prendergast
Recommended

A Berry
Recommended

28.6.19

3/7/19