

Traffic Management Plan Canterbury to Campsie Bulk Power Supply Investigations

Line Wide Works Contract Sydney Metro City & southwest.

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Document Approval

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Signature:		J. Luna				

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

Revision	Details
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1. Project Overview

1.1 Abbreviations

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

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
- AS/NZS ISO 31000:2000 Risk Management – Principles and Guidelines
- AS/NZS ISO 9001:2008 Quality Management Systems – Requirements
- Australian Standard AS1742.3, Fourth Edition 2009

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)
- Risk Management Code of Practice (2007)
- Traffic Management for Construction or Maintenance Work Code of Practice (2008)
- 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 Shifts
- 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:

Unplanned Incident Agency Responsibility	
Law Enforcement / Emergencies	NSW Police Force
Fire	Fire Brigades / Rural Fire Service
Hazardous Materials	Fire Brigades
Flood	State Emergency Service
Storm and Tempest	State Emergency Service

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, TMC, 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 Queue 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

SURVEYING / INVESTIGATION WORKS STAGE 1

GENERAL NOTES

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH AS1742.3 & TCAMS JULY 2018
2. ALL TRAFFIC CONTROL DIAGRAMS TO BE READ IN CONJUNCTION WITH THE TCAMS JULY 2018.
3. NON-APPLICABLE EXISTING SIGNAGE SHALL BE COVERED EG. SPEED SIGNS DUE TO THE TEMPORARY SPEED ZONE.
4. ALL SIGNAGE DISTANCE SHALL COMPLY WITH AS 1742.3 & TCAMS JULY 2018
5. IN ACCORDANCE WITH TCAMS JULY 2018 TRAFFIC CONTROLLERS TO ASSIST PEDESTRIANS WITH MOVEMENT THROUGH & AROUND THE WORKSITE.
6. SIGNAGE SHALL BE PLACED ON THE SIDE OF THE ROAD ADJACENT TO THE TRAFFIC FLOW.
7. REMOVAL OF TRAFFIC CONTROL SIGNS AND DEVICES SHOULD BE UNDERTAKEN IN THE REVERSE ORDER OF ERECTION, PROGRESSING FROM THE WORK AREA OUT TOWARD THE APPROACHES.

RECOMMENDED TAPER LENGTH

APPROXIMATE SPEED OF TRAFFIC KMH	TRAFFIC CONTROL AT BEGINNING OF TAPER	LATERAL MERGE TAPER	TRAFFIC TAPER
45 OR LESS	15	0	15
46 - 55	15	15	30
56 - 65	30	30	60
66 - 75	N/A	70	115
76 - 85	N/A	80	130
86 - 95	N/A	90	145
96 - 105	N/A	100	160
> 105	N/A	110	180

DIMENSION "D" (AS 1742.3)

SPEED OF TRAFFIC KMH	DIMENSION "D" M
45 OR LESS	5m
46 - 55	15m
56 - 65	45m
GREATER THAN 65 KMH	EQUAL TO POSTED SPEED

TOLERANCES

POSITIONING OF SIGNS
MINIMUM 10% LESS THAN THE DISTANCE OR LENGTHS GIVEN
MAXIMUM 25% MORE THAN THE DISTANCE OR LENGTHS GIVEN
SPACING OF DELINEATING DEVICES
MAXIMUM 10% MORE THAN THE SPACING GIVEN
NO MINIMUM

LANE WIDTHS

THE MIN LANE WIDTH TO BE PROVIDED THROUGH OR PAST THE WORKSITE SHALL BE 3.0m (3.5m DESIRABLE)

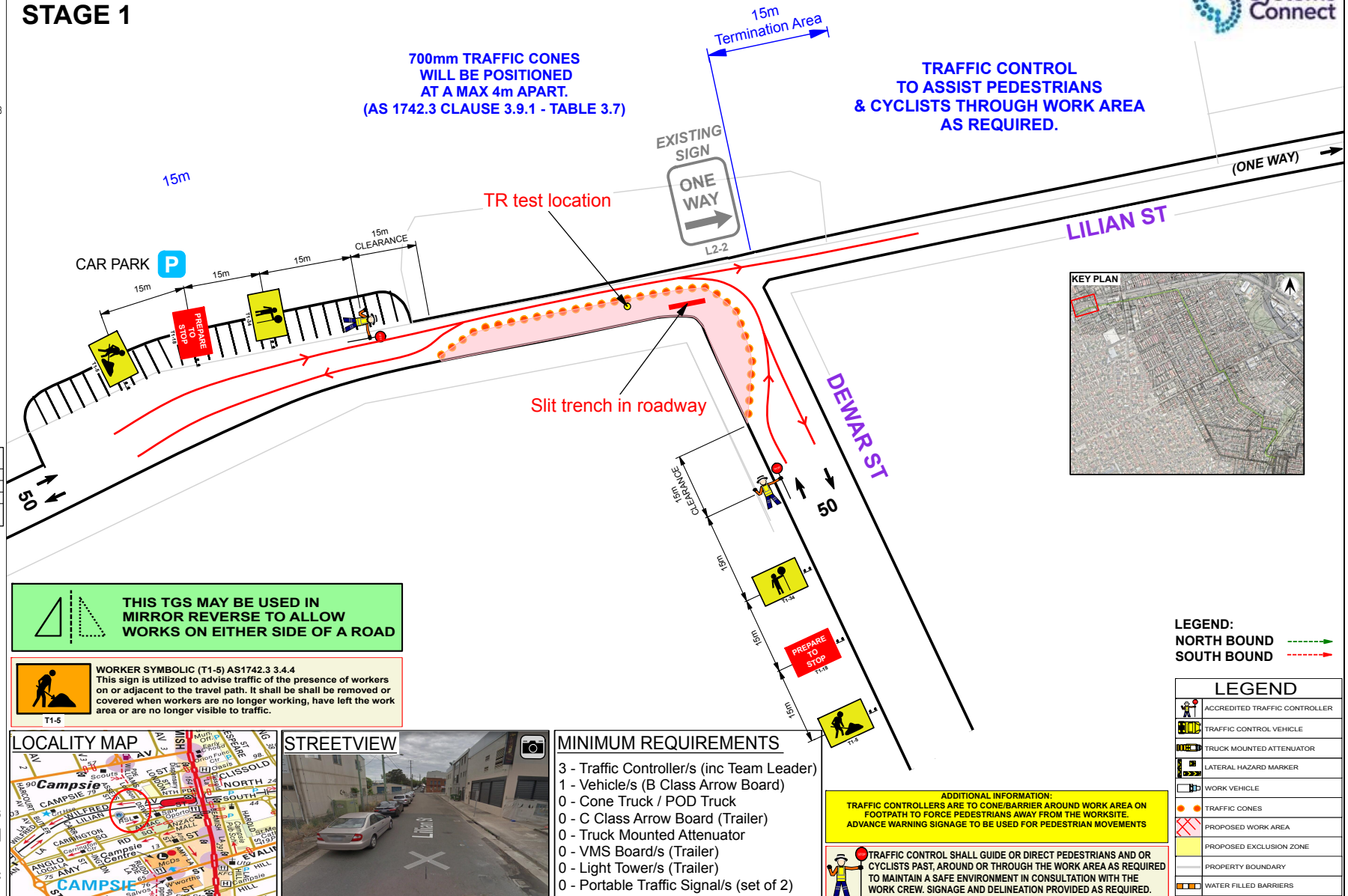
QUEUE MANAGEMENT PLAN

AT ALL TIMES DURING THE COURSE OF THE WORK TRAFFIC QUEUES SHALL BE MONITORED TO ENSURE THAT TRAFFIC DOES NOT EXCEED BEYOND THE LIMITS OF ADVANCED WARNING SIGNS

VEHICLE MOVEMENT PLAN

ALL WORK VEHICLES TO ENTER AND EXIT WORKSITE UNDER THE DIRECTION OF TRAFFIC CONTROLLER WITH THE TRAFFIC FLOW ON DESIGNATED UHF CHANNEL

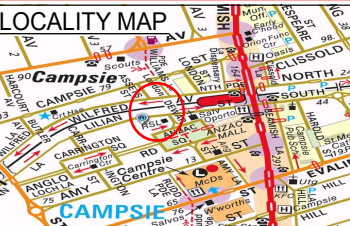
700mm TRAFFIC CONES
WILL BE POSITIONED
AT A MAX 4m APART.
(AS 1742.3 CLAUSE 3.9.1 - TABLE 3.7)



THIS TGS MAY BE USED IN MIRROR REVERSE TO ALLOW WORKS ON EITHER SIDE OF A ROAD



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 removed or covered when workers are no longer working, have left the work area or are no longer visible to traffic.













MINIMUM REQUIREMENTS

- 3 - 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)

ADDITIONAL INFORMATION:
TRAFFIC CONTROLLERS ARE TO CONE/BARRIER AROUND WORK AREA ON FOOTPATH TO FORCE PEDESTRIANS AWAY FROM THE WORKSITE.
ADVANCE WARNING SIGNAGE TO BE USED FOR PEDESTRIAN MOVEMENTS

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.

LEGEND:
NORTH BOUND
SOUTH BOUND

LEGEND	
	ACCREDITED TRAFFIC CONTROLLER
	TRAFFIC CONTROL VEHICLE
	TRUCK MOUNTED ATTENUATOR
	LATERAL HAZARD MARKER
	WORK VEHICLE
	TRAFFIC CONES
	PROPOSED WORK AREA
	PROPOSED EXCLUSION ZONE
	PROPERTY BOUNDARY
	WATER FILLED BARRIERS



REVISIONS

REV	DATE	DESCRIPTION	Client:	CPB UGL JV - SYSTEMS CONNECT LINE WIDE	Term:	SHORT TERM
00	02/04/19	DRAWN: HERNIE JAN D.CABE	Road Name:	LILIAN STREET	Road Type:	TWO WAY
	11/04/19	AMENDED BY JONATHAN LUNA - 0038127305	Works Location:	BETWEEN CARINGTON STREET & DEWAR STREET	Speed Limit:	50KPH
			Suburb:	CAMPSIE	Travelled Path:	PAST
			Map Reference:	-33.910926, 151.101447	Operation:	PART LANE CLOSURE

DESIGNED: STEVE ROBERTS

0049937533
PWZTMP-RIICWD503D

JOB # 440348966

PLAN # 184846

evolution
51 HEATHCOTE ROAD,
MOOREBANK, NSW, 2170
PH: 1300 880 481

GENERAL NOTES

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH AS1742.3 & TCWAYS JULY 2018
2. ALL TRAFFIC CONTROL DIAGRAMS TO BE READ IN CONJUNCTION WITH THE TCWAYS JULY 2018.
3. NON-APPLICABLE EXISTING SIGNAGE SHALL BE COVERED EG. SPEED SIGNS DUE TO THE TEMPORARY SPEED ZONE.
4. ALL SIGNAGE DISTANCE SHALL COMPLY WITH AS 1742.3 & TCWAYS JULY 2018
5. IN ACCORDANCE WITH TCWAYS JULY 2018 TRAFFIC CONTROLLERS TO ASSIST PEDESTRIANS WITH MOVEMENT THROUGH & AROUND THE WORKSITE.
6. SIGNAGE SHALL BE PLACED ON THE SIDE OF THE ROAD ADJACENT TO THE TRAFFIC FLOW.
7. REMOVAL OF TRAFFIC CONTROL SIGNS AND DEVICES SHOULD BE UNDERTAKEN IN THE REVERSE ORDER OF ERECTION, PROGRESSING FROM THE WORK AREA OUT TOWARD THE APPROACHES.

RECOMMENDED TAPER LENGTH

APPROXIMATE SPEED OF TRAFFIC KM/H	TRAFFIC CONTROL AT BEGINNING OF TAPER	LATERAL MERGE TAPER
45 OR LESS	15	0
46 - 55	15	15
56 - 65	30	30
66 - 75	N/A	70
76 - 85	N/A	80
86 - 95	N/A	90
96 - 105	N/A	100
> 105	N/A	180

DIMENSION "D" (AS 1742.3)

SPEED OF TRAFFIC KM/H	DIMENSION "D" M
45 OR LESS	5m
46 - 55	15m
56 - 65	45m
GREATER THAN 65 KM/H	EQUAL TO POSTED SPEED

TOLERANCES

POSITIONING OF SIGNS
MINIMUM 10% LESS THAN THE DISTANCE OR LENGTHS GIVEN
MAXIMUM 25% MORE THAN THE DISTANCE OR LENGTHS GIVEN
SPACING OF DELINEATING DEVICES
MAXIMUM 10% MORE THAN THE SPACING GIVEN
NO MINIMUM

LANE WIDTHS

THE MIN LANE WIDTH TO BE PROVIDED THROUGH OR PAST THE WORKSITE SHALL BE 3.0m (3.5m DESIRABLE)

QUEUE MANAGEMENT PLAN

AT ALL TIMES DURING THE COURSE OF THE WORK TRAFFIC QUEUES SHALL BE MONITORED TO ENSURE THAT TRAFFIC DOES NOT EXCEED BEYOND THE LIMITS OF ADVANCED WARNING SIGNS

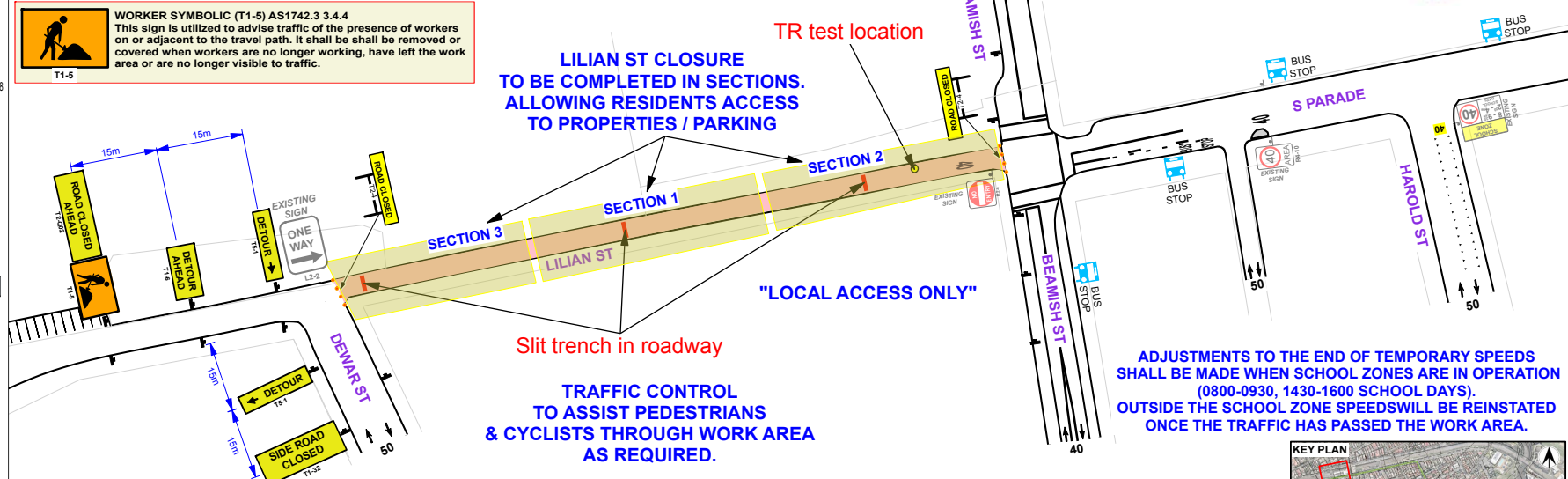
VEHICLE MOVEMENT PLAN

ALL WORK VEHICLES TO ENTER AND EXIT WORKSITE UNDER THE DIRECTION OF TRAFFIC CONTROLLER WITH THE TRAFFIC FLOW ON DESIGNATED UHF CHANNEL

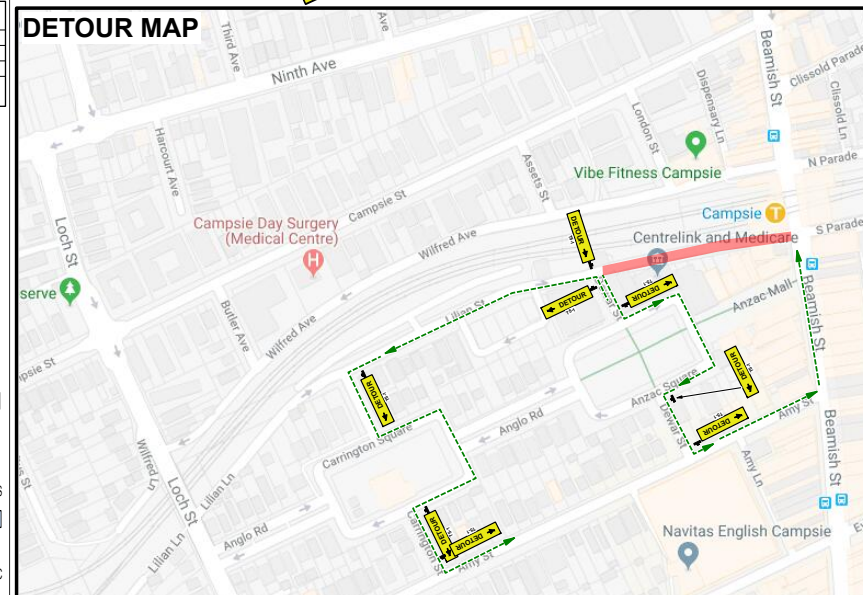
SURVEYING / INVESTIGATION WORKS STAGE 2

**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 removed or covered when workers are no longer working, have left the work area or are no longer visible to traffic.



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 REINSTATEMENT ONCE THE TRAFFIC HAS PASSED THE WORK AREA.

DETOUR MAP**STREETVIEW****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)


ADDITIONAL INFORMATION:
TRAFFIC CONTROLLERS ARE TO CONE/BARRIER AROUND WORK AREA ON FOOTPATH TO FORCE PEDESTRIANS AWAY FROM THE WORKSITE.
ADVANCE WARNING SIGNAGE TO BE USED FOR PEDESTRIAN MOVEMENTS

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.

LEGEND:
NORTH BOUND
SOUTH BOUND

LEGEND

	ACCREDITED TRAFFIC CONTROLLER
	TRAFFIC CONTROL VEHICLE
	TRUCK MOUNTED ATTENUATOR
	LATERAL HAZARD MARKER
	WORK VEHICLE
	TRAFFIC CONES
	PROPOSED WORK AREA
	PROPOSED EXCLUSION ZONE
	PROPERTY BOUNDARY
	WATER FILLED BARRIERS

REV	DATE	DESCRIPTION	Client:	CPB UGL JV - SYSTEMS CONNECT LINE WIDE	Term:	SHORT TERM	DESIGNED:	SIGNATURE:	evolution
00	02/04/19	DRAWN: HERNIE JAN D.CABE	Road Name:	LILIAN STREET	Road Type:	ONE WAY	STEVE ROBERTS		
			Works Location:	BETWEEN DEWAR STREET & BEAMISH STREET	Speed Limit:	50KPH			
			Suburb:	CAMPISIE	Travelled Path:	AROUND			
			Map Reference:	-33.910757, 151.102507	Operation:	ROAD CLOSURE			
							JOB #	PLAN #	
							440348966	184847	



PLAN MAY NOT BE TO SCALE

51 HEATHCOTE ROAD,
MOOREBANK, NSW, 2170
PH: 1300 880 481

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)**

Slit trench in footpath

**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 REINSTATE
ONCE THE TRAFFIC HAS PASSED THE WORK AREA.**

**EXISTING 3.0m LANE WIDTH
SHALL BE MAINTAINED
(SEE CLAUSE 4.13.3)**



GENERAL NOTES

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH AS1742.3 & TCAMS JULY 2018
2. ALL TRAFFIC CONTROL DIAGRAMS TO BE READ IN CONJUNCTION WITH THE TCAMS JULY 2018.
3. NON-APPLICABLE EXISTING SIGNAGE SHALL BE COVERED EG. SPEED SIGNS DUE TO THE TEMPORARY SPEED ZONE.
4. ALL SIGNAGE DISTANCE SHALL COMPLY WITH AS 1742.3 & TCAMS JULY 2018
5. IN ACCORDANCE WITH TCAMS JULY 2018 TRAFFIC CONTROLLERS TO ASSIST PEDESTRIANS WITH MOVEMENT THROUGH & AROUND THE WORKSITE.
6. SIGNAGE SHALL BE PLACED ON THE SIDE OF THE ROAD ADJACENT TO THE TRAFFIC FLOW.
7. REMOVAL OF TRAFFIC CONTROL SIGNS AND DEVICES SHOULD BE UNDERTAKEN IN THE REVERSE ORDER OF ERECTION, PROGRESSING FROM THE WORK AREA OUT TOWARD THE APPROACHES.

RECOMMENDED TAPER LENGTH

APPROXIMATE SPEED OF TRAFFIC KMH	TRAFFIC CONTROL AT BEGINNING OF TAPER	LATERAL MERGE TAPER	MERGE TAPER
45 OR LESS	15	0	15
46 - 55	15	15	30
56 - 65	30	30	60
66 - 75	N/A	70	115
76 - 85	N/A	80	130
86 - 95	N/A	90	145
96 - 105	N/A	100	160
> 105	N/A	110	180

DIMENSION "D" (AS 1742.3)

SPEED OF TRAFFIC KMH	DIMENSION "D" M
45 OR LESS	5m
46 - 55	15m
56 - 65	45m
GREATER THAN 65 KMH	EQUAL TO POSTED SPEED

TOLERANCES

POSITIONING OF SIGNS
MINIMUM 10% LESS THAN THE DISTANCE OR LENGTHS GIVEN
MAXIMUM 25% MORE THAN THE DISTANCE OR LENGTHS GIVEN
SPACING OF DELINEATING DEVICES
MAXIMUM 10% MORE THAN THE SPACING GIVEN
NO MINIMUM

LANE WIDTHS

THE MIN LANE WIDTH TO BE PROVIDED THROUGH OR PAST THE WORKSITE SHALL BE 3.0m (3.5m DESIRABLE)

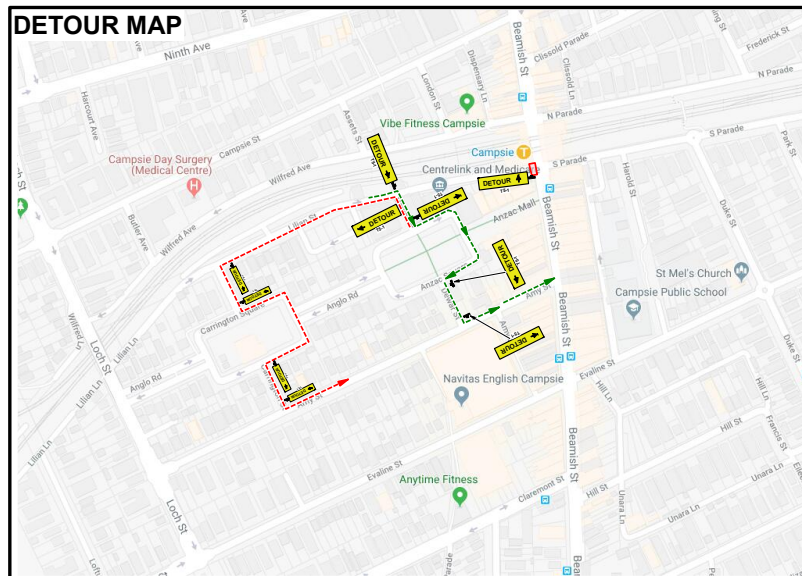
QUEUE MANAGEMENT PLAN

AT ALL TIMES DURING THE COURSE OF THE WORK TRAFFIC QUEUES SHALL BE MONITORED TO ENSURE THAT TRAFFIC DOES NOT EXCEED BEYOND THE LIMITS OF ADVANCED WARNING SIGNS

VEHICLE MOVEMENT PLAN

ALL WORK VEHICLES TO ENTER AND EXIT WORKSITE UNDER THE DIRECTION OF TRAFFIC CONTROLLER WITH THE TRAFFIC FLOW ON DESIGNATED UHF CHANNEL

DETOUR MAP



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 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 (inc 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 Signal/s (set of 2)

ADDITIONAL INFORMATION:
TRAFFIC CONTROLLERS ARE TO CONE/BARRIER AROUND WORK AREA ON FOOTPATH TO FORCE PEDESTRIANS AWAY FROM THE WORKSITE.
ADVANCE WARNING SIGNAGE TO BE USED FOR PEDESTRIAN MOVEMENTS

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.

LEGEND:
NORTH BOUND
SOUTH BOUND

LEGEND	
	ACCREDITED TRAFFIC CONTROLLER
	TRAFFIC CONTROL VEHICLE
	TRUCK MOUNTED ATTENUATOR
	LATERAL HAZARD MARKER
	WORK VEHICLE
	TRAFFIC CONES
	PROPOSED WORK AREA
	PROPOSED EXCLUSION ZONE
	PROPERTY BOUNDARY
	WATER FILLED BARRIERS



REVISIONS

REV	DATE	DESCRIPTION	Client:	CPB UGL JV - SYSTEMS CONNECT LINE WIDE	Term:	SHORT TERM
00	02/04/19	DRAWN: HERNIE JAN D.CABE	Road Name:	BEAMISH STREET	Road Type:	ONE WAY
			Works Location:	BETWEEN LILIAN STREET & SOUTH PARADE	Speed Limit:	50KPH
			Suburb:	CAMPISIE	Travelled Path:	AROUND
			Map Reference:	-33.910757, 151.102507	Operation:	STOP/SLOW

DESIGNED:	STEVE ROBERTS
SIGNATURE:	
	0049937533
	PWZTMP-RIICWD503D
JOB #	440348966
PLAN #	184848

evolution

51 HEATHCOTE ROAD,
MOOREBANK, NSW, 2170
PH: 1300 880 481

GENERAL NOTES

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH AS1742.3 & TCAMS JULY 2018
2. ALL TRAFFIC CONTROL DIAGRAMS TO BE READ IN CONJUNCTION WITH THE TCAMS JULY 2018
3. NON-APPLICABLE EXISTING SIGNAGE SHALL BE COVERED EG. SPEED SIGNS DUE TO THE TEMPORARY SPEED ZONE.
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6. SIGNAGE SHALL BE PLACED ON THE SIDE OF THE ROAD ADJACENT TO THE TRAFFIC FLOW.
7. REMOVAL OF TRAFFIC CONTROL SIGNS AND DEVICES SHOULD BE UNDERTAKEN IN THE REVERSE ORDER OF ERECTION, PROGRESSING FROM THE WORK AREA OUT TOWARD THE APPROACHES.

RECOMMENDED TAPER LENGTH

APPROXIMATE SPEED OF TRAFFIC KM/H	TRAFFIC CONTROL AT BEGINNING OF TAPER	LATERAL MERGE TAPER
45 OR LESS	15	0
46 - 55	15	15
56 - 65	30	30
66 - 75	N/A	70
76 - 85	N/A	90
86 - 95	N/A	130
96 - 105	N/A	160
> 105	N/A	180

DIMENSION "D" (AS 1742.3)

SPEED OF TRAFFIC KM/H	DIMENSION "D" M
45 OR LESS	5m
46 - 55	15m
56 - 65	45m
GREATER THAN 65 KM/H	EQUAL TO POSTED SPEED

TOLERANCES

POSITIONING OF SIGNS
MINIMUM 10% LESS THAN THE DISTANCE OR LENGTHS GIVEN
MAXIMUM 25% MORE THAN THE DISTANCE OR LENGTHS GIVEN
SPACING OF DELINEATING DEVICES
MAXIMUM 10% MORE THAN THE SPACING GIVEN
NO MINIMUM

LANE WIDTHS

THE MIN LANE WIDTH TO BE PROVIDED THROUGH OR PAST THE WORKSITE SHALL BE 3.0m (3.5m DESIRABLE)

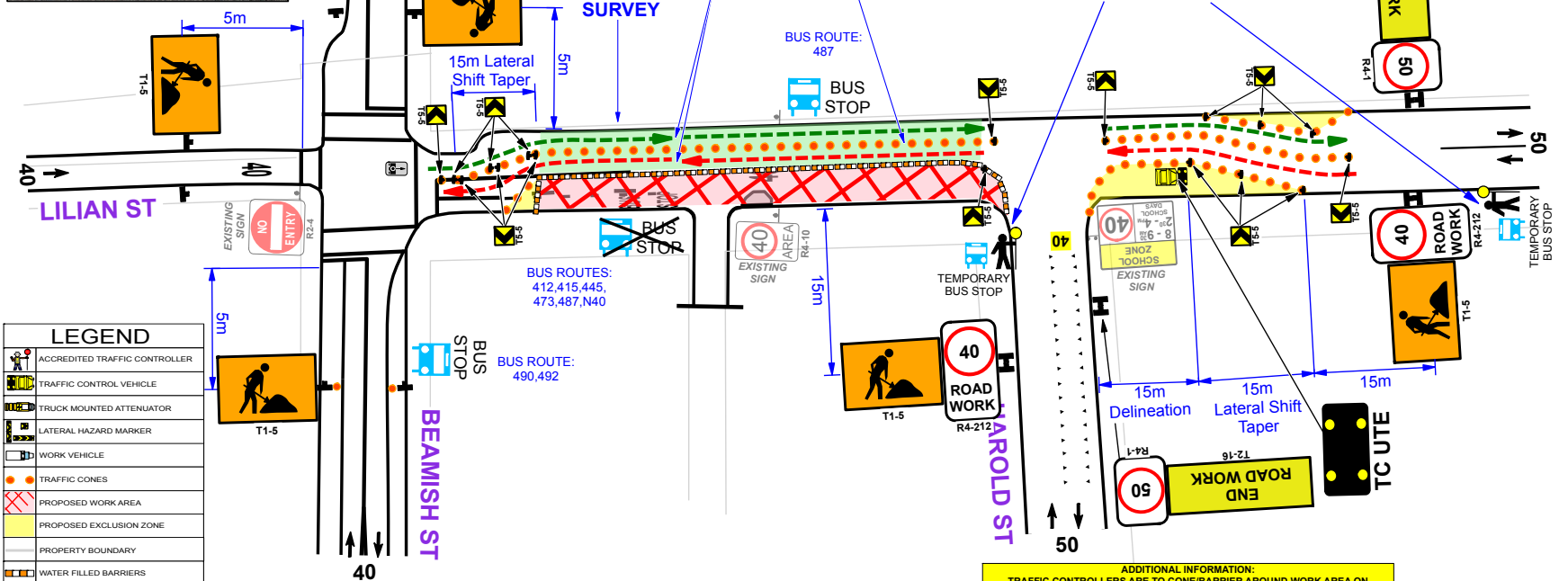
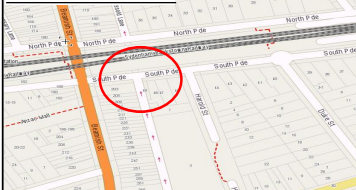
QUEUE MANAGEMENT PLAN

AT ALL TIMES DURING THE COURSE OF THE WORK TRAFFIC QUEUES SHALL BE MONITORED TO ENSURE THAT TRAFFIC DOES NOT EXCEED BEYOND THE LIMITS OF ADVANCED WARNING SIGNS

VEHICLE MOVEMENT PLAN

ALL WORK VEHICLES TO ENTER AND EXIT WORKSITE UNDER THE DIRECTION OF TRAFFIC CONTROLLER WITH THE TRAFFIC FLOW ON DESIGNATED UHF CHANNEL

SURVEYING / INVESTIGATION WORKS STAGE 4



**LOCALITY MAP****STREETVIEW****MINIMUM REQUIREMENTS**

- 3 - 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)

ADDITIONAL INFORMATION:
TRAFFIC CONTROLLERS ARE TO CONE/BARRIER AROUND WORK AREA ON FOOTPATH TO FORCE PEDESTRIANS AWAY FROM THE WORKSITE.
ADVANCE WARNING SIGNAGE TO BE USED FOR PEDESTRIAN MOVEMENTS

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 CROW. SIGNAGE AND DELINEATION PROVIDED AS REQUIRED.

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 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 JV - SYSTEMS CONNECT LINE WILD	Term:	SHORT	DESIGNED:	STEVE ROBERTS	SIGNATURE:	 51 HEATHCOTE ROAD, MOOREBANK, NSW, 2170 PH: 1300 880 481
		00	25/03/19	DRAWN: RONNIELL 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:	CAMPBIE	Travelled Path:	PAST				
					Map Reference:	-33.910465, 151.104475	Operation:	CONTRAFLOW	JOB #	440348966	PLAN #	184849

GENERAL NOTES

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH AS1742.3 & TCAMS JULY 2018
2. ALL TRAFFIC CONTROL DIAGRAMS TO BE READ IN CONJUNCTION WITH THE TCAMS JULY 2018.
3. NON-APPLICABLE EXISTING SIGNAGE SHALL BE COVERED EG. SPEED SIGNS DUE TO THE TEMPORARY SPEED ZONE.
4. ALL SIGNAGE DISTANCE SHALL COMPLY WITH AS 1742.3 & TCAMS JULY 2018
5. IN ACCORDANCE WITH TCAMS JULY 2018 TRAFFIC CONTROLLERS TO ASSIST PEDESTRIANS WITH MOVEMENT THROUGH & AROUND THE WORKSITE.
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7. REMOVAL OF TRAFFIC CONTROL SIGNS AND DEVICES SHOULD BE UNDERTAKEN IN THE REVERSE ORDER OF ERECTION, PROGRESSING FROM THE WORK AREA OUT TOWARD THE APPROACHES.

RECOMMENDED TAPER LENGTH

APPROXIMATE SPEED OF TRAFFIC KM/H	TRAFFIC CONTROL AT BEGINNING OF TAPER	LATERAL MERGE TAPER
45 OR LESS	15	0
46 - 55	15	15
56 - 65	30	30
66 - 75	N/A	70
76 - 85	N/A	80
86 - 95	N/A	90
96 - 105	N/A	100
> 105	N/A	110

DIMENSION "D" (AS 1742.3)

SPEED OF TRAFFIC KM/H	DIMENSION "D" M
45 OR LESS	5m
46 - 55	15m
56 - 65	45m
GREATER THAN 65 KM/H	EQUAL TO POSTED SPEED

TOLERANCES

POSITIONING OF SIGNS
MINIMUM 10% LESS THAN THE DISTANCE OR LENGTHS GIVEN
MAXIMUM 25% MORE THAN THE DISTANCE OR LENGTHS GIVEN
SPACING OF DELINEATING DEVICES
MAXIMUM 10% MORE THAN THE SPACING GIVEN
NO MINIMUM

LANE WIDTHS

THE MIN LANE WIDTH TO BE PROVIDED THROUGH OR PAST THE WORKSITE SHALL BE 3.0m (3.5m DESIRABLE)

QUEUE MANAGEMENT PLAN

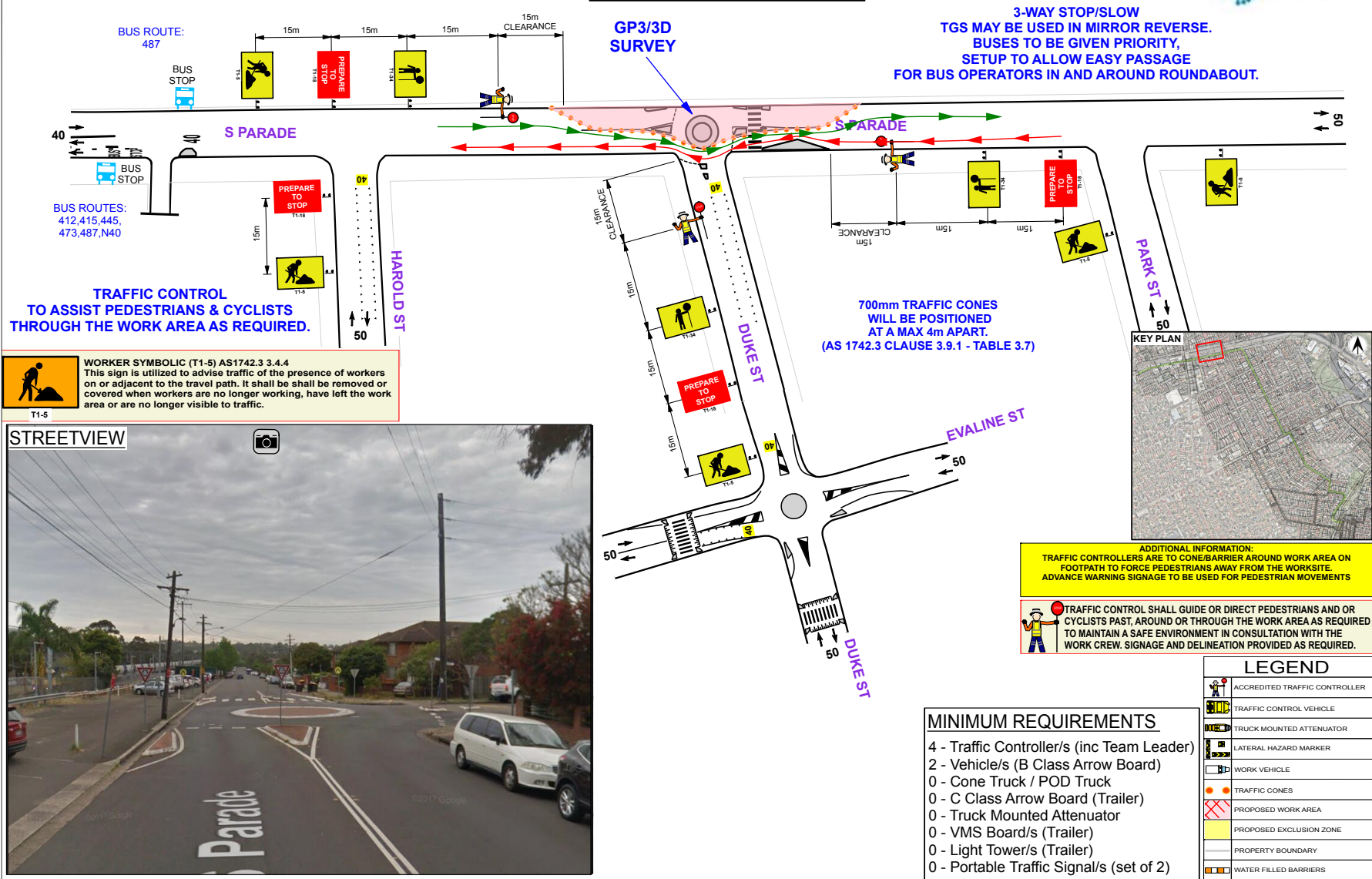
AT ALL TIMES DURING THE COURSE OF THE WORK TRAFFIC QUEUES SHALL BE MONITORED TO ENSURE THAT TRAFFIC DOES NOT EXCEED BEYOND THE LIMITS OF ADVANCED WARNING SIGNS

VEHICLE MOVEMENT PLAN

ALL WORK VEHICLES TO ENTER AND EXIT WORKSITE UNDER THE DIRECTION OF TRAFFIC CONTROLLER WITH THE TRAFFIC FLOW ON DESIGNATED UHF CHANNEL

SURVEYING / INVESTIGATION WORKS STAGE 6

THIS TGS MAY BE USED IN MIRROR REVERSE TO ALLOW WORKS ON EITHER SIDE OF A ROAD



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

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ASI742.3 & TCWS JUNE 2018
2. ALL TRAFFIC CONTROL DIAGRAMS TO BE READ IN CONJUNCTION WITH THE TCWS JUNE 2018.
3. NON-APPLICABLE EXISTING SIGNAGE SHALL BE COVERED EG. SPEED SIGNS DUE TO THE TEMPORARY SPEED ZONE.
4. ALL SIGNAGE DISTANCE SHALL COMPLY WITH AS 1742.3 & TCWS JUNE 2018
5. IN ACCORDANCE WITH TCWS JUNE 2018 TRAFFIC CONTROLLERS TO ASSIST PEDESTRIANS WITH MOVEMENT THROUGH & AROUND THE WORKSITE.
6. SIGNAGE SHALL BE PLACED ON THE SIDE OF THE ROAD ADJACENT TO THE TRAFFIC FLOW.
7. REMOVAL OF TRAFFIC CONTROL SIGNS AND DEVICES SHOULD BE UNDERTAKEN IN THE REVERSE ORDER OF ERECTION, PROGRESSING FROM THE WORK AREA OUT TOWARD THE APPROACHES

APPROXIMATE SPEED OF TRAFFIC KMH	TRAFFIC CONTROL AT BEGINNING OF TAPER	LATERAL SHIFT TAPER	MERGE TAPER
45 OR LESS	15	0	15
46 - 55	15	15	30
56 - 65	30	30	60
66 - 75	N/A	70	115
76 - 85	N/A	80	130
86 - 95	N/A	90	145
96 - 105	N/A	100	160
> 105	N/A	110	180

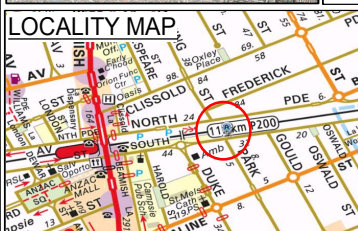
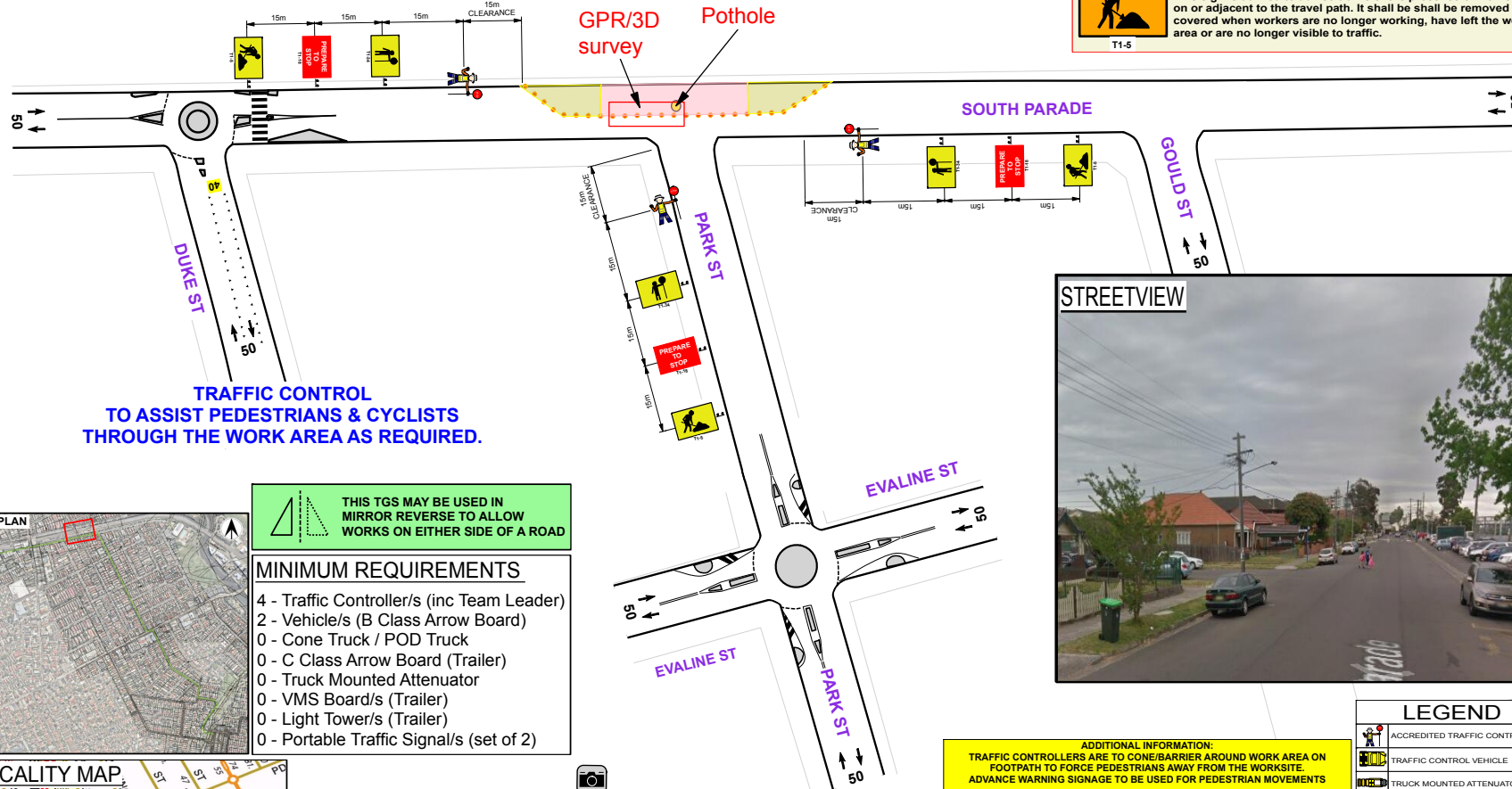
SPEED OF TRAFFIC KM/H	DIMENSION "D" M
45 OR LESS	5m
46 - 55	15m
56 - 65	45m
GREATER THAN 65 KM/H	EQUAL TO POSTED SPEED


POSITIONING OF SIGNS	
MINIMUM 10% LESS THAN	
THE DISTANCE OR LENGTHS GIVEN	
MAXIMUM 25% MORE THAN	
THE DISTANCE OR LENGTHS GIVEN	
SPACING OF DELINEATING DEVICES	
MAXIMUM 10% MORE THAN THE	
SPACING GIVEN	
NO MINIMUM	

THE MIN LANE WIDTH TO
BE PROVIDED THROUGH
OR PAST THE WORKSITE SHALL
BE 3.0m (3.5m DESIRABLE)

AT ALL TIMES DURING THE COURSE OF THE WORK TRAFFIC QUEUES SHALL BE MONITORED TO ENSURE THAT TRAFFIC DOES NOT EXCEED BEYOND THE LIMITS OF ADVANCED WARNING SIGNS

ALL WORK VEHICLES TO ENTER AND EXIT WORKSITE UNDER THE DIRECTION OF TRAFFIC CONTROLLER WITH THE TRAFFIC FLOW ON DESIGNATED UHF CHANNEL.



 THIS TGS MAY BE USED IN MIRROR REVERSE TO ALLOW WORKS ON EITHER SIDE OF A ROAD

MINIMUM REQUIREMENTS











- 4 - Traffic Controller/s (inc 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 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 removed or covered when workers are no longer working, have left the work area or are no longer visible to traffic.




LEGEND

- | LEGEND | |
|---|-------------------------------|
|  | ACCREDITED TRAFFIC CONTROLLER |
|  | TRAFFIC CONTROL VEHICLE |
|  | TRUCK MOUNTED ATTENUATOR |
|  | LATERAL HAZARD MARKER |
|  | WORK VEHICLE |
|  | TRAFFIC CONES |
|  | PROPOSED WORK AREA |
|  | PROPOSED EXCLUSION ZONE |
|  | PROPERTY BOUNDARY |
|  | WATER FILLED BARRIERS |

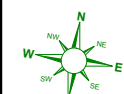
ADDITIONAL INFORMATION:
TRAFFIC CONTROLLERS ARE TO CONE/BARRIER AROUND WORK AREA ON
FOOTPATH TO FORCE PEDESTRIANS AWAY FROM THE WORKSITE.
ADVANCE WARNING SIGNAGE TO BE USED FOR PEDESTRIAN MOVEMENTS



 **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.**





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 removed or covered when workers are no longer working, have left the work area or are no longer visible to traffic.



PLAN MAY NOT BE TO SCALE

REVISIONS

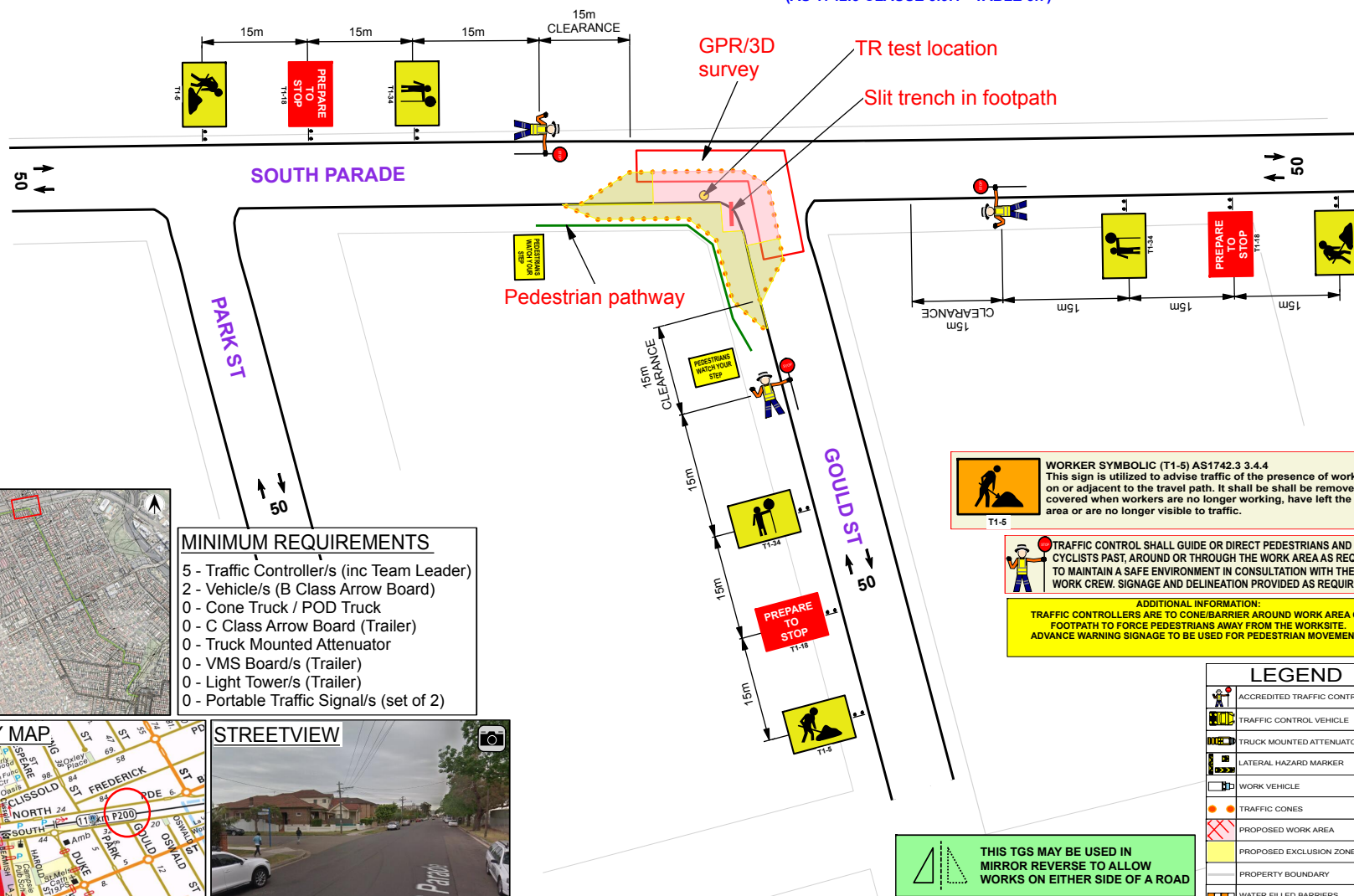
REV	DATE	DESCRIPTION	Client:	CPB UGL JV - SYSTEMS CONNECT LINE WIDE	Term:	SHORT	DESIGNED:	SIGNATURE:	 51 HEATHCOTE ROAD, MOOREBANK, NSW, 2170 PH: 1300 880 481
00	02/04/19	DRAWN: SHARYLL GUBAT	Road Name:	SOUTH PARADE	Road Type:	TWO WAY	0049937533 PWZTMP-RIICWD503D		
			Works Location:	BETWEEN GOULD ST & DUKE ST	Speed Limit:	50KPH			
			Suburb:	CAMPSIE	Travelled Path:	PAST			
			Map Reference:	-33.910091, 151.106953	Operation:	STOP_SLOW			
							JOB #	PLAN #	
							440348966	184852	



51 HEATHCOTE ROAD,
MOOREBANK, NSW, 2170
PH: 1300 880 481

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

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



1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH AS1742.3 & TCWS JUNE 2018
2. ALL TRAFFIC CONTROL DIAGRAMS TO BE READ IN CONJUNCTION WITH THE TCWS JUNE 2018.
3. NON-APPLICABLE EXISTING SIGNAGE SHALL BE COVERED EG. SPEED SIGNS DUE TO THE TEMPORARY SPEED ZONE.
4. ALL SIGNAGE DISTANCE SHALL COMPLY WITH AS 1742.3 & TCWS JUNE 2018
5. IN ACCORDANCE WITH TCWS JUNE 2018 TRAFFIC CONTROLLERS TO ASSIST PEDESTRIANS WITH MOVEMENT THROUGH & AROUND THE WORKSITE.
6. SIGNAGE SHALL BE PLACED ON THE SIDE OF THE ROAD ADJACENT TO THE TRAFFIC FLOW.
7. REMOVAL OF TRAFFIC CONTROL SIGNS AND DEVICES SHOULD BE UNDERTAKEN IN THE REVERSE ORDER OF ERECTION, PROGRESSING FROM THE WORK AREA OUT TOWARD THE APPROACHES.

APPROXIMATE SPEED OF TRAFFIC KMH	TRAFFIC CONTROL AT BEGINNING OF TAPER	LATERAL SHIFT TAPER	MERGE TAPER
45 OR LESS	15	0	15
46 - 55	15	15	30
56 - 65	30	30	60
66 - 75	N/A	70	115
76 - 85	N/A	80	130
86 - 95	N/A	90	145
96 - 105	N/A	100	160
> 105	N/A	110	180

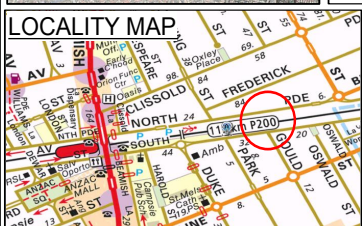
SPEED OF TRAFFIC KM/H	DIMENSION "D" M
45 OR LESS	5m
46 - 55	15m
56 - 65	45m
GREATER THAN 65 KM/H	EQUAL TO POSTED SPEED

POSITIONING OF SIGNS	MINIMUM 10% LESS THAN THE DISTANCE OR LENGTHS GIVEN	MAXIMUM 25% MORE THAN THE DISTANCE OR LENGTHS GIVEN
SPACING OF DELINEATING DEVICES	MAXIMUM 10% MORE THAN THE SPACING GIVEN	NO MINIMUM

THE MIN LANE WIDTH TO
BE PROVIDED THROUGH
OR PAST THE WORKSITE SHALL
BE 3.0m (3.5m DESIRABLE)

AT ALL TIMES DURING THE COURSE OF THE WORK TRAFFIC QUEUES SHALL BE MONITORED TO ENSURE THAT TRAFFIC DOES NOT EXCEED BEYOND THE LIMITS OF ADVANCED WARNING SIGNS


ALL WORK VEHICLES TO ENTER AND EXIT WORKSITE UNDER THE DIRECTION OF TRAFFIC CONTROLLER WITH THE TRAFFIC FLOW ON DESIGNATED UHF CHANNEL



- 5 - Traffic Controller/s (inc 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 Signal/s (set of 2)



PLAN MAY NOT BE TO SCALE

REVISIONS	REV	DATE	DESCRIPTION	Client:	CPB UGL JV - SYSTEMS CONNECT LINE WIDE	Term:	SHORT	DESIGNED BY	STEVE ROBERTS	SIGNATURE	
	00	02/04/19	DRAWN: SHARYLL GUBAT	Road Name:	SOUTH PARADE	Road Type:	TWO WAY	0049937533 PWZTMP-RIICWD503D			
		11/04/19	AMENDED BY JONATHAN LUNA - 0038127305	Works Location:	BETWEEN WONGA ST & PARK ST	Speed Limit:	50KPH				
				Suburb:	CAMPSIE	Travelled Path:	PAST	JOB #	PLAN #		
				Map Reference:	-33.910091, 151.106953	Operation:	STOP SLOW	440348966	184853		

	DESIGNER
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	SIGNATURE
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DESIGNED BY:
STEVE ROBERTS

[Signature]

STEVE ROBERTS	7-2011

0049937533

PWZTMP-P

WD503D

[illegible]

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JOB #
110010000

PLAN #
184853

evolution

51 HEATHCOTE ROAD,
MOOREBANK, NSW, 2170
PH: 1300 880 481

SURVEYING / INVESTIGATION WORKS STAGE 9

GENERAL NOTES

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH AS1742.3 & TCAMS JULY 2018
2. ALL TRAFFIC CONTROL DIAGRAMS TO BE READ IN CONJUNCTION WITH THE TCAMS JULY 2018.
3. NON-APPLICABLE EXISTING SIGNAGE SHALL BE COVERED EG. SPEED SIGNS DUE TO THE TEMPORARY SPEED ZONE.
4. ALL SIGNAGE DISTANCE SHALL COMPLY WITH AS 1742.3 & TCAMS JULY 2018
5. IN ACCORDANCE WITH TCAMS JULY 2018 TRAFFIC CONTROLLERS TO ASSIST PEDESTRIANS WITH MOVEMENT THROUGH & AROUND THE WORKSITE.
6. SIGNAGE SHALL BE PLACED ON THE SIDE OF THE ROAD ADJACENT TO THE TRAFFIC FLOW.
7. REMOVAL OF TRAFFIC CONTROL SIGNS AND DEVICES SHOULD BE UNDERTAKEN IN THE REVERSE ORDER OF ERECTION, PROGRESSING FROM THE WORK AREA OUT TOWARD THE APPROACHES.

RECOMMENDED TAPER LENGTH

APPROXIMATE SPEED OF TRAFFIC KMH	TRAFFIC CONTROL AT BEGINNING OF TAPER	LATERAL MERGE TAPER	REVERSE TAPER
45 OR LESS	15	0	15
46 - 55	15	15	30
56 - 65	30	30	60
66 - 75	N/A	70	115
76 - 85	N/A	80	130
86 - 95	N/A	90	145
96 - 105	N/A	100	160
> 105	N/A	110	180

DIMENSION "D" (AS 1742.3)

SPEED OF TRAFFIC KMH	DIMENSION "D" M
45 OR LESS	5m
46 - 55	15m
56 - 65	45m
GREATER THAN 65 KMH	EQUAL TO POSTED SPEED

TOLERANCES

POSITIONING OF SIGNS
MINIMUM 10% LESS THAN
THE DISTANCE OR LENGTHS GIVEN
MAXIMUM 25% MORE THAN
THE DISTANCE OR LENGTHS GIVEN
SPACING OF DELINEATING DEVICES
MAXIMUM 10% MORE THAN THE
SPACING GIVEN
NO MINIMUM

LANE WIDTHS

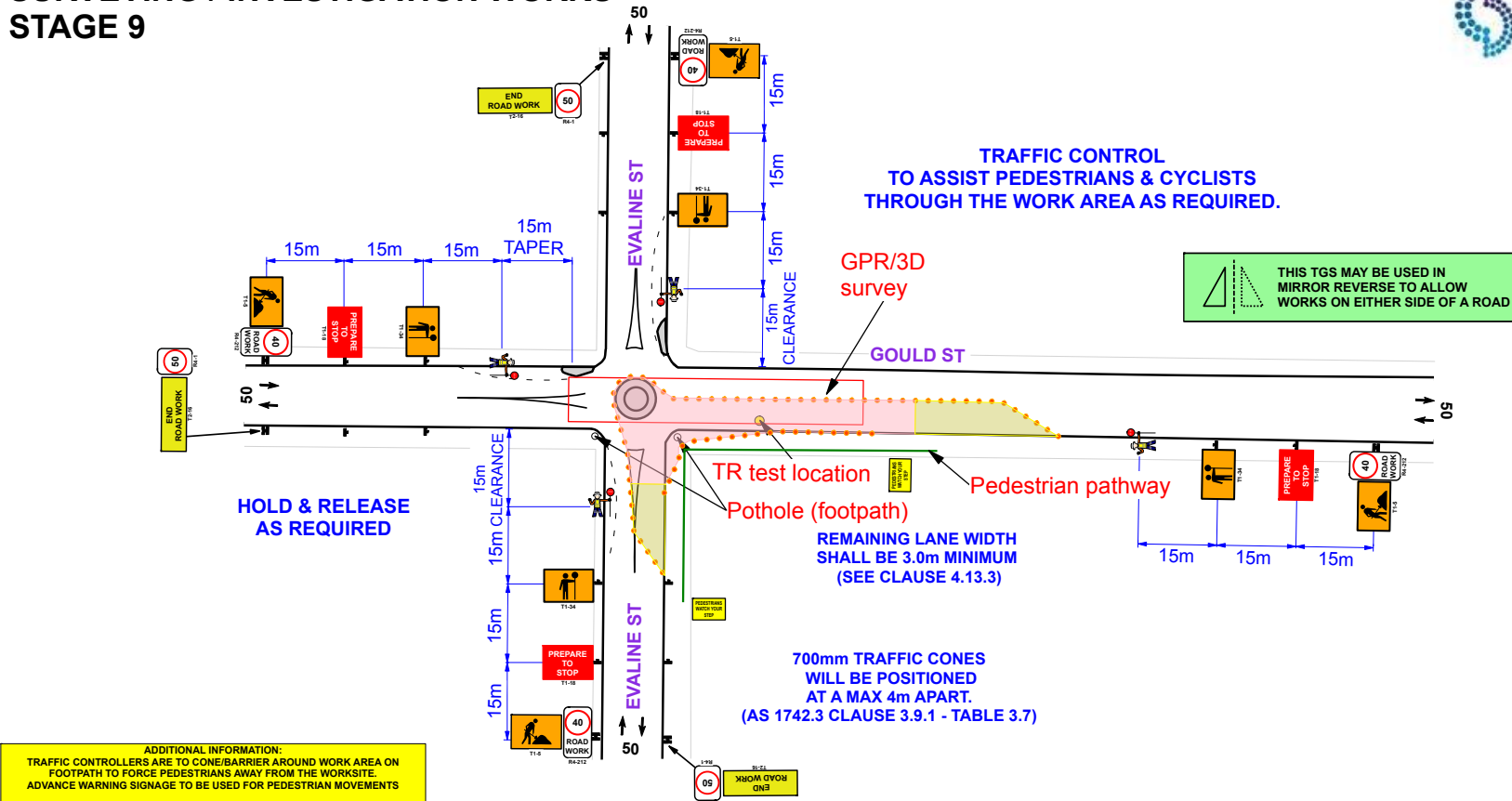
THE MIN LANE WIDTH TO
BE PROVIDED THROUGH
OR PAST THE WORKSITE SHALL
BE 3.0m (3.5m DESIRABLE)

QUEUE MANAGEMENT PLAN

AT ALL TIMES DURING THE COURSE
OF THE WORK TRAFFIC QUEUES SHALL
BE MONITORED TO ENSURE THAT
TRAFFIC DOES NOT EXCEED BEYOND
THE LIMITS OF ADVANCED WARNING SIGNS

VEHICLE MOVEMENT PLAN

ALL WORK VEHICLES TO ENTER AND EXIT
WORKSITE UNDER THE DIRECTION OF
TRAFFIC CONTROLLER WITH THE TRAFFIC
FLOW ON DESIGNATED UHF CHANNEL



ADDITIONAL INFORMATION:
TRAFFIC CONTROLLERS ARE TO CONE/BARRIER AROUND WORK AREA ON
FOOTPATH TO FORCE PEDESTRIANS AWAY FROM THE WORKSITE.
ADVANCE WARNING SIGNAGE TO BE USED FOR PEDESTRIAN MOVEMENTS

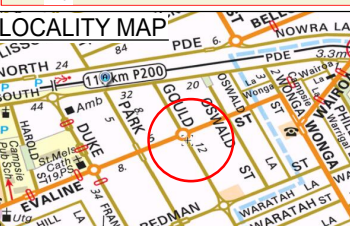


WORKER SYMBOLIC (T1-5) AS1742.3 3.4.4

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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.



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.



MINIMUM REQUIREMENTS

- 5 - 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)



LEGEND

	ACCREDITED TRAFFIC CONTROLLER
	TRAFFIC CONTROL VEHICLE
	TRUCK MOUNTED ATTENUATOR
	LATERAL HAZARD MARKER
	WORK VEHICLE
	TRAFFIC CONES
	PROPOSED WORK AREA
	PROPOSED EXCLUSION ZONE
	PROPERTY BOUNDARY
	WATER FILLED BARRIERS

	REV	DATE	DESCRIPTION	Client:	CPB UGL JV - SYSTEMS CONNECT LINE WIDE	Term:	SHORT	DESIGNED:	STEVE ROBERTS	SIGNATURE:		
	00	02/04/19	DRAWN: SHARYLL GUBAT	Road Name:	GOULD STREET	Road Type:	TWO WAY					
	01	11/04/19	REVISED	Works Location:	BETWEEN REDMAN ST & GOULD ST	Speed Limit:	50KPH					
				Suburb:	CAMPISIE	Travelled Path:	PAST					
				Map Reference:	-33.911218, 151.108899	Operation:	STOP SLOW					
									JOB #	440348966	PLAN #	184854
												51 HEATHCOTE ROAD, MOOREBANK, NSW, 2170 PH: 1300 880 481

PLAN MAY NOT BE TO SCALE

SURVEYING / INVESTIGATION WORKS STAGE 10

GENERAL NOTES

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH AS1742.3 & TCAMS JULY 2018
2. ALL TRAFFIC CONTROL DIAGRAMS TO BE READ IN CONJUNCTION WITH THE TCAMS JULY 2018.
3. NON-APPLICABLE EXISTING SIGNAGE SHALL BE COVERED EG. SPEED SIGNS DUE TO THE TEMPORARY SPEED ZONE.
4. ALL SIGNAGE DISTANCE SHALL COMPLY WITH AS 1742.3 & TCAMS JULY 2018
5. IN ACCORDANCE WITH TCAMS JULY 2018 TRAFFIC CONTROLLERS TO ASSIST PEDESTRIANS WITH MOVEMENT THROUGH & AROUND THE WORKSITE.
6. SIGNAGE SHALL BE PLACED ON THE SIDE OF THE ROAD ADJACENT TO THE TRAFFIC FLOW.
7. REMOVAL OF TRAFFIC CONTROL SIGNS AND DEVICES SHOULD BE UNDERTAKEN IN THE REVERSE ORDER OF ERECTION, PROGRESSING FROM THE WORK AREA OUT TOWARD THE APPROACHES.

RECOMMENDED TAPER LENGTH

APPROXIMATE SPEED OF TRAFFIC KMH	TRAFFIC CONTROL SIGN BEGINNING OF TAPER	LATERAL MERGE TAPER	WEDGE TAPER
45 OR LESS	15	0	15
46 - 55	15	15	30
56 - 65	30	30	60
66 - 75	N/A	70	115
76 - 85	N/A	80	130
86 - 95	N/A	90	145
96 - 105	N/A	100	160
> 105	N/A	110	180

DIMENSION "D" (AS 1742.3)

SPEED OF TRAFFIC KMH	DIMENSION "D" M
45 OR LESS	5m
46 - 55	15m
56 - 65	45m
GREATER THAN 65 KMH	EQUAL TO POSTED SPEED

TOLERANCES

POSITIONING OF SIGNS
MINIMUM 10% LESS THAN THE DISTANCE OR LENGTHS GIVEN
MAXIMUM 25% MORE THAN THE DISTANCE OR LENGTHS GIVEN
SPACING OF DELINEATING DEVICES
MAXIMUM 10% MORE THAN THE SPACING GIVEN
NO MINIMUM

LANE WIDTHS

THE MIN LANE WIDTH TO BE PROVIDED THROUGH OR PAST THE WORKSITE SHALL BE 3.0m (3.5m DESIRABLE)

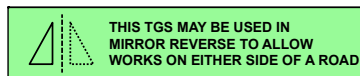
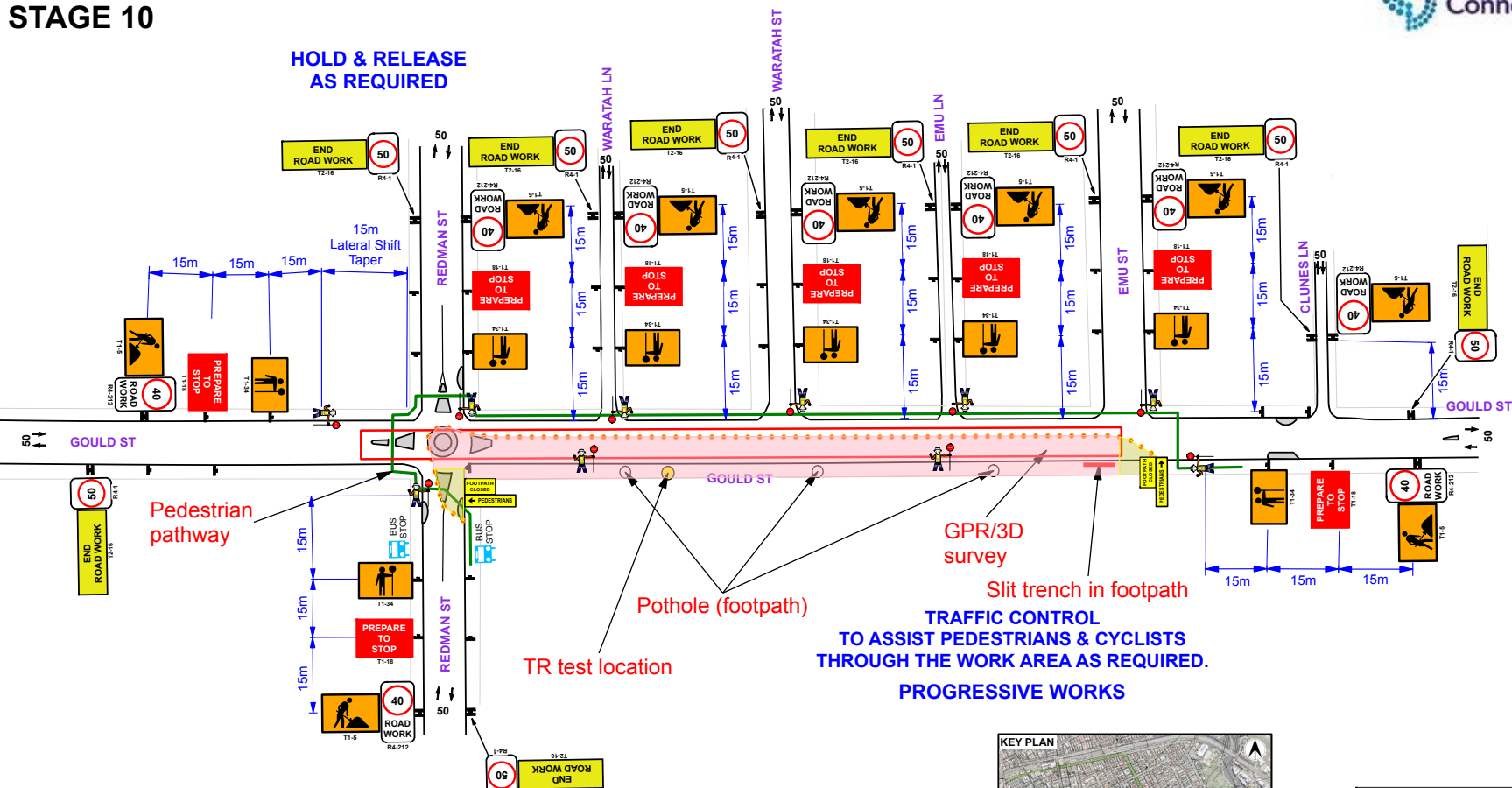
QUEUE MANAGEMENT PLAN

AT ALL TIMES DURING THE COURSE OF THE WORK TRAFFIC QUEUES SHALL BE MONITORED TO ENSURE THAT TRAFFIC DOES NOT EXCEED BEYOND THE LIMITS OF ADVANCED WARNING SIGNS

VEHICLE MOVEMENT PLAN

ALL WORK VEHICLES TO ENTER AND EXIT WORKSITE UNDER THE DIRECTION OF TRAFFIC CONTROLLER WITH THE TRAFFIC FLOW ON DESIGNATED UHF CHANNEL

**HOLD & RELEASE
AS REQUIRED**



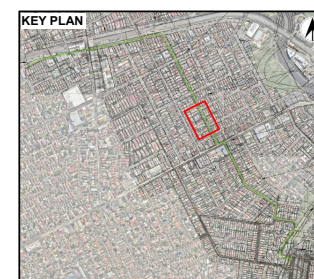
**THIS TGS MAY BE USED IN
MIRROR REVERSE TO ALLOW
WORKS ON EITHER SIDE OF A ROAD**



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 removed or covered when workers are no longer working, have left the work area or are no longer visible to traffic.



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.



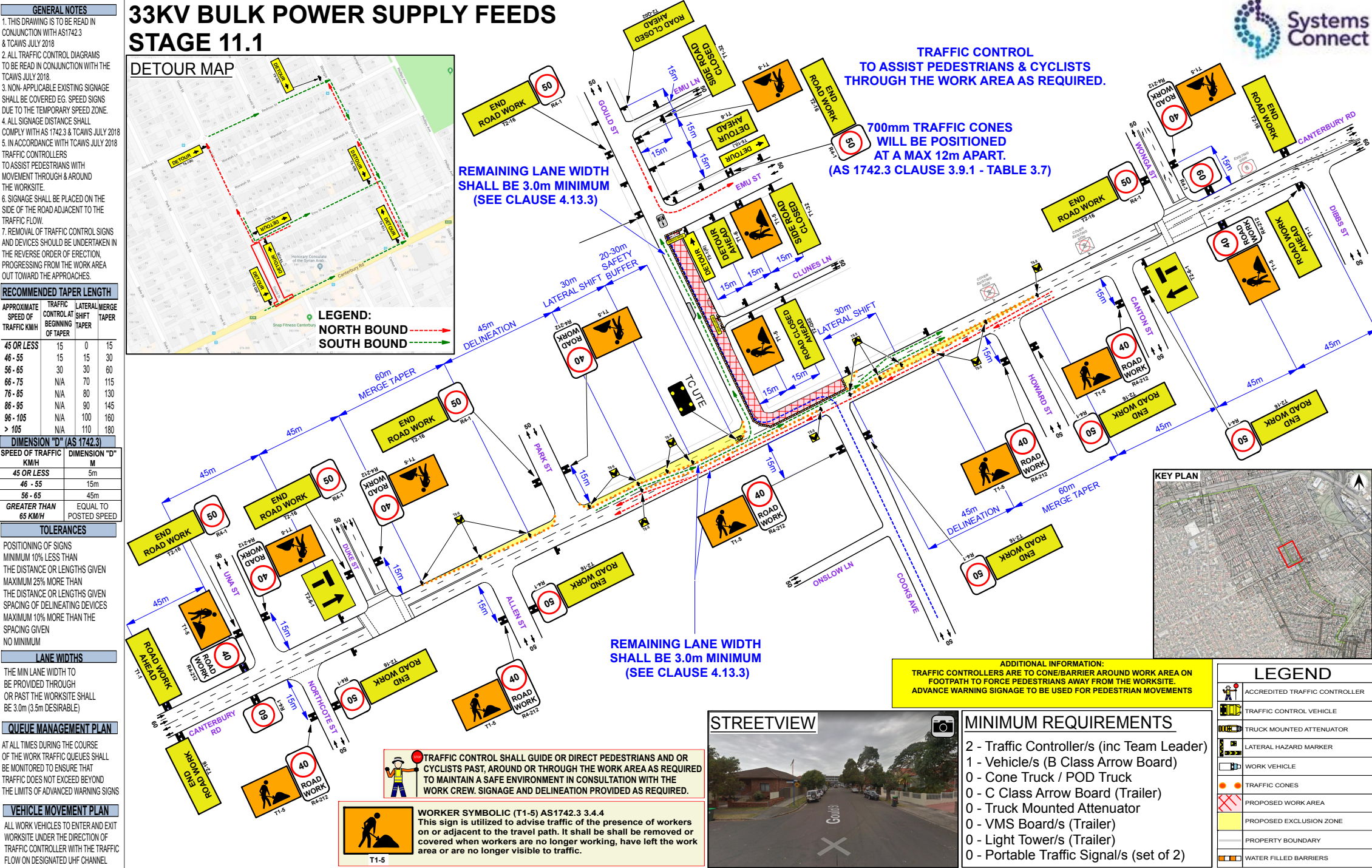
ADDITIONAL INFORMATION:
TRAFFIC CONTROLLERS ARE TO CONE/BARRIER AROUND WORK AREA ON FOOTPATH TO FORCE PEDESTRIANS AWAY FROM THE WORKSITE. ADVANCE WARNING SIGNAGE TO BE USED FOR PEDESTRIAN MOVEMENTS

LEGEND	
	ACCREDITED TRAFFIC CONTROLLER
	TRAFFIC CONTROL VEHICLE
	TRUCK MOUNTED ATTENUATOR
	LATERAL HAZARD MARKER
	WORK VEHICLE
	TRAFFIC CONES
	PROPOSED WORK AREA
	PROPOSED EXCLUSION ZONE
	PROPERTY BOUNDARY
	WATER FILLED BARRIERS

REV	DATE	DESCRIPTION	Client:	CPB UGL JV - SYSTEMS CONNECT LINE WIDE	Term:	SHORT TERM	DESIGNED:	SIGNATURE:	JOB #	PLAN #	evolution
00	02/04/19	DRAWN: HERNIE JAN D.CABE	Road Name:	GOULD STREET	Road Type:	TWO WAY	STEVE ROBERTS		0049937533	PWZTMP-RIICWD503D	51 HEATHCOTE ROAD, MOOREBANK, NSW, 2170 PH: 1300 880 481
01	11/04/19	REVISED	Works Location:	BETWEEN EVALINE STREET & CLUNE STREET	Speed Limit:	50 KPH			440348966	184855	
			Suburb:	CAMPISIE	Travelled Path:	PAST					
			Map Reference:	-33.912688, 151.109696	Operation:	STOP/SLOW					



PLAN MAY NOT BE TO SCALE



GENERAL NOTES

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH AS1742.3 & TCAWS JULY 2018

2. ALL TRAFFIC CONTROL DIAGRAMS TO BE READ IN CONJUNCTION WITH THE TCAWS JULY 2018.

3. NON-APPLICABLE EXISTING SIGNAGE SHALL BE COVERED E.G. SPEED SIGNS DUE TO THE TEMPORARY SPEED ZONE.

4. ALL SIGNAGE DISTANCE SHALL COMPLY WITH AS 1742.3 & TCAWS JULY 2018

5. IN ACCORDANCE WITH TCAWS JULY 2018 TRAFFIC CONTROLLERS TO ASSIST PEDESTRIANS WITH MOVEMENT THROUGH & AROUND THE WORKSITE.

6. SIGNAGE SHALL BE PLACED ON THE SIDE OF THE ROAD ADJACENT TO THE TRAFFIC FLOW.

7. REMOVAL OF TRAFFIC CONTROL SIGNS AND DEVICES SHOULD BE UNDERTAKEN IN THE REVERSE ORDER OF ERECTION, PROGRESSING FROM THE WORK AREA OUT TOWARD THE APPROACHES.

RECOMMENDED TAPER LENGTH

APPROXIMATE SPEED OF TRAFFIC KM/H	TRAFFIC CONTROL AT BEGINNING OF TAPER	LATERAL MERGE TAPER
45 OR LESS	15	0
46 - 55	15	15
56 - 65	30	30
66 - 75	N/A	70
76 - 85	N/A	80
86 - 95	N/A	90
96 - 105	N/A	100
> 105	N/A	110

DIMENSION "D" (AS 1742.3)

SPEED OF TRAFFIC KM/H	DIMENSION "D" M
45 OR LESS	5m
46 - 55	15m
56 - 65	45m
GREATER THAN 65 KM/H	EQUAL TO POSTED SPEED

TOLERANCES

POSITIONING OF SIGNS MINIMUM 10% LESS THAN THE DISTANCE OR LENGTHS GIVEN MAXIMUM 25% MORE THAN THE DISTANCE OR LENGTHS GIVEN SPACING OF DELINEATING DEVICES MAXIMUM 10% MORE THAN THE SPACING GIVEN NO MINIMUM

LANE WIDTHS

THE MIN LANE WIDTH TO BE PROVIDED THROUGH OR PAST THE WORKSITE SHALL BE 3.0m (3.5m DESIRABLE)

QUEUE MANAGEMENT PLAN

AT ALL TIMES DURING THE COURSE OF THE WORK TRAFFIC QUEUES SHALL BE MONITORED TO ENSURE THAT TRAFFIC DOES NOT EXCEED BEYOND THE LIMITS OF ADVANCED WARNING SIGNS

VEHICLE MOVEMENT PLAN

ALL WORK VEHICLES TO ENTER AND EXIT WORKSITE UNDER THE DIRECTION OF TRAFFIC CONTROLLER WITH THE TRAFFIC FLOW ON DESIGNATED UHF CHANNEL

LEGEND

ACCREDITED TRAFFIC CONTROLLER

TRAFFIC CONTROL VEHICLE

TRUCK MOUNTED ATTENUATOR

LATERAL HAZARD MARKER

WORK VEHICLE

TRAFFIC CONES

PROPOSED WORK AREA

PROPOSED EXCLUSION ZONE

PROPERTY BOUNDARY

WATER FILLED BARRIERS

STREETVIEW

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)

33KV BULK POWER SUPPLY FEEDS

STAGE 11.3

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

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

ADDITIONAL INFORMATION: TRAFFIC CONTROLLERS ARE TO CONE/BARRIER AROUND WORK AREA ON FOOTPATH TO FORCE PEDESTRIANS AWAY FROM THE WORKSITE. ADVANCE WARNING SIGNAGE TO BE USED FOR PEDESTRIAN MOVEMENTS

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.

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 removed or covered when workers are no longer working, have left the work area or are no longer visible to traffic.

KEY PLAN

DETOUR MAP

LEGEND: NORTH BOUND SOUTH BOUND

REVISIONS

REV	DATE	DESCRIPTION
00	02/04/19	DRAWN: YSSABEL SERNA
01	29/04/19	REVISED

Client: CPB UGL JV - SYSTEMS CONNECT LINE WIDE

Road Name: COOKS AVENUE

Works Location: BETWEEN SHORT STREET & CANTERBURY ROAD

Suburb: CANTERBURY

Map Reference: -33.915432, 151.111803

Term: SHORT

Road Type: MULTILANE

Speed Limit: 60 KPH

Travelled Path: AROUND

Operation: HALF ROAD CLOSURE

DESIGNED: STEVE ROBERTS

SIGNATURE: [Signature]

0049937533

PWZTMP-RIICWD503D

JOB # 440348966

PLAN # 184857

51 HEATHCOTE ROAD, MOOREBANK, NSW, 2170

PH: 1300 880 481

evolution

PLAN MAY NOT BE TO SCALE

REVISED

Client: CPB UGL JV - SYSTEMS CONNECT LINE WIDE

Road Name: COOKS AVENUE

Works Location: BETWEEN SHORT STREET & CANTERBURY ROAD

Suburb: CANTERBURY

Map Reference: -33.915432, 151.111803

Term: SHORT

Road Type: MULTILANE

Speed Limit: 60 KPH

Travelled Path: AROUND

Operation: HALF ROAD CLOSURE

DESIGNED: STEVE ROBERTS

SIGNATURE: [Signature]

0049937533

PWZTMP-RIICWD503D

JOB # 440348966

PLAN # 184857

51 HEATHCOTE ROAD, MOOREBANK, NSW, 2170

PH: 1300 880 481

evolution

GENERAL NOTES

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH AS1742.3 & TCAMS JULY 2018

2. ALL TRAFFIC CONTROL DIAGRAMS TO BE READ IN CONJUNCTION WITH THE TCAMS JULY 2018.

3. NON-APPLICABLE EXISTING SIGNAGE SHALL BE COVERED E.G. SPEED SIGNS DUE TO THE TEMPORARY SPEED ZONE.

4. ALL SIGNAGE DISTANCE SHALL COMPLY WITH AS 1742.3 & TCAMS JULY 2018

5. IN ACCORDANCE WITH TCAMS JULY 2018 TRAFFIC CONTROLLERS TO ASSIST PEDESTRIANS WITH MOVEMENT THROUGH & AROUND THE WORKSITE.

6. SIGNAGE SHALL BE PLACED ON THE SIDE OF THE ROAD ADJACENT TO THE TRAFFIC FLOW.

7. REMOVAL OF TRAFFIC CONTROL SIGNS AND DEVICES SHOULD BE UNDERTAKEN IN THE REVERSE ORDER OF ERECTION, PROGRESSING FROM THE WORK AREA OUT TOWARD THE APPROACHES.

RECOMMENDED TAPER LENGTH

APPROXIMATE SPEED OF TRAFFIC KM/H	TRAFFIC CONTROL AT BEGINNING OF TAPER	LATERAL MERGE TAPER
45 OR LESS	15	0
46 - 55	15	15
56 - 65	30	30
66 - 75	N/A	70
76 - 85	N/A	80
86 - 95	N/A	90
96 - 105	N/A	100
> 105	N/A	110

DIMENSION "D" (AS 1742.3)

SPEED OF TRAFFIC KM/H	DIMENSION "D" M
45 OR LESS	5m
46 - 55	15m
56 - 65	45m
GREATER THAN 65 KM/H	EQUAL TO POSTED SPEED

TOLERANCES

POSITIONING OF SIGNS MINIMUM 10% LESS THAN THE DISTANCE OR LENGTHS GIVEN MAXIMUM 25% MORE THAN THE DISTANCE OR LENGTHS GIVEN SPACING OF DELINEATING DEVICES MAXIMUM 10% MORE THAN THE SPACING GIVEN NO MINIMUM

LANE WIDTHS

THE MIN LANE WIDTH TO BE PROVIDED THROUGH OR PAST THE WORKSITE SHALL BE 3.0m (3.5m DESIRABLE)

QUEUE MANAGEMENT PLAN

AT ALL TIMES DURING THE COURSE OF THE WORK TRAFFIC QUEUES SHALL BE MONITORED TO ENSURE THAT TRAFFIC DOES NOT EXCEED BEYOND THE LIMITS OF ADVANCED WARNING SIGNS

VEHICLE MOVEMENT PLAN

ALL WORK VEHICLES TO ENTER AND EXIT WORKSITE UNDER THE DIRECTION OF TRAFFIC CONTROLLER WITH THE TRAFFIC FLOW ON DESIGNATED UHF CHANNEL

LEGEND

	ACCREDITED TRAFFIC CONTROLLER
	TRAFFIC CONTROL VEHICLE
	TRUCK MOUNTED ATTENUATOR
	LATERAL HAZARD MARKER
	WORK VEHICLE
	TRAFFIC CONES
	PROPOSED WORK AREA
	PROPOSED EXCLUSION ZONE
	PROPERTY BOUNDARY
	WATER FILLED BARRIERS

STREETVIEW

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)

33KV BULK POWER SUPPLY FEEDS

STAGE 11.4

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

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

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

KEY PLAN

DETOUR MAP

<div><div>PLAN MAY NOT BE TO SCALE</div><div>REVISIONS</div></div>	REV	DATE	DESCRIPTION	Client:	CPB UGL JV - SYSTEMS CONNECT LINE WIDE	Term:	SHORT	<div><div>DESIGNED: STEVE ROBERTS</div><div>0049937533</div><div>PWZTMP-RIICWD503D</div><div>JOB # 440348966</div></div> <div><div>SIGNATURE: </div><div>PLAN # 186229</div></div> <div><div>51 HEATHCOTE ROAD, MOOREBANK, NSW, 2170</div><div>PH: 1300 880 481</div></div>
	00	29/04/19	DRAWN: RONNIELL DINGLE	Road Name:	COOKS AVENUE	Road Type:	MULTILANE	
				Works Location:	BETWEEN SHORT STREET & CANTERBURY ROAD	Speed Limit:	60 KPH	
				Suburb:	CANTERBURY	Travelled Path:	AROUND	
				Map Reference:	-33.915432, 151.111803	Operation:	HALF ROAD CLOSURE	

SURVEYING / INVESTIGATION WORKS STAGE 12

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

GENERAL NOTES

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH AS1742.3 & TCAMS JULY 2018
2. ALL TRAFFIC CONTROL DIAGRAMS TO BE READ IN CONJUNCTION WITH THE TCAMS JULY 2018.
3. NON-APPLICABLE EXISTING SIGNAGE SHALL BE COVERED EG. SPEED SIGNS DUE TO THE TEMPORARY SPEED ZONE.
4. ALL SIGNAGE DISTANCE SHALL COMPLY WITH AS 1742.3 & TCAMS JULY 2018
5. IN ACCORDANCE WITH TCAMS JULY 2018 TRAFFIC CONTROLLERS TO ASSIST PEDESTRIANS WITH MOVEMENT THROUGH & AROUND THE WORKSITE.
6. SIGNAGE SHALL BE PLACED ON THE SIDE OF THE ROAD ADJACENT TO THE TRAFFIC FLOW.
7. REMOVAL OF TRAFFIC CONTROL SIGNS AND DEVICES SHOULD BE UNDERTAKEN IN THE REVERSE ORDER OF ERECTION, PROGRESSING FROM THE WORK AREA OUT TOWARD THE APPROACHES.

RECOMMENDED TAPER LENGTH

APPROXIMATE SPEED OF TRAFFIC KMH	TRAFFIC CONTROL AT BEGINNING OF TAPER	LATERAL MERGE TAPER
45 OR LESS	15	0
46 - 55	15	15
56 - 65	30	30
66 - 75	N/A	70
76 - 85	N/A	80
86 - 95	N/A	90
96 - 105	N/A	100
> 105	N/A	110

DIMENSION "D" (AS 1742.3)

SPEED OF TRAFFIC KMH	DIMENSION "D" M
45 OR LESS	5m
46 - 55	15m
56 - 65	45m
GREATER THAN 65 KMH	EQUAL TO POSTED SPEED

TOLERANCES

POSITIONING OF SIGNS
MINIMUM 10% LESS THAN THE DISTANCE OR LENGTHS GIVEN
MAXIMUM 25% MORE THAN THE DISTANCE OR LENGTHS GIVEN
SPACING OF DELINEATING DEVICES
MAXIMUM 10% MORE THAN THE SPACING GIVEN
NO MINIMUM

LANE WIDTHS

THE MIN LANE WIDTH TO BE PROVIDED THROUGH OR PAST THE WORKSITE SHALL BE 3.0m (3.5m DESIRABLE)

QUEUE MANAGEMENT PLAN

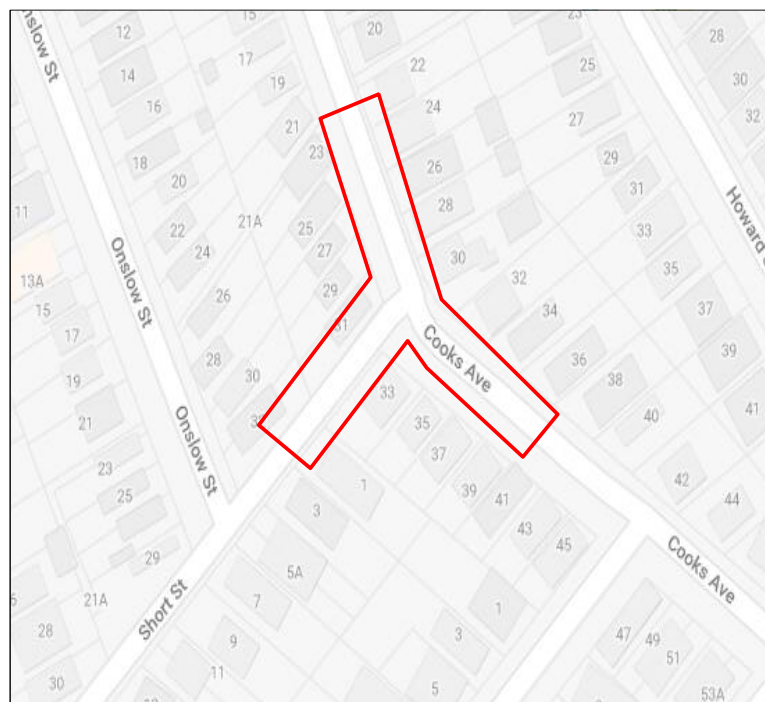
AT ALL TIMES DURING THE COURSE OF THE WORK TRAFFIC QUEUES SHALL BE MONITORED TO ENSURE THAT TRAFFIC DOES NOT EXCEED BEYOND THE LIMITS OF ADVANCED WARNING SIGNS

VEHICLE MOVEMENT PLAN

ALL WORK VEHICLES TO ENTER AND EXIT WORKSITE UNDER THE DIRECTION OF TRAFFIC CONTROLLER WITH THE TRAFFIC FLOW ON DESIGNATED UHF CHANNEL

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

THIS TGS MAY BE USED IN MIRROR REVERSE TO ALLOW WORKS ON EITHER SIDE OF A ROAD



GPR/3D
survey

Pothole

TR test location

LEGEND

	ACCREDITED TRAFFIC CONTROLLER
	TRAFFIC CONTROL VEHICLE
	TRUCK MOUNTED ATTENUATOR
	LATERAL HAZARD MARKER
	WORK VEHICLE
	TRAFFIC CONES
	PROPOSED WORK AREA
	PROPOSED EXCLUSION ZONE
	PROPERTY BOUNDARY
	WATER FILLED BARRIERS

MINIMUM REQUIREMENTS

- 4 - 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)

LOCALITY MAP



ADDITIONAL INFORMATION:
TRAFFIC CONTROLLERS ARE TO CONE/BARRIER AROUND WORK AREA ON FOOTPATH TO FORCE PEDESTRIANS AWAY FROM THE WORKSITE.
ADVANCE WARNING SIGNAGE TO BE USED FOR PEDESTRIAN MOVEMENTS

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.



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 removed or covered when workers are no longer working, have left the work area or are no longer visible to traffic.

T1-5

REV	DATE	DESCRIPTION	Client:	CPB UGL JV - SYSTEMS CONNECT LINE WIDE	Term:	SHORT	DESIGNED:	STEVE ROBERTS	SIGNATURE:	0049937533	PWZTMP-RIICWD503D	JOB #	440348966	PLAN #	184858	evolution	51 HEATHCOTE ROAD, MOOREBANK, NSW, 2170 PH: 1300 880 481
00	25/03/19	DRAWN: TEDDY NAVOR	Road Name:	COOKS AVE	Road Type:	TWO WAY											
			Works Location:	BETWEEN CANTERBURY ROAD AND MONS STREET	Speed Limit:	50 KPH											
			Suburb:	CANTERBURY	Travelled Path:	AROUND											
			Map Reference:	33.917124, 151.112733	Operation:	STOP/SLOW											



PLAN MAY NOT BE TO SCALE










SURVEYING / INVESTIGATION WORKS STAGE 13



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 removed or covered when workers are no longer working, have left the work area or are no longer visible to traffic.

T1-5

LEGEND

	ACCREDITED TRAFFIC CONTROLLER
	TRAFFIC CONTROL VEHICLE
	TRUCK MOUNTED ATTENUATOR
	LATERAL HAZARD MARKER
	WORK VEHICLE
	TRAFFIC CONES
	PROPOSED WORK AREA
	PROPOSED EXCLUSION ZONE
	PROPERTY BOUNDARY

GENERAL NOTES

- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH AS1742.3 & TCAMS JULY 2018
- ALL TRAFFIC CONTROL DIAGRAMS TO BE READ IN CONJUNCTION WITH THE TCAMS JULY 2018
- NON-APPLICABLE EXISTING SIGNAGE SHALL BE COVERED EG. SPEED SIGNS DUE TO THE TEMPORARY SPEED ZONE.
- ALL SIGNAGE DISTANCE SHALL COMPLY WITH AS 1742.3 & TCAMS JULY 2018
- IN ACCORDANCE WITH TCAMS JULY 2018 TRAFFIC CONTROLLERS TO ASSIST PEDESTRIANS WITH MOVEMENT THROUGH & AROUND THE WORKSITE.
- SIGNAGE SHALL BE PLACED ON THE SIDE OF THE ROAD ADJACENT TO THE TRAFFIC FLOW.
- REMOVAL OF TRAFFIC CONTROL SIGNS AND DEVICES SHOULD BE UNDERTAKEN IN THE REVERSE ORDER OF ERECTION, PROGRESSING FROM THE WORK AREA OUT TOWARD THE APPROACHES.

RECOMMENDED TAPER LENGTH

APPROXIMATE SPEED OF TRAFFIC (KM/H)	TRAFFIC CONTROL TAPER BEGINNING OF TAPER	LATERAL MERGE TAPER	TRAFFIC TAPER
45 OR LESS	15	0	15
46 - 55	15	15	30
56 - 65	30	30	60
66 - 75	N/A	70	115
76 - 85	N/A	80	130
86 - 95	N/A	90	145
96 - 105	N/A	100	160
> 105	N/A	110	180

DIMENSION "D" (AS 1742.3)

SPEED OF TRAFFIC (KM/H)	DIMENSION "D" (M)
45 OR LESS	5m
46 - 55	15m
56 - 65	45m
GREATER THAN 65 KM/H	EQUAL TO POSTED SPEED

TOLERANCES

POSITIONING OF SIGNS
MINIMUM 10% LESS THAN
THE DISTANCE OR LENGTHS GIVEN
MAXIMUM 25% MORE THAN
THE DISTANCE OR LENGTHS GIVEN
SPACING OF DELINEATING DEVICES
MAXIMUM 10% MORE THAN THE
SPACING GIVEN
NO MINIMUM

LANE WIDTHS

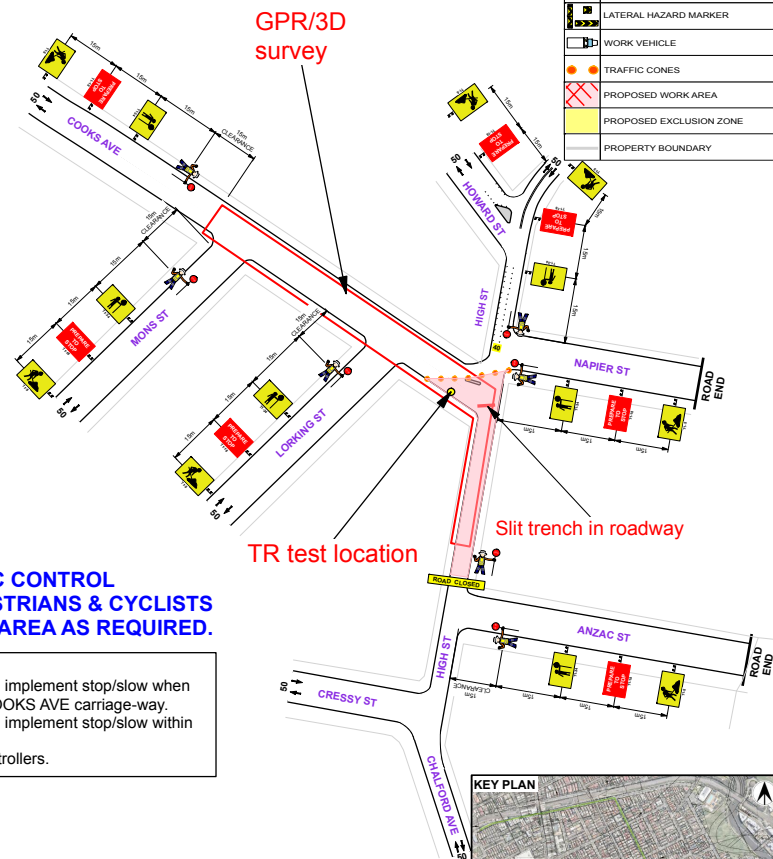
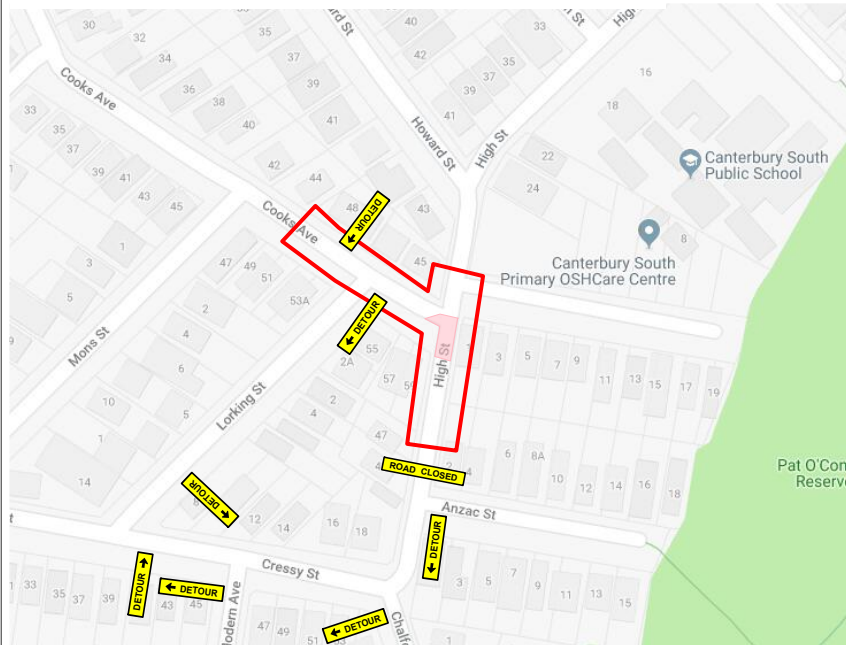
THE MIN LANE WIDTH TO
BE PROVIDED THROUGH
OR PAST THE WORKSITE SHALL
BE 3.0m (3.5m DESIRABLE)

QUEUE MANAGEMENT PLAN

AT ALL TIMES DURING THE COURSE
OF THE WORK TRAFFIC QUEUES SHALL
BE MONITORED TO ENSURE THAT
TRAFFIC DOES NOT EXCEED BEYOND
THE LIMITS OF ADVANCED WARNING SIGNS

VEHICLE MOVEMENT PLAN

ALL WORK VEHICLES TO ENTER AND EXIT
WORKSITE UNDER THE DIRECTION OF
TRAFFIC CONTROLLER WITH THE TRAFFIC
FLOW ON DESIGNATED UHF CHANNEL



**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 off by traffic controllers.

STREETVIEW



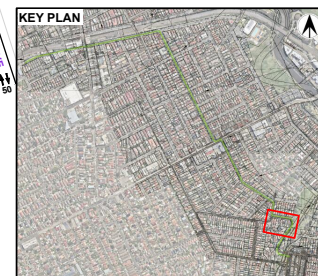
MINIMUM REQUIREMENTS

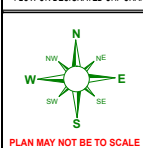

- 8 - Traffic Controller/s (inc Team Leader)
- 2 - Vehicle/s (B Class Arrow Board)
- 0 - Cone Truck / POD Truck
- 0 - C Class Arrow Board (Trailer)
- 0 - Truck Mounted Attenuator
- 0 - VMS Board/s (Trailer)
- 0 - Light Tower/s (Trailer)
- 0 - Portable Traffic Signal/s (set of 2)

ADDITIONAL INFORMATION:
TRAFFIC CONTROLLERS ARE TO CONE/BARRIER AROUND WORK AREA ON
FOOTPATH TO FORCE PEDESTRIANS AWAY FROM THE WORKSITE.
ADVANCE WARNING SIGNAGE TO BE USED FOR PEDESTRIAN MOVEMENTS



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.



	REVIS	REV	DATE	DESCRIPTION	Client:	CPB UGL JV - SYSTEMS CONNECT LINE WIDE			DESIGNED:	STEVE ROBERTS	SIGNATURE:		
		00	02/04/19	DRAWN: MELISSA JESTRE	Road Name:	COOKS AVENUE	Road Type:	TWO WAY					
					Works Location:	BETWEEN SHORT STREET AND ANZAC STREET	Speed Limit:	50 KPH					
					Suburb:	CANTERBURY	Travelled Path:	AROUND					
					Map Reference:	-33.917854, 151.113729	Operation:	STOP SLOW					
									JOB #	440348966	PLAN #	184859	
													51 HEATHCOTE ROAD, MOOREBANK, NSW, 2170 PH: 1300 880 481

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 removed or covered when workers are no longer working, have left the work area or are no longer visible to traffic.



- 5 - 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)

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH AS1742.3 & TCWS JULY 2018
2. ALL TRAFFIC CONTROL DIAGRAMS TO BE READ IN CONJUNCTION WITH THE TCWS JULY 2018
3. NON-APPLICABLE EXISTING SIGNAGE SHALL BE COVERED EG. SPEED SIGNS DUE TO THE TEMPORARY SPEED ZONE.
4. ALL SIGNAGE DISTANCE SHALL COMPLY WITH AS 1742.3 & TCWS JULY 2018
5. IN ACCORDANCE WITH TCWS JULY 2018 TRAFFIC CONTROLLERS TO ASSIST PEDESTRIANS WITH MOVEMENT THROUGH & AROUND THE WORKSITE
6. SIGNAGE SHALL BE PLACED ON THE SIDE OF THE ROAD ADJACENT TO THE TRAFFIC FLOW.
7. REMOVAL OF TRAFFIC CONTROL SIGNS AND DEVICES SHOULD BE UNDERTAKEN IN THE REVERSE ORDER OF ERECTION, PROGRESSING FROM THE WORK AREA OUT TOWARD THE APPROACHES

APPROXIMATE SPEED OF TRAFFIC KMH	TRAFFIC CONTROL AT BEGINNING OF TAPER	LATERAL SHIFT TAPER	MERGE TAPER
45 OR LESS	15	0	15
46 - 55	15	15	30
56 - 65	30	30	60
66 - 75	N/A	70	115
76 - 85	N/A	80	130
86 - 95	N/A	90	145
96 - 105	N/A	100	160
> 105	N/A	110	180

SPEED OF TRAFFIC KM/H	DIMENSION "D" M
45 OR LESS	5m
46 - 55	15m
56 - 65	45m
GREATER THAN 65 KM/H	EQUAL TO POSTED SPEED

POSITIONING OF SIGNS	
MINIMUM 10% LESS THAN	
THE DISTANCE OR LENGTHS GIVEN	
MAXIMUM 25% MORE THAN	
THE DISTANCE OR LENGTHS GIVEN	
SPACING OF DELINEATING DEVICES	
MAXIMUM 10% MORE THAN THE	
SPACING GIVEN	
NO MINIMUM	

THE MIN LANE WIDTH TO
BE PROVIDED THROUGH
OR PAST THE WORKSITE SHALL
BE 3.0m (3.5m DESIRABLE)

AT ALL TIMES DURING THE COURSE OF THE WORK TRAFFIC QUEUES SHALL BE MONITORED TO ENSURE THAT TRAFFIC DOES NOT EXCEED BEYOND THE LIMITS OF ADVANCED WARNING SIGNS.

ALL WORK VEHICLES TO ENTER AND EXIT
WORKSITE UNDER THE DIRECTION OF
TRAFFIC CONTROLLER WITH THE TRAFFIC
FLOW ON DESIGNATED UHF CHANNEL

ADDITIONAL INFORMATION:
TRAFFIC CONTROLLERS ARE TO CONE/BARRIER AROUND WORK AREA ON
FOOTPATH TO FORCE PEDESTRIANS AWAY FROM THE WORKSITE.
ADVANCE WARNING SIGNAGE TO BE USED FOR PEDESTRIAN MOVEMENTS



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.

THIS TGS MAY BE USED IN MIRROR REVERSE TO ALLOW WORKS ON EITHER SIDE OF A ROAD

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











GPR/3D
survey

TR test location

Pothole

KEY PLAN





LEGEND	
	ACCREDITED TRAFFIC CONTROLLER
	TRAFFIC CONTROL VEHICLE
	TRUCK MOUNTED ATTENUATOR
	LATERAL HAZARD MARKER
	WORK VEHICLE
	TRAFFIC CONES
	PROPOSED WORK AREA
	PROPOSED EXCLUSION ZONE
	PROPERTY BOUNDARY
	WATER FILLED BARRIERS



PLAN MAY NOT BE TO SCALE

REVISIONS

REV	DATE	DESCRIPTION	Client:	CPB UGL JV - SYSTEMS CONNECT LINE WIDE	Term:	SHORT	DESIGNED:	SIGNATURE:	 51 HEATHCOTE ROAD, MOOREBANK, NSW, 2170 PH: 1300 880 481
00	02/04/19	DRAWN: MELISSA JESTRE	Road Name:	ANZAC AVENUE - HIGH STREET	Road Type:	TWO WAY	0049937533 PWZTMP-RIICWD503D		
			Works Location:	BETWEEN CROOKS AVENUE AND ANZAC STREET	Speed Limit:	50 KPH			
			Suburb:	CANTERBURY	Travelled Path:	AROUND			
			Map Reference:	-33.919018, 151.114575	Operation:	STOP SLOW			
							JOB #	PLAN #	
							440348966	184860	



51 HEATHCOTE ROAD,
MOOREBANK, NSW, 2170
PH: 1300 880 481

SURVEYING / INVESTIGATION WORKS STAGE 15

GENERAL NOTES

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH AS1742.3 & TCAMS JULY 2018
2. ALL TRAFFIC CONTROL DIAGRAMS TO BE READ IN CONJUNCTION WITH THE TCAMS JULY 2018.
3. NON-APPLICABLE EXISTING SIGNAGE SHALL BE COVERED EG. SPEED SIGNS DUE TO THE TEMPORARY SPEED ZONE.
4. ALL SIGNAGE DISTANCE SHALL COMPLY WITH AS 1742.3 & TCAMS JULY 2018
5. IN ACCORDANCE WITH TCAMS JULY 2018 TRAFFIC CONTROLLERS TO ASSIST PEDESTRIANS WITH MOVEMENT THROUGH AND AROUND THE WORKSITE.
6. SIGNAGE SHALL BE PLACED ON THE SIDE OF THE ROAD ADJACENT TO THE TRAFFIC FLOW.
7. REMOVAL OF TRAFFIC CONTROL SIGNS AND DEVICES SHOULD BE UNDERTAKEN IN THE REVERSE ORDER OF ERECTION, PROGRESSING FROM THE WORK AREA OUT TOWARD THE APPROACHES.

RECOMMENDED TAPER LENGTH

APPROXIMATE SPEED OF TRAFFIC KMH	TRAFFIC CONTROL AT BEGINNING OF TAPER	LATERAL MERGE TAPER	TRAFFIC TAPER
45 OR LESS	15	0	15
46 - 55	15	15	30
56 - 65	30	30	60
66 - 75	N/A	70	115
76 - 85	N/A	80	130
86 - 95	N/A	90	145
96 - 105	N/A	100	160
> 105	N/A	110	180

DIMENSION "D" (AS 1742.3)

SPEED OF TRAFFIC KMH	DIMENSION "D" M
45 OR LESS	5m
46 - 55	15m
56 - 65	45m
GREATER THAN 65 KMH	EQUAL TO POSTED SPEED

TOLERANCES

POSITIONING OF SIGNS
MINIMUM 10% LESS THAN THE DISTANCE OR LENGTHS GIVEN
MAXIMUM 25% MORE THAN THE DISTANCE OR LENGTHS GIVEN
SPACING OF DELINEATING DEVICES
MAXIMUM 10% MORE THAN THE SPACING GIVEN
NO MINIMUM

LANE WIDTHS

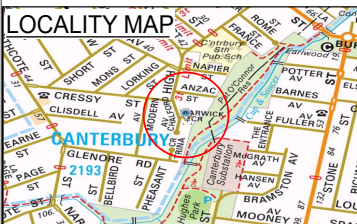
THE MIN LANE WIDTH TO BE PROVIDED THROUGH OR PAST THE WORKSITE SHALL BE 3.0m (3.5m DESIRABLE)

QUEUE MANAGEMENT PLAN

AT ALL TIMES DURING THE COURSE OF THE WORK TRAFFIC QUEUES SHALL BE MONITORED TO ENSURE THAT TRAFFIC DOES NOT EXCEED BEYOND THE LIMITS OF ADVANCED WARNING SIGNS

VEHICLE MOVEMENT PLAN

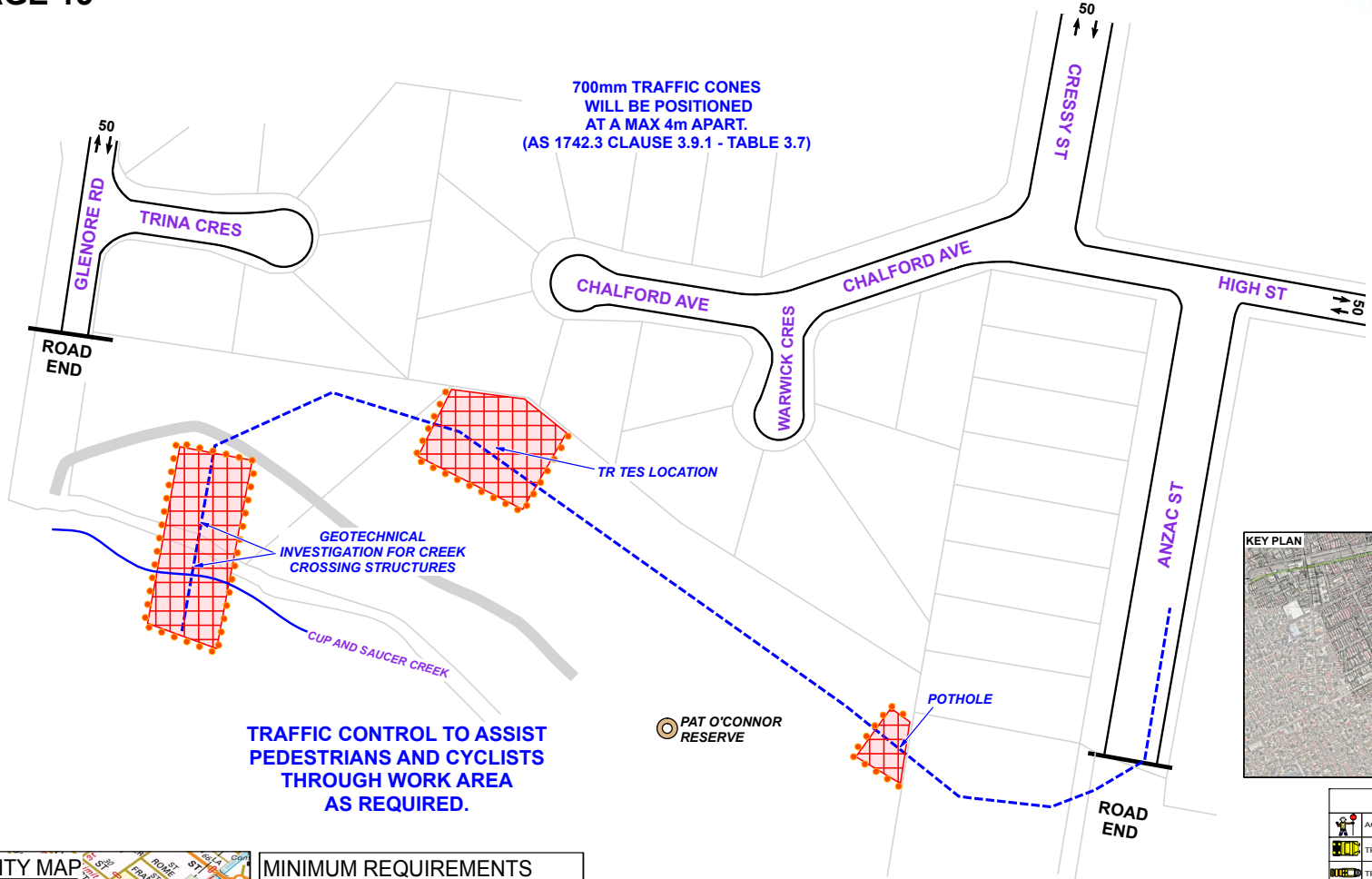
ALL WORK VEHICLES TO ENTER AND EXIT WORKSITE UNDER THE DIRECTION OF TRAFFIC CONTROLLER WITH THE TRAFFIC FLOW ON DESIGNATED UHF CHANNEL













MINIMUM REQUIREMENTS

- 2 - Traffic Controller/s (inc Team Leader)
- 0 - 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)

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



LEGEND

	ACCREDITED TRAFFIC CONTROLLER
	TRAFFIC CONTROL VEHICLE
	TRUCK MOUNTED ATTENUATOR
	LATERAL HAZARD MARKER
	WORK VEHICLE
	TRAFFIC CONES
	PROPOSED WORK AREA
	PROPOSED EXCLUSION ZONE
	PROPERTY BOUNDARY
	WATER FILLED BARRIERS

ADDITIONAL INFORMATION:
TRAFFIC CONTROLLERS ARE TO CONE/BARRIER AROUND WORK AREA ON FOOTPATH TO FORCE PEDESTRIANS AWAY FROM THE WORKSITE.
ADVANCE WARNING SIGNAGE TO BE USED FOR PEDESTRIAN MOVEMENTS

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.

REV	DATE	DESCRIPTION	Client:	CPB UGL JV - SYSTEMS CONNECT LINE WIDE	Term:	SHORT	DESIGNED:	STEVE ROBERTS	SIGNATURE:	0049937533	PWZTMP-RIICWD503D	JOB #	440348966	PLAN #	184903	51 HEATHCOTE ROAD, MOOREBANK, NSW, 2170 PH: 1300 880 481
00	02/04/19	DRAWN: MELISSA JESTRE	Road Name:	ANZAC STREET	Road Type:	TWO WAY	Speed Limit:	50 KPH	Travelled Path:	PAST	Operation:	VERGE CLOSURE				
			Works Location:	CORNER HIGH STREET												
			Suburb:	CANTERBURY												
			Map Reference:	-33.920016, 151.115241												



PLAN MAY NOT BE TO SCALE

14. Appendix B

14.1 Consultation Records

No.	DATE	COMPANY	RAISED BY	REVIEW DOC. NO.*	DOCUMENT REF*	DEED REF*	COMMENTS / RESPONSE	COMMENT CATEGORY*	CLOSED OUT
1	15/05/2019	SCO	S.Brown	SMCSWLWC-SYC-CTC-TF-PLN-000457	Executive Summary (p6)		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	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.	Yes
2	15/05/2019	SCO	S.Brown	SMCSWLWC-SYC-CTC-TF-PLN-000457	Description of Proposed Works and Lane/Road Closures (p8)		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.	Indicative duration included in section 3.1 and TCP's showing the road closures arrangement.	Yes
3	15/05/2019	SCO	S.Brown	SMCSWLWC-SYC-CTC-TF-PLN-000457	Description of Proposed Works and Lane/Road Closures (p8)		Approval for night time lane closures on Canterbury Rd may be subject to variation depending on day of the week and time of year	ROL to be submitted for approval Canterbury Rd at night time. Dates will be nominated in ROL application.	Yes

No.	DATE	COMPANY	RAISED BY	REVIEW DOC. NO.*	DOCUMENT REF*	DEED REF*	COMMENTS / RESPONSE	COMMENT CATEGORY*	CLOSED OUT
4	15/05/2019	SCO	S.Brown	SMCSWLWC-SYC-CTC-TF-PLN-000457	5.1 Minimising Delay During Implementation of Road Occupancies		It is unclear what is meant by delaying the "free flow of traffic in any direction by more than 500m". Also what is the plan should there be broken down vehicles or illegally parked vehicles adjacent to the work area or within road corridor	<p>Minimising the delay in traffic ques, is meant by "will not delay free flow of traffic in any direction by 500 metres"</p> <p>Police will be contacted to advise of illegally parked vehicles and assist in contacting owners.</p> <p>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.</p>	Yes
5	15/05/2019	SCO	S.Brown	SMCSWLWC-SYC-CTC-TF-PLN-000457	Assessment of Public Transport Services Affected (p12)		The contractor will need to consult with STA regarding impacts to bus services and Bus Stops	Reference included in section 6. Assesment of public transport services affected. Consulted Transit Systems, suggested night time where the works affecting the bus stops.	Yes
6	15/05/2019	SCO	S.Brown	SMCSWLWC-SYC-CTC-TF-PLN-000457	11.6 - Identification of Key Stakeholders		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.	Yes
7	15/05/2019	SCO	S.Brown	SMCSWLWC-SYC-CTC-TF-PLN-000457	Public Parking / TCP Stage 2		How will access to driveways/properties be managed within the closed section of Lilian St	Lilian st will be broken down into sections, driveways & properties will be maintained under direction of traffic controller. "Local Access Only". TCP has been revised.	Yes
8	15/05/2019	SCO	S.Brown	SMCSWLWC-SYC-CTC-TF-PLN-000457	Stages 6, 7, 8, 9, 12 & 13		Further detail is required to show how traffic is managed through the various Work Zones	TCP's have been amended for more details.	Yes

No.	DATE	COMPANY	RAISED BY	REVIEW DOC. NO.*	DOCUMENT REF*	DEED REF*	COMMENTS / RESPONSE	COMMENT CATEGORY*	CLOSED OUT
9	15/05/2019	SCO	S.Brown	SMCSWLWC-SYC-CTC-TF-PLN-000457	Stages 11.1 & 11.2		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.	Right turns will be permitted hence the break in cones.	Yes
10	15/05/2019	SCO	S.Brown	SMCSWLWC-SYC-CTC-TF-PLN-000457	General		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.	ROL to be submitted for approval Canterbury Rd where works are within 100mm of traffic signals.	Yes
11	17/05/2019	S Metro	PAB	SMCSWLWC-SYC-CTC-TF-PLN-000457			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.	No action required. As per SCO comments.	Yes
12	17/05/2019	S Metro	PAB	SMCSWLWC-SYC-CTC-TF-PLN-000457			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.	Discussed with SCO/RMS in TCG meeting. Escalation procedure and project emergency response plan will be followed and access will be maintained during emergency.	Yes

No.	DATE	COMPANY	RAISED BY	REVIEW DOC. NO.*	DOCUMENT REF*	DEED REF*	COMMENTS / RESPONSE	COMMENT CATEGORY*	CLOSED OUT
13	16/05/2019	S Metro	KH	SMCSWLWC-SYC-CTC-TF-PLN-000457	Section 1.1.1 Abbreviations, p.5		AS' - If to be used for a specific Australian Standard then should include the Standard number e.g. AS 1742.3	Revised as per request (Section 1.1)	Yes
14	16/05/2019	S Metro	KH	SMCSWLWC-SYC-CTC-TF-PLN-000457	Section 1.1.1 Abbreviations, p.5		SISD' - delete the word 'provide'	Revised as per request (Section 1.1)	Yes
15	16/05/2019	S Metro	KH	SMCSWLWC-SYC-CTC-TF-PLN-000457	Section 1.1.1 Abbreviations, p.5		VMS' - is Variable Message Sign, not Vehicle Message Sign	Revised as per request (Section 1.1)	Yes
16	16/05/2019	S Metro	KH	SMCSWLWC-SYC-CTC-TF-PLN-000457	Section 1.1.2, References. P.5		TCAWS should reference the latest version (v.5, July 2018)	Revised as per request (Section 1.1)	Yes
17	16/05/2019	S Metro	KH	SMCSWLWC-SYC-CTC-TF-PLN-000457	Description of Proposed Works and Lane/road closures, p.8		Provide definition of 'TR Testing' as not included in definitions.	Revised as per requested. TR - Thermal Resistivity (Section 1.1)	Yes
18	16/05/2019	S Metro	KH	SMCSWLWC-SYC-CTC-TF-PLN-000457	Section 1.1.6, p.8, 1st para		TMC is Transport Management Centre, not Traffic Management Centre.	Revised as per request (Section 3.2)	Yes
19	16/05/2019	S Metro	KH	SMCSWLWC-SYC-CTC-TF-PLN-000457	Section 1.1.9, 6th dot point, p.10.		"pre-duck"?	pre-dusk (early evening) - (Section 5.1)	Yes
20	16/05/2019	S Metro	KH	SMCSWLWC-SYC-CTC-TF-PLN-000457	Assessment of Public Transport Services Affected, p.12		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.	Consulted Transit Systems, suggested night time where the works affecting the bus stops.	Yes
21	16/05/2019	S Metro	KH	SMCSWLWC-SYC-CTC-TF-PLN-000457	Public Car Parking, p.12		Last sentence does not make sense. Please clarify.	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.	Yes
22	16/05/2019	S Metro	KH	SMCSWLWC-SYC-CTC-TF-PLN-000457	Section 1.1.18, p.18, 2nd para & Section 1.1.21, p.19		Should also include Canterbury Bankstown council as the road manager for local and Regional roads.	Revised as per request. Included Canterbury Bankstown Council (Section 11)	Yes

No.	DATE	COMPANY	RAISED BY	REVIEW DOC. NO.*	DOCUMENT REF*	DEED REF*	COMMENTS / RESPONSE	COMMENT CATEGORY*	CLOSED OUT
23	16/05/2019	S Metro	KH	SMCSWLWC-SYC-CTC-TF-PLN-000457	Section 1.1.23, p.19, Identification of key stakeholders, 2nd dot point		Should be 'Fire & Rescue NSW' not Bush Fire Brigade	Revised as per request (Section 11.6)	Yes
24	16/05/2019	S Metro	KH	SMCSWLWC-SYC-CTC-TF-PLN-000457	Section 1.1.25, p.19 notification Requirements to Authorities		Should include TMC, SCO & Council as relevant stakeholders.	Revised as per request (Section 11.8)	Yes
25	16/05/2019	S Metro	KH	SMCSWLWC-SYC-CTC-TF-PLN-000457	Section 1.1.30. Restrictions of Traffic Lanes, p.21		Stopping traffic in both directions' - "for a period no longer than is deemed necessary" 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.	Revised as per request. Not more than 3 mins. (Section 12.5)	Yes
26	16/05/2019	S Metro	KH	SMCSWLWC-SYC-CTC-TF-PLN-000457	Section 1.1.38, Temporary Road Safety Barriers & End Treatments, 3rd para, p.23		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"	Revised as per request. (Section 12.13)	Yes
27	16/05/2019	S Metro	KH	SMCSWLWC-SYC-CTC-TF-PLN-000457	Section 1.1.40 Traffic Guidance Schemes, Plan 184847, Stage 2 TCP		Why detour signs in South Parade and Beamish Street as vehicles cannot enter Lilian Lane from these streets.	TCP has been revised without detour signs.	Yes
28	16/05/2019	S Metro	KH	SMCSWLWC-SYC-CTC-TF-PLN-000457	Section 1.1.40 Traffic Guidance Schemes, Plan 184848, Stage 3 TCP		At Dewar St/Lilian Lane intersection should include a sign "No access to Beamish St".	Not required as detour signs are in place to guide vehicles back to beamish st.	Yes
29	16/05/2019	S Metro	KH	SMCSWLWC-SYC-CTC-TF-PLN-000457	Section 1.1.40 Traffic Guidance Schemes, Plan 184848, Stage 3 TCP		How will local traffic be controlled in Lilian Lane as they will need to exit to the west, against the One Way restriction.	Traffic controllers will assist on stop/slow to allow exit from vehicles exiting	Yes

No.	DATE	COMPANY	RAISED BY	REVIEW DOC. NO.*	DOCUMENT REF*	DEED REF*	COMMENTS / RESPONSE	COMMENT CATEGORY*	CLOSED OUT
30	16/05/2019	S Metro	KH	SMCSWLWC-SYC-CTC-TF-PLN-000457	Section 1.1.40 Traffic Guidance Schemes, Plan 184849, Stage 4 TCP		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.	Yes
31	16/05/2019	S Metro	KH	SMCSWLWC-SYC-CTC-TF-PLN-000457	Section 1.1.40 Traffic Guidance Schemes, Plan 184849 and 184850, Stage 4 & 5 TCP		There is no plan provided for traffic control for the crossing of the 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.	Yes
32	16/05/2019	S Metro	KH	SMCSWLWC-SYC-CTC-TF-PLN-000457	Section 1.1.40 Traffic Guidance Schemes, Plan 184856 and 186228, Stage 11.1 & 11.2 TCP		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.	Yes
33	15/05/2019	RMS	Chao Chen	PWZTMP - 0038127305	General TCP		What are the duration of each stages ? How many shifts are anticipated?	Noted - Indicative duration included in section 3.1 and attachment "Services Investigation Routes"	Yes
34	15/05/2019	RMS	Chao Chen	PWZTMP - 0038127305	General TCP		Detour plan / road closures need to be reviewed and approved by the LTC	Noted - road closures and detour plans are being reviewed LTC.	Yes
35	15/05/2019	RMS	Chao Chen	PWZTMP - 0038127305	Stage 3 TCP		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.	Yes
36	15/05/2019	RMS	Chao Chen	PWZTMP - 0038127305	Stage 4 TCP		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.	Yes
37	15/05/2019	RMS	Chao Chen	PWZTMP - 0038127305	Stage 4 TCP		STA review and approval	Consulted Transit Systems, suggested night time where the works affecting the bus stops.	Yes

No.	DATE	COMPANY	RAISED BY	REVIEW DOC. NO.*	DOCUMENT REF*	DEED REF*	COMMENTS / RESPONSE	COMMENT CATEGORY*	CLOSED OUT
38	15/05/2019	RMS	Chao Chen	PWZTMP - 0038127305	Stage 6, 7 , 8 , 9 TCPs		The PINK highlighted area includes the intersection with Stop and Slow. Will the traffic controller stop all direction and hold traffic? For how long?	3minutes, buses will be given priority	Yes
39	15/05/2019	RMS	Chao Chen	PWZTMP - 0038127305	Stage 11		ROL to be approved by TMC prior to commencement	Noted - Observation - ROL will be submitted for approval	Yes
40	15/05/2019	RMS	Chao Chen	PWZTMP - 0038127305	Stage 11		Property access to be maintained	Noted - Property access will be maintained with the assistance of traffic controllers.	Yes
41	13/05/2019	CBC	James Nguyen	SMCSWLWC-SYC-CTC-TF-PLN-000457	Campsie - Canterbury BPS Route Investigations Traffic Management Plan	A.02	Ensure the bus service operator is notified of any works that would impact bus services	Consulted Transit Systems, suggested night time where the works affecting the bus stops. Dates will be discussed and confirmed with Transit Systems.	Yes
42	13/05/2019	CBC	James Nguyen				How long do you need the parking spaces in the public car park on South Parade	Vehicles can get in and out the car park with traffic controller assistance.	Yes
43	13/05/2019	CBC	James Nguyen				Provide swept paths for all routes	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.	Yes
44	13/05/2019	CBC	James Nguyen				Any roadside furniture or traffic control devices that are to be removed due to impeding over-dimension vehicles MUST be re-instated.	Revised as per request. (Section 9.1)	Yes



Traffic Management Plan Approval Major Projects

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)
Subject:	Sydney Metro City & Southwest Line Wide Works -Traffic Management Plan Canterbury to Campsie Bulk Power Supply Investigations (SMCSWLWC-SYC-CTC-TF-PLN-000457 Rev D)		

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 Bankstown 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

1. Sydney Metro City & Southwest Line Wide Works -Traffic Management Plan Canterbury to Campsie Bulk Power Supply Investigations (SMCSWLWC-SYC-CTC-TF-PLN-000457 Rev D)

Anthony McMahon
28.6.19

Anthony McMahon

Recommended

Nicolas Kocoski

Nicolas Kocoski

Senior Manager

Network & Safety Services

South East Precinct

Nicolas Kocoski

Approved / Not Approved

A. Berry

~~Slissa~~

Recommended

28.6.19

M. Prendergast
28.6.19

M Prendergast

Recommended