



Sydney Metro City & Southwest Southwest Metro Early Works Construction Traffic Management Plan

SMCSWSSJ-JHL-WEC-TF-PLN-000002

Document and Revision History

Document Details	
Title	Southwest Metro Early Works Construction Traffic Management Plan
Client	Sydney Metro City & Southwest
Client reference no.	SMCSWSSJ-JHL-WEC-TF-PLN-000002
JHLOR JV contract no.	K44

Revisions

Revision	Date	Description	Prepared by	Reviewed by
0	18 April 2019	Issued for External Review	Bitzios Consulting	T. Wheatley
1	27 May 2019	Issued for External Review	Bitzios Consulting	P. Fields
2	1 July 2019	Issued for External Review	Bitzios Consulting	P. Fields
3	24 July 2019	Issued for External Review	Bitzios Consulting	P. Fields
4	28 August 2019	Issued for External Review	Bitzios Consulting	P. Fields
5	11 November 2019	Issued for External Review	S. Sikdar	P. Fields
6	20 December 2019	Issued for External Review	S. O'Sullivan	P. Fields
7	25 February 2020	Issued for Internal Project Review	Yew Toh	P. Fields
8	22 June 2020	Issued for External Review	Shome Sikdar	P. Fields
9	8 th September 2020	Issued for External Review	Shome Sikdar	B.Grace

Management reviews

Review date	Details	Reviewed by
23 April 2019	Reviewed	David Williams, Paul Fields

Controlled: NO

Copy no.:

Uncontrolled: YES

Compliance Matrix

1.1.1.1.1.1 The Project was assessed as a Critical State Significance Infrastructure (CSSI) by the Minister for Planning by virtue of clause 5 of Schedule 5 of the State Environmental Planning Policy (State and regional Development) 2011 (NSW) and section 5.13 of the Environmental Planning and Assessment Act 1979 (NSW). The Minister’s Conditions of Approval (CoA) were granted on 12 December 2018 with conditions. A Construction Traffic Management Plan is required in accordance with the Conditions of Approval. Additionally, a number of Revised Environmental Mitigation Measures (REMMs) relating to traffic management are applicable to the Southwest Metro Early Works (SMEW) and have been referenced accordingly below.

Conditions of Approval (CoA)

Clause	Requirement	Document Reference or Response
A22	Work must not commence until an ER has been approved by the Planning Secretary and engaged by the Proponent.	Section 2.7.2
A23	The Planning Secretary’s approval of an ER must be sought no later than one (1) month before the commencement of Work.	Section 2.7.2
A36	The Department must be notified in writing to compliance@planning.nsw.gov.au immediately after the Proponent becomes aware of an incident. The notification must identify the CSSI (including the application number and the name of the CSSI if it has one) and set out the location and nature of the incident.	Section 1.6
A37	Subsequent notification must be given, and reports submitted in accordance with the requirements set out in CoA Appendix A.	Section 2.6
E19	Work must only be undertaken during the following Construction hours: (a) 7:00am to 6:00pm Mondays to Fridays, inclusive; (b) 8:00am to 6:00pm Saturdays; and (c) at no time on Sundays or public holidays.	Section 2.5

Clause	Requirement	Document Reference or Response
E20	<p>Notwithstanding Conditions E19 and E24 Work may be undertaken outside the hours specified in the following circumstances:</p> <p>(a) for the delivery of materials required by the NSW Police Force or other authority for safety reasons; or</p> <p>(b) where it is required in an emergency to avoid injury or the loss of life, to avoid damage or loss of property or to prevent environmental harm; or</p> <p>(c) where different Construction hours are permitted or required under an EPL in force in respect of the CSSI; or</p> <p>(d) Work approved under an Out-of-Hours Work Protocol for Work not subject to an EPL as required by Condition E25; or</p> <p>(e) Construction that causes LA_{eq(15 minute)} noise levels:</p> <ul style="list-style-type: none"> (i) no more than 5 dB(A) above the rating background level at any residence in accordance with the <i>Interim Construction Noise Guideline</i> (DECC, 2009), and (ii) no more than the 'Noise affected' noise management levels specified in Table 3 of the <i>Interim Construction Noise Guideline</i> (DECC, 2009) at other sensitive land uses, and (iii) continuous or impulsive vibration values, measured at the most affected residence are no more than the maximum values for human exposure to vibration, specified in Table 2.2 of <i>Assessing Vibration: a technical guideline</i> (DEC, 2006), and (iv) intermittent vibration values measured at the most affected residence are no more than the maximum values for human exposure to vibration, specified in Table 2.4 of <i>Assessing Vibration: a technical guideline</i> (DEC, 2006); or <p>(f) where a negotiated agreement has been reached with a substantial majority of sensitive receivers who are within the vicinity of and may be potentially affected by the particular Construction, and the noise management levels and/or limit for ground-borne noise and vibration (human comfort) cannot be achieved. All agreements must be in writing and a copy forwarded to the Planning Secretary at least one (1) week before the commencement of activities.</p> <p><i>Note: Section 5.24(1)(e) of the EP&A Act requires that an EPL be substantially consistent with this approval.</i></p>	Section 2.5.3
E21	<p>On becoming aware of the need for emergency Work in accordance with Condition E20(b), the Proponent must notify the ER and the EPA (if a EPL applies) of the need for that Work. The Proponent must use best endeavours to notify all noise and/or vibration affected sensitive receivers of the likely impact and duration of those Work.</p>	Section 2.5.3

Clause	Requirement	Document Reference or Response
E22	<p>Out-of-Hours Work that are regulated by an EPL as per Condition E20(c) or through the Out-of-Hours Work Protocol as per Condition E25 include:</p> <p>(a) Work which could result in a high risk to construction personnel or public safety, based on a risk assessment carried out in accordance with AS/NZS ISO 31000:2009 “Risk Management – Principles and Guidelines”; or</p> <p>(b) where the relevant road authority has advised the Proponent in writing that carrying out the activities could result in a high risk to road network operational performance; or</p> <p>(c) where the relevant utility service operator has advised the Proponent in writing that carrying out the activities could result in a high risk to the operation and integrity of the utility network; or</p> <p>(d) where the Transport for NSW Transport Management Centre (or other road authority) has advised the Proponent in writing that a road occupancy licence is required and will not be issued for the activities during the hours specified in Conditions E19 and E20; or</p> <p>(e) where Sydney Trains (or other rail authority) has advised the Proponent in writing that a Rail Possession is required.</p> <p><i>Note: Other Out-of-Hours Work can be undertaken with the approval of an EPL, or through the project’s Out-of-Hours Work Protocol for Work not subject to an EPL.</i></p>	Section 2.5.3
E23	<p>In order to undertake Out-of-Hours Work, the Proponent must identify appropriate respite periods for the Out-of-Hours Work in consultation with the community at each affected location on a regular basis. This consultation must include (but not be limited to) providing the community with:</p> <p>(a) a schedule of likely Out-of-Hours Work for a period no less than two (2) months;</p> <p>(b) the potential work, location and duration;</p> <p>(c) the noise characteristics and likely noise levels of the Work; and</p> <p>(d) likely mitigation and management measures.</p> <p>The outcomes of the community consultation, the identified respite periods and the scheduling of the likely Out-of-Hours Work must be provided to the EPA (if an EPL applies) and the Planning Secretary (for high risk activities after 9pm) upon request.</p>	Section 2.5.3
E46	<p>The Proponent must establish a Traffic and Transport Liaison Group(s) (TTLGs) to inform traffic and transport management measures during Construction and Operation of the CSSI. Management measures must be coordinated with the RMS following consultation with the Sydney Coordination Office the Relevant Roads Authority.</p> <p>The TTLG must comprise representatives from the Relevant Road Authority(ies), transport operators (including bus and taxi operators) and emergency services as required. The TTLG must be consulted to inform preparation of the Construction Traffic Management Plan(s).</p>	Section 8
E47	<p>Construction Traffic Management Plans (CTMPs) must be prepared for each Construction site or stage (or Low Impact Activity where required) in accordance with the CEMF and relevant Austroads, Australian Standards and RMS requirements. The CTMPs must be submitted to the RMS following engagement with the Sydney Coordination Office and before Construction commences at the relevant Construction site or stage. A copy of the Construction Traffic Management Plans must be submitted to the Planning Secretary for information.</p>	This Plan Section 1.1
E48	<p>The Proponent must prepare a Temporary Transport Management Plan in accordance with the Temporary Transport Strategy included in documents listed in Condition A1 one (1) month before the implementation of the Plan.</p>	Not applicable to SMEW in accordance with the Staging Report

Clause	Requirement	Document Reference or Response
E49	Before any local road is used by a heavy vehicle for the purposes of Construction of the CSSI, a Road Dilapidation Report must be prepared for the road. A copy of the Road Dilapidation Report must be provided to the relevant council(s) within four (4) weeks of completion of the survey and at least two (2) weeks before the road is used by heavy vehicles associated with the Construction of the CSSI.	Section 3.7
E50	If damage to local roads occurs as a result of Construction of the CSSI, the Proponent must either: (a) compensate the relevant road authority for the damage so caused. The amount of compensation may be agreed with the relevant road authority; or (b) rectify the damage to restore the road to at least the condition it was in pre-Construction as identified in the Road Dilapidation Report(s) .	Section 3.7
E51	During Construction, all reasonably practicable measures must be implemented to maintain pedestrian and vehicular access to, and parking in the vicinity of, businesses and affected properties. Disruptions are to be avoided, and where avoidance is not possible, minimised. Where disruption cannot be minimised, alternative pedestrian and vehicular access must be provided, and opportunities for parking arrangements must be investigated in consultation with affected businesses/properties and implemented before the disruption. Adequate signage and directions to businesses/properties must be provided before, and for the duration of, any disruption.	Section 3.4 Section 3.11 Section 8
E52	Safe pedestrian and cyclist access must be maintained around Work sites during Construction. In circumstances where pedestrian and cyclist access is restricted or removed due to Construction activities, an alternate route which complies with the relevant standards must be provided and signposted.	Section 3.5

Construction Environmental Management Framework (CEMF)

Clause	Requirement	Document Reference or Response
3.4	<p>Construction Environmental Management Sub-Plans</p> <p>a. Subject to Section 3.3(b) and Section 3.2(b) the Principal Contractor will prepare issue-specific environmental sub plans to the CEMP and SMP which address each of the relevant environmental impacts at a particular site or stage of the project. Issue specific sub plans will include:</p> <ul style="list-style-type: none"> i. Soil management; ii. Groundwater management; iii. Traffic and transport management; iv. Noise and vibration management; v. Heritage management; vi. Flora and fauna management; vii. Visual amenity management; viii. Carbon and energy management; ix. Materials management; x. Soil and water management; xi. Air quality management; and xii. Waste management and recycling. <p>b. Additional detail on the minimum requirements for these sub plans is provided in Sections 6-17 of the CEMF</p>	<p>It is noted that in accordance with the Sydney Metro City and Southwest Sydenham to Bankstown Staging Report, the CTMP is not a sub-plan of the Construction Environment Management Plan, it is a standalone Plan in accordance with CoA-E47</p>
3.7	<p>Condition Surveys</p> <p>a. Prior to the commencement of construction the Principal Contractors will offer Pre-construction Building Condition Surveys, in writing, to the owners of buildings where there is a potential for construction activities to cause cosmetic or structural damage. If accepted, the Principal Contractor will produce a comprehensive written and photographic condition report produced by an appropriate professional prior to relevant works commencing.</p> <p>b. Prior to the commencement of construction the Principal Contractor will prepare a Road Dilapidation Report for all local public roads proposed to be used by heavy vehicles.</p>	Section 3.7
3.8	<p>Register of Hold Points</p> <p>a. Principal Contractors will identify hold points, beyond which approval is required to proceed with a certain activity. Example activities include vegetation removal and water discharge. Hold points will be documented in relevant CEMPs.</p> <p>b. CEMF Table 1.4 provides the structure for the register of hold points as well as a preliminary list of hold points which will be implemented:</p> <ul style="list-style-type: none"> i. Hold Point: use of local roads by heavy vehicles ii. Release of hold point: Road Dilapidation Report iii. By Who: Appropriate Professional nominated by Principal Contractor 	Section 3.7

Clause	Requirement	Document Reference or Response
3.9	Training, Awareness and Competence	Section 2.7.3
	<p>a. Principal Contractors will be responsible for determining the training needs of their personnel. As a minimum this will include site induction, regular toolbox talks and topic specific environmental training as follows:</p> <ul style="list-style-type: none">i. The site induction will be provided to all site personnel and will include, as a minimum:<ul style="list-style-type: none">▪ Training purpose, objectives and key issues;▪ Contractor’s environmental policy and key performance indicators;▪ Due diligence, duty of care and responsibilities;▪ Relevant conditions of any environmental licence and/or the relevant conditions of approval;▪ Site specific issues and controls including those described in the environmental procedures;▪ Reporting procedure for environmental hazards and incidents; and▪ Communication protocols.ii. Toolbox talks will be held on a regular basis in order to provide a project or site wide update, including any key or recurring environmental issues; andiii. Topic specific environmental training should be based upon, but is not limited to, Issue specific subplans required under Section 3.4 (a) (i-xi).	
	<p>b. Principal Contractors will conduct a Training Needs Analysis which:</p> <ul style="list-style-type: none">i. Identifies that all staff are to receive an environmental induction and undertake environmental incident management training;ii. Identifies the competency requirements of staff that hold environmental roles and responsibilities documented within the Construction Environmental Management Plan and sub-plans;iii. Identifies appropriate training courses/events and the frequency of training to achieve and/or maintain these competency requirements; andiv. Implements and documents as part of the CEMP a training schedule that plans attendance at environmental training events, provides mechanisms to notify staff of their training requirements, and identifies staff who do not attend scheduled training events or who have overdue training requirements.	

Clause	Requirement	Document Reference or Response
3.12	<p>Roles and Responsibilities</p> <p>a. In relation to Roles and Responsibilities the CEMP will:</p> <ul style="list-style-type: none"> i. Describe the relationship between the Principal Contractor, TfNSW, key regulatory stakeholders, the independent environmental representative and the independent certifier; ii. For each role that has environmental accountabilities or responsibilities, including key personnel, provide a tabulated description of the authority and roles of key personnel, lines of responsibility and communication, minimum skill level requirements and their interface with the overall project organisation structure; iii. Provide details of each specialist environment, sustainability or planning consultant who is employed by the Principal Contractor including the scope of their work; iv. Provide an overview of the role and responsibilities of the Independent Environmental Representative, the Independent Certifier and other regulatory stakeholders. <p>b. All sub-contractors engaged by the Principal Contractor will be required to operate within the EMS documentation of that Principal Contractor.</p>	Section 2.7
3.13	<p>Environmental Monitor, Inspections and Auditing</p> <p>a. Issue specific environmental monitoring will be undertaken as required or as additionally required by any approval, permit or licence conditions.</p> <p>b. The results of any monitoring undertaken as a requirement of the EPL will be published on the Principal Contractor's, or a project specific, website within 14 days of obtaining the results.</p> <p>c. Environmental inspections will include:</p> <ul style="list-style-type: none"> i. Surveillance of environmental mitigation measures by the Site Foreman; and ii. Periodic inspections by the Principal Contractor's Environmental Manager (or delegate) to verify the adequacy of all environmental mitigation measures. This will be documented in a formal inspection record. <p>d. Regular site inspections by the ERs and TfNSW representatives at a frequency to be agreed with the Principal Contractor.</p> <p>e. Principal Contractors must undertake internal environmental audits. The scope will include:</p> <ul style="list-style-type: none"> i. Compliance with any approval, permit or licence conditions; ii. Compliance with the E&SMS, CEMP, SMP, sub-plans and procedures; iii. Community consultation and complaint response; iv. Environmental training records; and v. Environmental monitoring and inspection results. <p>f. TfNSW (or an independent environmental auditor) will also undertake periodic audits of the Principal Contractor's E&SMS and compliance with the environmental aspects of contract documentation, including this Construction Environmental Management Framework.</p>	<p>Section 2.7.2</p> <p>Section 2.7.3.2</p> <p>Section 2.7.4</p>

Clause	Requirement	Document Reference or Response
3.14	<p>Environmental Non-compliances</p> <p>Principal Contractors will document and detail any non-compliances arising out of the above monitoring, inspections and audits. TfNSW will be made aware of all non-compliances in a timely manner;</p> <p>Principal Contractors will develop and implement corrective actions to rectify the non-compliances and preventative actions in order to prevent a re-occurrence of the non-compliance. Contractors will also maintain a register of non compliances, corrective actions and preventative actions;</p> <p>TfNSW or the Environmental Representative may raise non-compliances against environmental requirements.</p>	<p>Section 2.7.2 Section 2.7.3.2</p>
3.15	<ul style="list-style-type: none"> ▪ Principal Contractors will maintain appropriate records of the following: <ul style="list-style-type: none"> i. Site inspections, audits, monitoring, reviews or remedial actions; ii. Documentation as required by performance conditions, approvals, licences and legislation; iii. Modifications to site environmental documentation (eg CEMP, sub-plans and procedures); and iv. Other records as required by this Construction Environmental Management Framework. <p>Records will be retained onsite for the duration of works.</p> <p>Additionally, records will be retained by the Principal Contractor for a period of no less than 7 years. Records will be made available in a timely manner to TfNSW (or their representative) upon request.</p> <p>Compliance reports detailing the outcome of any environmental surveillance activity including internal and external audits (refer to Section 3.13) will be produced by the Principal Contractors Environmental Manager or delegate. These reports will be submitted to TfNSW at an agreed frequency.</p>	<p>Section 2.7.3.3</p>
3.16	<p>Review and Improvement of E&SMS.</p> <ul style="list-style-type: none"> ▪ Principal Contractors will ensure the continual review and improvement of the E&SMS. This will generally occur in response to: <ul style="list-style-type: none"> i. Issues raised during environmental surveillance and monitoring; ii. Expanded scope of works; iii. Environmental incidents; and iv. Environmental non-conformances <p>A formal review of the E&SMS by the Principal Contractor’s Senior Management Team will also occur on an annual basis, as a minimum. This review shall generate actions for the continual improvement of the E&SMS and supporting management plans.</p>	<p>Section 2.7.3.2</p>

Clause	Requirement	Document Reference or Response
5.1	<p>Working Hours</p> <ul style="list-style-type: none"> ▪ Standard working hours are between 7am – 6pm on weekdays and 8am – 1pm on Saturdays. ▪ Works which can be undertaken outside of standard construction hours without any further approval include: <ul style="list-style-type: none"> i. Those which have been described in respective environmental assessments as being required to take place 24/7. For example, tunnelling and underground excavations and supporting activities will be required 24/7; ii. Works which are determined to comply with the relevant Noise Management Level at sensitive receivers; iii. The delivery of materials outside of approved hours as required by the Police or other authorities (including RMS) for safety reasons; iv. Where it is required to avoid the loss of lives, property and / or to prevent environmental harm in an emergency; and v. Where written agreement is reached with all affected receivers. <p>Principal Contractors may apply for EPA approval to undertake works outside of normal working hours under their respective Environment Protection Licences.</p>	<p>Section 2.5.2</p> <p>Section 2.5.3</p>
5.2	<ul style="list-style-type: none"> ▪ Principal Contractors will consider the following in the layout of construction sites: <ul style="list-style-type: none"> i. The location of noise intensive works and 24 hour activities in relation to noise sensitive receivers; ii. The location of site access and egress points in relation to noise and light sensitive receivers, especially for sites proposed to be utilised 24 hours per day; iii. The use of site buildings to shield noisy activities from receivers; iv. The use of noise barriers and / or acoustic sheds where feasible and reasonable for sites proposed to be regularly used outside of daytime hours; and v. Aim to minimise the requirement for reversing, especially of heavy vehicles. 	<p>Section 2.7.3</p>

8.1

Construction Traffic Management Objectives

- Construction traffic management will be managed using the following documentation, where relevant:
 - i. Construction Traffic Management Plan;
 - ii. Traffic Management Plan (For each work site)
 - iii. Traffic Staging Plan (for road works);
 - iv. Traffic Control Plan (for road works);
 - v. Vehicle Movement Plan (internal to construction site);
 - vi. Pedestrian Management Plan (around construction sites); and
 - vii. Parking Management Plan (loss of parking).
- Principal Contractors will develop and implement a Construction Traffic Management Plan for their scope of works. The Construction Traffic Management Plan will as a minimum:
 - i. Implement the traffic and transport mitigation measures as detailed in the environmental approval documentation;
 - ii. Be developed in consultation with the relevant road authority, CBD Coordinator General (CCO) and / or transport operator;
 - iii. Set out the overall traffic management resources, processes and procedures for the management of traffic and transport during construction of the Project Works and Temporary Works.
 - iv. Identify types and volumes of construction vehicles and associated route and time restrictions;
 - v. Identify traffic generation from other major infrastructure developments, impact from construction traffic and haulage routes; and
 - vi. Identify potential activities that could result in the disruption to traffic and transport networks, including pedestrian, cyclist and public transport networks and during special events.

This document is the Construction Traffic Management Plan and also includes:

- Appendix B – Traffic Control Plans
- Appendix C – Vehicle Management Plans, Pedestrian Movement Plans, and Worker Walking Routes
- Parking Management Plan: Section 3.11

The individual construction traffic plans listed in (a) are to comply with and address the requirements of RMS Traffic Control at Worksites Manual AS 1742.3, Manual of uniform traffic control devices Part 3: Traffic control for works on roads, relevant Austroads Guides, and RMS Supplements to Austroads and Australian Standards s and during special events.

The process for the development of Traffic Management Plans (TMP) including the minimum requirements as detailed in Specification G10 and as required by the relevant road authorities.

The process for the development of Traffic Staging Plans (TSP) including the minimum requirements for these TSP including road design drawings showing traffic lane configurations for traffic passing through the site during various construction stages, including details of road alignment and geometry, intersection layouts, provision for buses and cyclists, work areas and pedestrian areas, drainage, signs and pavement

The process for the development of Traffic Control Plans (TCP). The TCPs will set out the specific traffic and transport management arrangements to be implemented at specific locations during the construction of the Project Works and Temporary Works.

The process for the development of Vehicle Movement Plan (VMP). The content of a VMP will include:

- i. A diagram showing the preferred travel paths for vehicles associated with a work site entering, leaving or crossing the through traffic stream. A VMP may be combined with or superimposed on a TCP; and
- ii. The vehicle entry and exit points into the work area, and indicate clearly that these are the only points where interface with through traffic is permitted.

The process for the development of a Pedestrian Movement Plan (PMP). The content of the PMP will include:

Clause	Requirement	Document Reference or Response
	<ul style="list-style-type: none"> i. A diagram showing the allocated travel paths for workers or pedestrian around or through a worksite. A PMP may be combined or superimposed on a TCP; and ii. A diagram showing all signs and devices used to guide the workers or pedestrians. <p>The process for the development of a Parking Management Plan (PkMP). The PkMP will identify:</p> <ul style="list-style-type: none"> i. Parking requirements and on and offsite parking arrangements and associated impacts; ii. Remote parking arrangements and associated access between sites and public transport nodes; iii. Communication and parking management measures; and iv. Proposals for relocation of impacted users for any Sydney CBD kerbside use impacts during the construction period. <p>TfNSW and its Contractors will undertake liaison with agencies and the community regarding traffic management. This may involve:</p> <ul style="list-style-type: none"> i. Establishment of a Traffic and Transport Liaison Group which could consist of representatives from Sydney Metro Contractors, TfNSW, CCO, WestConnex, RMS, TMC, NSW Police, relevant councils, emergency services, and bus operators. The group would review and provide feedback on: <ul style="list-style-type: none"> ▪ Road Occupancy Licence (ROL) applications to monitor potential cumulative impacts from multiple ROLs operating concurrently in one area; ▪ Be consulted on the preparation of Construction Traffic Management Plans and supporting plans; and ▪ Consultation with the CCO, RMS, TMC and others in relation to the approval of Construction Traffic Management Plans, supporting Plans, or related licences for works within and external to the CBD. 	
8.3	<p>Construction Traffic Management</p> <ul style="list-style-type: none"> ▪ Examples of traffic mitigation measures include: <ul style="list-style-type: none"> i. Minimising heavy vehicle movements during peak traffic times; ii. Avoidance of local roads for heavy vehicle routes, where feasible; iii. Providing for safe pedestrian and cyclist movements around the worksites; and iv. Where feasible and reasonable, contractors will provide its workforce with satellite car parking and buses to transport them to the worksites. 	Section 3

Revised Environmental Mitigation Measures (REMMs)

Clause	Requirement	Document Reference or Response	Responsible Party
TC1 Applies to: All stations	<p>Temporary transport arrangements</p> <p>Guided by the Temporary Transport Strategy, detailed temporary transport plan/s would be developed prior to construction to manage the movement of people along the T3 Bankstown Line during possession periods. The plans would be developed in consultation with key stakeholders (including the Transport for NSW, Sydney Coordination Office, Roads and Maritime Services, Sydney Trains, local councils, emergency services, and bus operators), and would address the requirements specified by the Temporary Transport Strategy. The development of each plan would consider, as a minimum:</p> <ul style="list-style-type: none"> ▪ a review of the road network constraints along any proposed rail replacement bus route ▪ further traffic analysis of key intersections used by rail replacement buses ▪ potential impacts to local road networks affected by rail passengers diverting to cars to reach their destinations ▪ the design of temporary facilities at bus stop locations in consultation with the relevant road authority ▪ expected changes to parking demand at other stations, displacement of existing parking, and any upgrades that may be required. 	<p>Not applicable to SMEW in accordance with the Staging Report</p> <p>Temporary transport strategies would be created once the scope of the rail corridor possessions is further developed. The temporary transport strategies would complement the CTMP.</p>	N/A
TC2 Applies to: All stations	<p>Sydney Metro would consult with Transport for NSW, Roads and Maritime Services, the State Transit Authority, the Inner West and Canterbury-Bankstown councils, and bus operators, to identify opportunities to minimise impacts to bus layovers and existing bus stops during operation of rail replacement buses.</p>	<p>Not applicable to SMEW in accordance with the Staging Report</p> <p>Specific modifications to bus operations would be discussed at a future date when further project details are developed.</p>	N/A
TC3 Applies to: Bridge Works	<p>The impacts on the surrounding road network of lane closures resulting from bridge works across the rail corridor would be assessed in detail, to identify the suite of management measures to be implemented for each closure required. This would be undertaken in consultation with Transport for NSW, Roads and Maritime Services, the Sydney Coordination Office, the Inner West and Canterbury-Bankstown councils, emergency services, and relevant bus operators. Planning for partial bridge closures would consider bus rerouting and timetabling, with the intention of minimising impacts to bus customers and bus operators.</p>	<p>The requirements pertaining to each bridge closure would be determined once more project details are available. The CTMP would be updated to reflect the bridge closures. Section 2.2</p>	Principal Contractor

Clause	Requirement	Document Reference or Response	Responsible Party
TC4 Applies to: All stations	Parking Impacts during construction Opportunities to reduce the loss of existing on and off street car parking (including the amount of spaces reduced and the time associated with this reduction) would be reviewed during detailed design and construction planning.	Section 3.11 Section 4	Principal Contractor
TC5 Applies to: All stations	Where parking spaces are lost or access is impeded, particularly for extended periods, alternative parking would be provided wherever feasible and reasonable. This would include consideration of other privately owned (or vacant) land within close proximity to affected stations.	Section 3.11	Principal Contractor
TC6: Applies to: All project works	Impacts of intersection performance Further consideration of the need for intersection modifications would be undertaken, to improve intersection performance at locations most affected by the addition of construction heavy vehicles and rail replacement buses. This would be undertaken in consultation with Transport for NSW, Roads and Maritime Services, the Sydney Coordination Office, and the relevant road authority. The improvements considered would include: <ul style="list-style-type: none"> ▪ modification to the existing traffic signal phasing ▪ lane priority changes ▪ changing lane designations (line markings and signage) ▪ kerbside changes (such as removing on street parking or implementing no standing zones at peak times to increase lane capacity) ▪ physical geometric changes (such as minor kerb cut-backs to enable large vehicles to safely move through intersections) ▪ restricting turning movements where traffic demand is low. 	Not applicable to SMEW in accordance with the Staging Report	N/A
TC7 Applies to: All stations	Changes to cyclist facilities during construction Where existing cycle facilities (e.g. bike parking) would be temporarily unavailable at a station, suitable replacement facilities would be provided while the facility is unavailable.	Section 3.5	Principal Contractor
TC8 Applies to: All project works	Management of traffic, transport and access A construction traffic management plan would be prepared and implemented prior to construction. The plan would be prepared in accordance with the Construction Environmental Management Framework, and would detail, as a minimum: <ul style="list-style-type: none"> ▪ how traffic would be managed when construction works are being carried out ▪ the activities proposed and their impact on the road network and on road users ▪ how these impacts would be addressed. The plan would be prepared in consultation with the Traffic and Transport Liaison Group, and would be approved by the relevant authority before construction commences.	The CTMP is this document.	Principal Contractor TTLG

Clause	Requirement	Document Reference or Response	Responsible Party
TC9 Applies to: All stations	Changes to public transport services and alternative transport arrangements Modification of existing bus stops, or implementation of new stops and alterations to service patterns, would be carried out by Sydney Metro in consultation with the Transport for NSW, Sydney Coordination Office, Roads and Maritime Services, the Inner West and Canterbury-Bankstown councils, and bus operators.	Not applicable to SMEW in accordance with the Staging Report	N/A
TC10 Applies to: All stations	Sydney Metro would undertake an extensive community awareness and information campaign before changes to public transport services are implemented. This would include a range of communication activities such as: <ul style="list-style-type: none"> ▪ information at stations ▪ wayfinding signage ▪ clearly marked bus stop locations ▪ letter box drops ▪ web based information and transport 'app' where changes to travel are found in a single place ▪ information via 131 500 ▪ advertising in local papers ▪ email information bulletins. 	Not applicable to SMEW in accordance with the Staging Report Under the Sydney Metro Overarching Community Communication Strategy, a project specific Community Communication Strategy is to be developed.	N/A
TC11 Applies to: All project works	Impacts on special events Consideration of special events would be undertaken as part of construction work programming. For special events that require specific traffic and pedestrian management, measures would be developed and implemented in consultation with Transport for NSW, Sydney Coordination Office, Roads and Maritime Services, the Inner West and Canterbury-Bankstown councils, and the organisers of the event.	Section 8.4	Principal Contractor
TC12 Applies to: All project works	Impacts of construction compounds and work sites Vehicle access to and from construction sites would be managed to ensure pedestrian, cyclist, and motorist safety. Depending on the location, this may require manual supervision, barrier placement, temporary traffic signals, modifications to existing traffic signals, or police assistance.	Section 3.1 Section 3.4 Section 3.5 Appendix C – Vehicle Management Plans, Pedestrian Movement Plans, and Worker Walking Routes	Principal Contractor
TC13 Applies to: All project works	Construction Vehicles Construction vehicles (including contractor staff vehicles) would be managed to: <ul style="list-style-type: none"> ▪ minimise parking or queuing on public roads ▪ minimise use of residential streets to gain access to work sites or compounds ▪ minimise vehicle movements near schools, particularly during school start and finish times. 	Section 2.5.1	Principal Contractor Vehicle Operators

Clause	Requirement	Document Reference or Response	Responsible Party
TC14 Applies to: All project works	Signage Directional signage and line marking would be used to direct and guide drivers, pedestrians, and other road users past construction compounds and work sites, and on the surrounding road network. This may be supplemented by variable message signs to advise drivers of potential delays, traffic diversions, speed restrictions, or alternate routes.	Section 3 Appendix B – Traffic Control Plans Appendix C – Vehicle Management Plans, Pedestrian Movement Plans, and Worker Walking Routes	Principal Contractor Traffic Controllers
TC15 Applies to: All project works	Construction parking impacts Construction sites would be managed to minimise construction worker parking on surrounding streets. A worker car parking strategy would be developed in consultation with the relevant local council to identify measures to reduce the impact on the availability of on street and off street parking. The strategy would identify potential mitigation measures including alternative parking locations. The strategy would encourage contractor staff to: <ul style="list-style-type: none"> ▪ use public transport ▪ car share ▪ park in a designated off site area and access construction sites via shuttle bus. 	Section 3.11	Principal Contractor
TC16 Applies to: All project works	Traffic incidents In the event of a traffic related incident, co-ordination would be carried out with the Sydney Coordination Office and Transport Management Centre’s Operations Manager.	Section 2.6	Principal Contractor Sydney Coordination Office Transport Management Centre’s Operations Manager
TC17 Applies to: All project works	Changes to road, pedestrian and cyclist networks The community would be notified in advance of proposed road and pedestrian network changes through appropriate forms of community notification.	Section 8.2	Principal Contractor
TC18 Applies to: All project works	Impacts on pedestrian or cyclist paths A condition survey would be undertaken to confirm changes to routes proposed to be used by pedestrians and/or cyclists are suitable (e.g. suitably paved and lit), with identified modification requirements discussed with the Inner West and/or Canterbury-Bankstown councils and implemented prior to use of the routes.	Section 3.4 Section 3.5	Principal Contractor

Clause	Requirement	Document Reference or Response	Responsible Party
TC19 Applies to: All project works	<p>Pedestrian, cyclist and motorist safety</p> <p>Pedestrian, cyclist, and motorist safety in the vicinity of the construction sites would be addressed during construction planning and development of the construction traffic management plan. Measures that may be implemented to assist in multi modal traffic management include:</p> <ul style="list-style-type: none"> ▪ speed awareness signs in conjunction with variable message signs near construction sites to provide alerts to drivers ▪ a community engagement program to provide road safety education and awareness to road users about sharing the road safely with heavy vehicles ▪ heavy vehicle training for drivers to understand route constraints, safety issues, and limiting the use of compression braking ▪ safety technology and equipment installed on heavy vehicles to enhance vehicle visibility, eliminate vehicles' blind spots, and monitor vehicle location, speeding compliance, and driver behaviour. 	Section 3.3.4 Section 3.11	Principal Contractor Vehicle Operators
TC20 Applies to: All project works	<p>Impacts to access</p> <p>Access for residents, businesses, and community infrastructure would be maintained. Where disruption to access cannot be avoided, consultation would be undertaken with the owners and occupants of affected properties, to confirm their access requirements and to discuss alternatives.</p>	Section 2.5.1 Section 8	Principal Contractor
TC21 Applies to: All project works	<p>Access to stations and surrounding properties for emergency vehicles would be provided at all times. Emergency service providers (i.e. police and ambulance) would be consulted throughout construction to ensure they are aware of station closures, changes to access, including bridge lane closures, and changes to station or rail corridor access.</p>	Section 3.3.5	Principal Contractor
TC22 Applies to: All project works	<p>Co-ordination of cumulative traffic effects</p> <p>The potential cumulative effects of construction traffic from multiple construction sites within the project would be further considered during development of the construction traffic management plan. Where there is potential for cumulative impacts across the project, these issues would be addressed with the assistance of the Traffic and Transport Liaison Group.</p>	Noted. Cumulative traffic effects would be addressed with TTLG.	Principal Contractor TTLG
NVC15 Applies to: All project works	<p>The routes for construction haulage vehicles and bus services associated with the Temporary Transport Strategy would be selected on the basis of compliance with the relevant road traffic noise criteria, where reasonable and feasible. Where compliance with the noise criteria is not possible, reasonable and feasible noise mitigation would be implemented.</p>	Section 2.2.3 Construction Noise and Vibration Management Plan	Principal Contractor

Table of Contents

Conditions of Approval (CoA) 2
Construction Environmental Management Framework (CEMF) 6
Revised Environmental Mitigation Measures (REMMs) 13
2. General Information 20
2.1 Purpose 20
2.2 Objectives 20
2.3 Scope 20
2.4 Review and Update 25
2.5 General Requirements 25
2.6 Incidents 28
2.7 Responsibilities 29
3. Traffic Management 34
3.1 Site Access 34
3.2 Traffic Routing 39
3.3 Traffic Management 49
3.4 Pedestrian Management 53
3.5 Cyclist Management 55
3.6 Traffic Modelling 55
3.7 Dilapidation Report 55
3.8 Public Transport 55
3.9 Other Impacts 56
3.10 JHLOR JV Works on the Roadway 56
3.11 Temporary Removal of Car Parking Spaces 56
3.12 Parking Management Plan 64
4. Traffic Signage and Control 65
4.1 Appropriate Signing 65
4.2 Traffic Control 67
5. Delineation at Work Site – Travel Paths 69
5.1 Delineation of the Travel Path 69
5.2 Worksites 70
5.3 Vehicle Movement Plan (VMP), Pedestrian Movement Plan (PMP) and Worker Walking Routes 70
6. Traffic Controllers 71
6.1 Traffic Controllers 71
7. Work on Footpaths 73
7.1 Pedestrian Considerations 73
7.2 Pedestrian Safety Points 75
8. Consultation with Relevant Stakeholders 76
8.1 Notifications 79
8.2 Community 80
8.3 Businesses 81

8.4 Special Events 81

9. Required Documentation..... 82

9.1 Road Safety Audit 82

10. Reference Documentation..... 83

11. Appendices..... 84

11.1 Appendix A – Heavy Vehicle Access Route Details 84

11.2 Appendix B – Traffic Control Plans..... 2

11.3 Appendix C – Vehicle Management Plans, Pedestrian Movement Plans, and Worker Walking Routes 5

11.4 Appendix D – Traffic Staging, Site Boundaries and Hoardings 6

11.5 Appendix E – Road Safety Audits 10

11.6 Appendix F – Stakeholder Consultation 25

11.7 Appendix G – Schedule of Possessions 26

11.8 Appendix H – Conditions of Approval: Written Incident Notification and Reporting Requirements 27

2. General Information

2.1 Purpose

The purpose of this Construction Traffic Management Plan is to ensure the safety of the public and maintain an accessible and efficient road network for all road users.

This document has been prepared to help John Holland Laing O'Rourke Joint Venture (JHLOR JV) staff to implement traffic and pedestrian/passenger management control measures when carrying out construction and related works located at the Southwest Metro Early Works (SMEW) project sites. This Construction Traffic Management Plan (CTMP) has been prepared to meet condition E47 of the project approval. This document also identifies where deviations are required from the Environmental Impact Statement (EIS) and Submissions and Preferred Infrastructure Report (SPIR).

The term 'traffic', wherever used in this CTMP, encompasses both vehicles and pedestrians movement. A vehicle is defined as a motorcar, bus, truck, motorcycle, and bicycle.

Traffic management shall be undertaken in a manner that shall provide for the safety of all JHLOR JV staff, subcontractors and the public and ensure road and footpath users are not exposed to foreseeable risks and issues. The aim of the plan is to understand the works involved and their locations and determine the management requirements to mitigate pedestrian and traffic related impact, if any, resulting from the works for the SMEW project.

As per CoA-E47 this CTMP is written in accordance with the CEMF and relevant Austroads, Australian Standards and RMS requirements. This CTMP will be submitted to the RMS following engagement with the Sydney Coordination Office and before Construction commences at the relevant Construction site or stage. A copy of the Construction Traffic Management Plan will be submitted to the Planning Secretary for information.

2.2 Objectives

The following traffic management objectives will apply to the construction of the project:

- Minimise disruption to traffic operation, road users, pedestrians, cyclists and access to adjoining properties (private and public)
- Maximise the safety for the workers, by isolating work areas from traffic flows, applying low exposure work methods, education and the installation of appropriate traffic control
- Limit obstructions and restrictions, and when required, provide alternatives to maintain access for local community, transport operators (buses) including over-dimension load movements and commercial developments
- Encourage sustainable transport options by site workers.

2.3 Scope

The Southwest Metro Early Works (SMEW) include the design and construction of:

- a new combined service route (CSR) for Sydney Metro City & Southwest systems from country side of Sydenham to Country side of Campsie; excluding Marrickville, Dulwich Hill, Hurlstone Park, Canterbury and Campsie Station areas, and Dulwich Hill and Canterbury traction substation areas. The CSR will mainly run in galvanised steel troughs (GST) within the rail corridor;
- partial connections from the CSR to Sydney Metro trackside equipment;

- relocation of Sydney Trains signal and communications services clear of the Campsie traction substation site; and
- all works required to enable the design and construction of the above items which includes all necessary investigations, security fencing, noise walls and embankment stabilisation works.

This document is the Construction Traffic Management Plan, which aims to manage and mitigate the impacts of construction traffic, road works, bridge works, and sets out the responsibilities and strategies involved in ensuring a safe environment is maintained for drivers, pedestrians, cyclists, and workers.

All workers, employees, subcontractors, employers and the management team, involved in the construction of the project shall adhere to this Construction Traffic Management Plan.

This CTMP will be in use for the entire duration of the SMEW works, which is planned to start by July / August 2019 and current scope set to complete by March 2021.

Construction works under this CTMP will commence once the CTMP has been approved. Works are currently being completed under the approved Pre-Construction Traffic Management Document.

The location of the proposed project area is shown in Figure 1, Figure 2 and Figure 3.

Figure 1 – Site Location



(Joins Figure 3 below)

Figure 2 – Site Location



(Joins Figure 2 above)

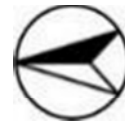
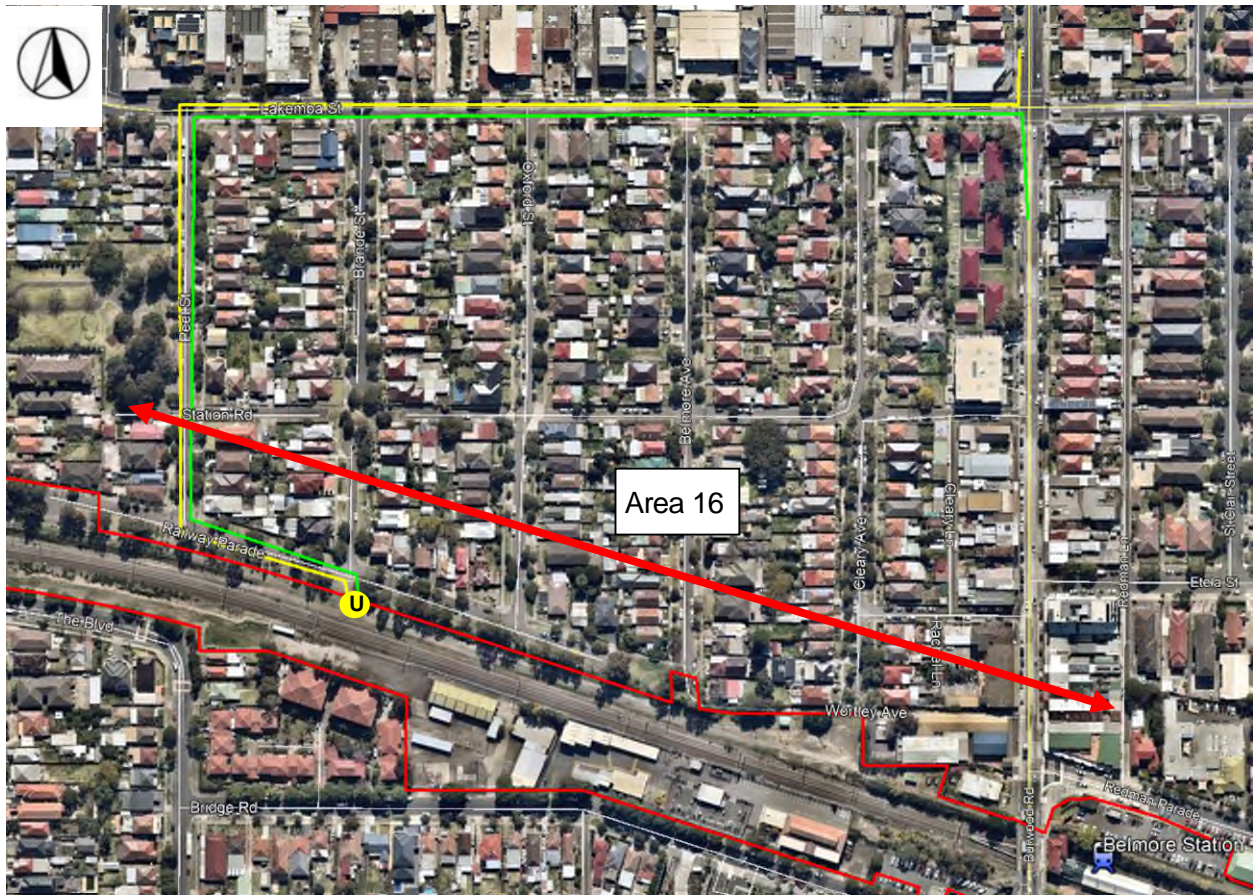


Figure 3 – Site Location

Country side of Belmore station



2.4 Review and Update

This CTMP will be submitted to the RMS following engagement with the Sydney Coordination Office and before Construction commences at the relevant Construction site or stage. A copy of the Construction Traffic Management Plan will be submitted to the Planning Secretary for information.

2.5 General Requirements

2.5.1 General

- Due to the residential nature of some of the surrounding streets, queuing and idling of heavy vehicles will not be permitted. This shall be managed by engaging trusted suppliers and scheduling heavy vehicle movements. Vehicles may only wait inside the worksite.
- Vehicles are to be managed to minimise use of residential streets to gain access to work sites or compounds, and to minimise vehicle movements near schools, particularly during start and finish times
- Access for residents, businesses, and community infrastructure is to be maintained. If this is not possible, consultation is to be undertaken with the affected owners and occupants in line with the Community Communication Strategy (see Section 8).

JHLORJV utilise Voyager Control software to manage site deliveries and Chain of Responsibility obligations. Voyager Control is a cloud based logistics platform for scheduling deliveries to a construction site. The system is designed to bring transparency to the delivery scheduling process and allow for more reliable delivery timeslots. The platform streamlines communication between the delivering company and the general contractor through one platform.

2.5.2 Work Hours

In accordance CoA-E19 vehicle movements associated with Construction works will occur within approved working hours, which are as follows:

- 7:00am to 6:00pm Mondays to Fridays, inclusive;
- 8:00am to 6:00pm Saturdays; and
- at no time on Sundays or public holidays.

It is noted that works within the rail corridor are to be undertaken in accordance with Condition O5.1 of Sydney Trains EPL 12208;

- 7:00am to 6:00pm Mondays to Fridays, inclusive;
- 8:00am to 6:00pm Saturdays; and
- at no time on Sundays or public holidays.

During possession periods, works may be undertaken 24 hours per day, and involve working both during and outside the recommended standard hours. During these periods, the use of highly noise intensive equipment would generally be limited to daytime and evening periods (between 7am and 10pm), unless technical constraints exist such as:

- Works requiring a rail shut down
- Requirements of relevant road authorities, emergency services or the Sydney Coordination Office.

Timing of works relating to Road Closures (including partial/full as noted in Section 3.2.4) may occur outside of standard working hours. This will be agreed in consultation with the relevant council as part of the road closure approval.

JHLORJV will endeavour to schedule HV movements to occur outside the following periods, however this will not be feasible in all instances:

- Weekday peak periods - morning (6am - 10am) and afternoon (3pm - 7pm)
- School Zone operating times (8am - 9:30am & 2:30 - 4pm).

2.5.3 [Out-of-Hours or Emergency Works](#)

CEMF Requirement:

Works which can be undertaken outside of standard construction hours without any further approval include:

- Those which have been described in respective environmental assessments as being required to take place 24/7. For example, tunnelling and underground excavations and supporting activities will be required 24/7;
- Works which are determined to comply with the relevant Noise Management Level at sensitive receivers;
- The delivery of materials outside of approved hours as required by the Police or other authorities (including RMS) for safety reasons;
- Where it is required to avoid the loss of lives, property and/or to prevent environmental harm in an emergency; and
- Where written agreement is reached with all affected receivers.

Principal Contractors may apply for EPA approval to undertake works outside of normal working hours under their respective Environment Protection Licences.

CoA Requirement:

Work may be undertaken outside the above hours under the following conditions:

- for the delivery of materials required by the NSW Police Force or other authority for safety reasons; or
- where it is required in an emergency to avoid injury or the loss of life, to avoid damage or loss of property or to prevent environmental harm; or
- where different Construction hours are permitted or required under an EPL in force in respect of the CSSI; or
- Work approved under an Out-of-Hours Work Protocol for Work not subject to an EPL as required by Condition E25; or
- Construction that causes LAeq(15 minute) noise levels:
 - no more than 5 dB(A) above the rating background level at any residence in accordance with the *Interim Construction Noise Guideline* (DECC, 2009), and
 - no more than the 'Noise affected' noise management levels specified in Table 3 of the *Interim Construction Noise Guideline* (DECC, 2009) at other sensitive land uses, and

- continuous or impulsive vibration values, measured at the most affected residence are no more than the maximum values for human exposure to vibration, specified in Table 2.2 of *Assessing Vibration: a technical guideline* (DEC, 2006), and
- intermittent vibration values measured at the most affected residence are no more than the maximum values for human exposure to vibration, specified in Table 2.4 of *Assessing Vibration: a technical guideline* (DEC, 2006); or
- where a negotiated agreement has been reached with a substantial majority of sensitive receivers who are within the vicinity of and may be potentially affected by the particular Construction, and the noise management levels and/or limit for ground-borne noise and vibration (human comfort) cannot be achieved. All agreements must be in writing and a copy forwarded to the Planning Secretary at least one (1) week before the commencement of activities.

Note: Section 5.24(1)(e) of the EP&A Act requires that an EPL be substantially consistent with the CoA.

On becoming aware of the need for emergency Work in accordance with CoA Condition E20(b), the Proponent must notify the ER and the EPA (if an EPL applies) of the need for that Work. The Proponent must use best endeavours to notify all noise and/or vibration affected sensitive receivers of the likely impact and duration of those Work.

Out-of-Hours Work that are regulated by an EPL as per Condition E20(c) or through the Out-of-Hours Work Protocol as per Condition E25 include:

- Work which could result in a high risk to construction personnel or public safety, based on a risk assessment carried out in accordance with AS/NZS ISO 31000:2009 “Risk Management – Principles and Guidelines”; or
- where the relevant road authority has advised the Proponent in writing that carrying out the activities could result in a high risk to road network operational performance; or
- where the relevant utility service operator has advised the Proponent in writing that carrying out the activities could result in a high risk to the operation and integrity of the utility network; or
- where the Transport for NSW Transport Management Centre (or other road authority) has advised the Proponent in writing that a road occupancy licence is required and will not be issued for the activities during the hours specified in Conditions E19 and E20; or
- where Sydney Trains (or other rail authority) has advised the Proponent in writing that a Rail Possession is required.

Note: Other Out-of-Hours Work can be undertaken with the approval of an EPL, or through the project’s Out-of-Hours Work Protocol for Work not subject to an EPL.

In order to undertake Out-of-Hours Work, the Proponent must identify appropriate respite periods for the Out-of-Hours Work in consultation with the community at each affected location on a regular basis. This consultation must include (but not be limited to) providing the community with:

- a schedule of likely Out-of-Hours Work for a period no less than two (2) months;
- the potential work, location and duration;
- the noise characteristics and likely noise levels of the Work; and
- likely mitigation and management measures.

The outcomes of the community consultation, the identified respite periods and the scheduling of the likely Out-of-Hours Work must be provided to the EPA (if an EPL applies) and the Planning Secretary (for high risk activities after 9pm) upon request.

2.5.4 Council Jurisdictions

All project works fall into the jurisdictions of two councils:

- All areas city-side of Garnett Street are under the jurisdiction of Inner West Council (IWC). This relates to project work from Area 1A through 7B (Rail Access Gates A to G) and Victoria Road, Albermarle Road and Ness Avenue (/Terrace Road) bridge works.
- All areas country-side of Garnett Street are under the jurisdiction of Canterbury and Bankstown Council (CBC). This relates to project work from Area 7C through 15A (Rail Access Gates H to T) and Foord Avenue, Charles Street/Cooks River and Wairoa Street bridge works.

Figure 4 – Council Jurisdictions



2.6 Incidents

The Department must be notified in writing to compliance@planning.nsw.gov.au immediately after the Proponent becomes aware of an incident. The notification must identify the CSSI (including the application number and the name of the CSSI if it has one) and set out the location and nature of the incident.

Subsequent notification must be given, and reports submitted in accordance with the requirements set out in CoA Appendix A, which is available in this CTMP as Section 11.8: Appendix H – Conditions of Approval: Written Incident Notification and Reporting Requirements.

In the event of a traffic related incident, co-ordination would be carried out with the Sydney Coordination Office and Transport Management Centre’s Operations Manager.

2.7 Responsibilities

2.7.1 Key Personnel

Table 5 lists the key personnel involved with the SMEW works.

Table 5 – Key Personnel

Name	Position	Phone Number
Paul Fields	Project Manager	0438 792 797
Bernard Grace	Interface Manager	0419 164 786
Rob Galton	Site Supervisor	0402 297 262
Luke Curley	Site Supervisor	0419 816 166
D&D (staff name to be confirmed)	Traffic Controller (Blue Card)	TBC
D&D (staff name to be confirmed)	Implement TCPs (Yellow Card)	TBC
D&D (staff name to be confirmed)	Prepare a Work Zone Traffic Management Plan	TBC

2.7.2 Environmental Representative

The Planning Secretary’s approval of an ER must be sought no later than one (1) month before the commencement of Work.

Work must not commence until an ER has been approved by the Planning Secretary and engaged by the Proponent.

Regular site inspections by the ERs and TfNSW representatives are to be undertaken at a frequency to be agreed with the Principal Contractor.

TfNSW or the Environmental Representative may raise non-compliances against environmental requirements.

2.7.3 Principal Contractor

Principal Contractors will consider the following in the layout of construction sites:

- The location of noise intensive works and 24-hour activities in relation to noise sensitive receivers;
- The location of site access and egress points in relation to noise and light sensitive receivers, especially for sites proposed to be utilised 24 hours per day;
- The use of site buildings to shield noisy activities from receivers;
- The use of noise barriers and / or acoustic sheds where feasible and reasonable for sites proposed to be regularly used outside of daytime hours; and
- Aim to minimise the requirement for reversing, especially of heavy vehicles.

2.7.3.1 Training Needs and Requirements

The Principal Contractor is responsible for training needs and requirements of their personnel. The minimum requirements are:

- Site induction
- Regular Toolbox Talks
- Topic specific environment training

The site induction is to be provided to all site personnel. This must include, as a minimum:

- Training purpose, objectives and key issues;
- Contractor's environmental policy and key performance indicators;
- Due diligence, duty of care and responsibilities;
- Relevant conditions of any environmental licence and/or the relevant conditions of approval;
- Site specific issues and controls including those described in the environmental procedures;
- Reporting procedure for environmental hazards and incidents; and
- Communication protocols.

Toolbox talks will be held on a regular basis in order to provide a project or site wide update, including any key or recurring environmental issues.

Topic specific environmental training should be based upon, but is not limited to, Issue specific subplans required under CEMF Section 3.4 (a) (i-xi).

Principal Contractors will conduct a Training Needs Analysis which:

- Identifies that all staff are to receive an environmental induction and undertake environmental incident management training;
- Identifies the competency requirements of staff that hold environmental roles and responsibilities documented within the Construction Environmental Management Plan and sub-plans;
- Identifies appropriate training courses/events and the frequency of training to achieve and/or maintain these competency requirements; and
- Implements and documents as part of the CEMP a training schedule that plans attendance at environmental training events, provides mechanisms to notify staff of their training requirements, and identifies staff who do not attend scheduled training events or who have overdue training requirements.

2.7.3.2 Environmental Issues

Issue specific environmental monitoring will be undertaken as required or as additionally required by any approval, permit or licence conditions.

The results of any monitoring undertaken as a requirement of the EPL will be published on the Principal Contractor's, or a project specific, website within 14 days of obtaining the results.

Periodic inspections by the Principal Contractor's Environmental Manager (or delegate) to verify the adequacy of all environmental mitigation measures. This will be documented in a formal inspection record.

Principal Contractors must undertake internal environmental audits. The scope will include:

- Compliance with any approval, permit or licence conditions;
- Compliance with the E&SMS, CEMP, SMP, sub-plans and procedures;
- Community consultation and complaint response;
- Environmental training records; and
- Environmental monitoring and inspection results.

TfNSW (or an independent environmental auditor) will also undertake periodic audits of the Principal Contractor's E&SMS and compliance with the environmental aspects of contract documentation, including the Construction Environmental Management Framework.

Principal Contractors will document and detail any non-compliances arising out of the above monitoring, inspections and audits. TfNSW will be made aware of all non-compliances in a timely manner.

Principal Contractors will develop and implement corrective actions to rectify the non-compliances and preventative actions in order to prevent a re-occurrence of the non-compliance. Contractors will also maintain a register of non-compliances, corrective actions and preventative actions.

Principal Contractors will ensure the continual review and improvement of the Environmental & Sustainability Management System (E&SMS). This will generally occur in response to:

- Issues raised during environmental surveillance and monitoring;
- Expanded scope of works;
- Environmental incidents; and
- Environmental non-conformances.

A formal review of the E&SMS by the Principal Contractor's Senior Management Team will also occur on an annual basis, as a minimum. This review shall generate actions for the continual improvement of the E&SMS and supporting management plans.

2.7.3.3 Records

Principal Contractors will maintain appropriate records of the following:

- Site inspections, audits, monitoring, reviews or remedial actions;
- Documentation as required by performance conditions, approvals, licences and legislation;
- Modifications to site environmental documentation (e.g. CEMP, sub-plans and procedures); and
- Other records as required by this Construction Environmental Management Framework.

Records will be retained onsite for the duration of works.

Additionally, records will be retained by the Principal Contractor for a period of no less than 7 years. Records will be made available in a timely manner to TfNSW (or their representative) upon request.

Compliance reports detailing the outcome of any environmental surveillance activity including internal and external audits (refer to Section 3.13 of the CEMF) will be produced by the Principal Contractors Environmental Manager or delegate. These reports will be submitted to TfNSW at an agreed frequency.

2.7.4 Site Foreman

JHLOR JV Foremen have responsibilities for two areas of traffic management, the **Work Area (anywhere where works are being undertaken)**, including areas covered by Traffic Control Plans (TCPs) and **Employees** under their control.

For any long-term works (longer than a shift) the JHLOR JV Site Supervisor will continually conduct traffic management inspections to ensure safe movement of traffic and the protection of persons and property through and/or around the worksite. The Site supervisor will ensure all traffic control measures will be installed in accordance with approved TCPs as advised by an authorised “Yellow Card” holder.

JHLOR JV Site Supervisor shall ensure the following for each area of responsibility:

Work Area

- A documented traffic management risk assessment is completed by relevant Traffic Management Subcontractor engaged by JHLOR JV and the procedures and control measures implemented on site.
- Approval is obtained from the relevant authority before any work in a road reserve (public areas on and surrounding the road) is commenced by JHLOR JV or a person working on the JHLOR JV's behalf.
- Road users, pedestrians and JHLOR JV staff can continue with their respective undertakings in relative safety and with the minimum of inconvenience.
- All site related works are correctly barricaded and sign-posted using the relevant approved signs.
- All signs and devices used are in good condition and are removed at the completion of the work.
- All site related works do not start until all signage is in place, even in an emergency it is essential that safety is observed for both staff and road/footpath users.
- All lamps are:
 - Switched off during daylight hours.
 - Checked at night time to confirm they are working and correctly aligned.
- The Construction Traffic Management Plan is reviewed regularly to ensure it is still suitable.
- Incidents are to be managed in accordance with the CEMP.
- In the event of a traffic related incident, co-ordination would be carried out with the CBD Coordination Office and/or the Transport Management Centre's Operations Manager.

Employees

The JHLOR JV Site Supervisor shall ensure the following for each area of responsibility:

- Workers are competent to work on or near the roadways.
- Workers have a general awareness of traffic safety, accessibility, and efficient movement issues.
- Workers are informed of the public relations aspect of their work and instructed they should not allow themselves to be provoked by members of the public. Workers will be provided with cards detailing the correct number to call in the event of a public inquiry.
- Workers are to provide appropriate notification of deliveries to nominated Site Contact.

- All workers have access to and will use the following safety equipment and PPE:
 - High visibility vest or shirt.
 - UV protection eyewear and sunscreen (SPF 30 standard or better).
 - Wide brimmed hat/safety helmet.
 - Steel cap safety footwear.
 - Appropriate clothing to protect against UV radiation.
 - Gloves.
 - Hearing protection (where appropriate).
 - Eye protection (where appropriate).
- Ensure workers associated with the site will not occupy public on-street parking spaces.

Controls will be reviewed when there is an incident, non-conformance, legislative change, annual review of plan, complaint.

The site foreman is to undertake surveillance of environmental mitigation measures.

2.7.5 [All Other Persons](#)

All other persons carrying out work activities on or immediately adjacent to the site shall:

- Always take reasonable care for their safety and that of those around them.
- Follow the applicable requirements contained in this document.
- Prior to proceeding with any work, contact their supervisor or a JHLORJV Site Management Team member for clarification of any requirement applicable in this document, and any other relevant permits, plans or approvals.
- Provide appropriate notification of deliveries to the nominated Site Contact.
- Wear high visibility vest or shirt where required under this document.
- Always obey the applicable road rules for pedestrians, riders, and drivers.
- Always follow safe driving practices, including using the correct thoroughfare in accordance with any posted speed limits and safety requirements in a manner that does not put at risk their safety or that of any other persons (e.g. passengers, fellow workers, or members of the public).
- Always avoid creating any form of safety hazard or unreasonable delays when parking or parked. Any workers associated with the site must park their vehicles wholly within the site boundaries. Workers associated with the site will not occupy public on-street parking spaces.

3. Traffic Management

3.1 Site Access

3.1.1 Rail Access Gates

Access gates to the rail corridor are at the following locations:

- Access A (via Fraser Park Football Club interior road off Marrickville Road, Marrickville)
- Access B (via Victoria Road, Marrickville)
- Access C (via Unnamed Lane off Warburton Street, opposite Wooley Lane, Marrickville)
- Access D (via Randall Street, Marrickville)
- Access E (via Kays Avenue East, Marrickville)
- Access F (via Ewart Street east of Terrace Road, Marrickville)
- Access G (via Ewart Street west of Terrace Road, Marrickville)
- Access H-1 (via Floss Street, Hurlstone Park)
- Access I (via Railway Street, Hurlstone Park)
- Access J (via Keir Avenue, Hurlstone Park)
- Access K (via Hurlstone Avenue, Hurlstone Park)
- Access L (via Hutton Street, Hurlstone Park)
- Access M (via Hutton Street at Sugar House Road, Hurlstone Park)
- Access N (via rail service road near Church Street footbridge, Hurlstone Park)
- Access O (via Charles Street, Canterbury)
- Access P (via Wairoa Street and Cooks River Path, Canterbury)
- Access Q (via South Parade opposite Wonga Street, Canterbury)
- Access R (via South Parade opposite Park Street, Campsie)
- Access S (via South Parade opposite Duke Street, Campsie)
- Access T (via Lilian Street, Campsie)
- SSJ Access Gate 10 (Way Street, Marrickville - for laydown of materials only)
- Access U (Belmore Station, Railway Parade) – No heavy vehicle access required
- Access V (Canterbury, 20 Charles Street)
- Access W – Ewart Lane, Dulwich Hill Station – No heavy vehicle access required
- Access Y – Broughton Street, Drive way opposite John Street, Canterbury
- Access Z – Charles Street, Canterbury (just south of Charles Street Underbridge)

Refer below and to Appendix A – Heavy Vehicle Access Route Details for further details of access routes.

3.1.2 [Work Sites](#)

The following work sites listed in Table 6 will be used throughout the project.

Table 6 – Work Sites

Work Area	Access gate(s)	Gate /Bridge Address	Proposed Use	Works Start	Works End
Area 1A	A	Fraser Park (Gate 6 -100a Marrickville Rd)	Construction works in rail corridor	June 19	March 21
		Victoria Road Underbridge	Partial road closure req. for construction of GST bridge crossing	<1 week	
Area 1B	B	Victoria Road	Construction works in rail corridor	June 19	March 21
Area 3A	C	Wooley Lane (11 Warburton St)	Construction works in rail corridor	June 19	September 20
Area 3B/5A	D	18 Randall St	Construction works in rail corridor	June 19	September 20
		Albermarle Street Overbridge	Construction of under road crossing; requires full road closure.	11 days	
Area 5B	E	26 Kays Ave East	Construction works in rail corridor	June 19	September 19
Area 7A	F	106 Ewart Street	Construction works in rail corridor	August 19	March 21
		Terrace Road (Ness Avenue) Underbridge	Full road closure req. for construction of GST bridge crossing	<1 week	
	W	Ewart Lane	Back-up generator delivery to Dulwich Hill Station		
		Garnet St	Full road closure req. for construction of GST bridge crossing	<2wks	
Area 7B	G	108 Ewart Street	Construction works in rail corridor. Primary high-rail access point for possession works.	August 19	March 21
Area 7C	H-1, H-2	19 Floss St	Construction works in rail corridor	August 19	March 21
Area 9A	I	12 Railway Street	Construction works in rail corridor	September 19	October 20
		Foord Avenue Underbridge	Partial road closure req. for construction of GST bridge crossing	<1 week	
Area 9B	J	2 Keir Ave	Construction works in rail corridor	September 19	October 20
Area 9C	K	27 Hurlstone Avenue	Construction works in rail corridor	September 19	October 20
Area 9D	L	6 Hutton Street	Construction works in rail corridor	September 19	October 20
Area 11A	M	1 Sugar House Rd	Construction works in rail corridor & small public area required for laydown.	July 20	October 20

Work Area	Access gate(s)	Gate /Bridge Address	Proposed Use	Works Start	Works End
		Church Street Footbridge / Public Footpath to Canterbury	Construction of under road crossing; requires PMP with staging.	<1 month	
Area 11B	N	4 Sugar House Rd	Rail/public land & footpath to be segregated; requires PMP with staging to construct new security fence.	July 20	October 20
Area 13A	O	18 Charles St	Construction works in rail corridor. Council carpark required for laydown and access for construction works	January 20	December 20
		Charles St Underbridge	Partial road closure req. for construction of GST bridge crossing	January 20	December 20
	V	20 Charles St	Construction works in rail corridor	January 20	December 20
	Y	Broughton Street, opposite John St.	Construction works in rail corridor	January 20	December 20
	Z	Charles Street, just South of Charles St Underbridge	Construction works in rail corridor	January 20	December 20
Area 13B	P-1, P-2	Cooks River Path - off 7 Wairoa St	Construction works in rail corridor. Partial possession of footpath required for duration of construction works.	January 20	December 20
		Wairoa Street Underbridge	Partial road closure req. for construction of GST bridge crossing	<1 week	
Area 13C	Q	8 South Parade	Construction works in rail corridor	September 19	October 20
Area 13D	R, S	31/36 South Parade	Construction works in rail corridor	September 19	December 20
Area 13E	-	Duke St	Pedestrian access to construction works in rail corridor	August 20	December 20
Area 15-	T	54 Lillian St	Construction works in rail corridor	December 19	June 20
Area 16-	U	Dean Avenue and Railway Parade	Back-up generator delivery to Belmore Station	December 19	April 20

3.1.3 [Access Requirements](#)

To provide a safe entry and exit to the work site from safe access points or gates JHLORJV will:

- Monitor the number of access points in use (from the rail corridor access points listed above)
- Ensure the access points nominated can accommodate the turning movement of the largest vehicles that will be accessing the site as required. Swept path analysis shows that all access gates are suitable for heavy vehicle access with some restrictions on route, as discussed in Section 3.2 below. Refer to Appendix A – Heavy Vehicle Access Route Details for swept paths
- Ensure all access points are clearly visible to approaching traffic and signposted accordingly

- Ensure heavy vehicles do not queue on residential streets but enter through the access gates as soon as possible after arriving. Vehicle arrivals will be managed to avoid any waiting outside the worksite
- Ensure that vehicles will enter the access sites in a forward in, forward out movement, except for at the following gates:
 - Access D (Randall Street) which will be reverse in under traffic control from Livingstone Road and forward out
 - Access E (Kays Avenue East) which will be reverse in after a turnaround on Kays Avenue East (larger trucks only) under traffic control and forward out
 - Access H-1 (Floss Street) which will be reverse in and forward out under traffic control
 - Access P (Cooks River Path) which will be reverse in and forward out under traffic control
 - Access Q (South Parade) which will be reverse in and forward out under traffic control.
 - Access Y (Broughton Street) which will be reverse in and forward out under traffic control.

Segregation of pedestrians and cyclists from site access points will not be feasible. Traffic control will be utilised to manage this interface. Where required, pedestrians and cyclists will be held briefly to allow safe vehicle movements as per the TCPs (where required).

The access points are existing railway access gates via existing driveways and easements and will not need to be modified.

3.1.4 [Hoarding and Site Boundaries](#)

Project boundaries and hoardings will be developed on a per-access basis as the project progresses. Details are available in Appendix D – Traffic Staging, Site Boundaries and Hoardings. The use of hoardings for project areas on Council land/roads will require approval from RMS and/or IWC or CBC, alongside consultation through TCG/TTLG

Hoarding and fencing would be required in and around construction areas of high pedestrian usage as well as to manage pedestrians around work sites and past work site access points.

Primary locations where temporary fencing/hoarding will be used to segregate work areas from the public are as follows:

- Area 11A / Gate M – 1 Sugar House Rd; construction area to be established and staged either side of Church St Footbridge. Pedestrian access to be maintained for public at all times
- Area 11B / Gate N - 4 Sugar House Rd; construction area to be established alongside access path to construct new security fence. Pedestrian access to be maintained for public at all times, which may require staging
- Area 13A / Gate O – 18 Charles St; public carpark will need to be occupied during construction works.
- Area 13B / Gate P-1/P-2 Cooks River Path; public land will need to be occupied during construction works. Intention for vehicular access (from 1 direction) to be provided at all times. Local stakeholders to be consulted by construction team
- Area 13D / Gate S – South Parade. Area to be created for construction of Noise walls; requires 59 NO. parking spaces.

Note that in all cases, Council is to be approached by the construction team to arrange all necessary approvals.

3.2 Traffic Routing

3.2.1 [Restricted Vehicle Movements](#)

There are a number of mobility restrictions in and around the project site, including localised weight limits, headroom clearance, one-way streets and banned turns. Some exemptions to these may be needed to allow construction vehicle access to the work sites. The identified restrictions include:

One-way streets:

- One-way traffic system is in place clockwise around Railway Parade, Marrickville Road, Buckley Street, and Sydenham Road, leading back to Railway Parade
- In the eastbound direction on Lilian Lane.

Headroom Clearance:

- 4.0m headroom clearance in the underbridge between Victoria Road and Myrtle Street
- 3.9m headroom clearance in the underbridge on Terrace Road
- 2.9m headroom clearance in the underbridge on Foord Avenue
- 3.3m headroom clearance in the underbridge between Wairoa Street and Nowra Street.

Turn Restrictions:

- No right turn from Illawarra Road to Arthur Street
- No right turn from Victoria Road to Sydenham Road
- No left turn from Sydenham Road to Illawarra Road for vehicles over 6m long
- No right turn from Marrickville Road to Gladstone Street
- No right turn from Illawarra Road to Warren Road
- No right turn from Warren Road to Livingstone Road
- No right turn from Wardell Road to Ewart Street
- No right turn from Charles Street to Canterbury Road
- No right turn from Loch Street to Lilian Lane
- No right turn from Lilian Lane to Beamish Street
- No right turn from Canterbury Road to Beamish Street.

These restrictions have been considered in planning heavy vehicle movements given in Appendix A – Heavy Vehicle Access Route Details.

3.2.2 [Deliveries for Work](#)

Deliveries are classed as either Light Vehicles (e.g. site utes and crew trucks less than 4.5 tonnes), Material Delivery or removal (e.g. galvanised steel trough, fill) or Construction Plant Deliveries (e.g. piling rigs, excavators). Refer to Appendix A for a summary of expected delivery vehicles.

Considerations for Deliveries are as follows:

- Plant and material deliveries and removal may require traffic control at site access locations.

- 20m AV (semi-trailer), 12.5m HRV and 8.8 MRV with 5m trailer are the largest vehicles that will need to access site.
- All deliveries shall be coordinated with the relevant Site Contact in advance of the delivery.
- Out of Hours Work (OOHW) notifications will be organised in advance of the delivery if required.
- Appropriate licences for oversized loads will be in place prior to delivery.

3.2.3 [Haulage Routes](#)

Haul and delivery truck routes to and from construction sites and access points will be developed in key consideration of minimising impact on local streets and maximising use of arterial roads using Higher Mass Limit (HML) routes as outlined by Roads and Maritime Service (RMS) as part of their Intelligent Access Program (IAP) and Restricted Access Vehicle (RAV) routes.

RMS has roads and zones throughout Sydney that are approved for RAV and HML for certain heavy vehicles to travel along.

Relevant local councils and/or RMS permission is required should construction vehicles greater than the allowable load limit require access to roads containing restrictions. These haulage routes must be approved by the RMS following endorsement by Sydney Coordination Office and consultation with the TTLG. The routes are available in in Appendix A – Heavy Vehicle Access Route Details.

Some haulage routes have been identified in the SPIR. Some of these were determined to not be feasible due to some required vehicles not being able to complete some manoeuvres.

Swept path analysis has been undertaken to assess the viability of updated haulage routes. This analysis is indicative only due to the following:

- Base plans are scaled aerial imagery, and therefore may not accurately reflect road dimensions and conditions
- The MRV with 5m dog trailer tested is an estimation, and may not be an accurate representation of real-world vehicle performance
- The locations of the access gates on aerial imagery were approximated where partially or fully obscured by foliage or other objects.

As such, all site conditions and dimensions should be verified on site.

The haulage routes need to be approved by a noise and vibration professional to ensure that they are compliant with project requirements for night-time road traffic noise criteria.

Swept path analysis was undertaken for the routes in the SPIR. This indicated that some routes were unsuitable. There are several changes to SPIR routes:

- Access and egress via Terrace Road is removed due to height restrictions of the underbridge
- Access and egress via Foord Avenue and Dunstaffenage Street is removed due to height restrictions of the underbridge
- Access and egress through Broughton Street underbridge has been removed due to height restrictions
- Access via Beamish Street is removed due to lower-impact routes being identified (e.g. via Wonga Street, South Parade, and Park Street.
- Access along from Wonga to Evaline Street.

Some haulage routes that were not included in the EIS/SPIR are:

- Access A – Fraser Park access and egress
- Access D – Randall Street, Marrickville – reverse movement into gate
- Access I – Railway Street, Hurlstone Park – utilise Duntroon Street, Commons Street, and Burnett Street
- Access Q – Wonga Street, Campsie (between Wairoa Street and South Parade)
- Access R – Park Street, Campsie
- Way Street laydown (from SSJ works).

Maps of changes to haulage routes from the SPIR are provided in Appendix A – Heavy Vehicle Access Route Details: Section 11.1.5 - Changes to SPIR Routes:

It shall be noted that an updated route and associated swept paths has been included to enable HRV vehicles to access Zone 15 (Gate T) at Lillian St, Campsie. This shall only be used at weekends and non-school times. The standard route shall be used for all other access to that gate.

Where possible, JHLORJV will schedule Heavy Vehicle movements between 09:00-14:00 to avoid peak and school times. It is also noted that the majority of movements will be mainly on weekend.

3.2.4 [Road Closures](#)

The intended extent of road closures is defined below. Specific partial or entire road closures will be refined as design, construction and traffic control plans are finalised.

All works must ensure that property and business access is maintained wherever possible.

Railway overbridges and underbridges may need to be partially or entirely closed for construction works. These closures will require relevant traffic control plans and diversion routes.

TCP's will be developed as the scope and timing of the bridge works is finalised and attached to this document.

It is expected that road closures will be needed for the following locations:

- Victoria Road – partial road closure (maintaining 2-way traffic if possible)
- Albermarle Street – full road closure (including articulated vehicle for URX construction)
- Terrace Road (Ness Avenue) – full road closure required due to sight lines
- Melford Street – full road closure (including articulated vehicle for URX construction)
- Foord Avenue – full road closure (due to the plant required for construction of the works)
- Charles Street – partial road closures with contra-flow movement and full road closure (due to significant possession works in the area)
- Wairoa Street – partial road closures with contra-flow movement and full road closure (due to the plant required for construction of the works)
- Garnet Street - partial road closure (including articulated vehicle for URX construction)

Where possible, a single lane of traffic movement would be maintained. For the Terrace Road (Ness Avenue) underbridge, a full closure is required due to sight lines and reduced manoeuvrability. A full road closure is required at Albermarle Street due to the nature of the road

crossing to be installed. An overview of these road diversions is shown in the Figures below. Traffic Control Plans are provided in

Appendix B – Traffic Control Plans. Where swept paths were tested for TCPs, these are provided in Appendix A – Heavy Vehicle Access Route Details

Location	TCP Number	Construction Start Date	Construction End Date
Albermarle Street, Marrickville - Full Road Closure	SMCSWSSJ-JHL-WEC-TF-PLN-000012	2/09/2019	13/09/2019
Terrace Road (Ness Avenue), Dulwich Hill - Full Road Closure	SMCSWSSJ-JHL-WEC-TF-PLN-000011	Q2 2020	Q4 2020
Melford St, Canterbury - Full Road Closure	SMCSWSSJ-JHL-WEC-TF-PLN-000024	Q2 2020	Q4 2020
Foord Avenue, Hurlstone Park - Full Road Closure	SMCSWSSJ-JHL-WEC-TF-PLN-000038	Q2 2020	Q4 2020
Wairoa Street underbridge, Canterbury - Full Road Closure	SMCSWSSJ-JHL-WEC-TF-PLN-000032	Q2 2020	Q4 2020
Broughton Street (Charles Street), Canterbury - Full Road Closure	SMCSWSSJ-JHL-WEC-TF-PLN-000039	Q2 2020	Q4 2020
Wairoa St Retaining Wall Diversion	SMCSWSSJ-JHL-WEC-TF-PLN-000048	Q2 2020	Q4 2020
Garnet Street underbridge, Hurlstone Park - Partial Road Closure	SMCSWSSJ-JHL-WEC-TF-PLN-000046/47	Q2 2020	Q4 2020

As noted within the *Sydney Metro City and Southwest – Sydenham to Bankstown Upgrade Environmental Impact Statement: Technical Paper 1 – Traffic, Transport and Access Assessment*, bus route 418 – Kingsford to Burwood – passes over Garnet Street Hurlstone Park. As such, bus 418 must be rerouted where a road closure of Garnet Street is to occur. In accordance with the EIS, the bus would be rerouted along Hamden Avenue, where it would re-join the existing route on Duntroon Street – refer to Figure 6.8 within Technical Paper 1. JHLOR will liaise with the bus operator and provide community notification. JHLOR will also liaise with the bus operator and Council to ensure appropriate signage is displayed within the area including “Bus Zone” and “No Parking” signage. A copy of the signage plan is included in Appendix A.

Figure 8 – Terrace Road (Ness Avenue) road diversion overview



Figure 9 – Melford Street road diversion overview



Figure 10 – Foord Avenue road diversion overview

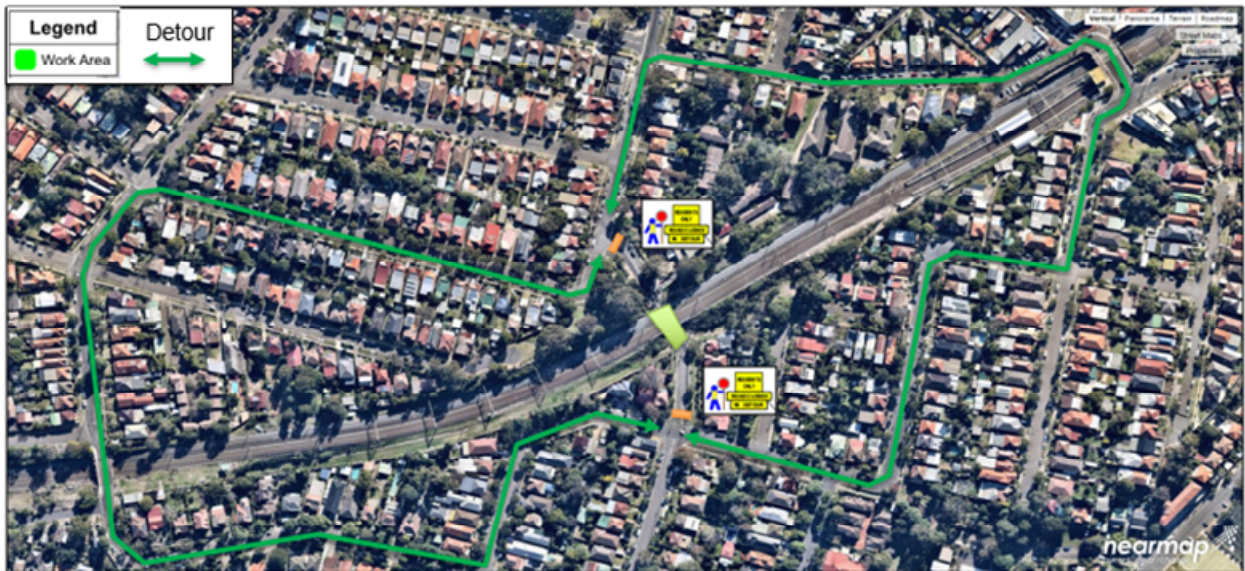


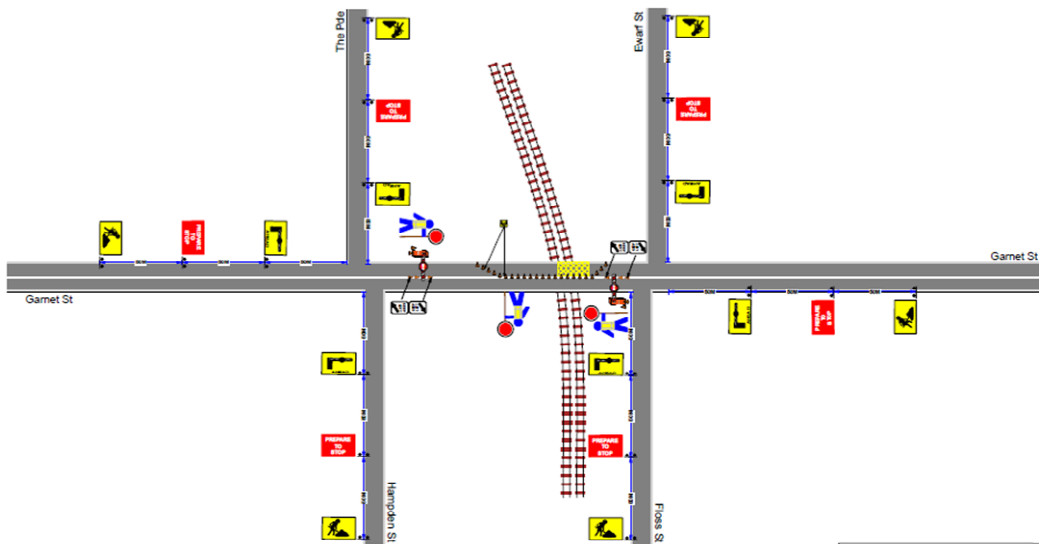
Figure 11 – Wairoa Street road diversion overview



Figure 12 – Broughton Street (Charles Street) road diversion overview



Figure 13 – Gamett Street road diversion overview



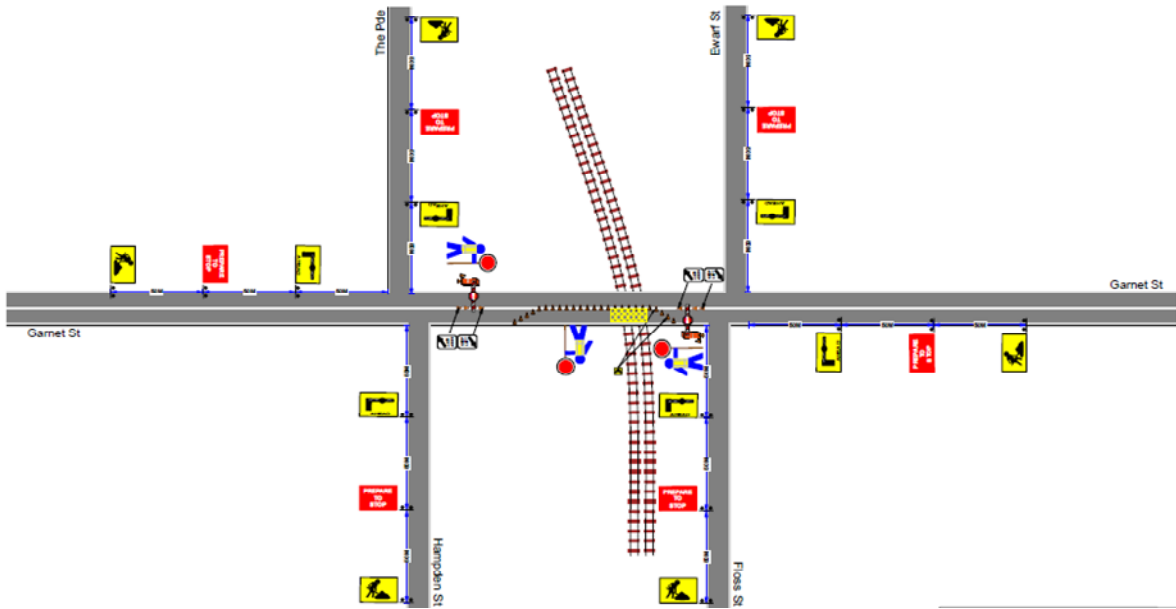
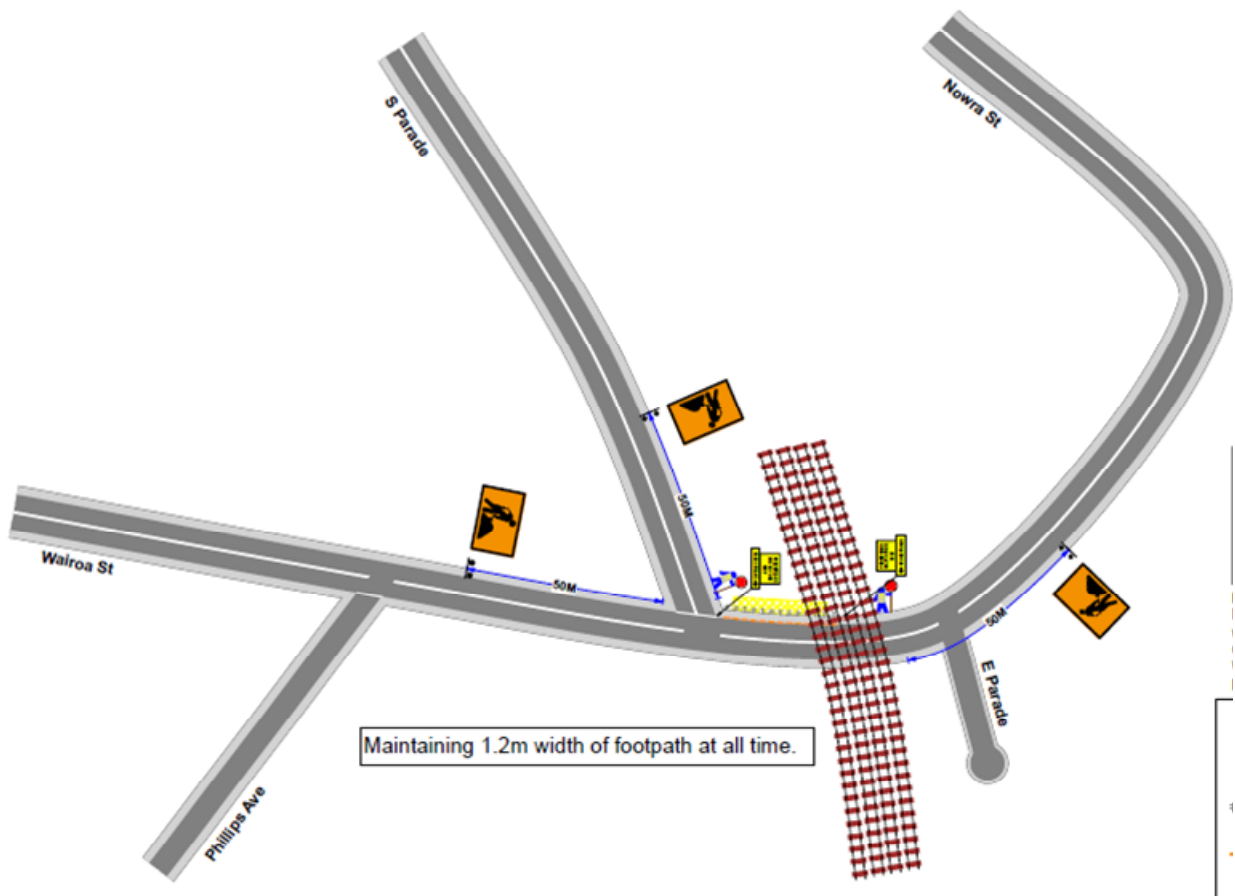


Figure 1414 – Wairoa St Pedestrian Hoarding Plan



3.3 Traffic Management

When JHLOR JV Site Management Team members, subcontractors or their workers conduct work on the road or footpath it creates an abnormal situation that requires the provision of suitable signage, barricading, guarding, etc. for users including vehicles, bicycles, and pedestrians.

Regardless of the nature of the works, the complexity or how long it shall take, the purpose of this CTMP is to ensure the safety of the Site Management Team, subcontractors, their workers, members of the public, other users of the road and pathways/footpaths, and to minimise the inconvenience (loss of accessibility, increased delays) to all parties.

The basic communication requirements of the Construction Traffic Management Plan and TCPs are to provide:

- Advance warning of a change in traffic conditions in time for the users to adjust.
- Information and guidance as to where to go to safely negotiate the work site. That is, delineation of travel path and its separation from the work site and any necessary barricading.
- Appropriately advise the nominated site contact in advance to arrange deliveries.

In the event of a traffic related incident, coordination will be carried out with the Transport Management Centre's Operations Manager.

3.3.1 Main Works Guidelines

- The selected Traffic Control subcontractor will be responsible for the management of all traffic throughout the pre-construction phase; any issues raised are to be issued to JHLORJV, who will resolve these with the assistance of the specialist Traffic Control subcontractor.
- Due to the residential nature of some of the surrounding streets, queuing and idling of heavy vehicles will not be permitted. This shall be managed by engaging trusted suppliers and scheduling heavy vehicle movements. Vehicles may only wait inside the worksite.
- It is likely that there will be multiple work sites operating simultaneously during the project's lifespan. Where there is potential for cumulative impacts across the project, these issues would be addressed with the assistance of the Traffic and Transport Liaison Group.
- Heavy vehicle movements are to be minimised during peak times. Residential and local road movements by heavy vehicles are to be minimised where feasible.
- Heavy and construction vehicles are to follow the approved haulage routes.
- Workers are to avoid using private vehicles to travel to the site, and are to utilise public transport where possible.
- All access gates to the site must be always either manned or locked to prevent public access into the site / Rail Corridor.

3.3.2 Road Occupancy Licence

Road Occupancy Licences (ROL) will be required to undertake traffic control restricting flow of traffic in locations listed in

. This will be applied for before works starting using RMS Online Planned Incident System (OPLINC).

ROLs must be obtained at least 10 working days prior to work commencement.

ROs must be approved before undertaking any works.

ROs are to be approved by the by the Inner West Council or Canterbury-Bankstown Council (depending on location).

The Traffic and Transport Liaison Group (TTLG) is to review and provide feedback on RO applications to monitor potential cumulative impacts from multiple ROs operating concurrently in one area.

At the current stage of the project, ROs that may be required have been identified as follows:

- Bridge Works:
 - Victoria Road, Marrickville underbridge
 - Albermarle Street, Dulwich Hill overbridge
 - Terrace Road (Ness Avenue), Dulwich Hill underbridge
 - Melford St, Hurlstone Park, overbridge
 - Garnet St, Hurlstone Park, overbridge
 - Foord Avenue, Hurlstone Park underbridge
 - Charles Street, Canterbury underbridge
 - Wairoa Street, Canterbury underbridge

3.3.3 [Traffic Control Plans](#)

Traffic Control Plans (TCPs) will set out the specific traffic and transport management arrangements to be implemented at specific locations during the construction of the Project Works and Temporary Works.

Traffic Control Plans (TCP) are required to provide advance warning of a change in traffic conditions in time for the users to adjust. They provide information and guidance about where to go to safely negotiate the work site. That is, delineation of travel path and its separation from the work site and any necessary barricading.

No long-term speed limit adjustments are proposed. Short-term reductions in speed may be necessary in some situations.

TCPs are to be created in line with the requirements set out in the most recent version of Roads and Maritime Services Traffic Control at Work Sites Technical Manual (current at time of writing is Version 5.0).

TCPs must be signed off and approved by a person who holds a valid RMS "Prepare a Work Zone Traffic Management Plan" qualification.

TCPs must be approved by the relevant authorities before they are used in the project.

A number of traffic control plans are created for this project. These TCPs address the following works:

- Randall Street: HV Reverse Access
- Wairoa Street HV Reverse Access / Forward Egress
- Bridge Works:
 - Victoria Road
 - Albermarle Street
 - Ness Avenue
 - Melford Street
 - Garnet Street
 - Foord Avenue
 - Charles Street
 - Wairoa Street
- Rail Gate Access:
 - Gate D (reverse into Randall St from Livingstone Road)
 - Gate G (Ewart Street HV access)
 - Gate I (Railway St access)
 - Gate P (reverse from Wairoa Street)
 - Gate Y (reverse from Broughton Street)

Additional TCPs will be created as required and as the project scope is developed in further detail.

Current TCPs for this project are available in Appendix B.

Current TMPs for this project are available in Appendix C.

3.3.4 Construction Vehicles and Plant

3.3.4.1 General

Heavy vehicles are to be equipped with safety technology and equipment to improve vehicle safety, visibility and the detection of vulnerable road users.

Operators of heavy vehicles are to have completed the Sydney Metro City & Southwest project specific Heavy Vehicle Driver Introduction Training for frequent deliveries.

Specific construction driver training to understand route constraints, expectations, safety issues, human error and its relationship with fitness for work and chain of responsibility duties, and to limit the use of compression braking is to be completed where necessary.

There is to be use of In Vehicle Monitoring Systems (telematics) to monitor vehicle location and driver behaviour.

Constriction vehicles are to be equipped with safety devices warn drivers of the presence of road users located in the vehicles’ blind spots, and to warn the road user that the vehicle is about to turn.

3.3.4.2 Construction Vehicle Volumes

Construction vehicle volume estimates were provided in the project SPIR. It separated vehicles into two categories:

- Light vehicles – up to 4.5 tonnes
- Heavy vehicles – up to 19 metres long (includes rigid and semi-trailer vehicles), greater than 4.5 tonnes.

Updated project construction vehicle volume estimates are available in Appendix A – Heavy Vehicle Access Route Details.

Construction works will only be utilising a maximum of seven (7) gate/locations for HV movements at any one time.

3.3.5 Emergency Vehicles

Emergency vehicle access to stations and surrounding properties would be provided at all times. Emergency service providers (i.e. police and ambulance) would be consulted throughout construction to ensure they are aware of station closures, changes to access, including bridge lane closures, and changes to station or rail corridor access.

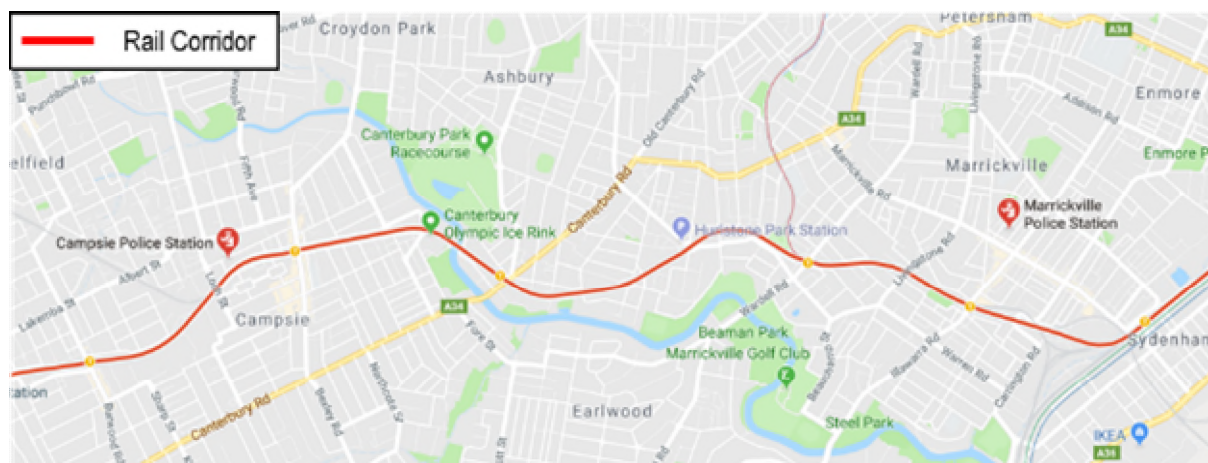
It is expected that outside of full road closures, project works would have negligible impact on emergency services.

Police Stations near the works zone are:

- Campsie PAC – 58 Campsie Street Campsie
- Inner West PAC – 89-101 Despointes Street Marrickville.

A map of these police stations is shown in Figure 15 below.

Figure 15 – Police Station Maps



3.4 Pedestrian Management

3.4.1 Pedestrian Movement Plans

Pedestrian Movement Plans (PMPs) are required for each instance where changes to pedestrian routes will be required, such as closing footpaths. PMPs are to be developed in accordance with RMS Traffic Control at Worksites Manual Version 5, and CEMF Clause 8.1. Pedestrian routes for workers are available in Appendix C – Vehicle Management Plans, Pedestrian Movement Plans, and Worker Walking Routes.

Additional enhancements for pedestrian, cyclist and motorist safety in the vicinity of the construction sites would be implemented during construction. This would include measures such as:

- Use of speed awareness signs in conjunction with variable message signs near construction sites to provide alerts to drivers
- Community educational events that allow pedestrians, cyclists or motorists to sit in trucks and understand the visibility restrictions of truck drivers, and for truck drivers to understand the visibility from a bicycle; and a campaign to engage with local schools to educate children about road safety and to encourage visual contact with drivers to ensure they are aware of the presence of children
- Specific construction driver training to understand route constraints, expectations, safety issues, human error and its relationship with fitness for work and chain of responsibility duties, and to limit the use of compression braking
- Use of In Vehicle Monitoring Systems (telematics) to monitor vehicle location and driver behaviour
- Safety devices on construction vehicles that warn drivers of the presence of a vulnerable road user located in the vehicles' blind spots and warn the vulnerable road user that a vehicle is about to turn.

Where existing footpath routes used by pedestrians and/or cyclists are affected by construction, a condition survey would be carried out to confirm they are suitable for use (e.g. suitably paved and lit), with any necessary modifications to be carried out in consultation with Inner West Council and Canterbury-Bankstown Council.

Where applicable, PMP's will be overlayed on the corresponding Traffic Control Plans for the site.

The following locations have been identified as locations where specific PMPs are required:

- Church Street rail overpass footbridge to Sugar House Road footbridge works
- Sugar House Road footpath to Canterbury Station
- Cook River Path.

Specific pedestrian movement plans are still to be developed once the exact site boundaries are determined.

3.4.2 Pedestrian Considerations

Due consideration to pedestrians shall be given before proceeding with Southwest Metro Early Works on or adjacent to footpaths. By definition, catering for pedestrians means catering for the different modes of travel used, such as walking, cycling or for people with different characteristics such as disabilities. It also means that JHLORJV shall take into account the fact that pedestrians are often distracted or in a hurry.

Vulnerable road users will be specifically targeted with safety measures to minimise the road safety risks to pedestrians, cyclists, and motorcyclists near the Southwest Metro Early Works sites. Measures specific to Southwest Metro Early Works include, but are not limited to:

- Heavy vehicles equipped with systems to improve vehicle safety, visibility and the detection of vulnerable road users
- Mandatory completion of Sydney Metro City & Southwest project specific Heavy Vehicle Driver Introduction Training for frequent deliveries.

It is expected that there will be pedestrian impacts during the Southwest Metro Early Works. Interactions with pedestrians/cyclists at access gates will be as follows:

- Access A – no pedestrian footpath is provided on entrance to Fraser Park car parking areas, pedestrians share roadway with vehicles
- Access B – interface of vehicles crossing footpath only
- Access C – no pedestrian footpath is provided along Unnamed Lane opposite Wooley Lane, pedestrians share roadway with vehicles, interface of vehicles crossing footpath on Warburton Street
- Access E – interface of vehicles crossing shared path (pedestrian and cyclist link between Kays Avenue East and Albermarle Street)
- Access F – interface of vehicles crossing footpath only
- Access G – interface of vehicles crossing footpath only
- Access H-1 – interface of vehicles crossing footpath only
- Access K – interface of vehicles crossing footpath only
- Access N – vehicles will conflict with any pedestrian crossing movements on the Church Street footbridge
- Access O – vehicles may conflict with pedestrian activity due to adjacent off-street car park
- Access P – interface of vehicles crossing footpath only. Gate is noted to be adjacent to high pedestrian activity attractors (Tasker Park Playground, Cooks River Path and Canterbury Ice Rink)
- Access S – vehicles may conflict with pedestrian activity due to adjacent car parking spaces
- Access T – vehicles may conflict with pedestrian activity due to adjacent car parking spaces.
- Access V – vehicles may conflict with pedestrian activity due to adjacent off-street car park
- Access Y – interface of vehicles crossing footpath only
- Access Z – interface of vehicles crossing footpath only

Any instances of interfacing between construction vehicles and vulnerable road users will be managed by traffic controllers as required. Pedestrians and cyclists will be held by traffic controllers to allow single movements only and then released. Consideration of this will be taken in any design and plan for travel paths.

3.5 Cyclist Management

When there is a temporary reduction in the bicycle facilities (such as parking), replacement facilities must be provided.

Where existing bicycle routes used by cyclists are affected by construction, a condition survey would be carried out to confirm they are suitable for use (e.g. suitably paved and lit), with any necessary modifications to be carried out in consultation with Inner West Council and Canterbury-Bankstown Council.

Safe pedestrian and cyclist access must be maintained around Work sites during Construction. In circumstances where pedestrian and cyclist access is restricted or removed due to Construction activities, an alternate route which complies with the relevant standards must be provided and signposted.

3.6 Traffic Modelling

Traffic modelling would only be necessary when long-term changes to the road network are due required due to project works. All road occupancies from SMEW works are short term and would not require modelling.

Traffic modelling can also be used to assess modifications to signal timing or phases in order to optimise the road network performance due to construction vehicles and rail replacement buses. Any modifications to signals will require consultation and approval from RMS and TTLG. SMEW heavy vehicle volumes are relatively low and so it is not considered necessary to modify signals.

3.7 Dilapidation Report

One of the hold points for this project is the use of local roads by heavy vehicles. The release of the hold point is the road dilapidation report, completed by a professional nominated by the principal contractor.

Before any local road is used by a heavy vehicle for the purposes of Construction of the CSSI, a Road Dilapidation Report must be prepared for the road. A copy of the Road Dilapidation Report must be provided to the relevant council(s) within four (4) weeks of completion of the survey and at least two (2) weeks before the road is used by heavy vehicles associated with the Construction of the CSSI.

If damage to local roads occurs as a result of Construction of the CSSI, the Proponent must either:

- compensate the relevant road authority for the damage so caused. The amount of compensation may be agreed with the relevant road authority
- rectify the damage to restore the road to at least the condition it was in pre-Construction as identified in the Road Dilapidation Report(s).

3.8 Public Transport

Modification of existing bus stops, or implementation of new stops and alterations to service patterns, would be carried out by Sydney Metro in consultation with the Transport for NSW, Sydney Coordination Office, Roads and Maritime Services, the Inner West and Canterbury-Bankstown councils, and bus operators.

Current plans for full road closures do not affect existing bus routes.

Partial road closures on existing bus routes are to be designed so standard buses are able to successfully navigate the roadworks. This is to be verified with swept path analysis.

3.9 Other Impacts

3.9.1 Post Boxes and Roadside Furniture

Where practical, access to post boxes should be maintained. Any modifications to post box access or location is to be determined with consultation with Australia Post.

No modifications to roadside furniture are expected at this stage.

Any modifications to roadside furniture is to be undertaken with consultation with the relevant entities.

3.10 JHLOR JV Works on the Roadway

Section 138 of the Roads Act 1993 requires approval from the relevant roads authority to impact, or carry out work on or over, a public road. Clause 5(1) of Schedule 2 to the Roads Act exempts public authorities from this requirement, except in relation to works on or over classified and Crown roads.

Approval would be required under section 138 for works to the classified roads impacted by the project.

ROs and TCPs are to be created for all works on the roadway

3.11 Temporary Removal of Car Parking Spaces

The routes to some access gates are along residential streets with on-street parking, which restricts the road width available for heavy vehicles to manoeuvre. Overall, there will be a low quantity of parking to be removed. Parking may have to be removed on one side of the road and this may affect the parking options for residents and visitors of the street. Council's approval will be obtained and if required, further consultation will be undertaken with residents/businesses.

Removal of parking spaces will be minimised as practicable for specific deliveries and work activities (generally 1 day prior to specific combined deliveries).

The following parking may be affected:

- On the Unnamed Lane opposite Wooley Lane near Marrickville Station. It is expected that a number of spaces on the Unnamed Lane will be required to provide access for heavy vehicles into Access C.
- On Floss Street. It is expected that 1 kerbside parking space on Floss Street will be required to provide access for heavy vehicles into Access H-1.
- On the western side of the Floss Street / Ewart Street intersection, two parking spaces on each side of the road are to be removed to allow for heavy vehicle manoeuvring
- On Garnet Street, It is expected that 1 kerbside parking space on the western side and two parking spaces on the eastern side will be required to provide access for heavy vehicles out of Access H-1
- On Railway Street. It is expected that 2 kerbside parking spaces on Railway Street will be required to provide access for heavy vehicles into Access I.
- On Hutton Street. It is expected that 2 kerbside parking spaces on Hutton Street will be required to provide access for heavy vehicles into Access L.

- Public carpark on Charles Street – 34 spaces. Proposed that all parking spaces to be removed (previously used as a construction site) to facilitate adjacent construction works at base of embankment. There is no other land within the vicinity (publicly or privately owned) that can be used to offset the lost spaces, as such providing specific alternative parking is not feasible or reasonable. Alternative untimed parking can be found locally on Broughton Street, Canterbury and in abundance on South Parade, Canterbury.
- On South Parade opposite Wonga Street. It is expected that 3 kerbside parking spaces on South Parade will be required to provide access for heavy vehicles into Access Q.
- On South Parade opposite Park Street. It is expected that 1 kerbside parking space on South Parade will be required to provide access for heavy vehicles (MRV) into Access R. If an MRV with trailer is required, a kerbside stop with unloading from street is necessary, which would require 3 kerbside parking spaces on South Parade.
- On South Parade opposite Duke Street (commuter car park west of South Parade and Duke Street roundabout). It is expected that a number of angled parking spaces (37 spaces) in the commuter car park will be required for establishment of works zone and temporary Access S.
- It is also possible that further spaces will be required on South Parade in the parking zone opposite Harold Street, between Duke Street and Campsie station (up to 38 spaces affected). Construction planning will seek to limit the need to use these spaces and stage works to limit parking requirement.
- On Broughton Street near Access Y it is expected that a some spaces on Broughton Street will be required to provide access for heavy vehicles into Access Y via the reversing TCP in place.

Refer to Appendix A - 11.1.7 Parking Removal Signage for drawings detailing the locations and information to be installed by the Contractor following council approval.

The planned timing for parking removal is as follows:

Street	Access Gate	Required dates
Charles St Carpark	V & O	13 Jul 20 – 30 Dec 20
Floss Street (northern side)	H-1	25 Sep 19 – 30 Nov 20
Garnet St (western side)	Exit from Area 7C	25 Jul 19 – 30 Nov 20
Railway Street (eastern side)	I	25 Apr 20 – 30 Aug 20
Hutton Street (southern side)	L	25 Jun 20 – 30 Nov 20
Wairoa Street (eastern side)	P	20 Jun 20 – 30 Oct 20
South Parade (northern side)	R,S	25 Sep 19 – 30 Nov 20

Unless noted otherwise, signs will restrict parking as follows:

“No Parking 7am-6pm Mon-Fri, 8am-6pm Sat”

The road occupancy during rail possessions is not to be used for parking.

It should be noted that any road occupancy will require approval from Inner West Council or Canterbury-Bankstown Council (noting applications will be submitted more than 10-15 days prior to any planned activities), with local residents also being notified minimum 1 week prior to activities commencing. No private workers vehicles will be allowed to park on surrounding residential streets.

Locations where parking spaces are to be temporarily suspended are shown below:

Figure 16 – Area 3A parking to be removed

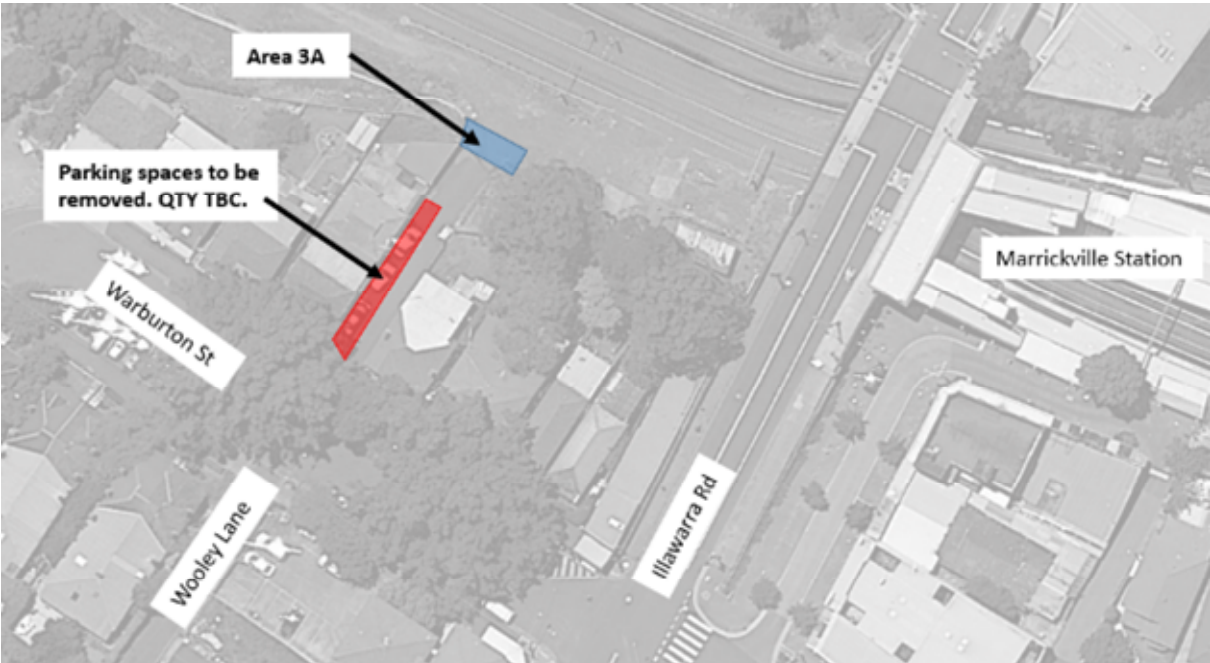


Figure 17 – Area 7C Removed Parking (Image 1)

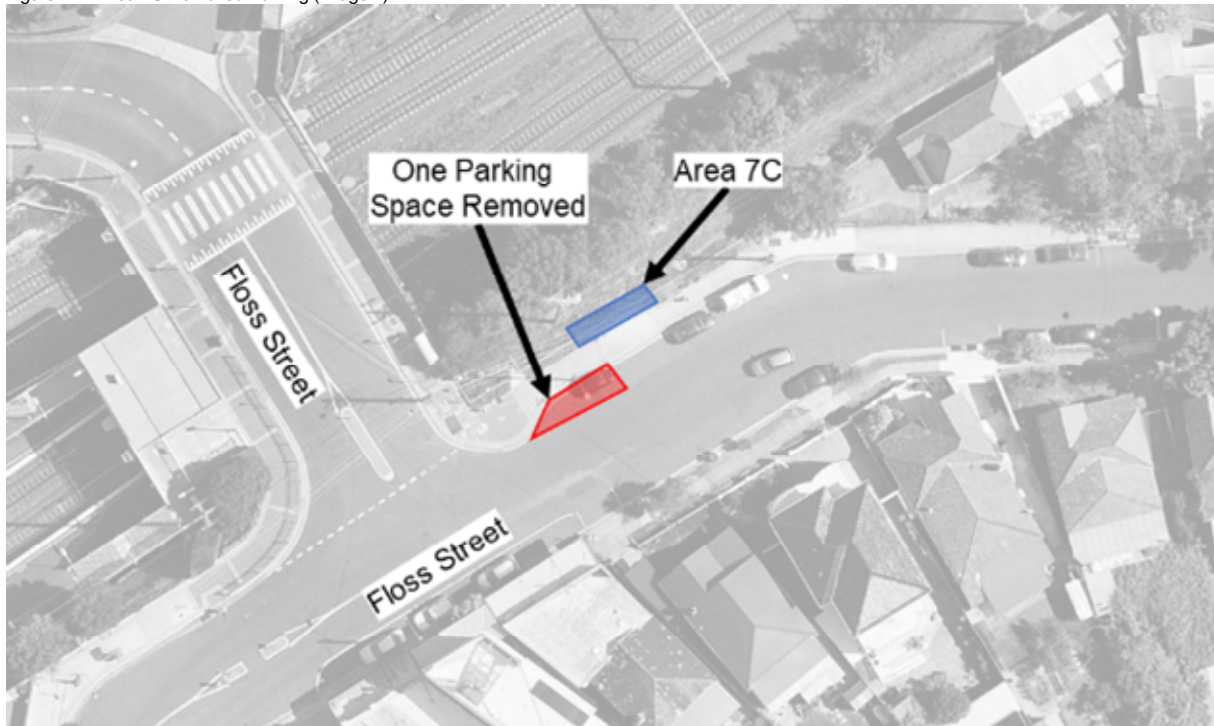


Figure 18 – Access 7C Removed Parking (Image 2)

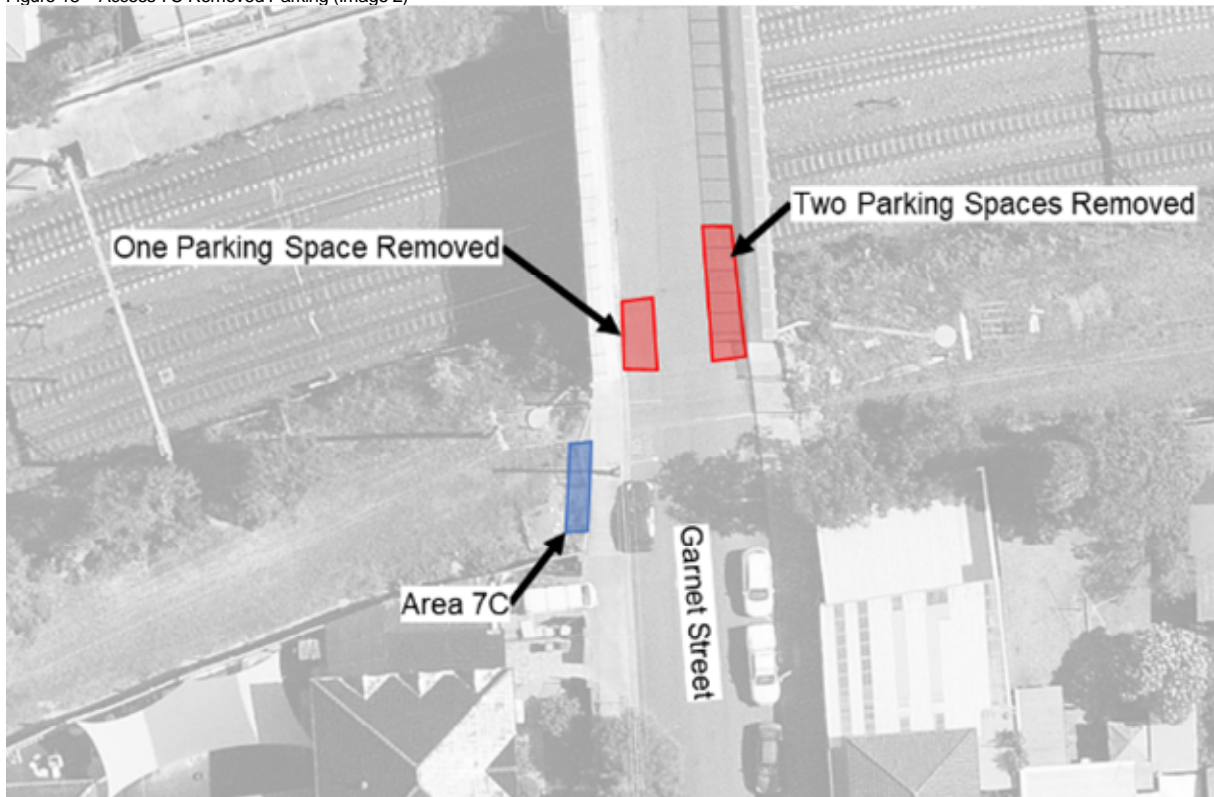


Figure 19 – Area 9A Removed Parking

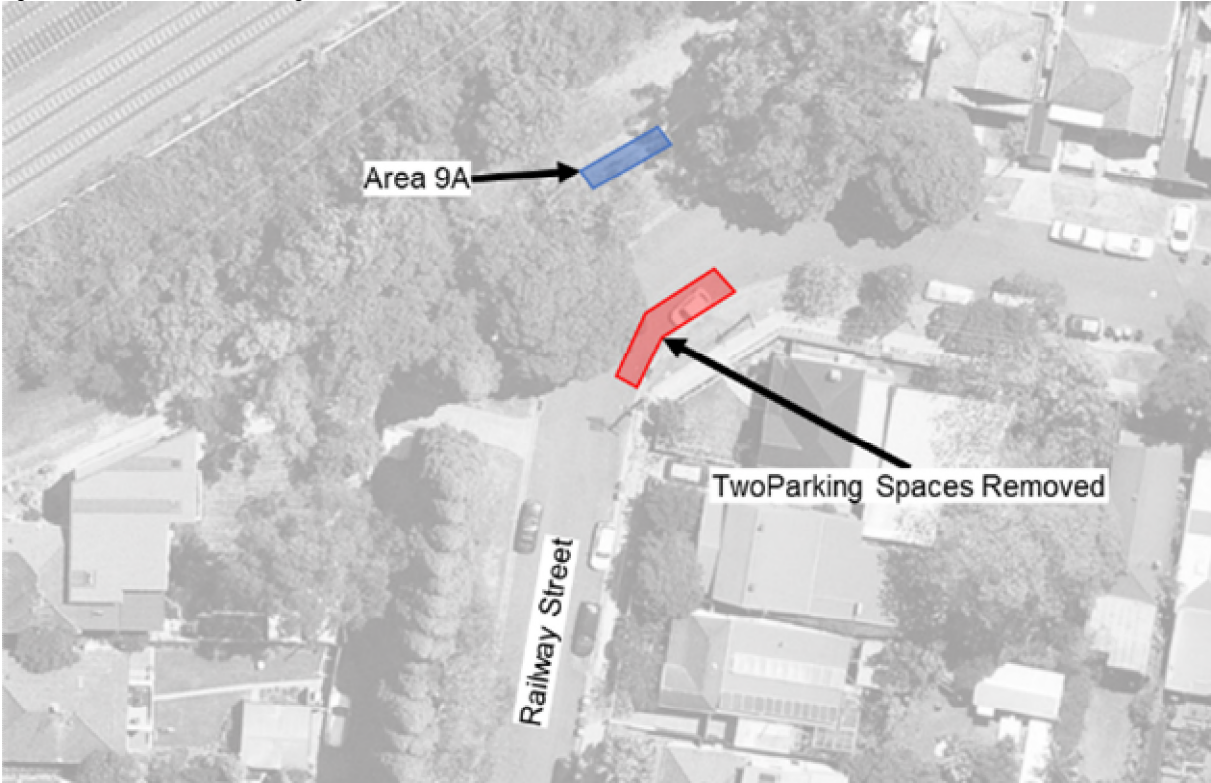


Figure 20 – Ewart Street and Floss Street Removed Parking for construction Vehicle Route

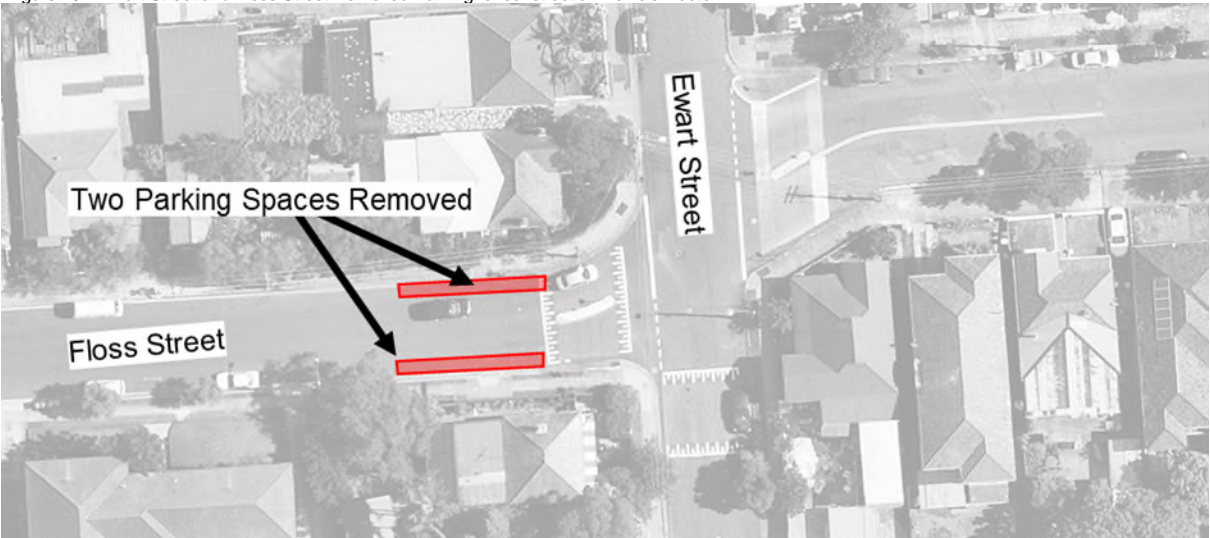


Figure 21 – Area 9D Removed Parking

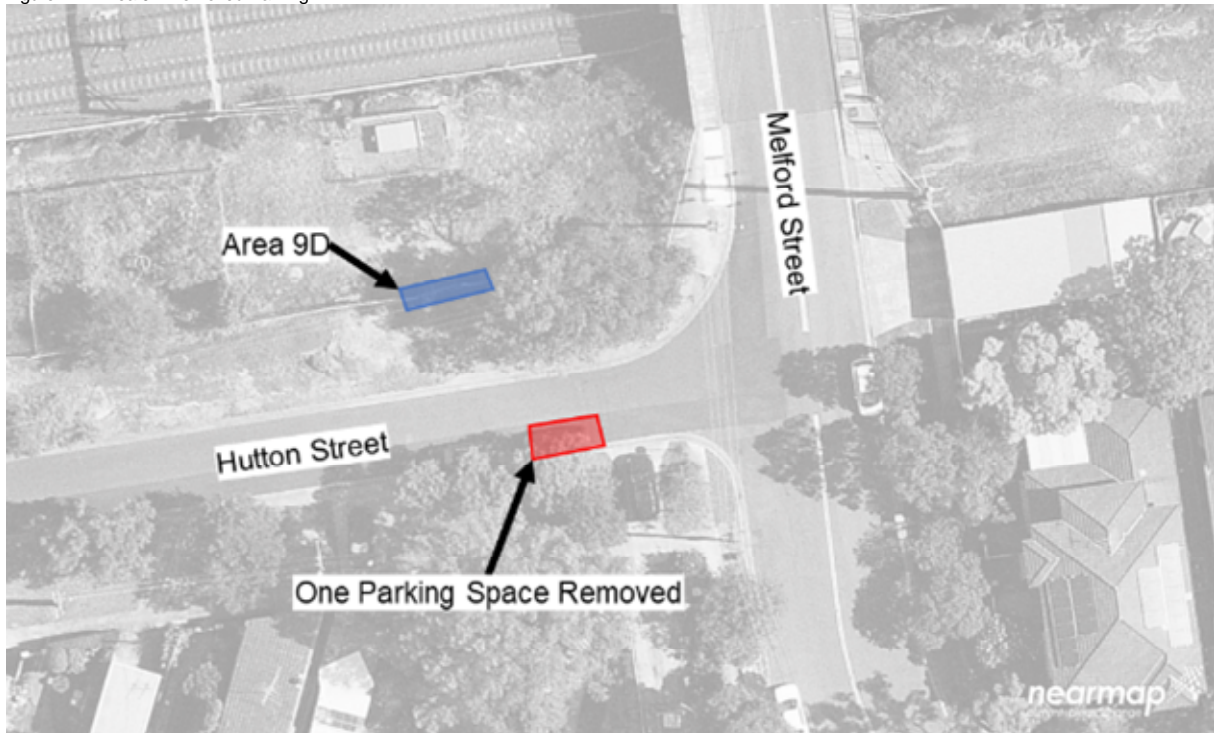


Figure 22 – Area 13A Removed Parking

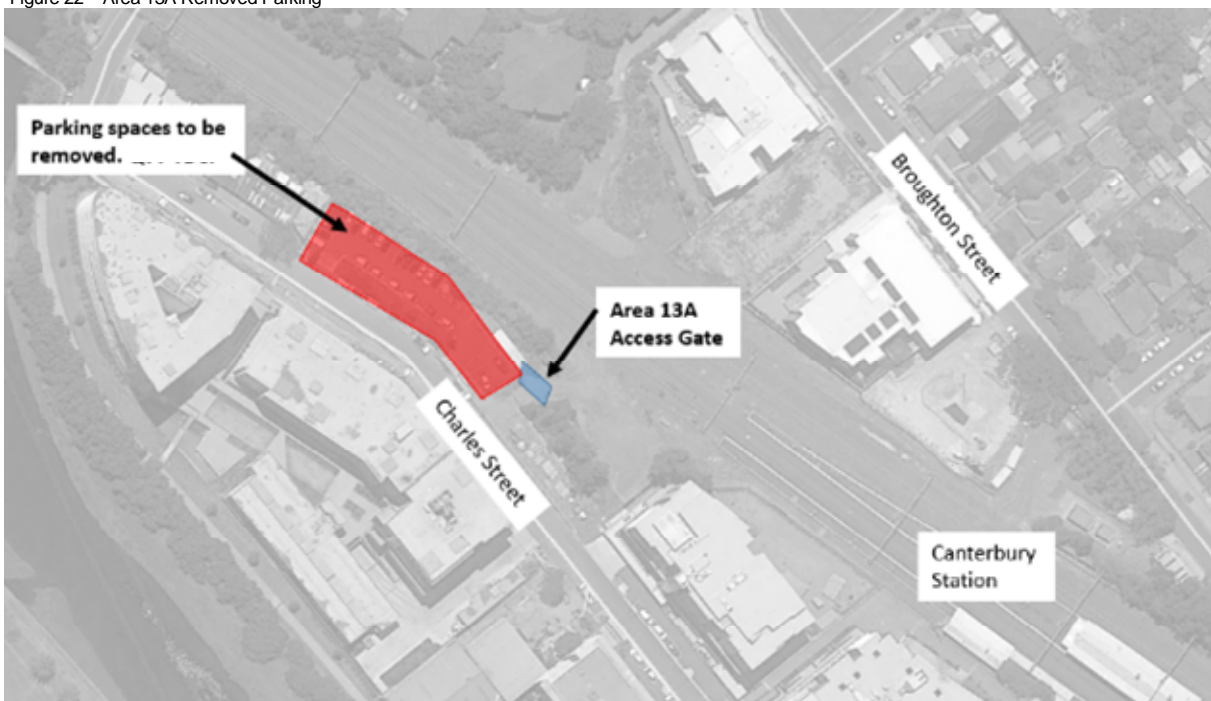


Figure 23 – Area 13B Removed Parking

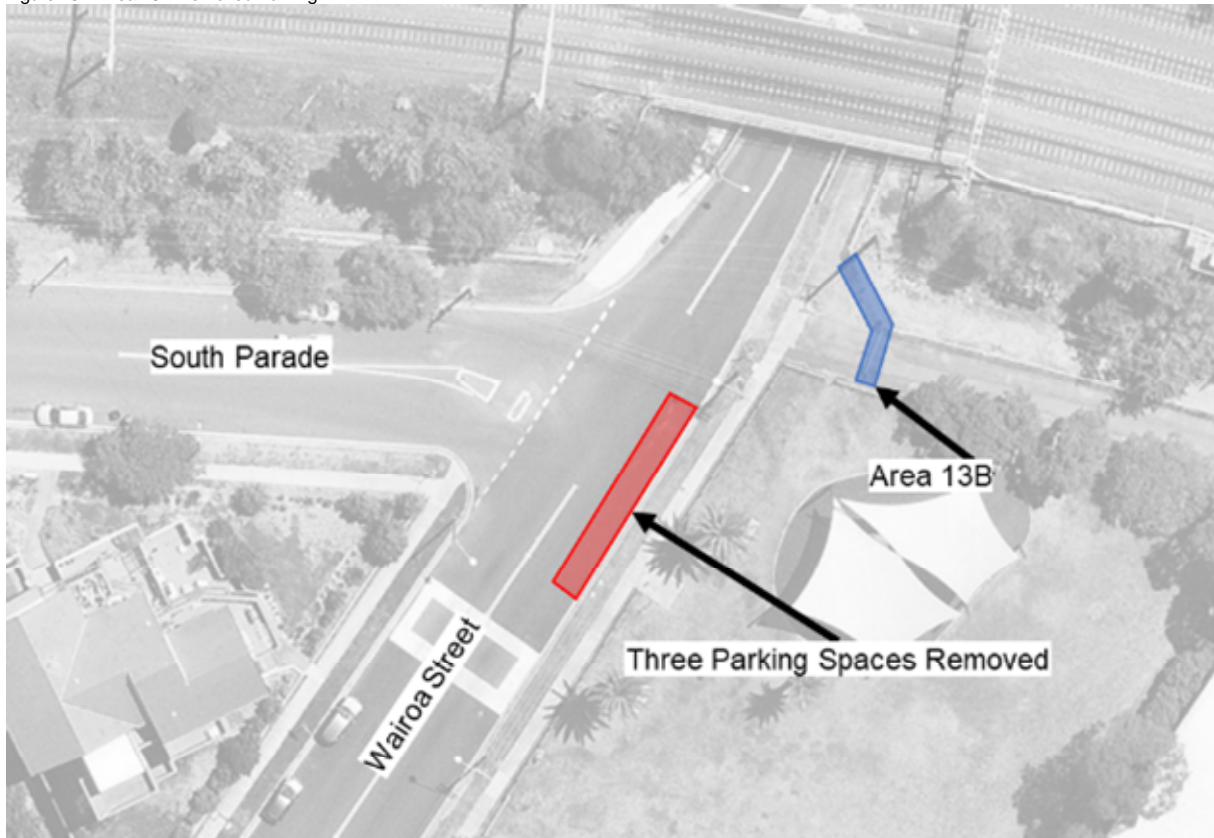


Figure 24 – Area 13D Removed Parking for rail access gate (1 of 2)

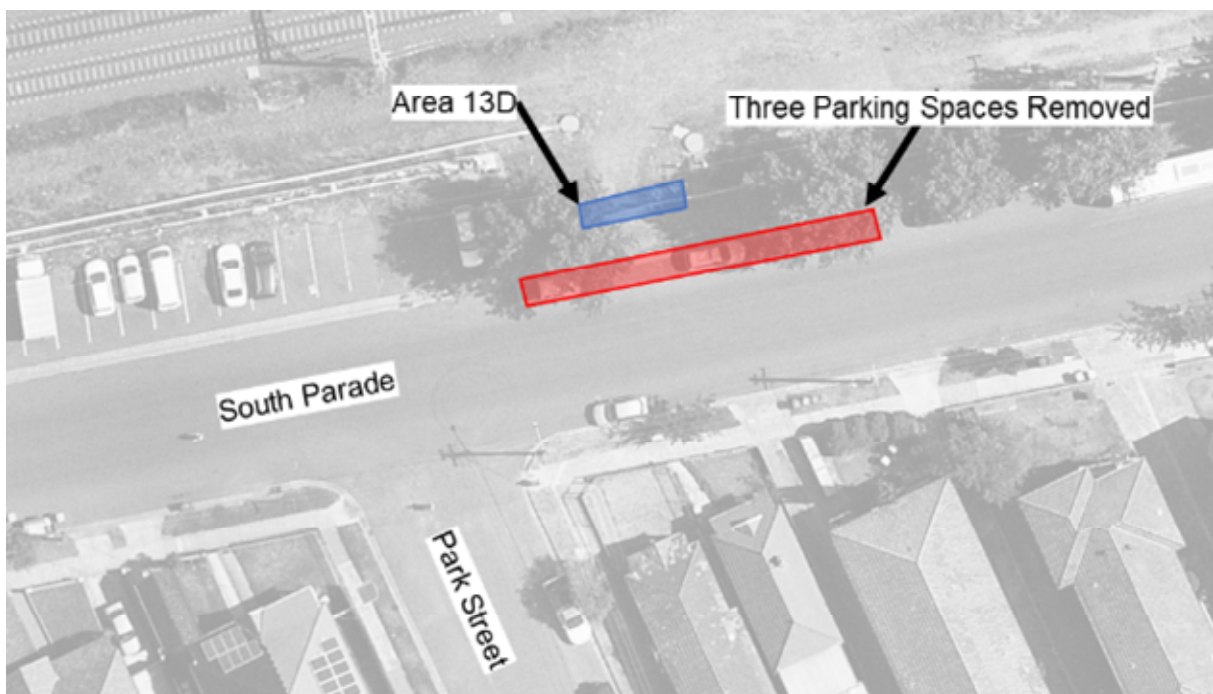


Figure 25 – Area 13D Removed Parking for construction of noise wall (2 of 2)

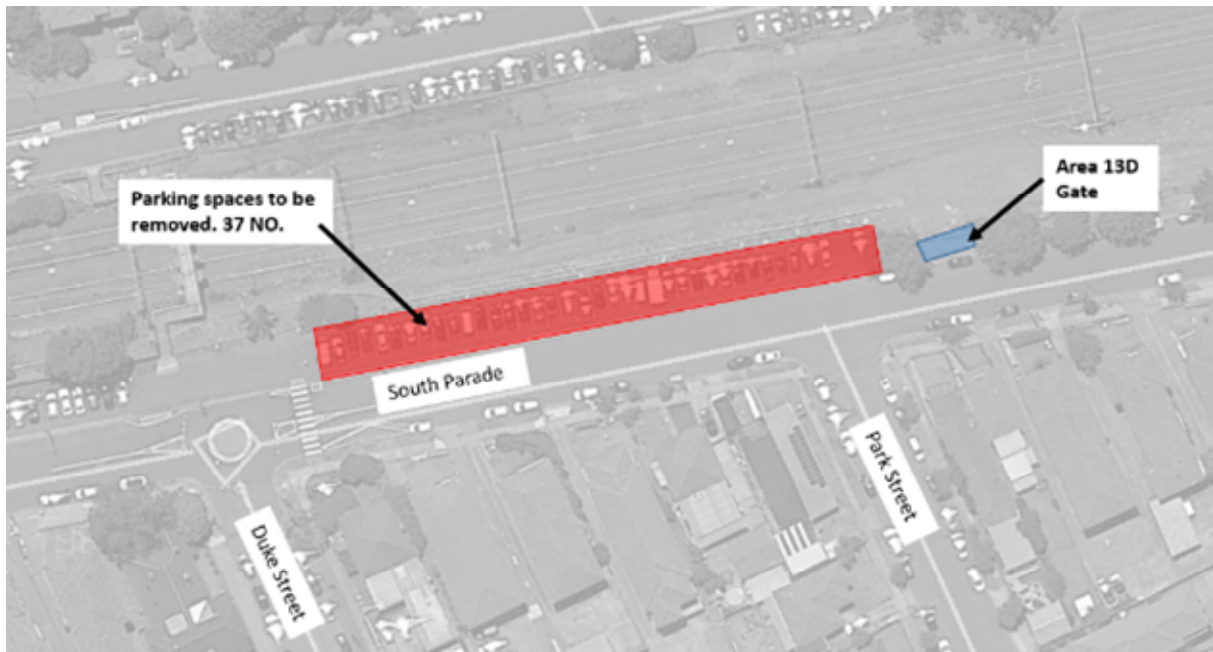
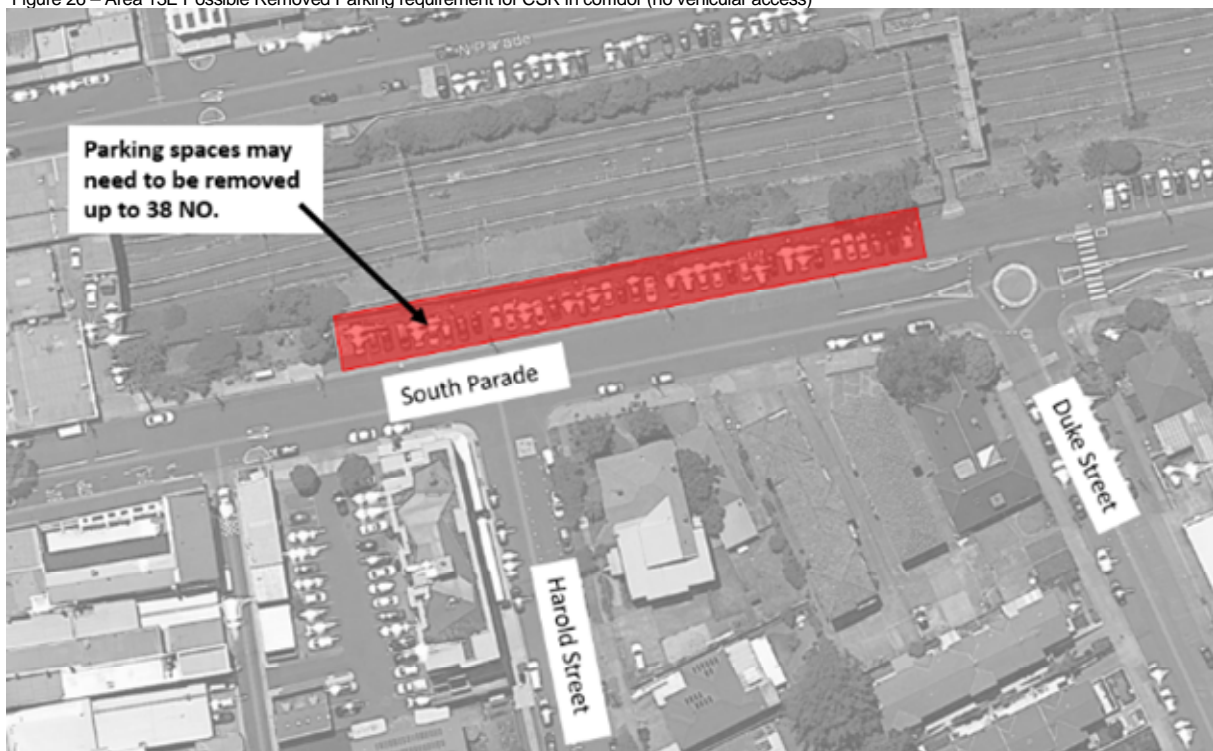


Figure 26 – Area 13E Possible Removed Parking requirement for CSR in corridor (no vehicular access)



3.12 Parking Management Plan

The upgrade work involves working within a live rail environment. This limits the type of work activities which can be carried out during standard construction hours. The project will work during available Sydney Trains (ST) rail track possession weekends. The successful delivery of the project is reliant on working with and maximising scope of work during track possessions to deliver critical activities that are constrained by working within a live rail environment. This will involve a number of plant, machinery and workforce arriving and departing site during numerous shifts.

During standard construction hours, the project is committed to reducing project vehicles travelling along local roads and will encourage the workforce to:

- use public transport
- car pool/share
- park in a designated off-site area and access construction sites via shuttle bus.

It is noted that due to constraints around carrying equipment on public transport and inefficiency of using a designated parking spot with shuttle buses, the Project will focus on using car pooling as the main construction parking mitigation measure. JHLOR will continue to investigate shuttle bus use from a designated parking area where practicable and based on project needs.

During possession weekends, a larger number of workers than usual would travel to the work sites using personal vehicles due to:

- reduction in available public transport due to trains not running
- less frequent bus services on weekends
- some bus services not operating.

There should not be more than 10 parking spaces per compound or work site for construction worker parking. For each site, additional parking options are to be investigated.

Parking may have to be removed on some streets to allow heavy vehicles to manoeuvre into sites. Removed parking will be shown on the Traffic Control Plans. If required, further consultation will be undertaken with residents/businesses, and Council's approval will be obtained.

Any road occupancy will require approval from the relevant council (IWC or CBC) as well as notifying nearby residents. The notification process is outlined in Section 8.

Where parking is removed, alternative parking arrangements are to be provided where practical. Ideally there is as close to zero loss in parking due to project works.

4. Traffic Signage and Control

Traffic signage and control must be in accordance with the most recent version of the RMS Traffic Control at Work Sites Manual.

The goal of traffic signage is to inform, direct and guide drivers, pedestrians, and other road users past construction compounds and work sites.

4.1 Appropriate Signing

4.1.1 Principles of Signing

JHLOR JV's Site Manager/Relevant Site Supervisor shall ensure, no matter how briefly the work site is occupied, careful consideration is given to signing of the site to:

- Provide advance warnings and physical protection to drivers of changes in the surface of the roadway and/or in the changed traffic conditions and personnel and/or plant are engaged in work
- Adequately instruct and guide traffic safely through, past or around the work site
- Provide separation of the travel path and the works area.

JHLOR JV's Site Manager/Relevant Site Supervisor shall ensure the following important principles are observed about traffic management signage:

- Signs and devices comply with those listed in AS 1742.3
- Signs and devices are to be erected and displayed before work commences
- On approaches to the work area signs are erected in the following sequence and then removed in the reverse order:
 - Advance warning signs
 - Other warning signs
 - Instruction signs.
- Signs are placed within the driver's line of sight and at the same time not obscure other traffic devices from the driver's line of sight
- All signs and devices are placed in the most advantageous positions having regard for the location and nature of the hazard, and the warning being conveyed, to provide the maximum visual impact for approaching traffic. Such signs and devices shall have an adequate clear view in advance of them (minimum 60m for 60 km/h, minimum 100m for 100 km/h)
- Signs and devices are placed in a manner and position, so they are not obscured from view by vegetation or parked vehicles
- Signs and devices are placed in a manner and position so as not to become a possible hazard to workers, pedestrians or vehicles (e.g. divert traffic into an undesirable path)
- Signs and devices shall be regularly checked for effectiveness and maintained in a satisfactory condition
- Signs and devices are selected and placed in a manner so as not to require a driver to disobey a law unless so directed by an authorised officer such as a police officer
- Permanent signs which conflict with the signs required for the temporary work situation are covered or removed

- Signs and devices are removed from the site when practical once the hazard ceases to exist. This not only restores the road/footpath to normal but is also an essential part of maintaining the credibility of the signs.

Directional signage and line marking would be used to direct and guide drivers and pedestrians past construction sites and on the surrounding network. This would be supplemented by Variable Message Signs to advise drivers of potential delays, traffic diversions, speed restrictions, or alternate routes.

4.1.2 [Erection and Location of Signs](#)

JHLOR JV's Site Manager/Relevant Site Supervisor and the nominated Traffic Controller shall ensure:

- All road signs are used with approved stands or erected on posts set into the ground, where permitted by the relevant authorities
- All signs are placed in the most advantageous position, having regard for the nature of the hazard and the warning being conveyed, to provide the maximum visual impact for approaching drivers
- Where signs are erected on posts set into the ground the following applies:
 - On kerbed roads signs should be located back from the face of the kerb not less than 300mm, and no more than 1.0m
 - The lower edge of the height of the sign should be at least 2.2m above the kerb or footpath to avoid being struck by pedestrians or cyclists and to be visible above parked vehicles.
- Where the signs are erected on temporary stands for short term work, if they are erected in kerbed areas, the provisions outlined above for post-mounted signs shall be followed.

4.1.3 [Advance and Intermediate Advance Warning Signs](#)

Advance and Intermediate Advance Warning Signs alert approaching vehicles of changed road conditions so road users may negotiate any travel path at an acceptable level of risk.

- For JHLOR JV purposes the Advance Warning Signs are limited to:
 - Workers Ahead
 - Roadwork Ahead.
- Intermediate Advance Warning Signs are used where, in addition to a general warning of the onset of the roadwork, a warning is needed either of a specific action of a driver or of the condition of the road. The intermediate advance warning signs for JHLOR JV purposes are:
 - Detour Ahead
 - Prepare to Stop.
- The minimum distance for positioning of the advance warning signs shall be 2 x D metres where D is the speed limit in km/h or the approach speed where it is significantly different from the speed limit, e.g. if the approach speed is about 60 km/h then the sign is placed at 120m
- The distance shall be measured from the sign position to the beginning of the taper area or the beginning of the diversion associated with the work site

- Where there is more than one advance sign position, such as for Detours, etc., then the advance sign nearest the work area shall be placed 2 x D metres from the transition area, and the other advance sign positions at spacing of D metres further in advance of work area. e.g. “Detour Ahead” sign would be at the 2 x D spacing with the “Roadwork Ahead” sign at the D metres spacing
- Advance warning signs for vehicular traffic are not required in the following situations:
 - Where work is sufficiently remote from the roadway that no action or extra vigilance is required of a driver other than would be normally required on that section of road
 - Where approach speeds are so low that no devices are needed to give advance warning; i.e. signs and devices can be seen in plenty of time for drivers to take necessary action.

4.2 Traffic Control

4.2.1 Approach Taper Partially Closed Lane

If a roadway has to be partially closed, an appropriate taper should be marked in the transition (taper) area and, wherever possible, should be located so its full length is visible to approaching traffic.

Traffic cones or bollards are used after the appropriate advance signs on the approach side of the hazard, forming a taper from the kerb to the outer limits of the clearance area. Table 27 below provides a guide to the recommended taper length for two-lane, two-way roads to be closed for various approach speeds based on a lane width of 3.5m. This is sourced from Table 5.2 of the RMS Traffic Control at Work Sites Manual.

The distances in the columns in Table 27 are applied as follows:

Table 27 – RMS Recommended Taper Lengths

Approximate speed of traffic km/h	Recommended taper length, m		
	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
Greater than 105	N/A	110	180

Source: RTA Traffic Control at Worksites 2010 Section 5.2

JHLOR JV’s Site Manager/Relevant Site Supervisor shall ensure the requirements and recommendations for signs and devices in each of the areas identified above are as follows:

Advance Warning Area

General Requirements for the display of advance warning signs and devices will vary according to factors such as the speed of approaching traffic, the degree to which the hazard requires modification of speed or diversion of travel path, or extra vigilance for other reasons, and the sight distance available to the hazard, including sight obstruction caused by other traffic.

Transition (Taper) Area

If a roadway has to be partially closed, an appropriate taper should be marked in the transition (taper) area and, wherever possible, should be located so its full length is visible to approaching traffic.

Work Area/Clearance Area

- The work area is where the work is physically being carried out and is preceded by a clearance area that provides a safety barrier
- The clearance area should be large enough to accommodate any work trucks or plant etc., however, if the work is hidden from approaching traffic (e.g. by a crest or curve) the clearance area should extend back to a point where it can be adequately seen by approaching traffic.

Termination Area

Signs indicating the end of the works and where appropriate, terminating a roadwork speed limit zone, are placed at the end of the termination.

Traffic control at beginning of taper

Applicable at a location where there is a traffic controller just before a taper. (e.g. into a single lane being controlled by a controller).

Diverge taper (lateral shift)

Applicable where traffic is simply required to shift laterally without conflict with another stream of traffic.

Merge taper

Applicable where one lane of traffic is required to merge onto another lane of traffic.

[4.2.2 Traffic Controller's Check](#)

Traffic Controllers shall record that all the appropriate signs and traffic control requirements have been implemented according to the approved traffic control plan in place.

[4.2.3 Termination Taper](#)

This is the area indicating the end of the works. The use of three traffic cones or bollards should be sufficient in a taper. The typical spacing would be 5.0 to 15.0m.

5. Delineation at Work Site – Travel Paths

5.1 Delineation of the Travel Path

Movement of traffic near a work site shall be treated depending on the location of the movement, either:

- Through the work area
- Past the work the area.

Minor alterations may be necessary during possessions as detailed in Appendix G – Schedule of Possessions.

5.1.1 [Through the Work Area](#)

This will be applicable only on the actual worksite and will not be used for traffic of the general public.

Pedestrian Movement Plans are to be created to accommodate pedestrian access.

5.1.2 [Past the Work Area](#)

Where the traffic is conducted past the work area, a buffer zone of 1.2m will be implemented to separate the work area and the travel path. This zone is to be implemented on both sides of the travel path to prevent intrusion.

Methods to restrict this movement take the form of containment fences such as:

- Water-filled barriers
- Barrier tapes
- Mesh fences
- Interconnected lightweight units
- Bollard fences.

The following areas have been identified as requiring delineations for travel paths around worksites as the worksites occupy pedestrian areas:

- Area 11A
- Area 11B
- Area 13A
- Area 13B
- Area 13D.

Pedestrian management plans are included on hoarding diagrams and traffic control plans where relevant as provided in

Appendix B – Traffic Control Plans and Appendix D – Traffic Staging, Site Boundaries and Hoardings.

Bridge inspection works will require delineations from travel paths for vehicles. These are shown on the relevant traffic control plan for the works. Generally, traffic cones are used, with the taper, merge, and spacing distances being those as set out in Roads and Maritime Services Traffic Control at Worksites Manual.

5.2 Worksites

When workers are always present at a work site, it may be sufficient to use bollard and tape barriers.

It may be necessary to divert pedestrians into lane closures when footpath access is restricted. A risk assessment is to be undertaken for each instance where this occurs, and the appropriate barrier type is to be implemented.

5.3 Vehicle Movement Plan (VMP), Pedestrian Movement Plan (PMP) and Worker Walking Routes

The content of a VMP will include:

- A diagram showing the preferred travel paths for vehicles associated with a work site entering, leaving or crossing the through traffic stream. A VMP may be combined with or superimposed on a TCP
- The vehicle entry and exit points into the work area, and indicate clearly that these are the only points where interface with through traffic is permitted.

The content of the PMP will include:

- A diagram showing the allocated travel paths for workers or pedestrian around or through a worksite. A PMP may be combined or superimposed on a TCP; and
- A diagram showing all signs and devices used to guide the workers or pedestrians.

VMPs and PMPs will be combined into a single plan where possible. These can also be integrated into a TCP where practical. Refer to Appendix C – Vehicle Management Plans, Pedestrian Movement Plans, and Worker Walking Routes.

6. Traffic Controllers

6.1 Traffic Controllers

All traffic controllers shall hold Roads and Maritime Services (RMS) Traffic Controller ‘Blue Card’ and wear the required Personal Protective Equipment (PPE) at all times (e.g. helmets, safety boots and high visibility vests, etc.).

During all work on site, the following precautions shall be taken:

- A traffic controller shall direct traffic and work vehicles using a “STOP/SLOW” sign
- All trucks involved in the work shall follow a set route to minimise traffic disruption.

Where JHLOR JV works require vehicles to be stopped or slowed down to navigate through or past the work site then it shall be necessary to use qualified RMS Blue Card Holding Traffic Controllers. The selected Traffic Controller Subcontractor will be responsible for the management of all traffic throughout the delivery phase.

A Traffic Controller is a person who has graduated from an accredited course to Traffic Controller. Traffic controllers are also required to maintain a log book of traffic control related information. Traffic Controllers are required to implement the approved TCP for the subject work area. All activities should be conducted in accordance with Section 4. A summary of expectations of traffic controllers is listed in Section 6.1.3 below.

6.1.1 Use of Traffic Controllers

Some typical situations where traffic controllers can be used are shown in **Table 28** below.

Table 28 – Typical Situations for Traffic Controllers

Situation	Purpose
One lane of a two-lane/two-way road is closed.	Restrict traffic flow to a single direction and alternate direction of flow over available width of carriageway.
Conditions at the work site are such that low speed operations are essential.	Warn or slow down the traffic.
Plant or machinery regularly crosses or enters an existing road.	Avoid conflict between plant/machinery and road traffic.
Sight distance to the work site is limited.	Control and warn motorists of the presence of work machinery and/or personnel.

6.1.2 Number of Traffic Controllers

One (1) Traffic Controller may be used operating alone with a STOP/SLOW bat and any other relevant signs provided that it will be utilised only for management of pedestrians/cyclists on footpath.

Two (2) or more Traffic controllers equipped with two-way radios should be used for all other conditions.

6.1.3 Traffic Controller(s) Role and Responsibility:

- Ensure all relevant signs and devices are in place before starting traffic control
- Wear high visibility clothing and carry their traffic control identification
- Maintain an approved logbook to record experience gained as a trainee Traffic Controller
- Not obstruct drivers' view of or be partially hidden by other road signs and devices
- Give definite and clear signals
- When two traffic controllers are used, be visible to one another or have radio communication so the flow of traffic from each direction can be coordinated
- Traffic will be held only to allow single HV movements to be made and then released
- Follow all other relevant procedures and requirements contained in the relevant TCP or JSA/SWMS for the activity undertaken.

7. Work on Footpaths

7.1 Pedestrian Considerations

Due consideration to pedestrians shall be given before proceeding with JHLOR JV works on or next to footpaths. By definition, catering for pedestrians means catering for the different modes of travel used such as walking, cycling or for people with different characteristics such as disabilities. It also means JHLOR JV shall consider that pedestrians are often distracted or in a hurry.

Vulnerable road users will be specifically targeted with safety measures as per the SM PS-ST-221 Sydney Metro Principal Contractor Health and Safety Standard to minimise the road safety risks to pedestrians, cyclists and motorcyclists in the vicinity of the SMEW construction sites.

Measures specific to SMEW include, but are not limited to:

- Heavy vehicles equipped with systems to improve vehicle safety, visibility and the detection of vulnerable road users
- Mandatory completion of Sydney Metro City & Southwest project specific Heavy Vehicle Driver Introduction Training for frequent deliveries.

It is expected that for the Southwest Metro early works, pedestrian interactions will be minimal.

Interactions with pedestrians/cyclists will be as follows:

- Access A – no pedestrian footpath is provided on entrance to Fraser Park car parking areas, pedestrians share roadway with vehicles.
- Access B – interface of vehicles crossing footpath only.
- Access C – no pedestrian footpath is provided along Unnamed Lane opposite Wooley Lane, pedestrians share roadway with vehicles, interface of vehicles crossing footpath on Warburton Street.
- Access E – interface of vehicles crossing shared path (pedestrian and cyclist link between Kays Avenue East and Albermarle Street).
- Access F – interface of vehicles crossing footpath only.
- Access G – interface of vehicles crossing footpath only.
- Access H-1 – interface of vehicles crossing footpath only.
- Access K – interface of vehicles crossing footpath only.
- Access N – vehicles will conflict with any pedestrian crossing movements on the Church Street footbridge.
- Access O – vehicles may conflict with pedestrian activity due to adjacent off-street car park.
- Access P – interface of vehicles crossing footpath only. Gate is noted to be adjacent to high pedestrian activity attractors (Tasker Park Playground, Cooks River Path and Canterbury Ice Rink).
- Access S – vehicles may conflict with pedestrian activity due to adjacent car parking spaces.
- Access T – vehicles may conflict with pedestrian activity due to adjacent car parking spaces.
- Access V – vehicles may conflict with pedestrian activity due to adjacent car parking spaces.

Access Y – interface of vehicles crossing footpath and along initial driveway section as this is a shared use access for the adjacent housing.

Access Z – interface of vehicles crossing footpath only

Any instances of interfacing between construction vehicles and vulnerable road users will be managed by traffic controllers as required. Pedestrians and cyclists will be held by traffic controllers to allow single movements only and then released. Consideration of this will be taken in any design and plan for travel paths. Note that pedestrian management will be included in individual TCPs for ROL applications and Council approval.

The Disability Discrimination Act 1992 will be adopted with kerb ramps or other measures provided at road crossings in the works areas. Footpath widths are to be sufficient to provide for two-way pedestrian traffic. Prams, strollers and wheelchairs are to be able to pass each other without requiring temporary widening of the footpath from its existing condition before construction start. If narrowing of footpath width is required, it is to be approved by the relevant authorities. Current modifications to footpaths are shown on the Pedestrian Movement Plans (PMPs), which are incorporated into the relevant TCPs. Any further changes to footpaths must follow the above requirements.

7.1.1 Width of Travel Path

Footpaths and walking paths are to be designed in accordance with the most recent edition of Austroads Guide to Road Design Part 6A: Pedestrian and Cyclist Paths. Section 5.1.2 of this document details the minimum width of footpaths.

- For a low demand footpath, the desirable minimum width is to be 1200mm
- In constrained areas an absolute minimum of 1000mm can be used but this is not desirable
- People who use wheel chairs require a clear width of 1200 mm. This does not allow two wheelchairs travelling in opposite directions to pass each other, so passing areas are to be provided at regular intervals
- High volume pedestrian areas are to have a minimum width of 2400mm
- If it is not practical to provide the above widths on the footpath it may be necessary to consider part closure of the road together with appropriate barriers
- Appropriate ramps are to be implemented if pedestrians are directed onto another footpath in accordance with the Disability Discrimination Act 1997
- TCP and ROL's will provide details required for any approvals by RMS / TMC / IWC / CBC.

7.2 Pedestrian Safety Points

The following pedestrian safety points should be included in the final control measures by the JHLOR JV supervisor. These points should be observed before the work is commenced. This is not an exhaustive list and should be updated by the supervisor according to the circumstances at the work site.

7.2.1 All pedestrians

- Always look at the pedestrian's route
 - Routes are free of any slip or trip hazards
 - Pedestrians safely negotiate the work site
 - Pedestrians can safely negotiate any “squeeze” points in and around the work site.
- Check that the pedestrians' routes are continuous through/next to the work site
- Determine the most applicable time of the day to conduct the works taking into account both normal and peak hour times
- Determine what is the most appropriate means for pedestrians to negotiate (through, past or around) the worksite
- Where applicable ensure any barriers erected do not force pedestrians to cross at an inappropriate location.

7.2.2 Elderly Pedestrians

- Travel path is relatively smooth and clear of overhanging foliage
- The work site adequately illuminated.

7.2.3 Young Pedestrians

- Barriers have been erected to guide children past or through the work site
- Travel paths remain continuous through the scheme
- Ensure no road signs/devices obstruct the vision of or visibility to younger pedestrians
- Manage parking of JHLOR JV vehicles to maximise the sight lines.

7.2.4 Intoxicated Pedestrians

- Assess whether there is potential for intoxicated pedestrians in the area
- Ensure appropriate barriers in place to guide them past or through the work site
- Ensure drivers given every chance of seeing pedestrians
- Manage parking of JHLOR JV vehicles to maximise the sight lines.

7.2.5 People with Disabilities or Prams

- Ensure the work site be identified by visually impaired people
- The travel path must be sufficient to cater for wheelchairs, prams, etc.

8. Consultation with Relevant Stakeholders

Communication with community, commuters and community stakeholders will be undertaken using the same strategy as the Sydenham Metro upgrade Community Communications Strategy (CCS) – SMCSWSSJ-JHL-WSS-CL-PLN-000023. Communication with other stakeholders will be undertaken as per the SSJ Interface Management Plan SMCSWSSJ-JHL-WSS-IF-PLN-000019_3.

Sydney Metro (SM) will maintain responsibility for liaison and consultation with Government elected representatives, if required for the purpose of traffic management.

Consultation with the relevant stakeholders listed below is to be undertaken on a monthly frequency for the duration of works.

Before undertaking any work associated with partial closure of any road or footpath or any other interaction with transport infrastructure, the following stakeholders must be appropriately consulted with to ensure all requirements are addressed.

WestConnex and Metro TSE sites are located near SMEW work areas. Coordination meetings with representatives from these projects will be held regularly to minimise cumulative impacts and avoid conflicting activities.

Station / Site	SCO	BDA	Sydney Trains	RMS	WCC	NSC	CoS	CBC	IWC	TMC
SMEW	TCG/ TTLG	N/A	TCG/ TTLG	TCG/ TTLG	N/A	N/A	N/A	TCG/ TTLG	TCG/ TTLG	TCG/ TTLG

Legend:

- **SCO**-Sydney Coordination Office
- **BDA** – Barangaroo Delivery Authority
- **RMS** – Roads and Maritime Services
- **WCC** – Willoughby City Council
- **NSC** – North Sydney Council
- **CoS** – City of Sydney Council
- **CBC** – Canterbury-Bankstown Council
- **IWC** – Inner West Council
- **TMC** – Transport Management Centre.

The stakeholders have been consulted in the following forums:

- Traffic Transport & Liaison Group TTLG (monthly)
- Traffic Control Group TCG (weekly)
- Inner West Council coordination meetings (monthly)
- Canterbury-Bankstown Council coordination meetings (monthly)
- Submissions as appropriate to IWC & CBC Traffic Committee Group (monthly)

A summary of the consultation to date is provided below and further in Appendix F – Stakeholder Consultation.

Table 29 – Stakeholder consultation to date

Date	Interaction	Subject	Stakeholder	Comments
weekly (from 15-Jan-19)	Meeting	Weekly meeting (Tuesdays)	TCG	-
Monthly (from 30-Jan-19)	Meeting	Monthly meeting (last Wednesday each month)	TTLG	-
15-Jan-19	Meeting	Monthly meeting (3rd Tuesday each month)	Inner West Council	-
19-Feb-19	Meeting	" "	Inner West Council	-
19-Mar-19	Meeting	" "	Inner West Council	-
16-Apr-19	Meeting	" "	Inner West Council	-
19-May-19	Meeting	" "	Inner West Council	
19-Jun-19	Meeting	" "	Inner West Council	
19-Jul-19	Meeting	" "	Inner West Council	
19-Aug-19	Meeting	" "	Inner West Council	
28-Feb-19	Meeting	Monthly meeting (last Thursday each month)	Canterbury-Bankstown Council	-
28-Mar-19	Meeting	" "	Canterbury-Bankstown Council	-
19-May-19	Meeting	" "	Canterbury-Bankstown Council	
19-Jun-19	Meeting	" "	Canterbury-Bankstown Council	
01-Aug -19	Meeting	" "	Canterbury-Bankstown Council	
29-Aug -19	Meeting	" "	Canterbury-Bankstown Council	

The Proponent must establish a Traffic and Transport Liaison Group(s) (TTLGs) to inform traffic and transport management measures during Construction and Operation of the CSSI. Management measures must be coordinated with the RMS following consultation with the Sydney Coordination Office the Relevant Roads Authority.

The TTLG must comprise representatives from the Relevant Road Authority(ies), transport operators (including bus and taxi operators) and emergency services as required. The TTLG must be consulted to inform preparation of the Construction Traffic Management Plan(s).

The TTLG is proposed to consist of representatives from the following stakeholders:

- John Holland Laing O'Rourke Joint Venture
- Sydney Metro
- Sydney Coordination Office

-
- Fire & Rescue NSW
 - Inner West Council
 - Canterbury-Bankstown Council
 - State Transit Authority
 - Tunnel and Station Excavation (TSE) Project Members
 - Roads and Maritime Services
 - Transport for NSW
 - Laing O'Rourke.

Refer to Appendix F – Stakeholder Consultation for further detail.

It is also noted that in accordance with REMM TC3 *“the impacts on the surrounding road network of lane closures resulting from bridge works across the rail corridor would be assessed in detail, to identify the suite of management measures to be implemented for each closure required. This would be undertaken in consultation with Transport for NSW, Roads and Maritime Services, the Sydney Coordination Office, the Inner West and Canterbury-Bankstown councils, emergency services, and relevant bus operators.”*

Planning for partial bridge closures would consider bus rerouting and timetabling, with the intention of minimising impacts to bus customers and bus operators.”

JHLOR will consult with TTLG to determine appropriate management measures for works associated with attaching Combined Service Route components to bridges where lane closures are required. It is expected that lane closures will be required at Victoria Road Marrickville, Ness Avenue Dulwich Hill and Foord Avenue Hurlstone Park.

8.1 Notifications

Under CoA E46, the Proponent must establish a Traffic and Transport Liaison Group(s) (TTLGs) to inform traffic and transport management measures during Construction and Operation of the CSSI. Management measures must be coordinated with the RMS following consultation with the Sydney Coordination Office the Relevant Roads Authority.

The TTLG must comprise representatives from the Relevant Road Authority(ies), transport operators (including bus and taxi operators) and emergency services as required. The TTLG must be consulted to inform preparation of the Construction Traffic Management Plan(s).

Project monthly and activity specific notifications will include details of the type and extent of work being undertaken as well as the expected impact to traffic and transport. Any changes to conditions will be notified via notification and email at least seven days before changes to traffic and access arrangements are made.

Significant traffic management changes, detours and traffic disruptions will be advertised in local newspapers at least seven days before any change occurs.

Copies of project notifications will also be sent to Inner West Council Council via (council@innerwest.nsw.gov.au), and Canterbury-Bankstown (council@cbc.city.nsw.gov.au).

Any changes made to the public domain must be submitted to the Inner West Council, which will be referred to the Local Traffic Committee.

8.2 Community

The community would be notified in advance of proposed road and pedestrian network changes through appropriate forms of community notification.

The CCS outlines the JHLOR JV's approach to managing communications and engagement during design and construction of the SMEW upgrade as part of the Sydney Metro City & Southwest program of work.

This CCS describes the engagement approach, processes, procedures and tools that will be used to provide timely, accurate and relevant information to the community. The CCS aims to maximise stakeholder and community understanding of the project activities, objectives and benefits, timing of potential impacts and available mitigation measures.

A number of communications tools will be used to notify the community of any upcoming changes to traffic conditions that have the potential to impact them, including:

- Monthly and specific notifications
- Traffic alert emails
- Variable Message Signs
- Static signage
- Advertisements
- Sydney Metro website
- Sydney Metro social media
- Doorknocks and other meetings.

Access to existing properties and buildings would be maintained at all times and any temporary changes or closures only implemented in consultation with and following agreement from property owners.

Some of the mitigation measures include:

- Proactively advising community of upcoming work to ensure they are fully informed of potential impacts
- Providing early notification of changes and one on one meetings if required
- Ensuring the community understands how they can find out more information and who to contact in case they have an enquiry or complaint
- Develop communication and way finding strategies for people with reduced visibility, people from non-English speaking backgrounds and for people with a disability
- Provide traffic management signage to safely direct vehicles and pedestrians around the construction site
- Provide timely and effective responses to complaints and enquiries
- Use of social media for long term / permanent changes.

The EIS states that Transport for NSW would undertake an extensive community awareness and information campaign before changes to public transport services are implemented. This would include a range of communication activities such as:

- Information at stations
- Wayfinding signage
- Clearly marked bus stop locations
- Letter box drops
- Web based information and transport 'app' where changes to travel are found in a single place
- Information via 131 500
- Advertising in local papers
- Email information bulletins.

8.3 Businesses

The Sydenham Metro upgrade and Southwest Metro Early Works Business Management Plan (SMCSWSSJ-JHL-WSS-CL-PLN-000024) (BMP) identifies businesses potentially affected by the Sydenham Metro upgrade work and Southwest Metro Early Works, and proposes communication and engagement strategies to mitigate impacts and encourage cooperation. The BMP is a sub-plan of the Community Communications Strategy (CCS).

This BMP has been prepared in accordance with the Transport for NSW's (TfNSW) Sydney Metro City & Southwest Overarching Community Communications Strategy (OCCS) that outlines TfNSW's policies and instructions relating to managing engagement and ongoing consultation with business owners, the Ministers' Conditions of Approval (CoA) and the principles of best practice.

The BMP outlines how the JHLOR JV will consult with local businesses regarding impacts from temporary changes to vehicle access and/or increased road traffic, temporary changes to pedestrian access and temporary changes or closure of nearby parking.

8.4 Special Events

Due to the large scope of the project, there is potential that there may be conflicts between special events and project work. JHLOR JV will liaise with Inner West Council and Canterbury-Bankstown Council to coordinate work around events. If any special events are planned, works will be coordinated with those events and any specific road closures. For special events that require specific traffic and pedestrian management, measures would be developed and implemented in consultation with Transport for NSW, Sydney Coordination Office, Roads and Maritime Services, the Inner West and Canterbury-Bankstown councils, and the organisers of the event.

The possession work when T2 is shutdown on 2-5 January 2020 is to be treated as a special event in terms of the coordination that is needed.

9. Required Documentation

9.1 Road Safety Audit

A Road Safety Audit will be conducted and provided to supplement this CTMP, to fully assess the road safety risk, focussing on heavy vehicle haulage routes through pedestrianised areas.

10. Reference Documentation

- SM ES-ST-214: G10 Traffic and Transport Management
- SM PS-ST-221: Sydney Metro Principal Contractor Health and Safety Standard
- SM ES-FT-460 ROL Application
- RMS Traffic Control at Worksites Manual. Version 5
- Relevant Austroads Guides
- RMS Supplements to Austroads and Australian Standards
- RMS Traffic Control at Worksite Manual
- AS 1742.3 Manual of uniform traffic control devices Part3: Traffic control devices for works on roads
- Ministers Conditions of Approval
- Revised Environmental Mitigation Measures
- Construction Environmental management Framework
- Staging Report - Sydney Metro City and Southwest

11. Appendices

11.1 Appendix A – Heavy Vehicle Access Route Details

11.1.1 Heavy Vehicle Access Routes Table

Table 30 – Heavy Vehicle Access Routes

Access Gate	Work Area	Arrival Route	Departure Route
Access A	Area 1A	via Marrickville Road, travel left onto Fraser Park internal road, left into car park and access gate.	via access gate to car park, travel right onto Fraser Park internal road, right onto Marrickville Road, and then left onto Buckley Street
Access B	Area 1B	via Marrickville Road turn right onto Victoria Road and then right into access gate.	via access gate, travel left onto Victoria Road, and then left onto Marrickville Road.
Access C	Area 3A	via Sydenham Road, travel right onto Illawarra Road, right onto Warburton Lane, right onto Unnamed Lane and then through into access gate.	via access gate, travel through onto Unnamed Lane, left onto Warburton Lane, right onto Illawarra Road
Access D	Area 3B /Area 5A	via Illawarra Road, travel left onto Marrickville Road, left onto Livingstone Road, reverse onto Randall Street (traffic control) and then reverse into access gate.	via access gate, travel through onto Randall Street and then left onto Livingstone Road.
Access E	Area 5B	From Marrickville Road, left onto Livingstone Road, right onto Albermarle Street, left onto Kayes Avenue E and then through into access gate.	via access gate, travel through onto Kayes Avenue E, right onto Albermarle St, and then left onto Livingstone Road.
Access F	Area 7A	via Wardell Road, travel right onto Ewart Street and then right into access gate.	via access gate, travel left onto Ewart Street and then left onto Wardell Road.
Access G	Area 7B	via Wardell Road, travel right onto Ewart Street and then right into access gate.	via access gate, travel right onto Ewart Street, through onto Floss Street, right onto Crinan Street and then right onto Canterbury Road.
Access H-1	Area 7C	via Canterbury Road, travel right onto Crinan Street, left onto Floss Street and then left into access gate or stop kerbside next to access gate.	via rail corridor, exit left onto Garnet Street and then left onto New Canterbury Road. Remove one parking space from west side of Garnet Street and two parking spaces from east side of Garnet Street. OR via Floss Street if stopped at kerbside, continue on Floss Street, left onto Garnet Street (or through to Ewart Street) and then left onto New Canterbury Road.
Access I	Area 9A	via Canterbury Road, travel right onto Crinan Street, right onto Duntroon Street, right onto Commons Street, left onto Hopetoun Street, right onto Burnett Street, right onto Railway Street and then left into access gate.	via access gate, travel right onto Railway Street, left onto Burnett Street, left onto Hopetoun Street, right onto Commons Street, left onto Duntroon Street, left onto Crinan Street and then right onto Canterbury Road. One parking space to be removed from east side of Railway Street.

Access Gate	Work Area	Arrival Route	Departure Route
Access J	Area 9B	via Canterbury Road, travel right onto Crinan Street, right onto Duntroon Street, right onto Commons Street, left onto Hopetoun Street, right onto Burnett Street, left onto Keir Avenue and then right into access gate.	via access gate, travel left onto Keir Avenue, right onto Burnett Street, left onto Hopetoun Street, right onto Commons Street, left onto Duntroon Street, left onto Crinan Street and then right onto Canterbury Road.
Access K	Area 9C	via Canterbury Road, travel right onto Crinan Street, right onto Duntroon Street, right onto Commons Street, left onto Hopetoun Street, right onto Burnett Street, left onto Keir Avenue, right onto Hurlstone Avenue and right into gate.	via access gate, travel left onto Hurlstone Avenue, left onto Keir Avenue, right onto Burnett Street, left onto Hopetoun Street, right onto Commons Street, left onto Duntroon Street, left onto Crinan Street and then right onto Canterbury Road.
Access L	Area 9D	via Canterbury Road, travel right onto Crinan Street, right onto Duntroon Street, right onto Commons Street, left onto Hopetoun Street, right onto Burnett Street, left onto Keir Avenue, right onto Hurlstone Avenue, right onto Hutton Street and right into gate.	via access gate, travel left onto Hutton Street, left onto Melford Street, left onto Crinan Street and then right onto Canterbury Road.
Access M	Area 11A	via Canterbury Road, travel right onto Crinan Street, right onto Melford Street, right onto Hutton Street and then right into access gate.	via access gate, travel left onto Hutton Street, left onto Melford Street, left onto Crinan Street and then right onto Canterbury Road.
Access N	Area 11B	via Canterbury Road, travel right onto Crinan Street, right onto Melford Street, right onto Hutton Street, turnaround near Access M and then reverse into access gate.	via access gate, travel through onto Hutton Street, left onto Melford Street, left onto Crinan Street and then right onto Canterbury Road.
Access O	Area 13A	via Canterbury Road, travel left onto Charles Street and then right into access gate.	via access gate, travel left onto Charles Street and then left onto Canterbury Road.
Access P	Area 13B	via Canterbury Road, travel left onto Wonga Street, right onto S Parade, right into Wairoa Street, and then reverse into Cooks River Path and access gate (traffic control).	via access gate and Cooks River Path, travel left onto Wairoa Street, left onto Wonga Street and then right onto Canterbury Road.
Access Q	Area 13C	via Canterbury Road, travel left onto Wonga Street, right onto S Parade and then left into access gate or stop kerbside next to access gate.	via S Parade or access gate, travel through or left onto S Parade, right onto Wairoa Street, left onto Wonga Street and then right onto Canterbury Road.
Access R	Area 13D	via Canterbury Road, travel right onto Park Street, right onto S Parade and then left into access gate or stop kerbside next to access gate (larger vehicles).	via S Parade or access gate, travel through or left onto S Parade, right onto Wairoa Street, left onto Wonga Street and then right onto Canterbury Road.
Access S	Area 13D	via Canterbury Road, travel right onto Park Street, left onto S Parade and then right into access gate.	via access gate, travel left onto S Parade, right onto Wairoa Street, left onto Wonga Street and then right onto Canterbury Road
Access T	Area 15A – up to MRV	via Canterbury Road, travel left onto Thorncraft Parade, right onto Loftus Street, right onto Evaline Street, left onto Loch Street, right onto Anglo Road, left onto Carrington Square, left onto Carrington Street, right onto Lilian Street and then left into access gate.	via access gate, travel right onto Lilian Street, left onto Carrington Street, left onto Carrington Square, left onto Anglo Road, left onto Loch Street, right onto Evaline Street, left onto Loftus Street, continue onto Thorncraft Parade and then left onto Canterbury Road.

Access Gate	Work Area	Arrival Route	Departure Route
Access T	Area 15A -HRV only	via Canterbury Road (travelling West), turn right Wonga Street, left onto Evaline Street, right onto Loch Street, right onto Anglo Road, left onto Carrington Square, left onto Carrington Street, right onto Lilian Street and then left into access gate.	via access gate, travel right onto Lilian Street, left onto Carrington Street, left onto Carrington Square, left onto Anglo Road, left onto Loch Street, right onto Evaline Street, left onto Loftus Street, continue onto Thorncraft Parade and then right onto Canterbury Road.
Way Street		Via Unwins Bridge Road, right onto Way Street.	Via Way Street, right onto Unwins Bridge Road, right onto Richardsons Crescent, right onto Carrington Road, left onto Myrtle Street, straight onto Victoria Road, and then left onto Marrickville Road.
Access V	Area 13A	via Canterbury Road, travel left onto Charles Street and then right into access gate.	via access gate, travel left onto Charles Street and then left onto Canterbury Road.
Access Y	Area 13A	Via Canterbury Road, travel left onto Broughton Street and the left into access driveway and then down to access Gate	Via access gate, down the access driveway and then turn right out of driveway onto Broughton Street and then left onto Canterbury Road.
Access Z	Area 13A	Via Canterbury Road, travel left onto Charles Street and then right into access gate.	Via access gate, travel left onto Charles Street and then left onto Canterbury Road.

11.1.2 [Planned Vehicle Movements](#)

Table 31 – Planned Vehicles

Access	Intended delivery vehicles	Vehicle Usage	Additional Comments/Restrictions
Access A	Semi-trailer, Heavy Rigid Vehicle, Medium Rigid Vehicle plus 5m trailer, Medium Rigid Vehicle, Small Rigid Vehicle , Light Vehicles	Possessions (including up to one week prior and after): Max 5 HV per hour (including up to one week prior) Max 20 HV per week Non-Possessions: Max 3 HV per hour	Swept path analysis undertaken for: Semi, HRV, MRV with 5m dog trailer, MRV
Access B	Heavy Rigid Vehicle, Medium Rigid Vehicle plus 5m trailer, Medium Rigid Vehicle, Small Rigid Vehicle , Light Vehicles	Possessions (including up to one week prior and after): Max 5 HV per hour (including up to one week prior) Max 20 HV per week Non-Possessions: Max 3 HV per hour	Swept path analysis undertaken for: HRV, MRV with 5m dog trailer, MRV
Access C	Medium Rigid Vehicle plus 5m trailer, Medium Rigid Vehicle, Small Rigid Vehicle , Light Vehicles	Possessions (including up to one week prior and after): Max 5 HV per hour (including up to one week prior) Max 20 HV per week Non-Possessions: Max 3 HV per hour	Swept path analysis undertaken for: MRV with 5m dog trailer, MRV
Access D	Heavy Rigid Vehicle, Medium Rigid Vehicle plus 5m trailer, Medium Rigid Vehicle, Small Rigid Vehicle , Light Vehicles	Possessions (including up to one week prior and after): Max 5 HV per hour (including up to one week prior) Max 20 HV per week Non-Possessions: Max 3 HV per hour	Swept path analysis undertaken for: HRV, MRV with 5m dog trailer, MRV Traffic control required to reverse into Randall Street. 3T Weight Restriction on Marrickville Road.
Access E	Medium Rigid Vehicle plus 5m trailer, Medium Rigid Vehicle, Small Rigid Vehicle , Light Vehicles	Possessions (including up to one week prior and after): Max 5 HV per hour (including up to one week prior) Max 20 HV per week Non-Possessions: Max 3 HV per hour	Swept path analysis undertaken for: MRV with 5m dog trailer, MRV 3T Weight Restriction GVM on Marrickville Road.
Access F	Medium Rigid Vehicle, Small Rigid Vehicle , Light Vehicles	Possessions (including up to one week prior and after): Max 5 HV per hour (including up to one week prior) Max 20 HV per week Non-Possessions: Max 3 HV per hour	Swept path analysis undertaken for: MRV with 5m dog trailer, MRV

Access	Intended delivery vehicles	Vehicle Usage	Additional Comments/Restrictions
Access G	Medium Rigid Vehicle plus 5m trailer, Medium Rigid Vehicle, Small Rigid Vehicle , Light Vehicles	Possessions (including up to one week prior and after): Max 10 HV per hour Max 50 HV per week	Swept path analysis undertaken for: MRV with 5m dog trailer, MRV
Access H-1	Medium Rigid Vehicle plus 5m trailer, Medium Rigid Vehicle, Small Rigid Vehicle , Light Vehicles	Possessions (including up to one week prior and after): Max 5 HV per hour (including up to one week prior) Max 20 HV per week Non-Possessions: Max 3 HV per hour	Swept path analysis undertaken for: MRV with 5m dog trailer, MRV 3T Weight Restriction on Crinan Street Traffic control will be required if vehicles are to reverse into access gate.
Access I	Heavy Rigid Vehicle, Medium Rigid Vehicle plus 5m trailer, Medium Rigid Vehicle, Small Rigid Vehicle , Light Vehicles	Possessions (including up to one week prior and after): Max 5 HV per hour (including up to one week prior) Max 20 HV per week Non-Possessions: Max 3 HV per hour	Swept path analysis undertaken for: HRV, MRV with 5m dog trailer, MRV 3T Weight Restriction on Crinan Street
Access J	Heavy Rigid Vehicle, Medium Rigid Vehicle plus 5m trailer, Medium Rigid Vehicle, Small Rigid Vehicle , Light Vehicles	Possessions (including up to one week prior and after): Max 5 HV per hour (including up to one week prior) Max 20 HV per week Non-Possessions: Max 3 HV per hour	Swept path analysis undertaken for: HRV, MRV with 5m dog trailer, MRV 3T Weight Restriction on Crinan Street
Access K	Medium Rigid Vehicle plus 5m trailer, Medium Rigid Vehicle, Small Rigid Vehicle , Light Vehicles	Possessions (including up to one week prior and after): Max 5 HV per hour (including up to one week prior) Max 20 HV per week Non-Possessions: Max 3 HV per hour	Swept path analysis undertaken for: MRV with 5m dog trailer, MRV 3T Weight Restriction on Crinan Street
Access L	Medium Rigid Vehicle, Small Rigid Vehicle , Light Vehicles	Possessions (including up to one week prior and after): Max 5 HV per hour (including up to one week prior) Max 20 HV per week Non-Possessions: Max 3 HV per hour	Swept path analysis undertaken for: MRV 3T Weight Restriction on Crinan Street
Access M	Medium Rigid Vehicle plus 5m trailer, Medium Rigid Vehicle, Small Rigid Vehicle , Light Vehicles	Possessions (including up to one week prior and after): Max 5 HV per hour (including up to one week prior) Max 20 HV per week Non-Possessions: Max 3 HV per hour	Swept path analysis undertaken for: MRV with 5m dog trailer, MRV 3T Weight Restriction on Crinan Street

Access	Intended delivery vehicles	Vehicle Usage	Additional Comments/Restrictions
Access N	Heavy Rigid Vehicle, Medium Rigid Vehicle plus 5m trailer, Medium Rigid Vehicle, Small Rigid Vehicle , Light Vehicles	Possessions (including up to one week prior and after): Max 5 HV per hour (including up to one week prior) Max 20 HV per week Non-Possessions: Max 3 HV per hour	Swept path analysis undertaken for: MRV 3T Weight Restriction on Crinan Street
Access O	Heavy Rigid Vehicle, Medium Rigid Vehicle plus 5m trailer, Medium Rigid Vehicle, Small Rigid Vehicle , Light Vehicles	Possessions (including up to one week prior and after): Max 5 HV per hour (including up to one week prior) Max 50 HV per week Non-Possessions: Max 3 HV per hour	Swept path analysis undertaken for: HRV, MRV with 5m dog trailer, MRV
Access P	Heavy Rigid Vehicle, Medium Rigid Vehicle plus 5m trailer, Medium Rigid Vehicle, Small Rigid Vehicle , Light Vehicles	Possessions (including up to one week prior and after): Max 5 HV per hour (including up to one week prior) Max 50 HV per week Non-Possessions: Max 3 HV per hour	Swept path analysis undertaken for: HRV, MRV Traffic control will be required for the site egress movement due to encroachment into opposing traffic lane.
Access Q	Heavy Rigid Vehicle, Medium Rigid Vehicle plus 5m trailer, Medium Rigid Vehicle, Small Rigid Vehicle , Light Vehicles	Possessions (including up to one week prior and after): Max 5 HV per hour (including up to one week prior) Max 50 HV per week Non-Possessions: Max 3 HV per hour	Swept path analysis undertaken for: MRV with 5m dog trailer, MRV Traffic control will be required if vehicles are to reverse into access gate.
Access R	Medium Rigid Vehicle plus 5m trailer, Medium Rigid Vehicle, Small Rigid Vehicle , Light Vehicles	Non-Possessions: Max 3 HV per hour	Swept path analysis undertaken for: MRV with 5m dog trailer (kerbside stop) and MRV (into access gate),
Access S	Medium Rigid Vehicle plus 5m trailer, Medium Rigid Vehicle, Small Rigid Vehicle , Light Vehicles	Non-Possessions: Max 3 HV per hour	Swept path analysis undertaken for: MRV with 5m dog trailer, MRV
Access T	Medium Rigid Vehicle plus 5m trailer, Medium Rigid Vehicle, Small Rigid Vehicle , Light Vehicles	Possessions (including up to one week prior and after): Max 5 HV per hour (including up to one week prior) Max 20 HV per week Non-Possessions: Max 3 HV per hour	Swept path analysis undertaken for: MRV with 5m dog trailer, MRV

Access	Intended delivery vehicles	Vehicle Usage	Additional Comments/Restrictions
Way Street	Heavy Rigid Vehicle, Medium Rigid Vehicle plus 5m trailer, Medium Rigid Vehicle, Small Rigid Vehicle , Light Vehicles	Possessions (including up to one week prior and after): Max 5 HV per hour (including up to one week prior) Max 20 HV per week Non-Possessions: Max 3 HV per hour	Swept path analysis undertaken for HRV
Access U	Medium Rigid Vehicle, Small Rigid Vehicle , Light Vehicles	Possessions (including up to one week prior and after): Max 1 delivery per week – no HVs Non-Possessions: Max 1 delivery per week – no HVs	No HVs to be used
Access V	Heavy Rigid Vehicle, Medium Rigid Vehicle plus 5m trailer, Medium Rigid Vehicle, Small Rigid Vehicle , Light Vehicles	Possessions (including up to one week prior and after): Max 5 HV per hour (including up to one week prior) Max 50 HV per week Non-Possessions: Max 3 HV per hour	Swept path analysis undertaken for: HRV, MRV with 5m dog trailer, MRV
Access W	Medium Rigid Vehicle, Small Rigid Vehicle , Light Vehicles	Possessions (including up to one week prior and after): Max 1 delivery per week – no HVs Non-Possessions: Max 1 delivery per week – no HVs	No HVs to be used
Access Y	Heavy Rigid Vehicle, Medium Rigid Vehicle plus 5m trailer, Medium Rigid Vehicle, Small Rigid Vehicle , Light Vehicles	Possessions (including up to one week prior and after): Max 1 HV per hour Non-Possessions: Max 3 HV per hour	Swept Path Analysis undertaken and only reverse parking allowed for HRV vehicles
Access Z	Small Rigid Vehicle , Light Vehicles	Possessions (including up to one week prior and after): Max 1 SRV per hour Non-Possessions: Max 1 SRV per hour	NO HRVs or MRVs to use access gate

11.1.3 Vehicle Access Table

Table 32 – Allowable Vehicle Access with required controls

Access Gate	Work Area	Address	AV (20.0m)	HRV (12.5m)	MRV (8.8m) + Trailer (5m)	MRV (8.8m)	SRV (6.4m)	LV's (+ trailer)	Comment
A	Area 1A	100a Marrickville Rd	OK	OK	(OK)	(OK)	(OK)	(OK)	
B	Area 1B	Victoria Road (over ARTC line)	x	OK	(OK)	(OK)	(OK)	(OK)	Overruns kerb on access. Note 4.0m height restriction
C	Area 3A	Wooley Lane (11 Warburton St)	x	x	Req. Parking	Req. Parking	Req. Parking	(OK)	Aerial significantly obstructed by foliage. TC/parking may be required for all vehicles. To be verified on site.
D	Area 3B / Area 5A	18 Randall St	x	Req. TC	Req. TC	Req. TC	Req. TC	(OK)	Traffic Control is required to reverse in from Livingstone Road. (No construction vehicles are able to turn around on Randall Street)
E	Area 5B	26 Kays Ave East	x	x	OK	(OK)	(OK)	(OK)	
F	Area 7A	106 Ewart Street	x	x	x	OK	(OK)	(OK)	
G	Area 7B	108 Ewart Street	x	x	OK	(OK)	(OK)	(OK)	[Note AV swept path reviewed – AV has insufficient room to enter gate, conflicts with steep gradient]
H-1	Area 7C	19 Floss St	x	x	OK	(OK)	(OK)	(OK)	Drive through only to Exit Garnet St (H-2) - cannot turn HV in corridor.
I	Area 9A	12 Railway Street	x	Req. Parking	OK	(OK)	(OK)	(OK)	1 parking space
J	Area 9B	2 Keir Ave	x	OK	(OK)	(OK)	(OK)	(OK)	
K	Area 9C	27 Hurlstone Avenue	x	x	OK	(OK)	(OK)	(OK)	
L	Area 9D	6 Hutton Street	x	x	x	Req. Parking	OK	(OK)	
M	Area 11A	1 Sugar House Rd	x	x	(OK)	(OK)	(OK)	(OK)	[Note AV swept path reviewed – AV would conflict with existing structure.]
N	Area 11B	4 Sugar House Rd	x	Req. TC	Req. TC	Req. TC	Req. TC	(OK)	Reverse Movement
O	Area 13A	18 Charles St	x	OK	(OK)	(OK)	(OK)	(OK)	[Note AV swept path reviewed – AV would conflict with existing car park infrastructure]

Access Gate	Work Area	Address	AV (20.0m)	HRV (12.5m)	MRV (8.8m) + Trailer (5m)	MRV (8.8m)	SRV (6.4m)	LV's (+ trailer)	Comment
P	Area 13B	Cooks River Path (off 7 Wairoa St)	x	Req. TC	Req. TC	Req. TC	Req. TC	(OK)	Reverse entry and tight exit require traffic control [Note AV swept path reviewed - AV would drive over median island during entry movement.]
Q	Area 13C	8 South Parade	x	Kerbside Req. Parking	OK	(OK)	(OK)	(OK)	Requires two parking spaces on Wairoa Street [Note AV swept path reviewed - AV would drive over median island during exit path]
R	Area 13D	31 South Parade	x	x	Kerbside	OK	(OK)	(OK)	MRV with trailer can do kerbside drop off [Note AV swept path reviewed - AV exit path would drive over median island]
S	Area 13D	36 South Parade	x	x	Kerbside	Kerbside	Kerbside	Kerbside	
T	Area 15A	54 Lillian st	x	Use alternative route	Req. Parking	(OK)	(OK)	(OK)	Remove one parking space next to the gate for MRV Use alternative route for HRV
U	Area 16	1 Railway Parade	x	x	x	(OK)	(OK)	(OK)	No HVs – Generator delivery only
V	Area 13A	20 Charles St	x	(OK)	(OK)	(OK)	(OK)	(OK)	
W	Area 7A	51A Ewart Lane	x	x	x	(OK)	(OK)	(OK)	No HVs – Generator delivery only
Y	Area 13A	20 Broughton Street	x	(OK)	(OK)	(OK)	(OK)	(OK)	
Z	Area 13A	Charles Street, South of Charles St Underbridge	x	x	x	x	(OK)	(OK)	
Way Street Compound			x	OK	(OK)	(OK)	(OK)	(OK)	
Victoria Road bridge			OK (N/A)	Req. TC/ partial road closure	Req. TC/ partial road closure	Req. TC/ partial road closure	Req. TC/ partial road closure	Req. TC/ partial road closure	Note 4.0m height restriction [Note AV modelled to prove unrestricted access for passing traffic with partial road closure in place.]
Albermarle Street bridge			x	x	Req. Full Road Closure	Req. Full Road Closure	Req. Full Road Closure	Req. Full Road Closure	Road closure required at bridge due to working space around trench. [Note left turn from Albermarle Street to Livingstone Road not suitable for HRV.]
Ness Avenue (Terrace Road) bridge			x	Req. Full Road Closure	Req. Full Road Closure	Req. Full Road Closure	Req. Full Road Closure	Req. Full Road Closure	Road closure required at bridge due vehicle sight lines Note 3.9m height restriction

Access Gate	Work Area	Address	AV (20.0m)	HRV (12.5m)	MRV (8.8m) + Trailer (5m)	MRV (8.8m)	SRV (6.4m)	LV's (+ trailer)	Comment
		Foord Avenue bridge	OK (N/A)	Req. TC/ partial road closure	Req. TC/ partial road closure	Req. TC/ partial road closure	Req. TC/ partial road closure	Req. TC/ partial road closure	Note 2.9m height restriction [Note AV modelled to prove unrestricted access for passing traffic with partial road closure in place.]
		Charles Street bridge	OK (N/A)	Req. TC/ partial road closure	Req. TC/ partial road closure	Req. TC/ partial road closure	Req. TC/ partial road closure	Req. TC/ partial road closure	Note 3.65m height restriction [Note AV modelled to prove unrestricted access for passing traffic with partial road closure in place.]
		Wairoa Street bridge	OK (N/A)	Req. TC/ partial road closure	Req. TC/ partial road closure	Req. TC/ partial road closure	Req. TC/ partial road closure	Req. TC/ partial road closure	Note 3.3m height restriction [Note AV modelled to prove unrestricted access for passing traffic with partial road closure in place.]
		Garnet St	OK (N/A)	Req. TC/ partial road closure	Req. TC/ partial road closure	Req. TC/ partial road closure	Req. TC/ partial road closure	Req. TC/ partial road closure	Note 3.3m height restriction [Note AV modelled to prove unrestricted access for passing traffic with partial road closure in place.]

11.1.4 [Haulage Route Maps](#)

Figure 33 – Access A



Figure 34 – Access B



Figure 35 – Access C



Figure 36 – Access D and E



Figure 37 – Access F, G and W



Figure 38 – Access H-1



Figure 39 – Access I and J



Figure 40 – Access K



Figure 41 – Access L

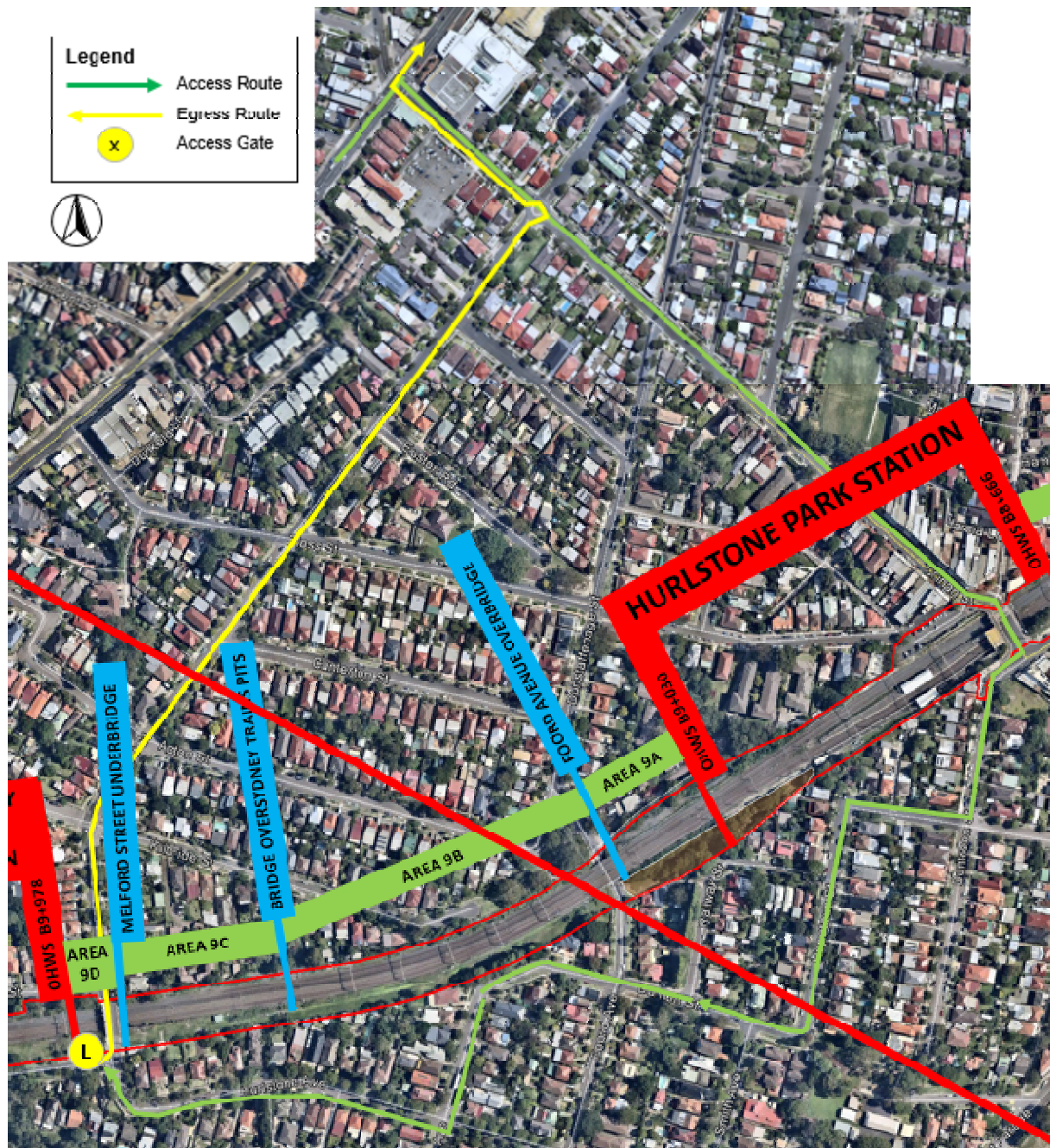


Figure 42 – Access M and N



Figure 43 – Access O, Y & V

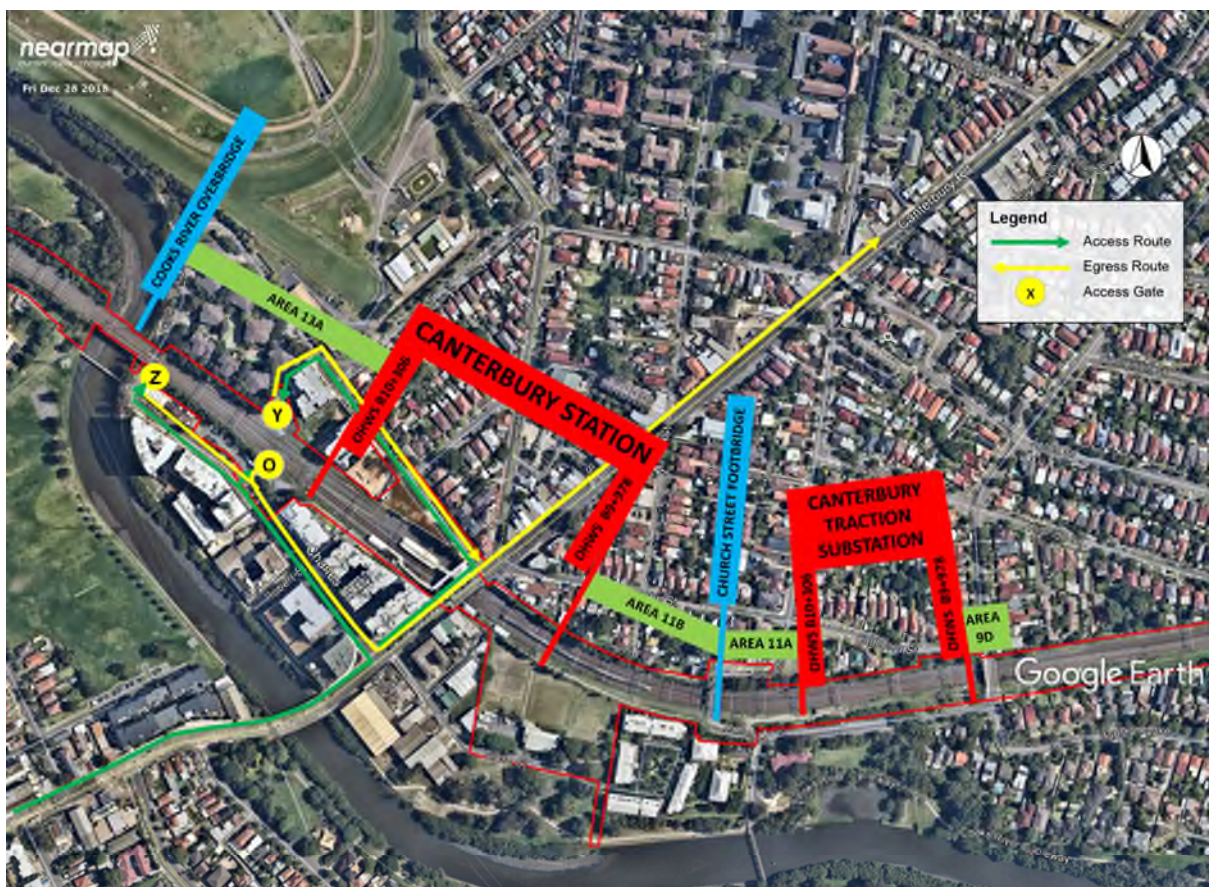


Figure 44 – Access P and Q

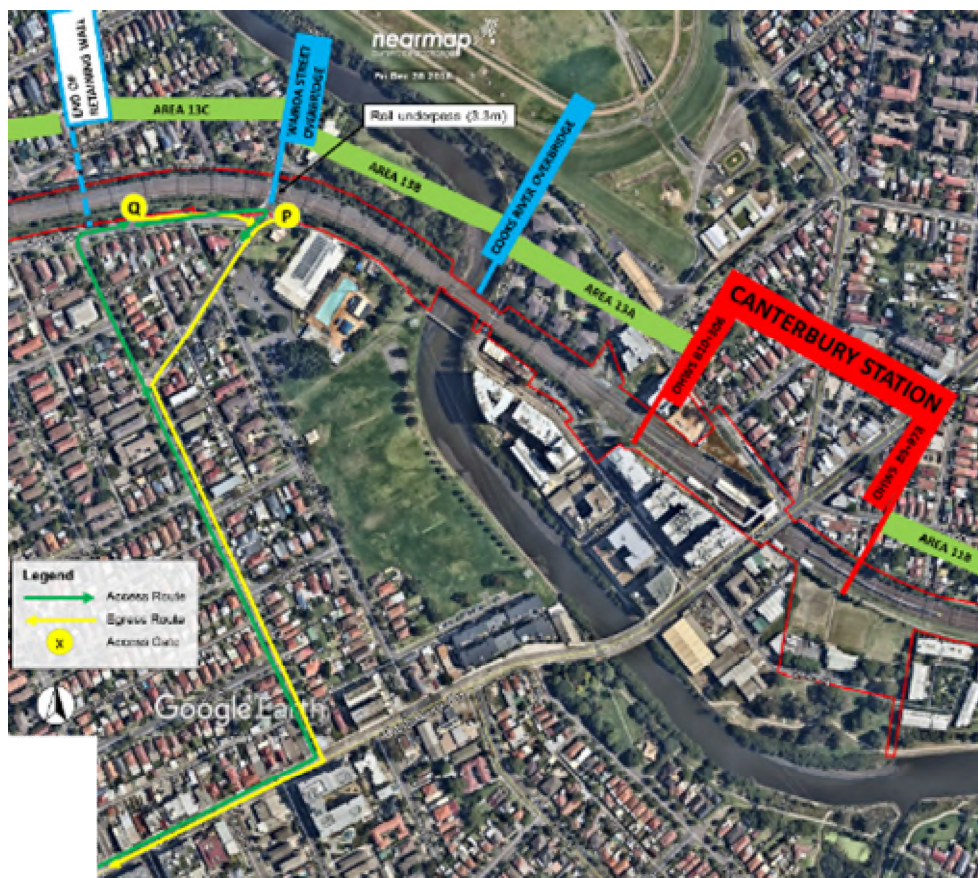


Figure 45 – Access R



Figure 47 – Access T – Standard route (up to and including MRV vehicles)



Figure 48 – Access T – HRV vehicles only



Figure 49 – Area 16 - Access U – LV vehicles only



Figure 50 – Victoria Road Underbridge



Figure 51 – Albermarle Street Overbridge



Figure 52 – Terrace Road (Ness Avenue) Underbridge



Figure 53 – Foord Avenue Underbridge



Figure 54 – Charles St Underbridge

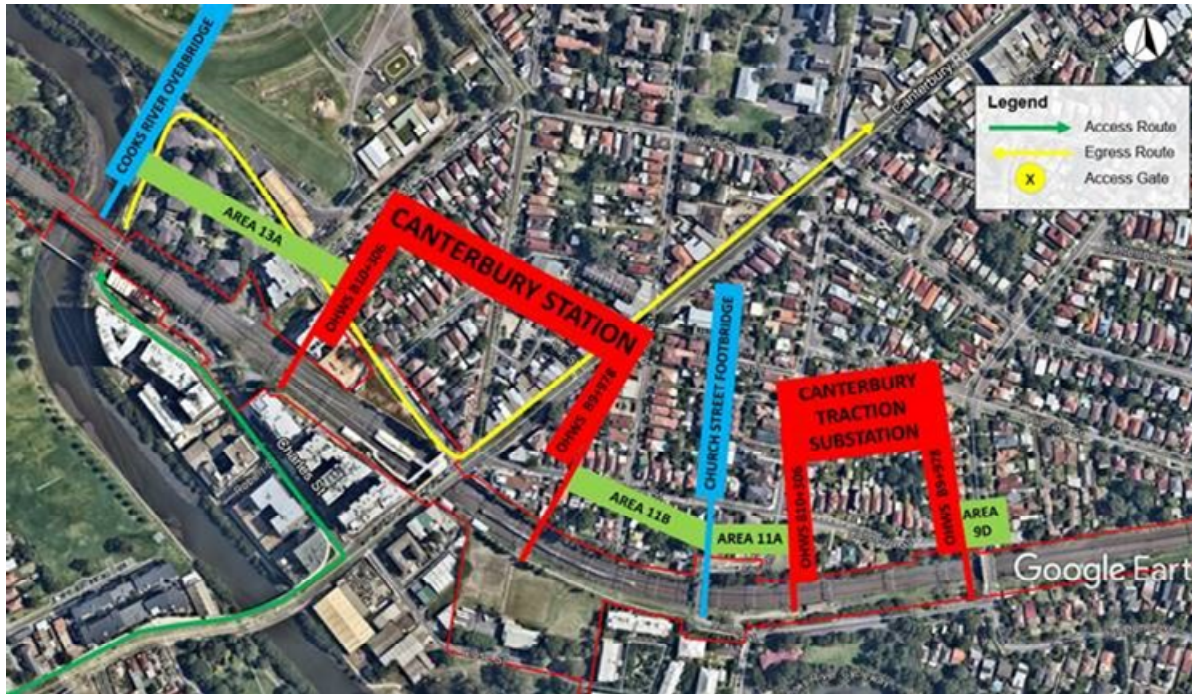


Figure 55 – Wairoa Street Underbridge



11.1.5 Changes to SPIR Routes:

Figure 56 – Updates to SPIR Routes: Marrickville to Dulwich Hill



Figure 57 – Updates to SPIR Routes: Hurlstone Park to Canterbury

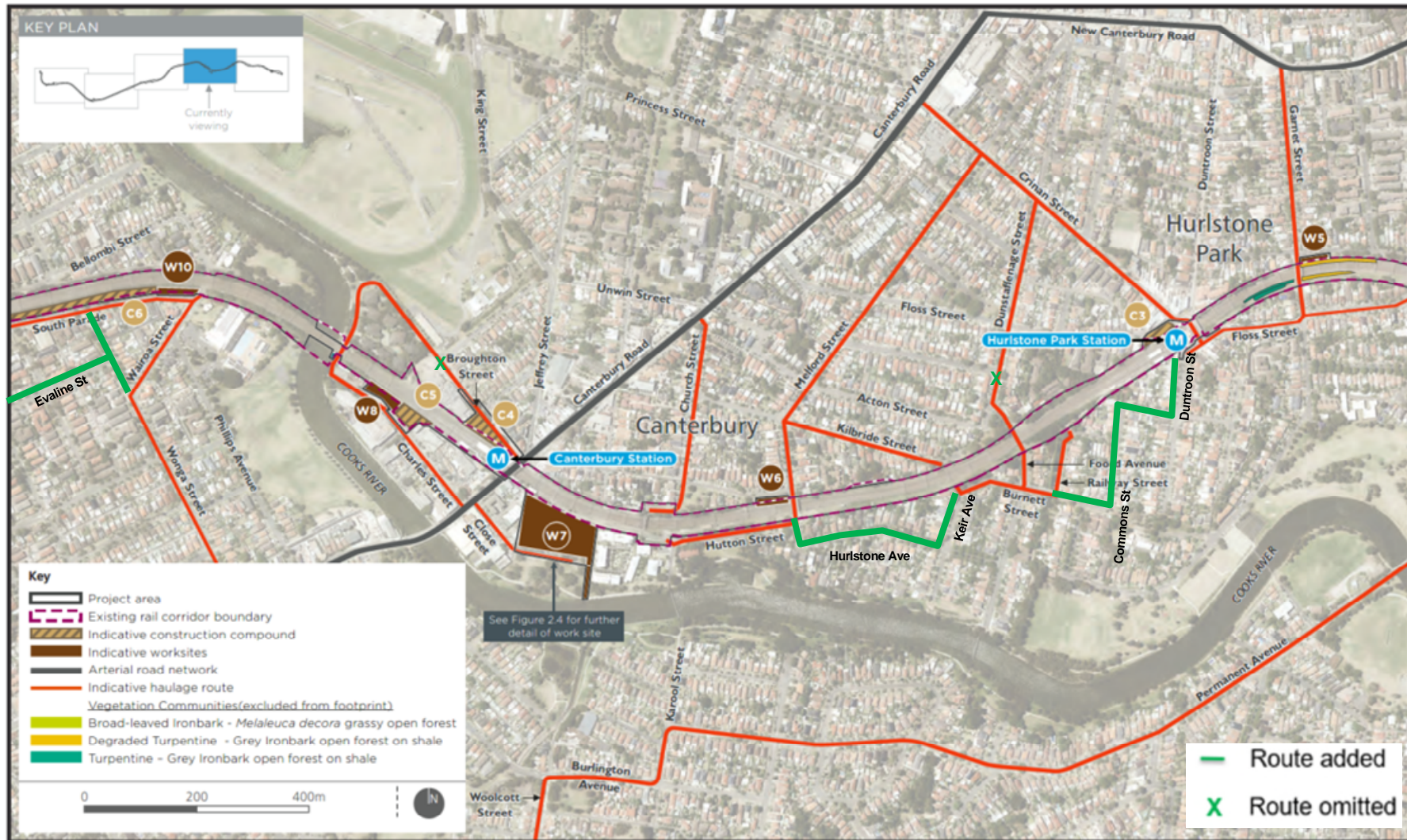


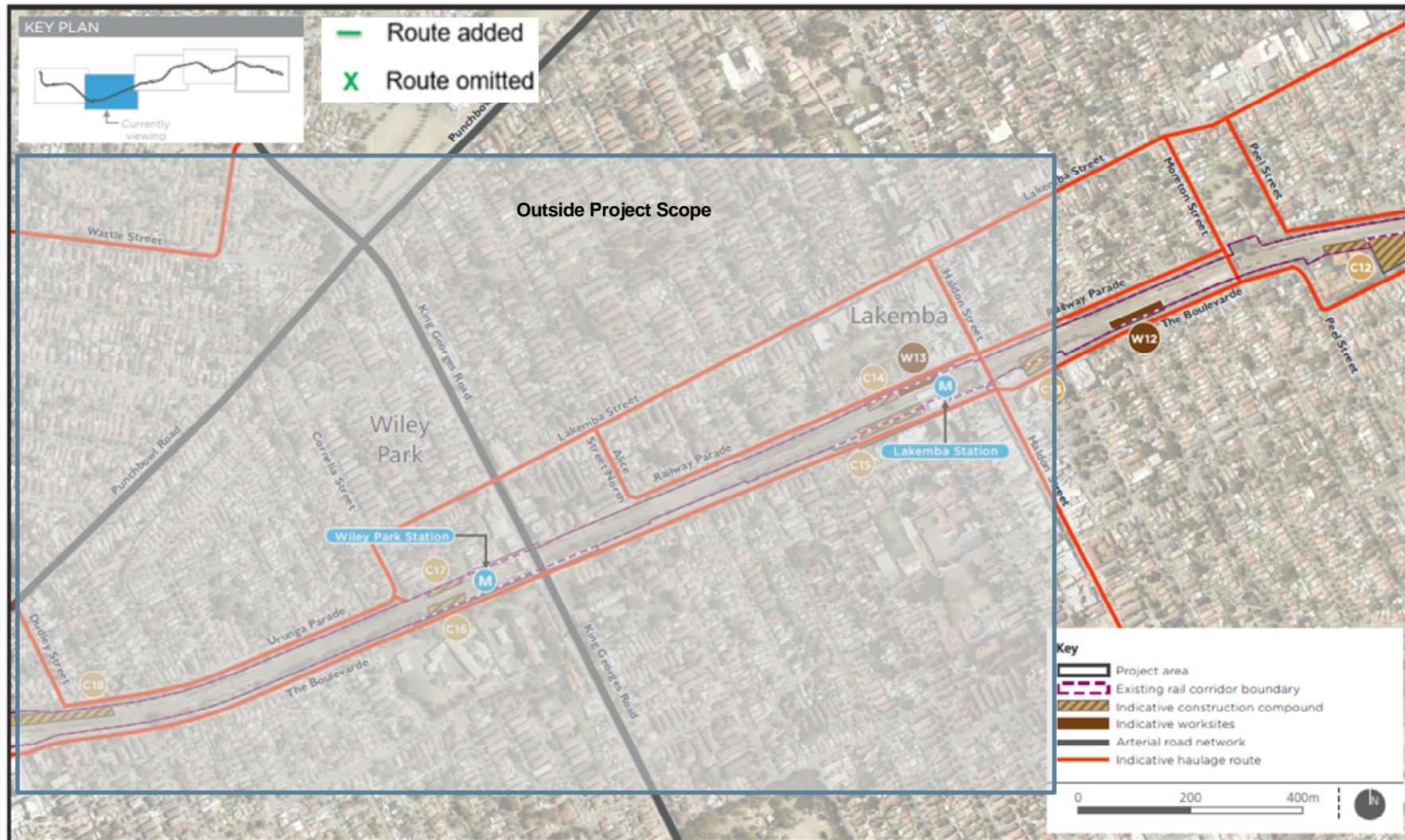
Figure 58 – Updates to SPIR Routes: Campsie



Preferred project area - construction activities - map 3

FIGURE 2.1

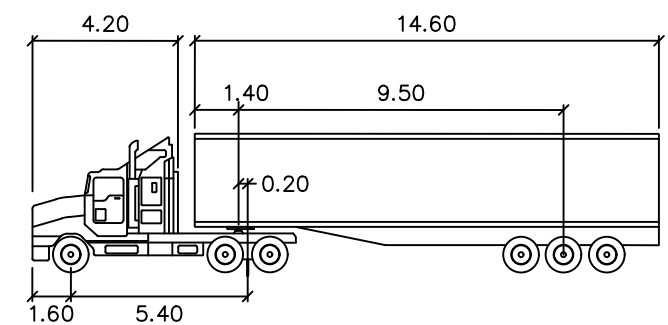
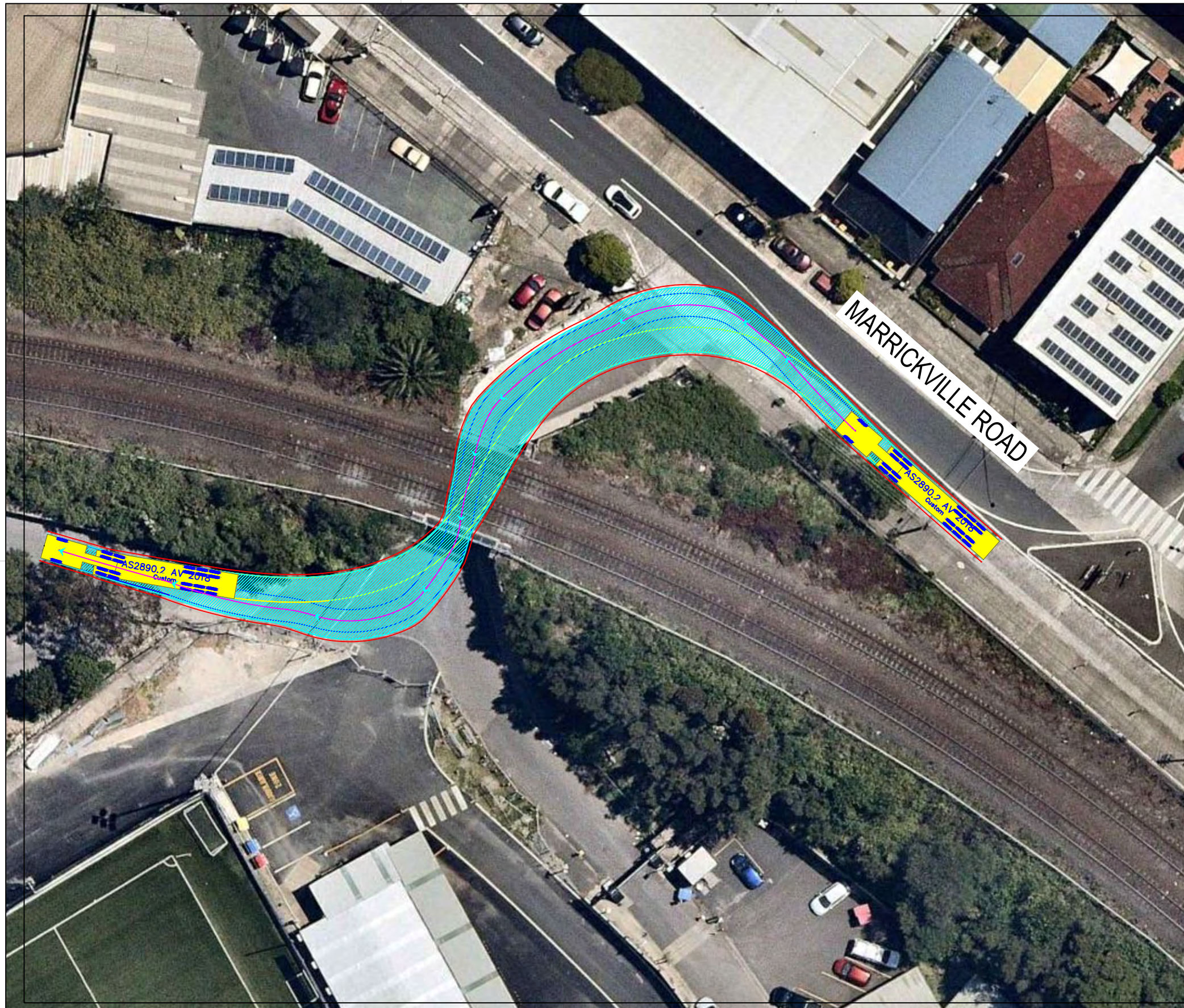
Figure 59 – Updates to SPIR Routes: Belmore



Preferred project area - construction activities - map 4

FIGURE 2.1

11.1.6 [Swept Paths](#)

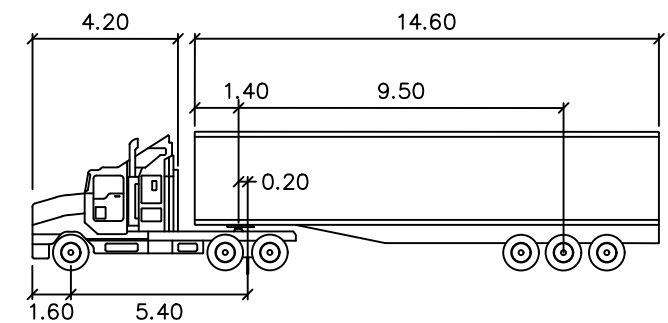
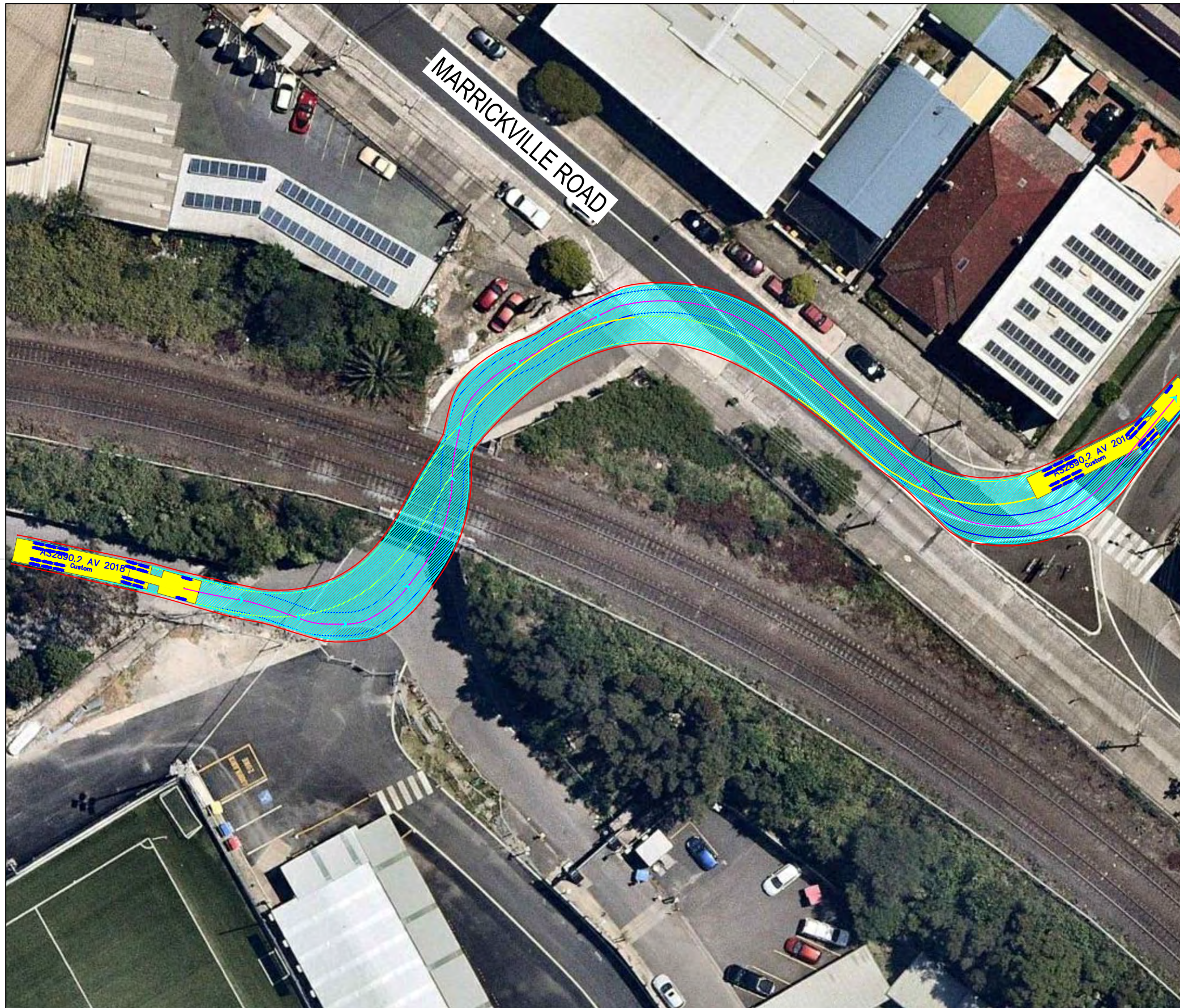


AS2890.2 AV 2018 meters			
Tractor Width	: 2.50	Lock to Lock Time	: 6.0
Trailer Width	: 2.50	Steering Angle	: 27.8
Tractor Track	: 2.50	Articulating Angle	: 70.0
Trailer Track	: 2.50		

DESIGN VEHICLE

REVISIONS		Drawn	Date	Issue	Revisions/Descriptions	Drawn	Date
009	NO CHANGE	M.H	23.08.2019				
010	NO CHANGE	M.H	08.11.2019				
011	NO CHANGES	M.H	11.11.2019				
ENGINEERING CERTIFICATION (RPEQ)							
		Name	Signature	No.	Date		

Project	SYDNEY METRO CITY & SOUTHWEST SOUTHWEST METRO EARLY WORKS	Design	M.H	Drawn	M.H	Checked	T.W
Title	SWEPT PATH AREA 1A ENTRY MOVEMENT (UNDERPASS)	NOT FOR CONSTRUCTION		Date	11.11.2019		
Project Number	P3519	Sheet Number	1	Issue	011		

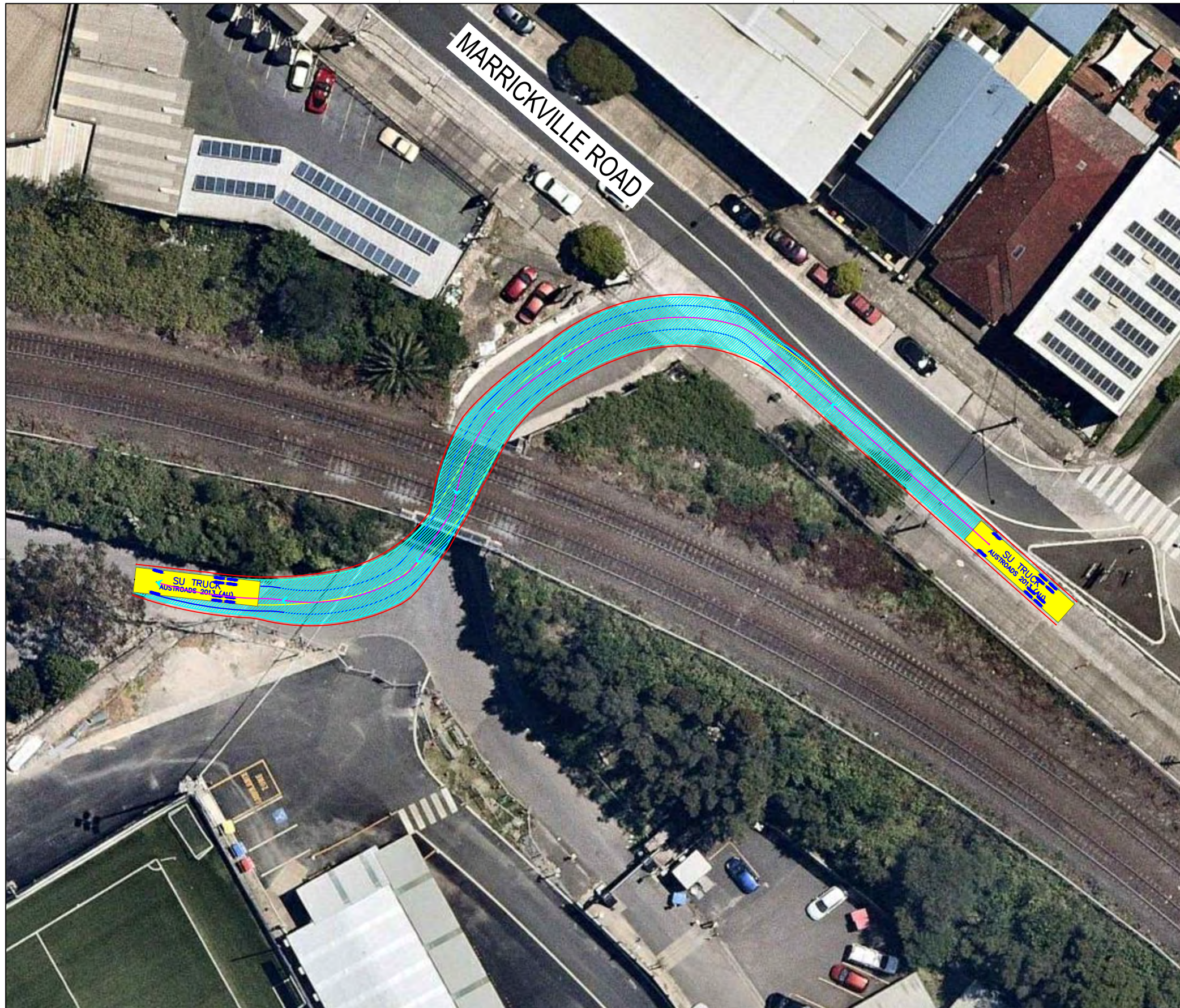


AS2890.2 AV 2018	AS2890.2 AV 2018	AS2890.2 AV 2018	AS2890.2 AV 2018
Tractor Width	: 2.50	Lock to Lock Time	: 6.0
Trailer Width	: 2.50	Steering Angle	: 27.8
Tractor Track	: 2.50	Articulating Angle	: 70.0
Trailer Track	: 2.50		

DESIGN VEHICLE

REVISIONS		Drawn	Date	Issue	Description	Drawn	Date
009	NO CHANGE			M.H	23.08.2019		
010	NO CHANGE			M.H	08.11.2019		
011	NO CHANGES			M.H	11.11.2019		
ENGINEERING CERTIFICATION (RPEQ)							
		Name	Signature	No.	Date		

Project	SYDNEY METRO CITY & SOUTHWEST SOUTHWEST METRO EARLY WORKS	Design	M.H	Drawn	M.H	Checked	T.W
Title	SWEPT PATH AREA 1A EXIT MOVEMENT (UNDERPASS)	NOT FOR CONSTRUCTION		Date	11.11.2019		
Project Number	P3519	Sheet Number	2	Issue	011		



SU TRUCK meters

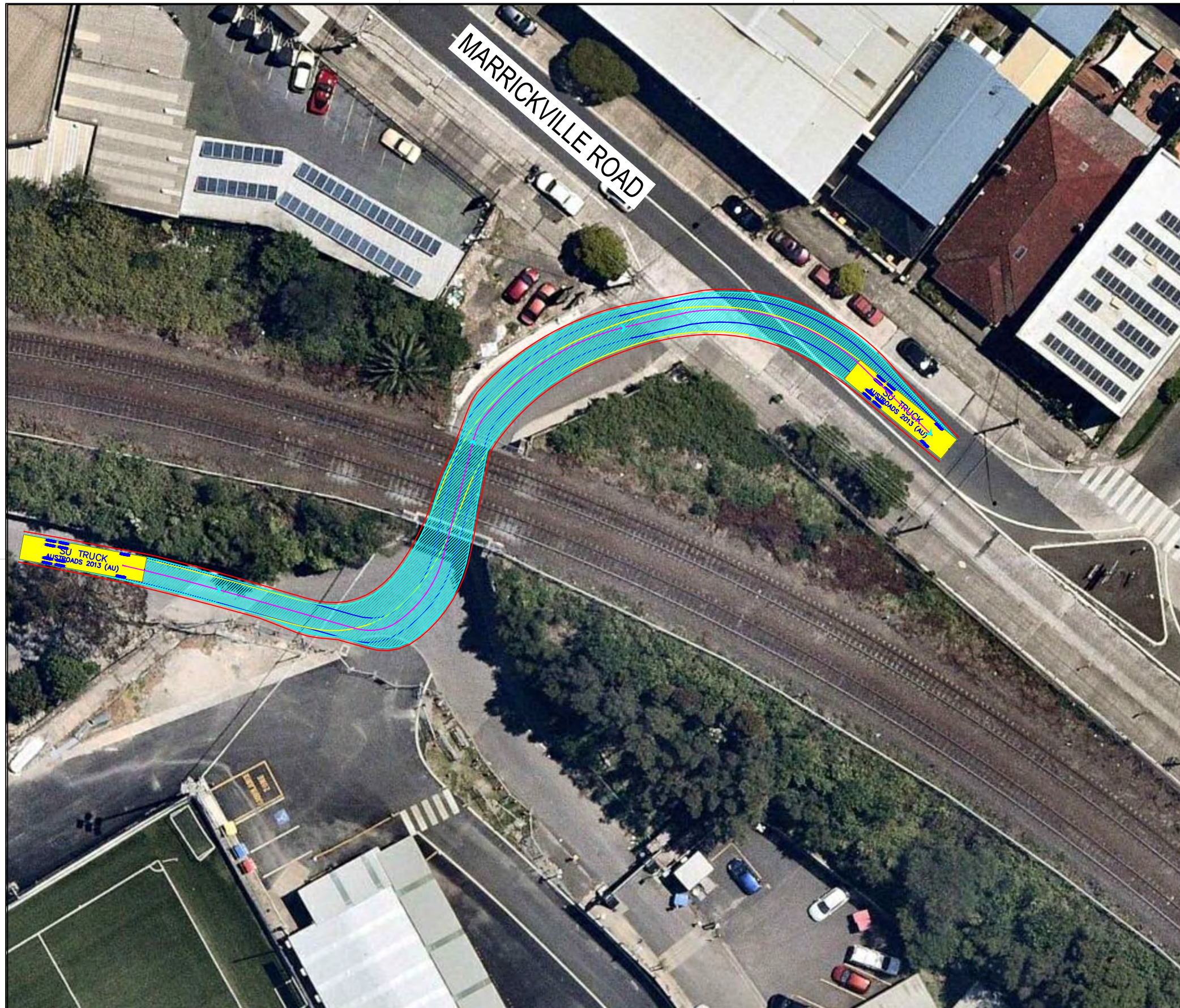
Width : 2.50
 Track : 2.50
 Lock to Lock Time : 6.0
 Steering Angle : 36.6

DESIGN VEHICLE

Issue	Revisions/Descriptions	Drawn	Date	009	NO CHANGE	M.H	23.08.2019
001	SWEPT PATH	M.H	27.02.2019	010	NO CHANGE	M.H	08.11.2019
002	SWEPT PATH - PRECONSTRUCTION CTMP	M.H	04.03.2019	011	NO CHANGES	M.H	11.11.2019
003	MINOR AMENDMENTS	M.H	27.03.2019	ENGINEERING CERTIFICATION (RPEQ)			
004	MINOR AMENDMENTS	M.H	01.04.2019				
005	AMENDMENTS TO REV 1 CTMP COMMENTS	M.H	12.04.2019	Name	Signature	No.	Date
006	AMENDMENTS TO FURTHER REV 1 CTMP COMMENTS	M.H	18.04.2019				
007	NO CHANGES	M.H	10.07.2019				
008	ADD HRV ROUTE TO AREA 15	M.H	30.07.2019				

Project	SYDNEY METRO CITY & SOUTHWEST SOUTHWEST METRO EARLY WORKS		
Design	M.H	Drawn	M.H
Checked	T.W		Date
			11.11.2019
Title	SWEPT PATH AREA 1A ENTRY MOVEMENT (UNDERPASS)		
Project Number	P3519	Sheet Number	3
Issue	011		

NOT FOR CONSTRUCTION



SU TRUCK meters

Width : 2.50

Track : 2.50

Lock to Lock Time : 6.0

Steering Angle : 36.6

DESIGN VEHICLE

BITZIOS
-consulting
traffic engineering ■ transport planning

Gold Coast
Suite 26, 58 Riverwalk Avenue, Robina QLD 4226.
P: (07) 5562-5377
W: www.bitziosconsulting.com.au
Brisbane
Level 2, 428 Upper Edward Street, Spring Hill 4000.
P: (07) 3831-4442
E: admin@bitziosconsulting.com.au
Sydney
Studio 203, 3 Gladstone Street, Newtown NSW 2042.
P: (02) 9557 6202

REVISIONS		Drawn	Date	Issue	Description	Drawn	Date
001	SWEPT PATH	M.H	27.02.2019	009	NO CHANGE	M.H	23.08.2019
002	SWEPT PATH - PRECONSTRUCTION CTMP	M.H	04.03.2019	010	NO CHANGE	M.H	08.11.2019
003	MINOR AMENDMENTS	M.H	27.03.2019	011	NO CHANGES	M.H	11.11.2019
004	MINOR AMENDMENTS	M.H	01.04.2019	ENGINEERING CERTIFICATION (RPEQ)			
005	AMENDMENTS TO REV 1 CTMP COMMENTS	M.H	12.04.2019	Name	Signature	No.	Date
006	AMENDMENTS TO FURTHER REV 1 CTMP COMMENTS	M.H	18.04.2019				
007	NO CHANGES	M.H	10.07.2019				
008	ADD HRV ROUTE TO AREA 15	M.H	30.07.2019				

Project	SYDNEY METRO CITY & SOUTHWEST SOUTHWEST METRO EARLY WORKS		Design	M.H	Drawn	M.H	Checked	T.W
Title	SWEPT PATH AREA 1A EXIT MOVEMENT (UNDERPASS)		NOT FOR CONSTRUCTION		Date	11.11.2019		
Project Number	P3519	Sheet Number	4	Issue	011			



SU TRUCK meters

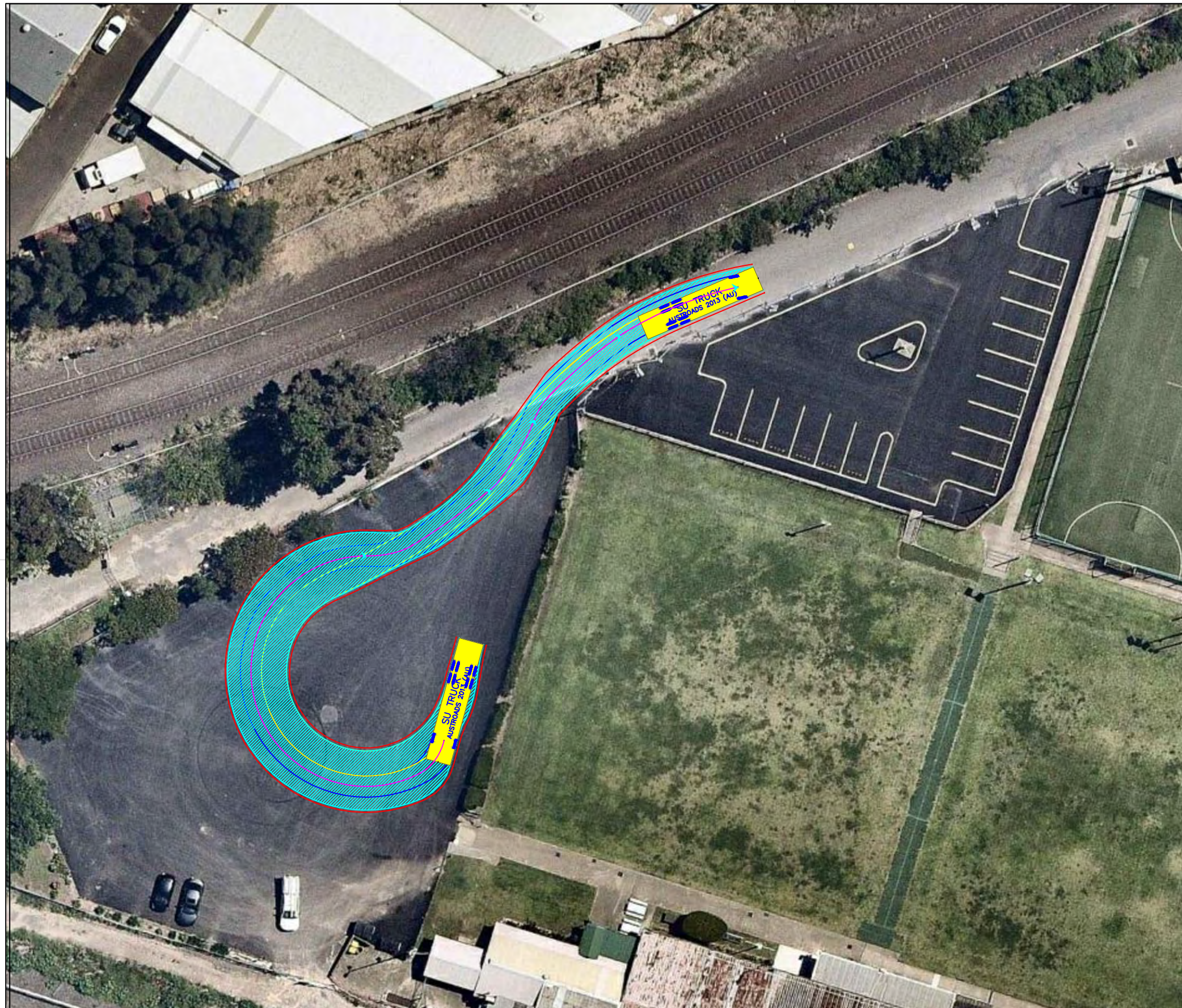
Width : 12.50
 Track : 2.20
 Lock to Lock Time : 6.85
 Steering Angle : 36.6

DESIGN VEHICLE

REVISIONS		Drawn	Date	Issue	Description	Drawn	Date
001	SWEPT PATH	M.H	27.02.2019	009	NO CHANGE	M.H	23.08.2019
002	SWEPT PATH - PRECONSTRUCTION CTMP	M.H	04.03.2019	010	NO CHANGE	M.H	08.11.2019
003	MINOR AMENDMENTS	M.H	27.03.2019	011	NO CHANGES	M.H	11.11.2019
004	MINOR AMENDMENTS	M.H	01.04.2019	ENGINEERING CERTIFICATION (RPEQ)			
005	AMENDMENTS TO REV 1 CTMP COMMENTS	M.H	12.04.2019	Name	Signature	No.	Date
006	AMENDMENTS TO FURTHER REV 1 CTMP COMMENTS	M.H	18.04.2019				
007	NO CHANGES	M.H	10.07.2019				
008	ADD HRV ROUTE TO AREA 15	M.H	30.07.2019				

Project	SYDNEY METRO CITY & SOUTHWEST SOUTHWEST METRO EARLY WORKS
Title	SWEPT PATH AREA 1A ENTRY MOVEMENT (CAR PARK)

Design	M.H	Drawn	M.H	Checked	T.W	
NOT FOR CONSTRUCTION					Date	11.11.2019
Project Number	P3519	Sheet Number	5	Issue	011	



SU TRUCK meters

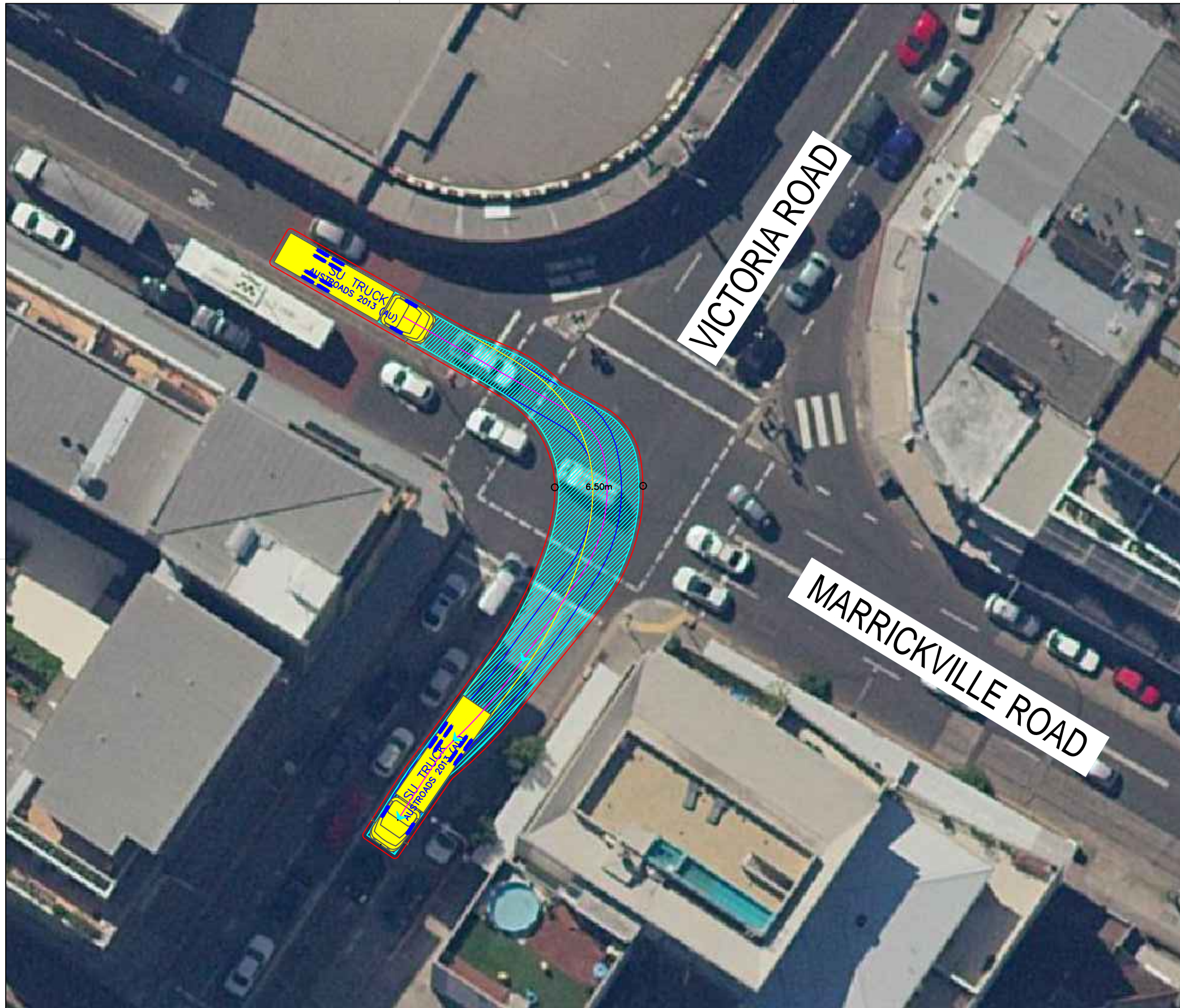
Width : 2.50
 Track : 2.50
 Lock to Lock Time : 6.0
 Steering Angle : 36.6

DESIGN VEHICLE

REVISIONS		Drawn	Date	Issue	Description	Drawn	Date
001	SWEPT PATH	M.H	27.02.2019	009	NO CHANGE	M.H	23.08.2019
002	SWEPT PATH - PRECONSTRUCTION CTMP	M.H	04.03.2019	010	NO CHANGE	M.H	08.11.2019
003	MINOR AMENDMENTS	M.H	27.03.2019	011	NO CHANGES	M.H	11.11.2019
004	MINOR AMENDMENTS	M.H	01.04.2019	ENGINEERING CERTIFICATION (RPEQ)			
005	AMENDMENTS TO REV 1 CTMP COMMENTS	M.H	12.04.2019				
006	AMENDMENTS TO FURTHER REV 1 CTMP COMMENTS	M.H	18.04.2019	Name	Signature	No.	Date
007	NO CHANGES	M.H	10.07.2019				
008	ADD HRV ROUTE TO AREA 15	M.H	30.07.2019				

Project	SYDNEY METRO CITY & SOUTHWEST SOUTHWEST METRO EARLY WORKS
Title	SWEPT PATH AREA 1A TURN AND EXIT MOVEMENT (CAR PARK)

Design	M.H	Drawn	M.H	Checked	T.W	
NOT FOR CONSTRUCTION					Date	11.11.2019
Project Number	P3519	Sheet Number	6	Issue	011	



SU TRUCK meters
 Width : 2.50
 Track : 2.50
 Lock to Lock Time : 6.0
 Steering Angle : 36.6

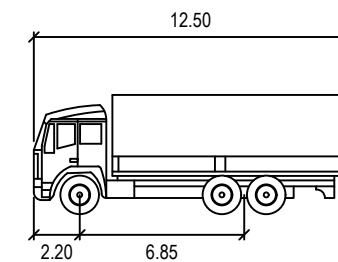
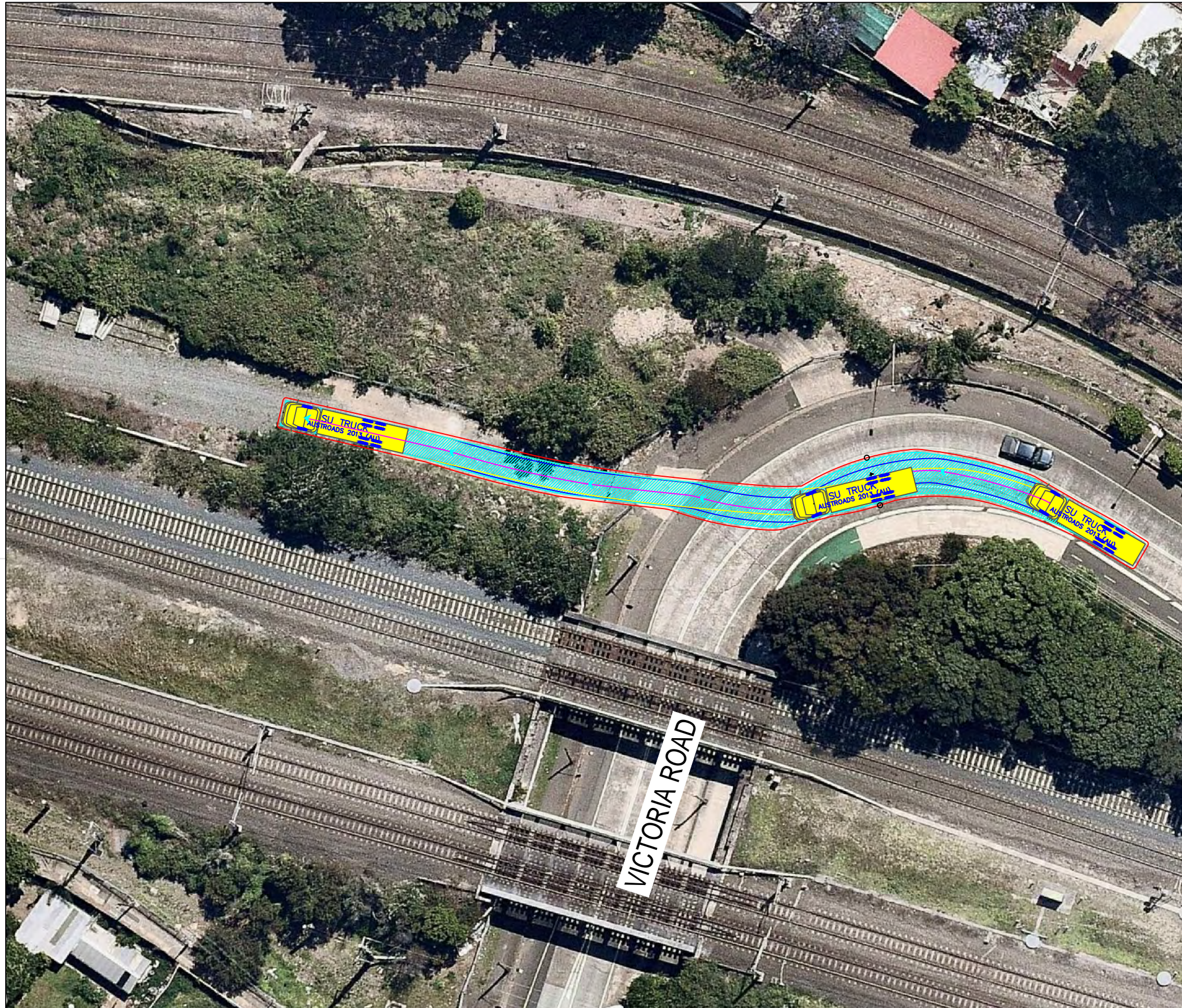
DESIGN VEHICLE

REVISIONS		Drawn	Date
001	NOT USED	-	-
002	NOT USED	-	-
003	NOT USED	-	-
004	NOT USED	-	-
005	NOT USED	-	-
006	NOT USED	-	-
007	NOT USED	-	-
008	NOT USED	-	-

Issue	Revisions/Descriptions	Drawn	Date
009	NOT USED	-	-
010	NOT USED	-	-
011	NOT USED	-	-
012	CHANGE AREA 1B APPROACH	K.W	18.12.2019

ENGINEERING CERTIFICATION (RPEQ)			
Name	Signature	No.	Date

Project SYDNEY METRO CITY & SOUTHWEST SOUTHWEST METRO EARLY WORKS	Design K.W	Drawn K.W	Checked M.H
	NOT FOR CONSTRUCTION		
Title SWEPT PATH AREA 1B ENTRY MOVEMENT 1	Project Number P3519	Sheet Number 7	Date 18.12.2019
	Issue 012		



SU TRUCK meters
 Width : 2.50
 Track : 2.50
 Lock to Lock Time : 6.0
 Steering Angle : 36.6

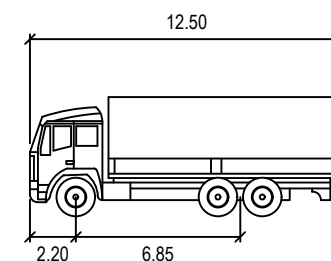
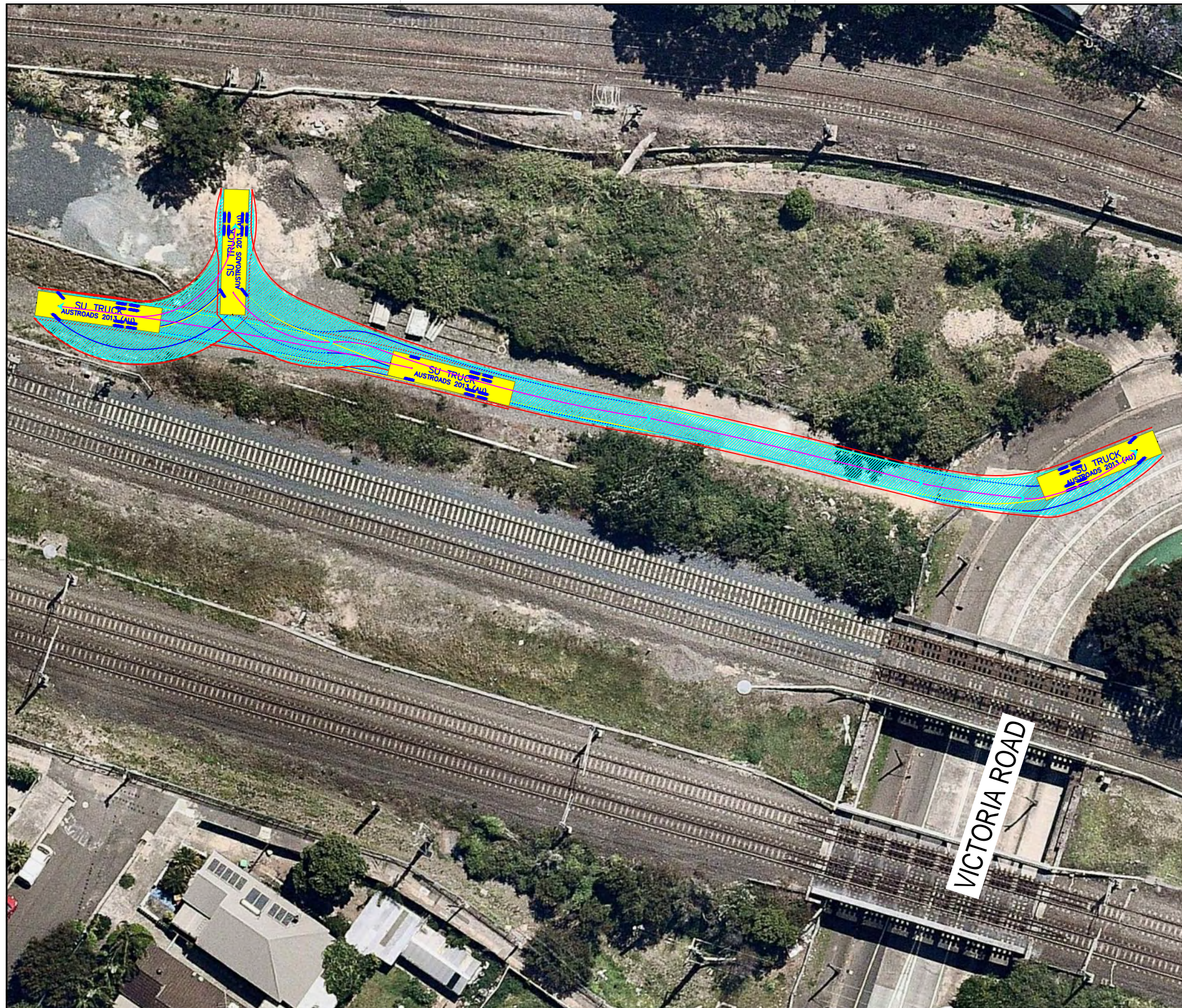
DESIGN VEHICLE

REVISIONS		Drawn	Date
Issue	Revisions/Descriptions		
001	NOT USED	-	-
002	NOT USED	-	-
003	NOT USED	-	-
004	NOT USED	-	-
005	NOT USED	-	-
006	NOT USED	-	-
007	NOT USED	-	-
008	NOT USED	-	-

Issue	Description	Drawn	Date
009	NOT USED	-	-
010	NOT USED	-	-
011	NOT USED	-	-
012	CHANGE AREA 1B APPROACH	K.W	18.12.2019

ENGINEERING CERTIFICATION (RPEQ)			
Name	Signature	No.	Date

Project	SYDNEY METRO CITY & SOUTHWEST SOUTHWEST METRO EARLY WORKS	Design	K.W	Drawn	K.W	Checked	M.H
Title	SWEPT PATH AREA 1B GATE ENTRY MOVEMENT	NOT FOR CONSTRUCTION		Date	18.12.2019		
Project Number	P3519	Sheet Number	8	Issue	012		



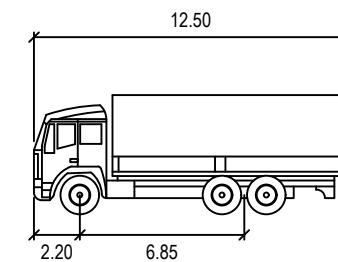
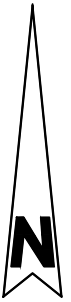
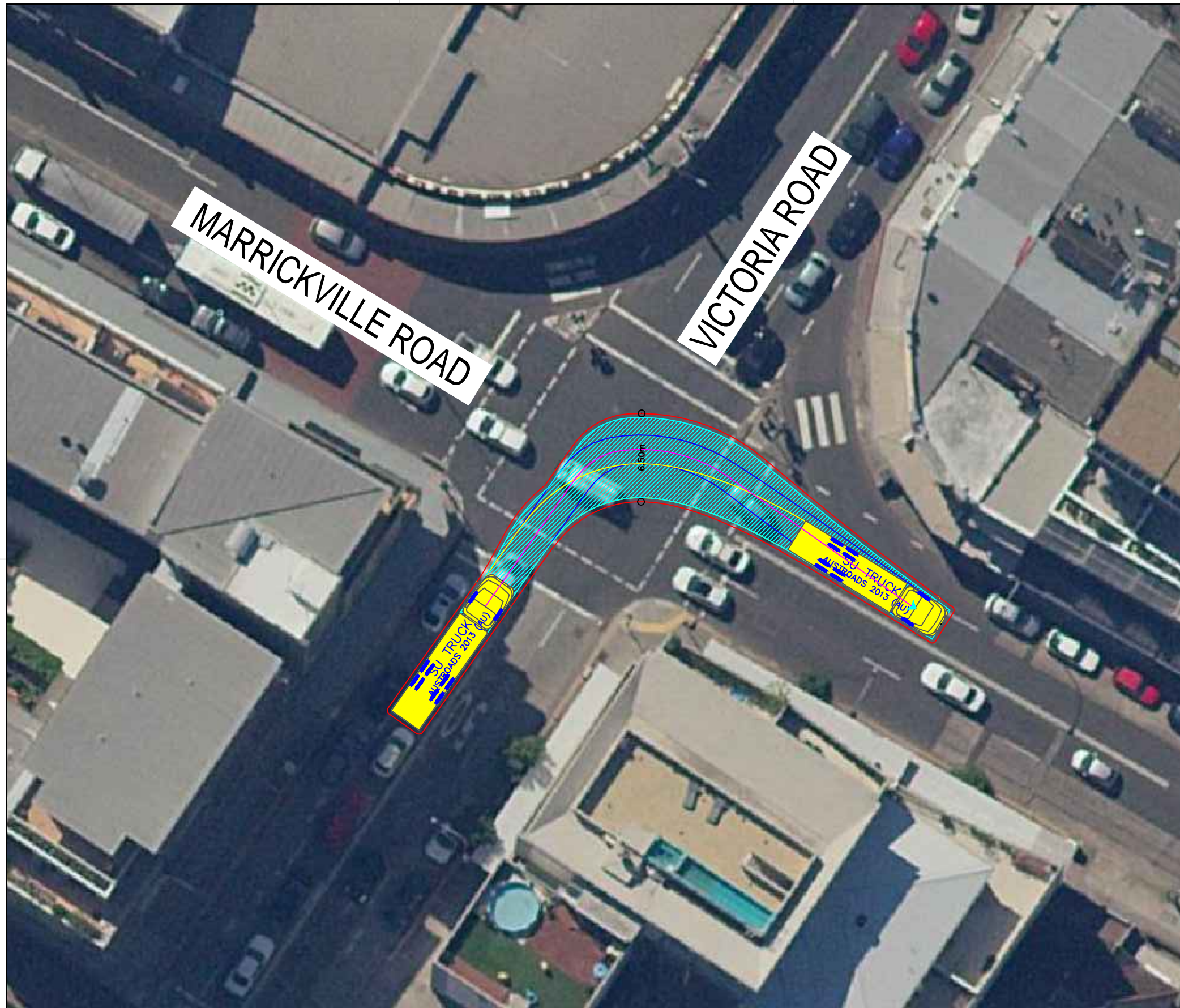
SU TRUCK meters
 Width : 2.50
 Track : 2.50
 Lock to Lock Time : 6.0
 Steering Angle : 36.6

DESIGN VEHICLE

REVISIONS		Drawn	Date	Issue	Revisions/Descriptions	Drawn	Date
001	SWEPT PATH	M.H	27.02.2019	009	NO CHANGE	M.H	23.08.2019
002	SWEPT PATH - PRECONSTRUCTION CTMP	M.H	04.03.2019	010	NO CHANGE	M.H	08.11.2019
003	MINOR AMENDMENTS	M.H	27.03.2019	011	NO CHANGES	M.H	11.11.2019
004	MINOR AMENDMENTS	M.H	01.04.2019	012	CHANGE SHEET TITLE	M.H	18.12.2019
005	AMENDMENTS TO REV 1 CTMP COMMENTS	M.H	12.04.2019	ENGINEERING CERTIFICATION (RPEQ)			
006	AMENDMENTS TO FURTHER REV 1 CTMP COMMENTS	M.H	18.04.2019	Name	Signature	No.	Date
007	NO CHANGES	M.H	10.07.2019				
008	ADD HRV ROUTE TO AREA 15	M.H	30.07.2019				

Project	SYDNEY METRO CITY & SOUTHWEST SOUTHWEST METRO EARLY WORKS		
Design	M.H	Drawn	M.H
Checked	T.W		
Date	18.12.2019		
Title	SWEPT PATH AREA 1B GATE EXIT MOVEMENT		
Project Number	P3519	Sheet Number	8A
Issue	012		

NOT FOR CONSTRUCTION



SU TRUCK meters
 Width : 2.50
 Track : 2.50
 Lock to Lock Time : 6.0
 Steering Angle : 36.6

DESIGN VEHICLE

REVISIONS		Drawn	Date
001	NOT USED	-	-
002	NOT USED	-	-
003	NOT USED	-	-
004	NOT USED	-	-
005	NOT USED	-	-
006	NOT USED	-	-
007	NOT USED	-	-
008	NOT USED	-	-

Issue	Revisions/Descriptions	Drawn	Date
009	NOT USED	-	-
010	NOT USED	-	-
011	NOT USED	-	-
012	CHANGE AREA 1B APPROACH	K.W	18.12.2019

ENGINEERING CERTIFICATION (RPEQ)			
Name	Signature	No.	Date

Project	SYDNEY METRO CITY & SOUTHWEST SOUTHWEST METRO EARLY WORKS	Design	K.W	Drawn	K.W	Checked	M.H
Title	SWEPT PATH AREA 1B EXIT MOVEMENT 1	NOT FOR CONSTRUCTION		Date	18.12.2019		
Project Number	P3519	Sheet Number	8B	Issue	012		



TD StB	units	TD StB	units
First Unit Width	: 2.50	Lock to Lock Time	: 6.0
Trailer Width	: 2.30	Steering Angle	: 37.9
First Unit Track	: 2.50	Articulating Angle	: 70.0
Trailer Track	: 2.30		

DESIGN VEHICLE

Issue	REVISIONS Revisions/Descriptions	Drawn	Date				
001	SWEPT PATH	M.H	27.02.2019	009	NO CHANGE	M.H	23.08.2019
002	SWEPT PATH - PRECONSTRUCTION CTMP	M.H	04.03.2019	010	NO CHANGE	M.H	08.11.2019
003	MINOR AMENDMENTS	M.H	27.03.2019	011	NO CHANGES	M.H	11.11.2019
004	MINOR AMENDMENTS	M.H	01.04.2019	ENGINEERING CERTIFICATION (RPEQ)			
005	AMENDMENTS TO REV 1 CTMP COMMENTS	M.H	12.04.2019	Name	Signature	No.	Date
006	AMENDMENTS TO FURTHER REV 1 CTMP COMMENTS	M.H	18.04.2019				
007	NO CHANGES	M.H	10.07.2019				
008	ADD HRV ROUTE TO AREA 15	M.H	30.07.2019				

Project	SYDNEY METRO CITY & SOUTHWEST SOUTHWEST METRO EARLY WORKS		
Design	M.H	Drawn	M.H
Checked			T.W
			Date
			11.11.2019
Title	SWEPT PATH AREA 3A ENTRY MOVEMENT		
Project Number	P3519	Sheet Number	9
Issue			011



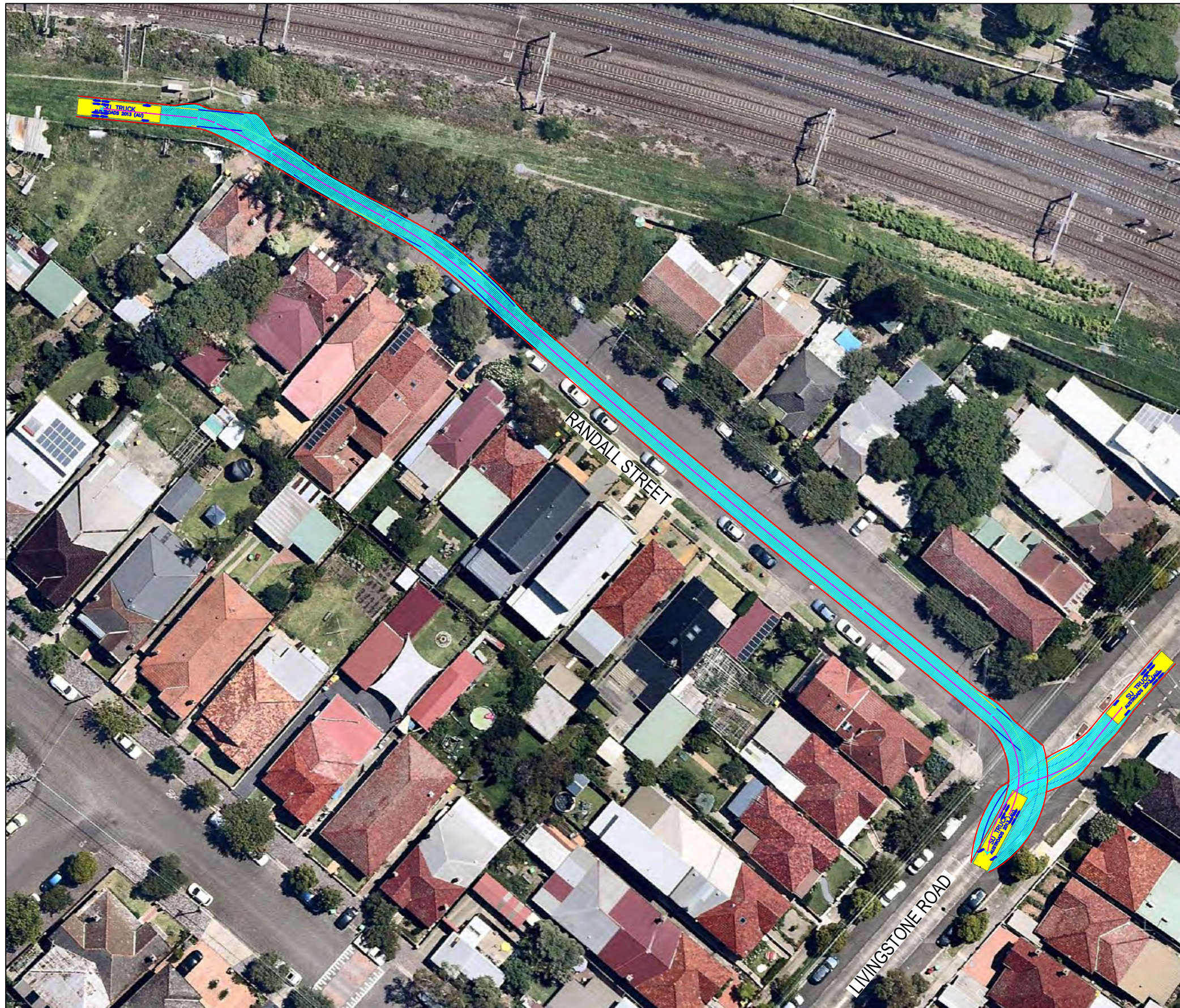
TD StB	meters	
First Unit Width	: 2.50	Lock to Lock Time : 6.0
Trailer Width	: 2.30	Steering Angle : 37.9
First Unit Track	: 2.50	Articulating Angle : 70.0
Trailer Track	: 2.30	

DESIGN VEHICLE

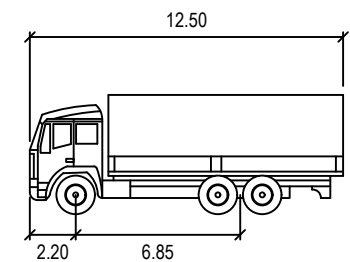
REVISIONS		Drawn	Date	Issue	Description	M.H	Date
001	SWEPT PATH	M.H	27.02.2019	009	NO CHANGE	M.H	23.08.2019
002	SWEPT PATH - PRECONSTRUCTION CTMP	M.H	04.03.2019	010	NO CHANGE	M.H	08.11.2019
003	MINOR AMENDMENTS	M.H	27.03.2019	011	NO CHANGES	M.H	11.11.2019
004	MINOR AMENDMENTS	M.H	01.04.2019	ENGINEERING CERTIFICATION (RPEQ)			
005	AMENDMENTS TO REV 1 CTMP COMMENTS	M.H	12.04.2019				
006	AMENDMENTS TO FURTHER REV 1 CTMP COMMENTS	M.H	18.04.2019				
007	NO CHANGES	M.H	10.07.2019				
008	ADD HRV ROUTE TO AREA 15	M.H	30.07.2019	Name	Signature	No.	Date

Project	SYDNEY METRO CITY & SOUTHWEST SOUTHWEST METRO EARLY WORKS		
Design	M.H	Drawn	M.H
Checked	T.W		Date
			11.11.2019
Title	SWEPT PATH AREA 3A EXIT MOVEMENT		
Project Number	P3519	Sheet Number	10
Issue	011		

NOT FOR CONSTRUCTION

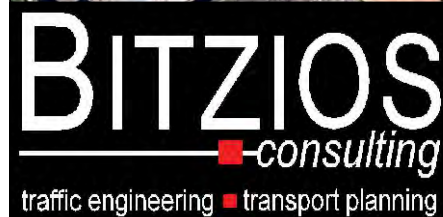


REQUIRES TRAFFIC CONTROL
SEE TCP FOR THIS MANOEUVRE



SU TRUCK meters
 Width : 2.50
 Track : 2.50
 Lock to Lock Time : 6.0
 Steering Angle : 36.6

DESIGN VEHICLE

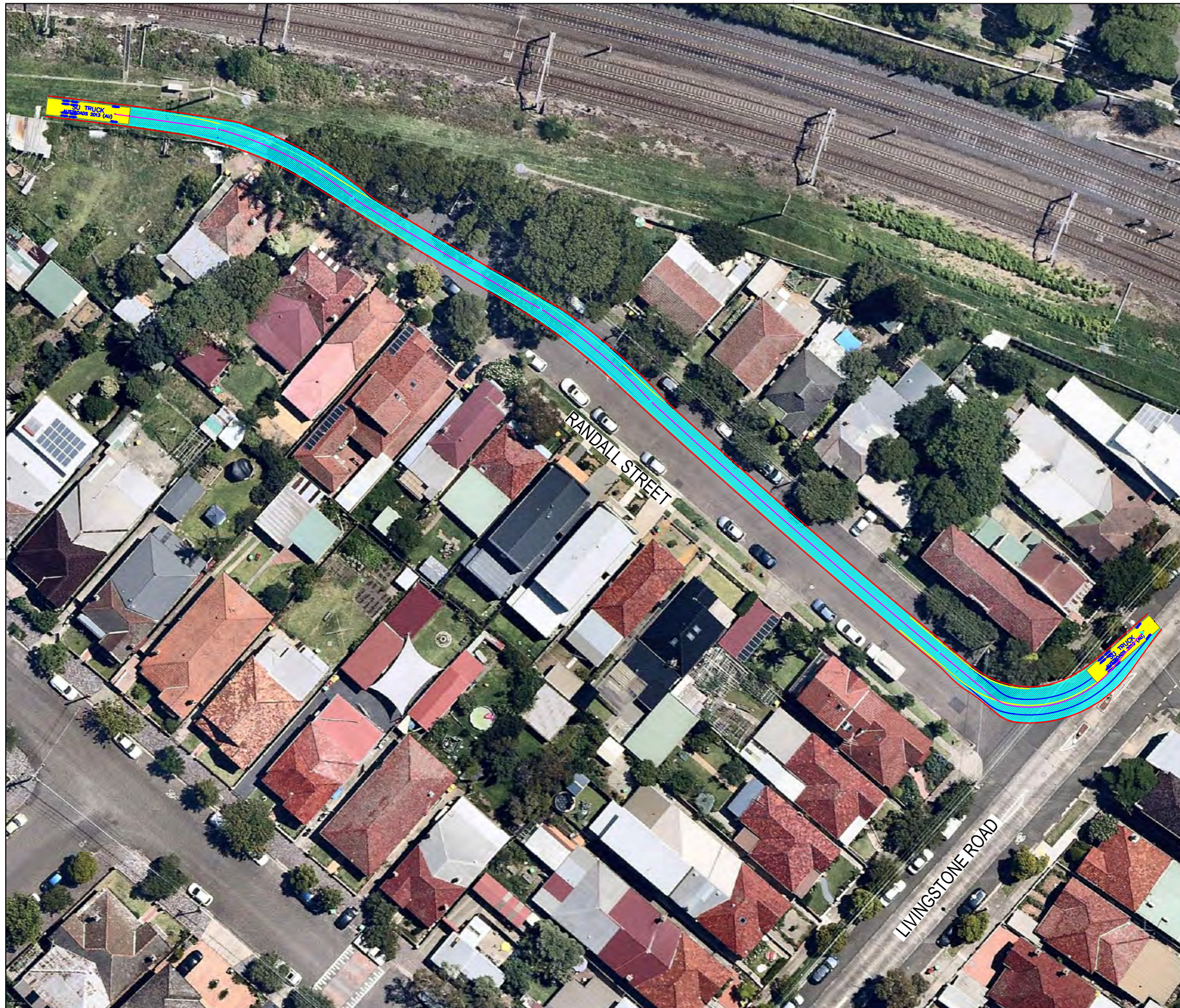


Gold Coast
 Suite 26, 58 Riverwalk Avenue, Robina QLD 4226.
 P: (07) 5562-5377
 W: www.bitziosconsulting.com.au
Brisbane
 Level 2, 428 Upper Edward Street, Spring Hill 4000.
 P: (07) 3831-4442
 E: admin@bitziosconsulting.com.au
Sydney
 Studio 203, 3 Gladstone Street, Newtown NSW 2042.
 P: (02) 9557 6202

Issue	Revisions/Descriptions	Drawn	Date				
009	NO CHANGE	M.H	23.08.2019				
010	NO CHANGE	M.H	08.11.2019				
011	NO CHANGES	M.H	11.11.2019				
ENGINEERING CERTIFICATION (RPEQ)							
		Name	Signature	No.	Date		
001	SWEPT PATH	M.H	27.02.2019				
002	SWEPT PATH - PRECONSTRUCTION CTMP	M.H	04.03.2019				
003	MINOR AMENDMENTS	M.H	27.03.2019				
004	MINOR AMENDMENTS	M.H	01.04.2019				
005	AMENDMENTS TO REV 1 CTMP COMMENTS	M.H	12.04.2019				
006	AMENDMENTS TO FURTHER REV 1 CTMP COMMENTS	M.H	18.04.2019				
007	NO CHANGES	M.H	10.07.2019				
008	ADD HRV ROUTE TO AREA 15	M.H	30.07.2019				

Project	SYDNEY METRO CITY & SOUTHWEST SOUTHWEST METRO EARLY WORKS		
Design	M.H	Drawn	M.H
Checked			T.W
Title	SWEPT PATH AREA 3B/5A ENTRY MOVEMENT		
Project Number	P3519	Sheet Number	11
Date			11.11.2019
Issue			011

NOT FOR CONSTRUCTION



SU TRUCK meters

Width : 2.50
 Track : 2.50
 Lock to Lock Time : 6.0
 Steering Angle : 36.6

DESIGN VEHICLE

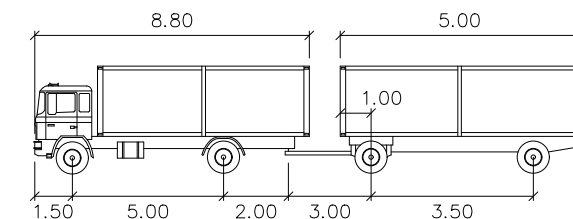
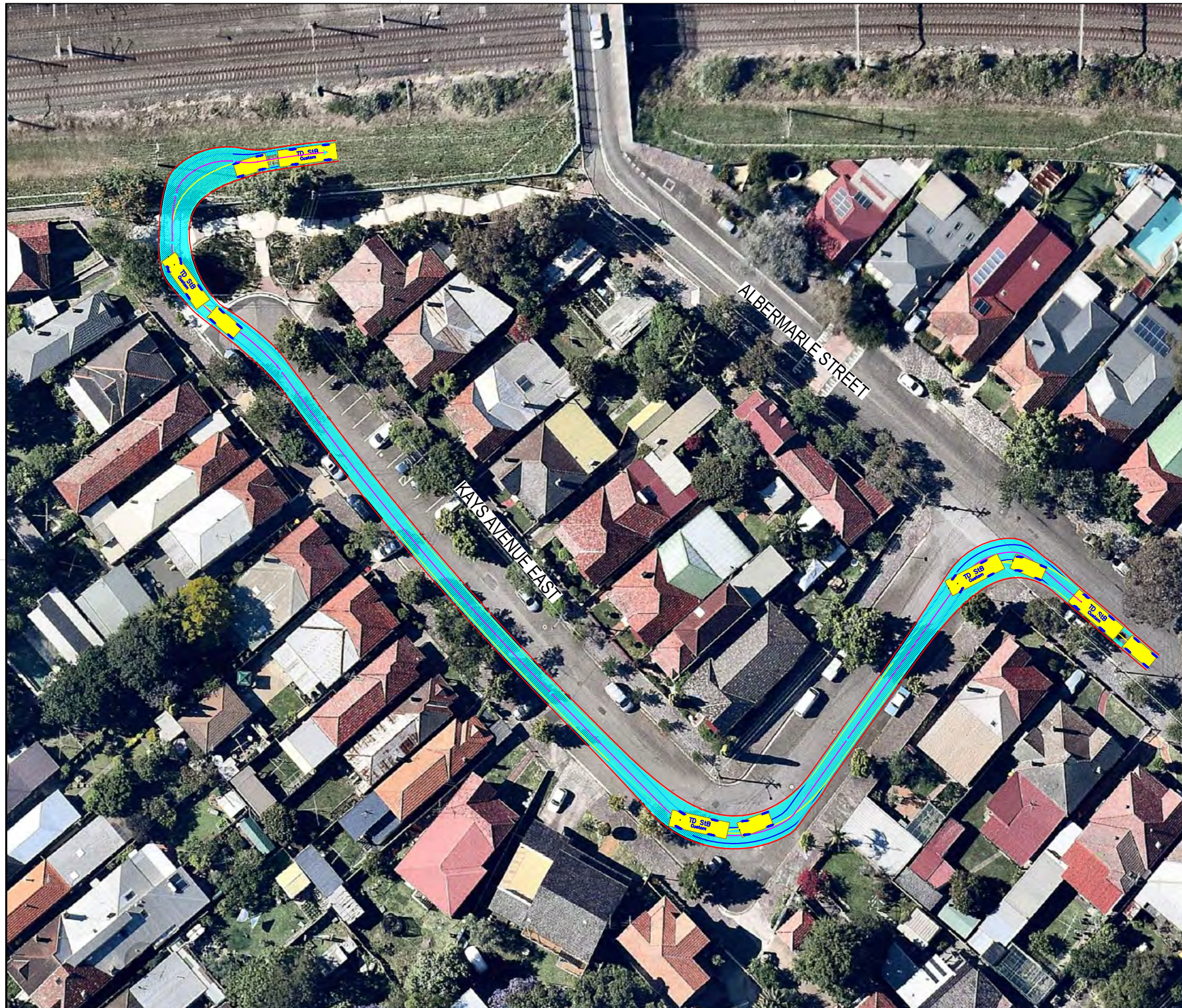
BITZIOS
 consulting
 traffic engineering ■ transport planning

Gold Coast
 Suite 26, 58 Riverwalk Avenue, Robina QLD 4226.
 P: (07) 5562-5377
 W: www.bitziosconsulting.com.au
Brisbane
 Level 2, 428 Upper Edward Street, Spring Hill 4000.
 P: (07) 3831-4442
 E: admin@bitziosconsulting.com.au
Sydney
 Studio 203, 3 Gladstone Street, Newtown NSW 2042.
 P: (02) 9557 6202

REVISIONS		Drawn	Date	Issue	Description	Drawn	Date
001	SWEPT PATH	M.H	27.02.2019	009	NO CHANGE	M.H	23.08.2019
002	SWEPT PATH - PRECONSTRUCTION CTMP	M.H	04.03.2019	010	NO CHANGE	M.H	08.11.2019
003	MINOR AMENDMENTS	M.H	27.03.2019	011	NO CHANGES	M.H	11.11.2019
004	MINOR AMENDMENTS	M.H	01.04.2019	ENGINEERING CERTIFICATION (RPEQ)			
005	AMENDMENTS TO REV 1 CTMP COMMENTS	M.H	12.04.2019				
006	AMENDMENTS TO FURTHER REV 1 CTMP COMMENTS	M.H	18.04.2019	Name	Signature	No.	Date
007	NO CHANGES	M.H	10.07.2019				
008	ADD HRV ROUTE TO AREA 15	M.H	30.07.2019				

Project	SYDNEY METRO CITY & SOUTHWEST SOUTHWEST METRO EARLY WORKS		
Design	M.H	Drawn	M.H
Checked			T.W
			Date
			11.11.2019
Title	SWEPT PATH AREA 3B/5A EXIT MOVEMENT		
Project Number	P3519	Sheet Number	12
Issue			011

NOT FOR CONSTRUCTION

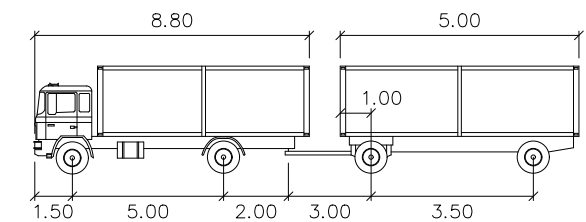
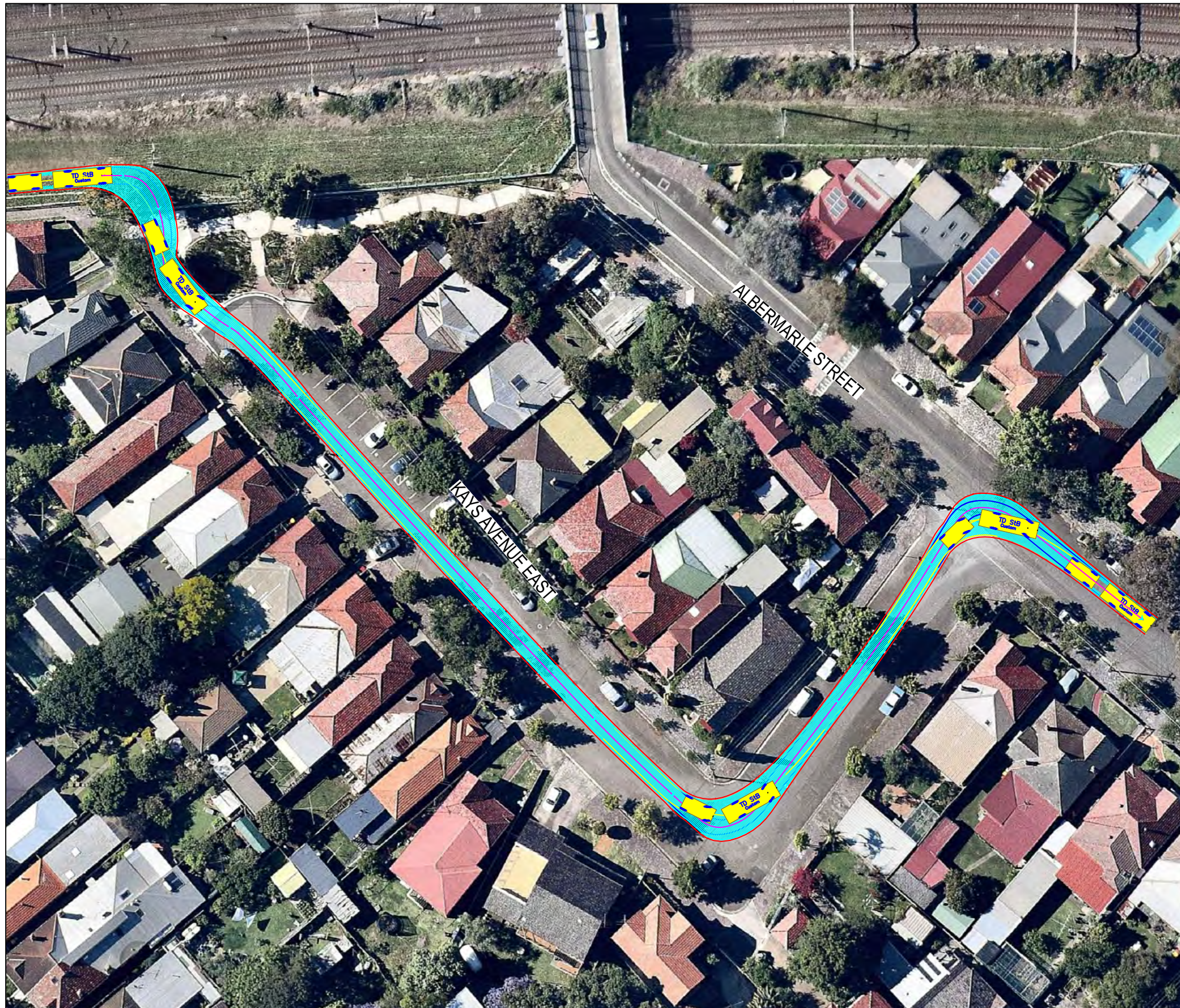


TD StB	units	TD StB	units
First Unit Width	: 2.50	Lock to Lock Time	: 6.0
Trailer Width	: 2.30	Steering Angle	: 37.9
First Unit Track	: 2.50	Articulating Angle	: 70.0
Trailer Track	: 2.30		

DESIGN VEHICLE

REVISIONS		Drawn	Date	Issue	Description	M.H	Date
009	NO CHANGE			009	NO CHANGE	M.H	23.08.2019
010	NO CHANGE			010	NO CHANGE	M.H	08.11.2019
011	NO CHANGES			011	NO CHANGES	M.H	11.11.2019
ENGINEERING CERTIFICATION (RPEQ)							
		Name	Signature	No.	Date		

Project	SYDNEY METRO CITY & SOUTHWEST SOUTHWEST METRO EARLY WORKS		
Design	M.H	Drawn	M.H
Checked	T.W		
NOT FOR CONSTRUCTION			
Date	11.11.2019		
Title	SWEPT PATH AREA 5B ENTRY MOVEMENT		
Project Number	P3519	Sheet Number	13
Issue	011		

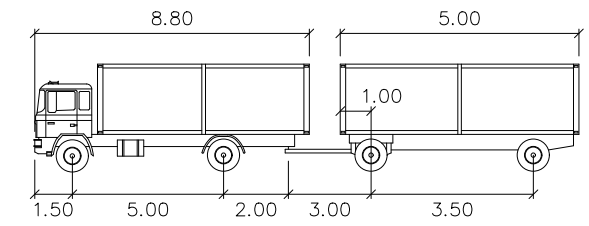
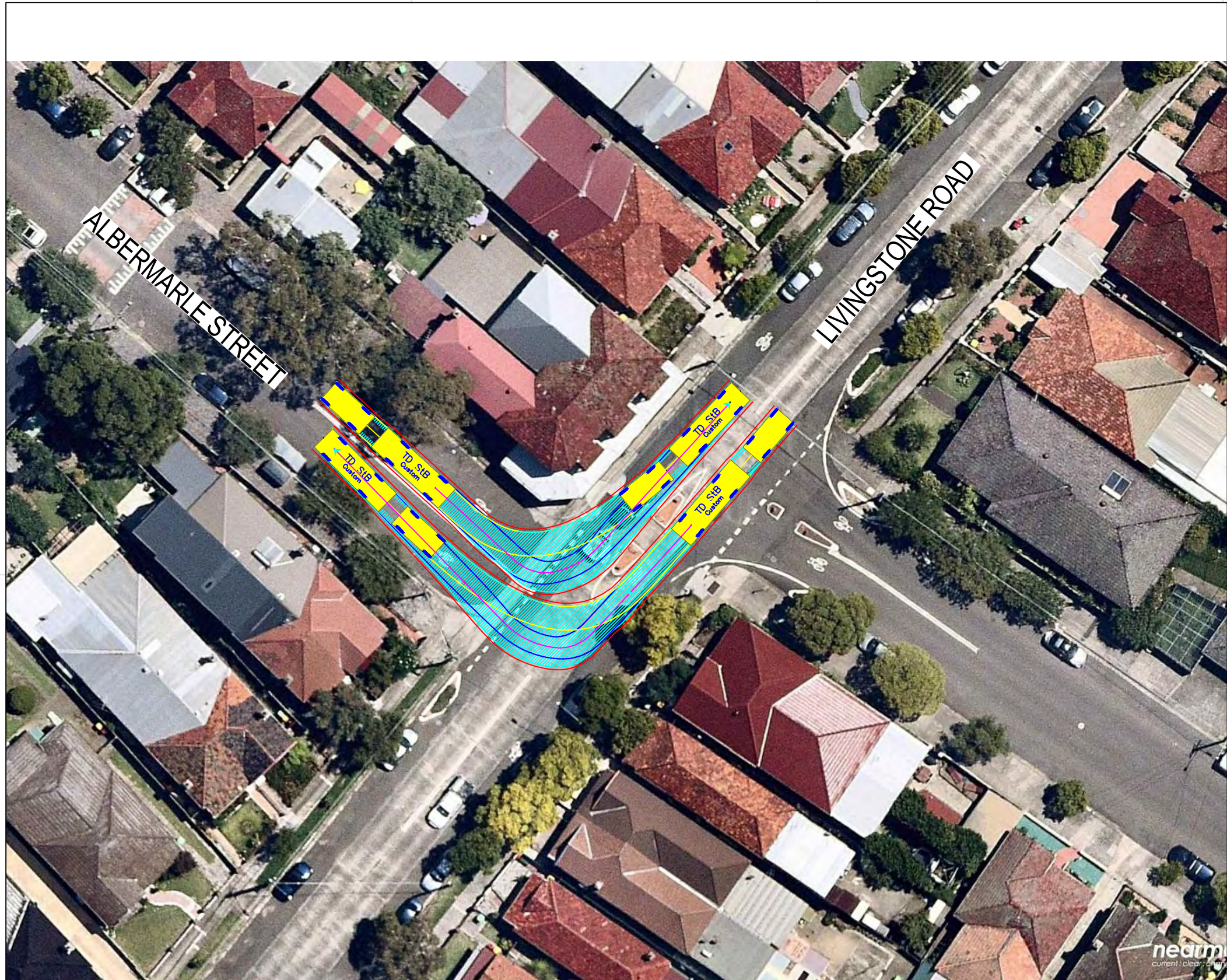


TD StB	units	TD StB	units
First Unit Width	: 2.50	Lock to Lock Time	: 6.0
Trailer Width	: 2.30	Steering Angle	: 37.9
First Unit Track	: 2.50	Articulating Angle	: 70.0
Trailer Track	: 2.30		

DESIGN VEHICLE

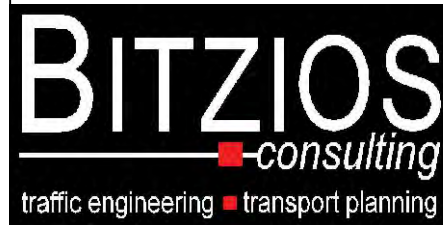
Issue	Revisions/Descriptions	Drawn	Date	009	M.H	23.08.2019
001	SWEPT PATH	M.H	27.02.2019	010	M.H	08.11.2019
002	SWEPT PATH - PRECONSTRUCTION CTMP	M.H	04.03.2019	011	M.H	11.11.2019
003	MINOR AMENDMENTS	M.H	27.03.2019			
004	MINOR AMENDMENTS	M.H	01.04.2019	ENGINEERING CERTIFICATION (RPEQ)		
005	AMENDMENTS TO REV 1 CTMP COMMENTS	M.H	12.04.2019	Name	Signature	No.
006	AMENDMENTS TO FURTHER REV 1 CTMP COMMENTS	M.H	18.04.2019			Date
007	NO CHANGES	M.H	10.07.2019			
008	ADD HRV ROUTE TO AREA 15	M.H	30.07.2019			

Project	SYDNEY METRO CITY & SOUTHWEST SOUTHWEST METRO EARLY WORKS		
Design	M.H	Drawn	M.H
Checked			T.W
			Date
			11.11.2019
Title	SWEPT PATH AREA 5B EXIT MOVEMENT		
Project Number	P3519	Sheet Number	14
Issue	011		



TD StB	meters	
First Unit Width	: 2.50	Lock to Lock Time : 6.0
Trailer Width	: 2.30	Steering Angle : 37.9
First Unit Track	: 2.50	Articulating Angle : 70.0
Trailer Track	: 2.30	

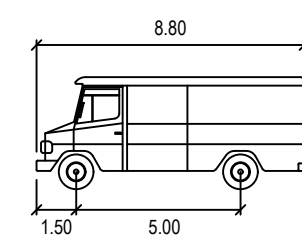
DESIGN VEHICLE



Gold Coast
 Suite 26, 58 Riverwalk Avenue, Robina QLD 4226.
 P: (07) 5562-5377
 W: www.bitziosconsulting.com.au
Brisbane
 Level 2, 428 Upper Edward Street, Spring Hill 4000.
 P: (07) 3831-4442
 E: admin@bitziosconsulting.com.au
Sydney
 Studio 203, 3 Gladstone Street, Newtown NSW 2042.
 P: (02) 9557 6202

REVISIONS		Drawn	Date	Issue	Description	M.H	Date
001	SWEPT PATH	M.H	27.02.2019	009	NO CHANGE	M.H	23.08.2019
002	SWEPT PATH - PRECONSTRUCTION CTMP	M.H	04.03.2019	010	NO CHANGE	M.H	08.11.2019
003	MINOR AMENDMENTS	M.H	27.03.2019	011	NO CHANGES	M.H	11.11.2019
004	MINOR AMENDMENTS	M.H	01.04.2019	ENGINEERING CERTIFICATION (RPEQ)			
005	AMENDMENTS TO REV 1 CTMP COMMENTS	M.H	12.04.2019				
006	AMENDMENTS TO FURTHER REV 1 CTMP COMMENTS	M.H	18.04.2019				
007	NO CHANGES	M.H	10.07.2019				
008	ADD HRV ROUTE TO AREA 15	M.H	30.07.2019	Name	Signature	No.	Date

Project	SYDNEY METRO CITY & SOUTHWEST SOUTHWEST METRO EARLY WORKS		
Design	M.H	Drawn	M.H
Checked	T.W		Date
			11.11.2019
Title	SWEPT PATH AREA 5B ALBERMARLE STREET AND LIVINGSTONE STREET INTERSECTION		
Project Number	P3519	Sheet Number	15
Issue	011		



SERVICE VEHICLE
 meters
 Width : 2.50
 Track : 2.50
 Lock to Lock Time : 6.0
 Steering Angle : 38.7

DESIGN VEHICLE

BITZIOS
 consulting
 traffic engineering ■ transport planning

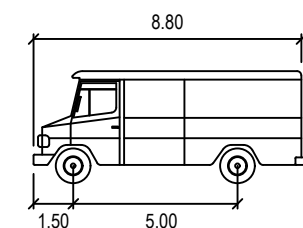
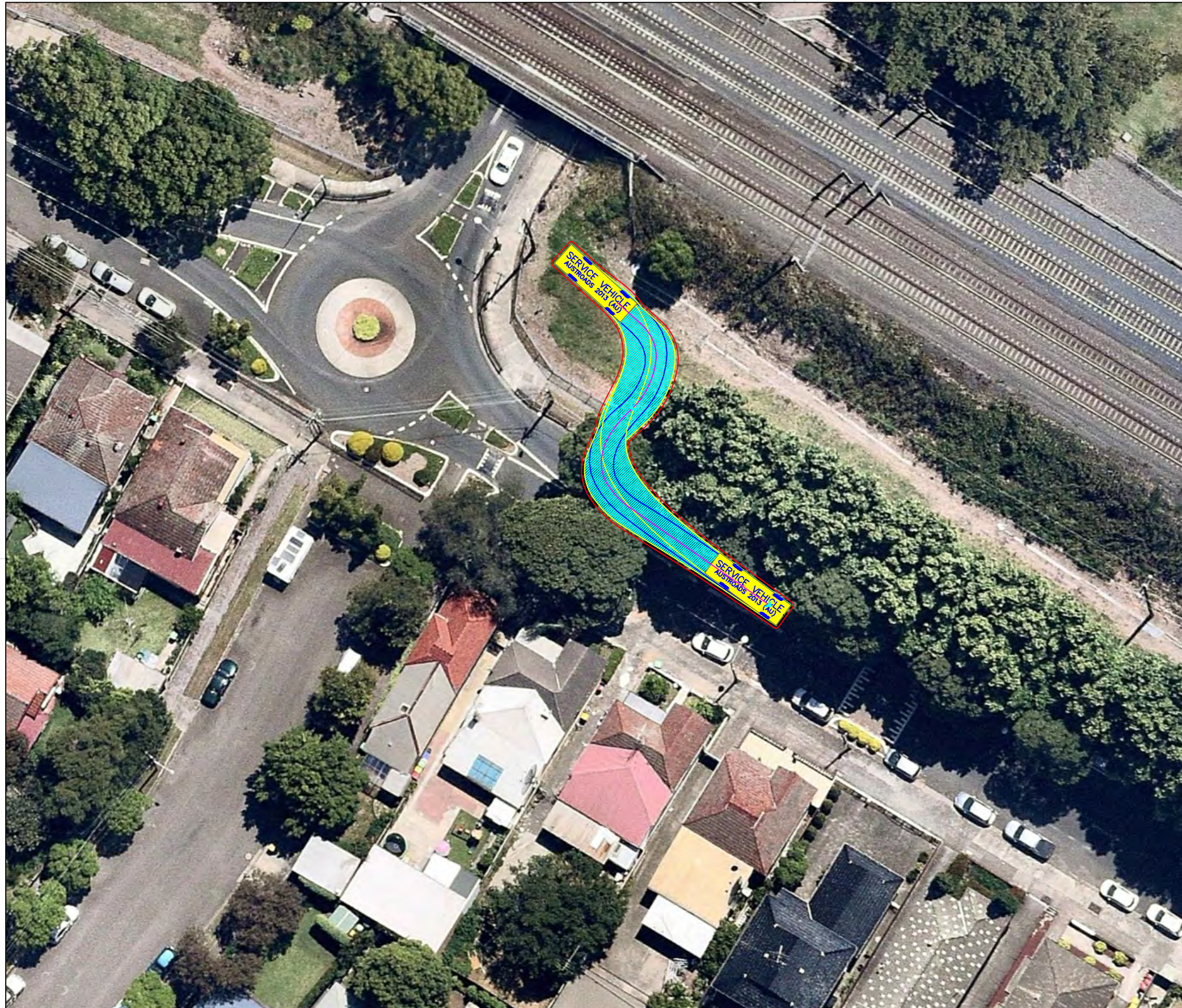
Gold Coast
 Suite 26, 58 Riverwalk Avenue, Robina QLD 4226.
 P: (07) 5562-5377
 W: www.bitziosconsulting.com.au
Brisbane
 Level 2, 428 Upper Edward Street, Spring Hill 4000.
 P: (07) 3831-4442
 E: admin@bitziosconsulting.com.au
Sydney
 Studio 203, 3 Gladstone Street, Newtown NSW 2042.
 P: (02) 9557 6202

REVISIONS		Drawn	Date	Issue	Description	Drawn	Date
001	SWEPT PATH	M.H	27.02.2019	009	NO CHANGE	M.H	23.08.2019
002	SWEPT PATH - PRECONSTRUCTION CTMP	M.H	04.03.2019	010	NO CHANGE	M.H	08.11.2019
003	MINOR AMENDMENTS	M.H	27.03.2019	011	NO CHANGES	M.H	11.11.2019
004	MINOR AMENDMENTS	M.H	01.04.2019	ENGINEERING CERTIFICATION (RPEQ)			
005	AMENDMENTS TO REV 1 CTMP COMMENTS	M.H	12.04.2019				
006	AMENDMENTS TO FURTHER REV 1 CTMP COMMENTS	M.H	18.04.2019	Name	Signature	No.	Date
007	CHANGED VEHICLE TYPE	M.H	10.07.2019				
008	ADD HRV ROUTE TO AREA 15	M.H	30.07.2019				

Project
 SYDNEY METRO CITY & SOUTHWEST
 SOUTHWEST METRO EARLY WORKS

Title
 SWEPT PATH
 AREA 7A
 ENTRY MOVEMENT

Design	Drawn	Checked
M.H	M.H	T.W
<div style="border: 2px solid red; padding: 5px; text-align: center;"> NOT FOR CONSTRUCTION </div>		Date
		11.11.2019
Project Number	Sheet Number	Issue
P3519	16	011



SERVICE VEHICLE

	meters
Width	: 2.50
Track	: 2.50
Lock to Lock Time	: 6.0
Steering Angle	: 38.7

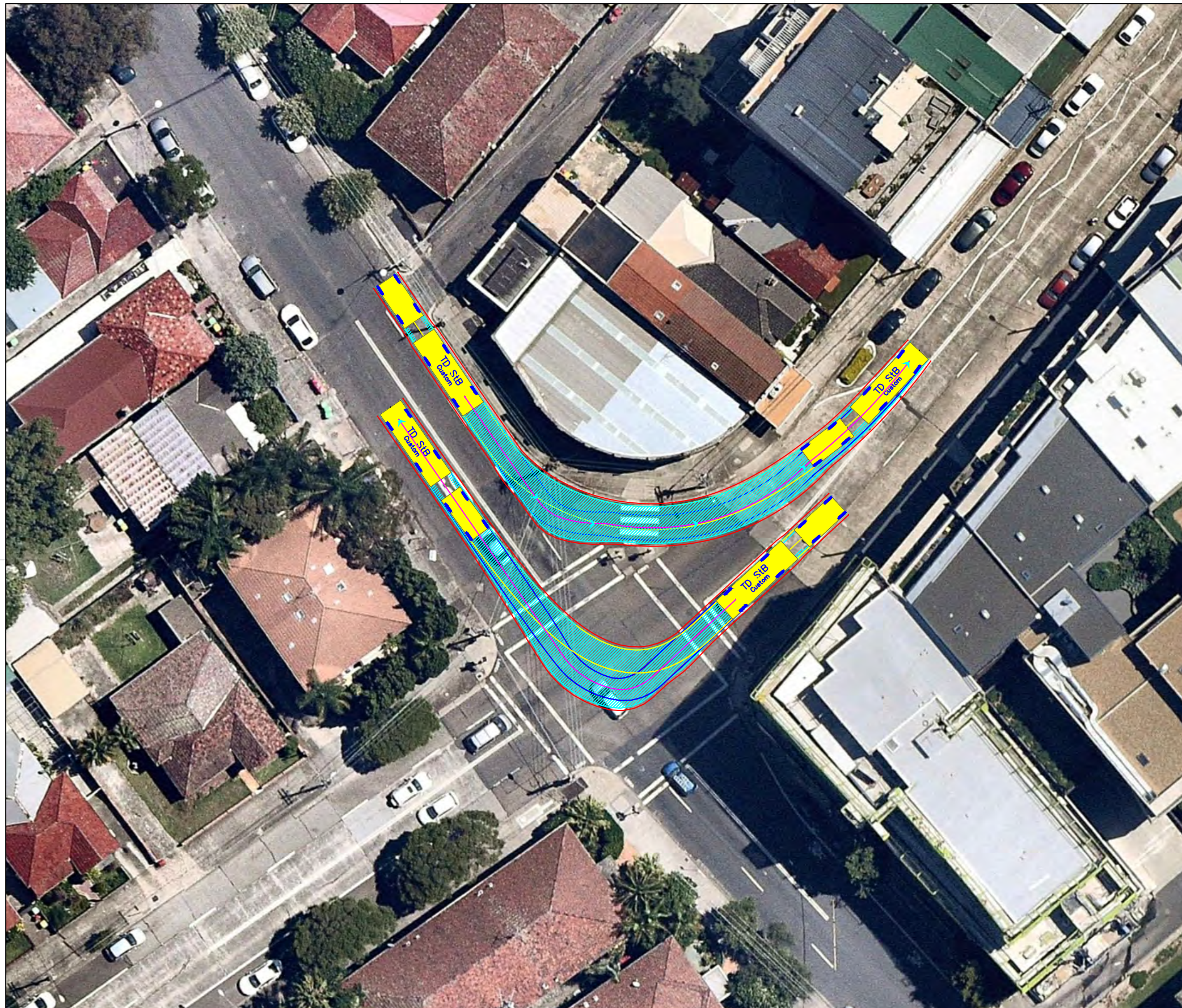
DESIGN VEHICLE

BITZIOS
consulting
traffic engineering ■ transport planning

Gold Coast
Suite 26, 58 Riverwalk Avenue, Robina QLD 4226.
P: (07) 5562-5377
W: www.bitziosconsulting.com.au
Brisbane
Level 2, 428 Upper Edward Street, Spring Hill 4000.
P: (07) 3831-4442
E: admin@bitziosconsulting.com.au
Sydney
Studio 203, 3 Gladstone Street, Newtown NSW 2042.
P: (02) 9557 6202

REVISIONS		Drawn	Date				
001	SWEPT PATH	M.H	27.02.2019	009	NO CHANGE	M.H	23.08.2019
002	SWEPT PATH - PRECONSTRUCTION CTMP	M.H	04.03.2019	010	NO CHANGE	M.H	08.11.2019
003	MINOR AMENDMENTS	M.H	27.03.2019	011	NO CHANGES	M.H	11.11.2019
004	MINOR AMENDMENTS	M.H	01.04.2019	ENGINEERING CERTIFICATION (RPEQ)			
005	AMENDMENTS TO REV 1 CTMP COMMENTS	M.H	12.04.2019	Name	Signature	No.	Date
006	AMENDMENTS TO FURTHER REV 1 CTMP COMMENTS	M.H	18.04.2019				
007	CHANGED VEHICLE TYPE	M.H	10.07.2019				
008	ADD HRV ROUTE TO AREA 15	M.H	30.07.2019				

Project		Design	Drawn	Checked
SYDNEY METRO CITY & SOUTHWEST SOUTHWEST METRO EARLY WORKS		M.H	M.H	T.W
Title		NOT FOR CONSTRUCTION		
		Date	11.11.2019	
SWEPT PATH AREA 7A EXIT MOVEMENT 1		Project Number	Sheet Number	Issue
		P3519	17	011

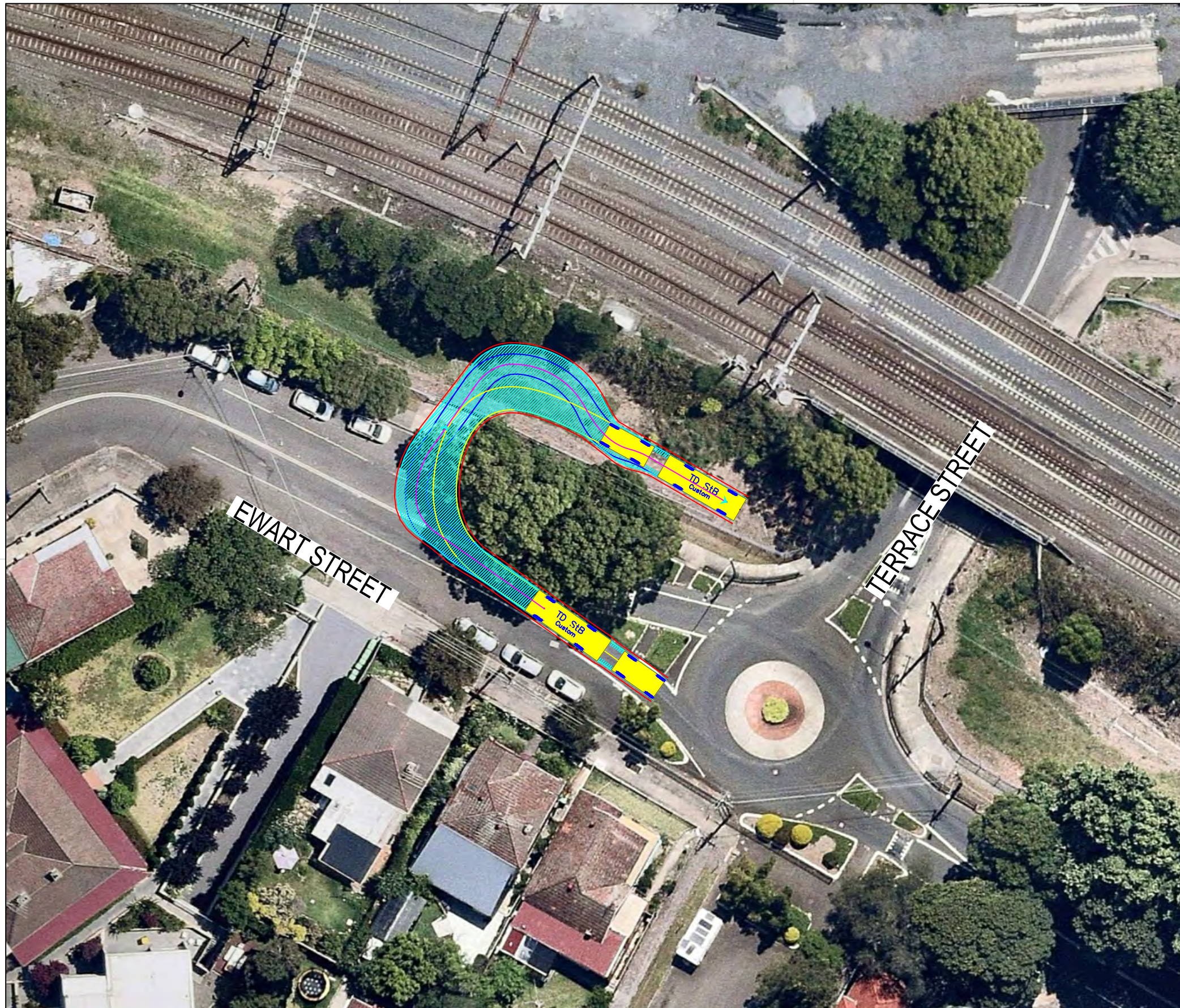


TD StB		meters	
First Unit Width	: 2.50	Lock to Lock Time	: 6.0
Trailer Width	: 2.30	Steering Angle	: 37.9
First Unit Track	: 2.50	Articulating Angle	: 70.0
Trailer Track	: 2.30		

DESIGN VEHICLE

REVISIONS		Drawn	Date	Issue	Description	Drawn	Date
009	NO CHANGE	M.H	23.08.2019	009	NO CHANGE	M.H	23.08.2019
010	NO CHANGE	M.H	08.11.2019	010	NO CHANGE	M.H	08.11.2019
011	NO CHANGES	M.H	11.11.2019	011	NO CHANGES	M.H	11.11.2019
ENGINEERING CERTIFICATION (RPEQ)							
		Name	Signature	No.	Date		

Project	SYDNEY METRO CITY & SOUTHWEST SOUTHWEST METRO EARLY WORKS		Design	M.H	Drawn	M.H	Checked	T.W
Title	SWEPT PATH AREA 7A EXIT MOVEMENT 2		NOT FOR CONSTRUCTION			Date	11.11.2019	
Project Number	P3519	Sheet Number	18	Issue	011			



TD StB	meters			
First Unit Width	: 2.50	Lock to Lock Time	: 6.0	
Trailer Width	: 2.30	Steering Angle	: 37.9	
First Unit Track	: 2.50	Articulating Angle	: 70.0	
Trailer Track	: 2.30			

DESIGN VEHICLE

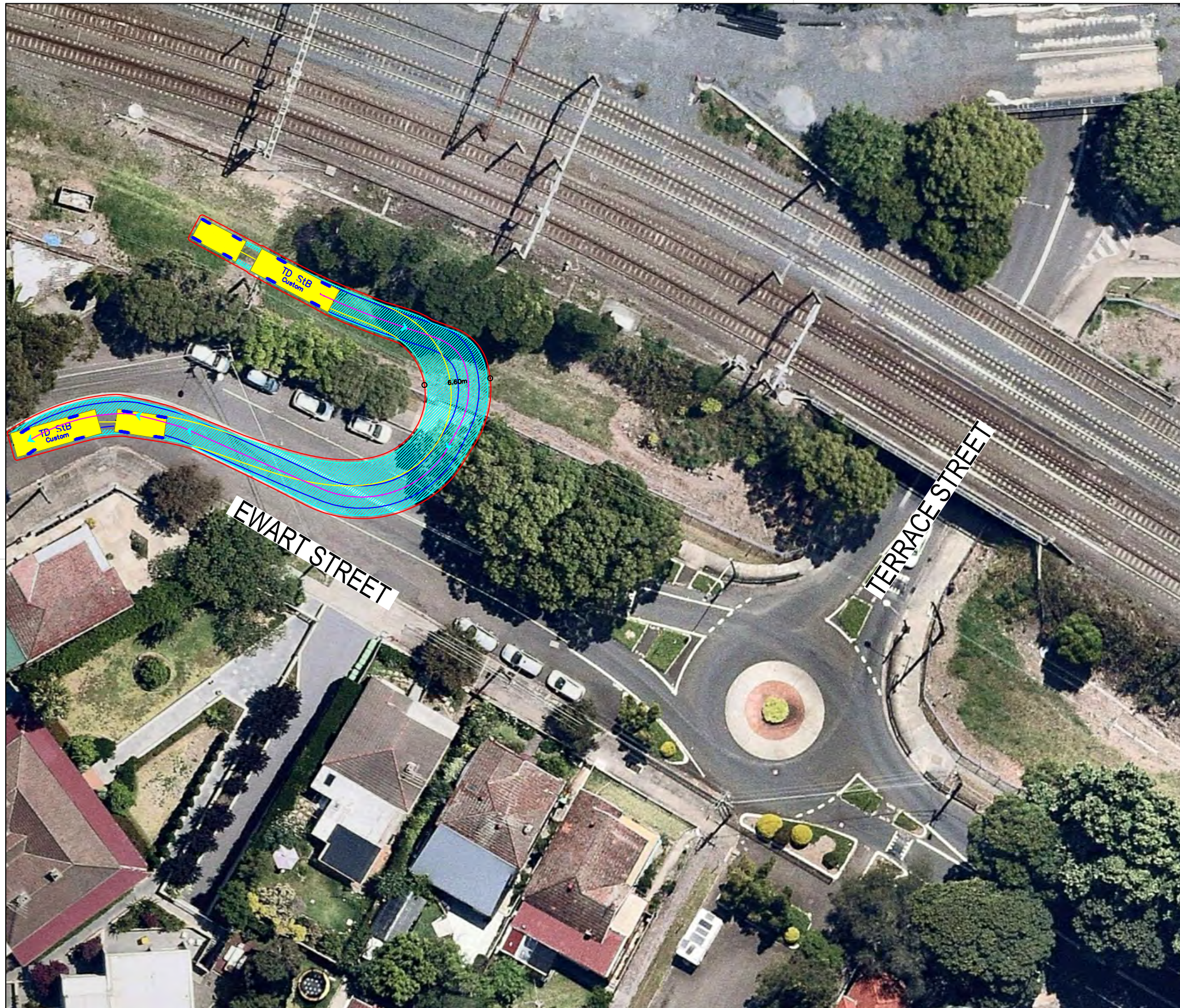
BITZIOS
consulting
traffic engineering ■ transport planning

Gold Coast
Suite 26, 58 Riverwalk Avenue, Robina QLD 4226.
P: (07) 5562-5377
W: www.bitziosconsulting.com.au
Brisbane
Level 2, 428 Upper Edward Street, Spring Hill 4000.
P: (07) 3831-4442
E: admin@bitziosconsulting.com.au
Sydney
Studio 203, 3 Gladstone Street, Newtown NSW 2042.
P: (02) 9557 6202

Issue	Revisions/Descriptions	Drawn	Date				
009	NO CHANGE	M.H	23.08.2019				
010	NO CHANGE	M.H	08.11.2019				
011	NO CHANGES	M.H	11.11.2019				
ENGINEERING CERTIFICATION (RPEQ)							
		Name	Signature	No.	Date		

Project	SYDNEY METRO CITY & SOUTHWEST SOUTHWEST METRO EARLY WORKS		
Design	M.H	Drawn	M.H
Checked	T.W		Date
	11.11.2019		Issue
	011	Project Number	P3519
	19	Sheet Number	19

NOT FOR CONSTRUCTION

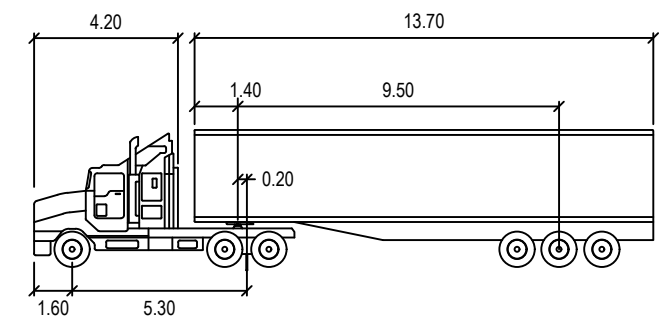
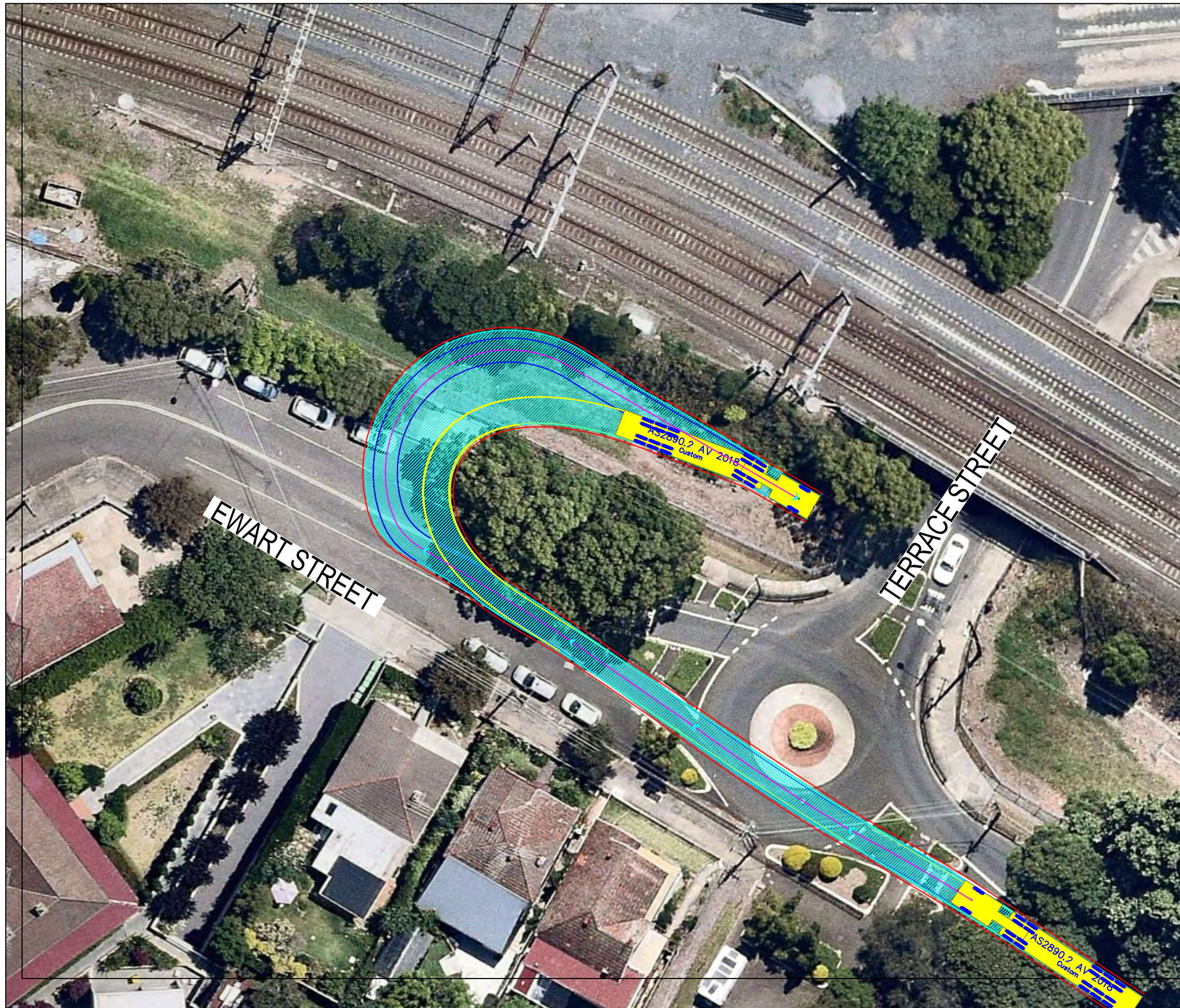


TD StB	units	TD StB	units
First Unit Width	: 2.50	Lock to Lock Time	: 6.0
Trailer Width	: 2.30	Steering Angle	: 37.9
First Unit Track	: 2.50	Articulating Angle	: 70.0
Trailer Track	: 2.30		

DESIGN VEHICLE

Issue	Revisions/Descriptions	Drawn	Date	009	NO CHANGE	M.H	23.08.2019
001	SWEPT PATH	M.H	27.02.2019	010	NO CHANGE	M.H	08.11.2019
002	SWEPT PATH - PRECONSTRUCTION CTMP	M.H	04.03.2019	011	NO CHANGES	M.H	11.11.2019
003	MINOR AMENDMENTS	M.H	27.03.2019	ENGINEERING CERTIFICATION (RPEQ)			
004	MINOR AMENDMENTS	M.H	01.04.2019				
005	AMENDMENTS TO REV 1 CTMP COMMENTS	M.H	12.04.2019	Name	Signature	No.	Date
006	AMENDMENTS TO FURTHER REV 1 CTMP COMMENTS	M.H	18.04.2019				
007	NO CHANGES	M.H	10.07.2019				
008	ADD HRV ROUTE TO AREA 15	M.H	30.07.2019				

Project	SYDNEY METRO CITY & SOUTHWEST SOUTHWEST METRO EARLY WORKS		
Design	M.H	Drawn	M.H
Checked			T.W
Title	SWEPT PATH AREA 7B EXIT MOVEMENT		
Project Number	P3519	Sheet Number	20
Date	11.11.2019		
Issue	011		



S ARTICULATED 19M

S ARTICULATED 19M		meters	
Tractor Width	: 2.50	Lock to Lock Time	: 6.0
Trailer Width	: 2.50	Steering Angle	: 27.7
Tractor Track	: 2.50	Articulating Angle	: 70.0
Trailer Track	: 2.50		

DESIGN VEHICLE



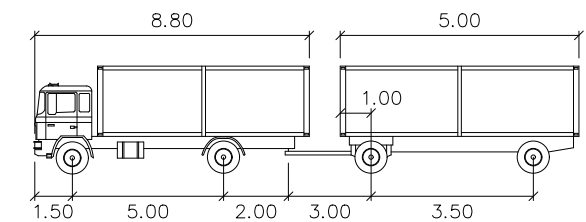
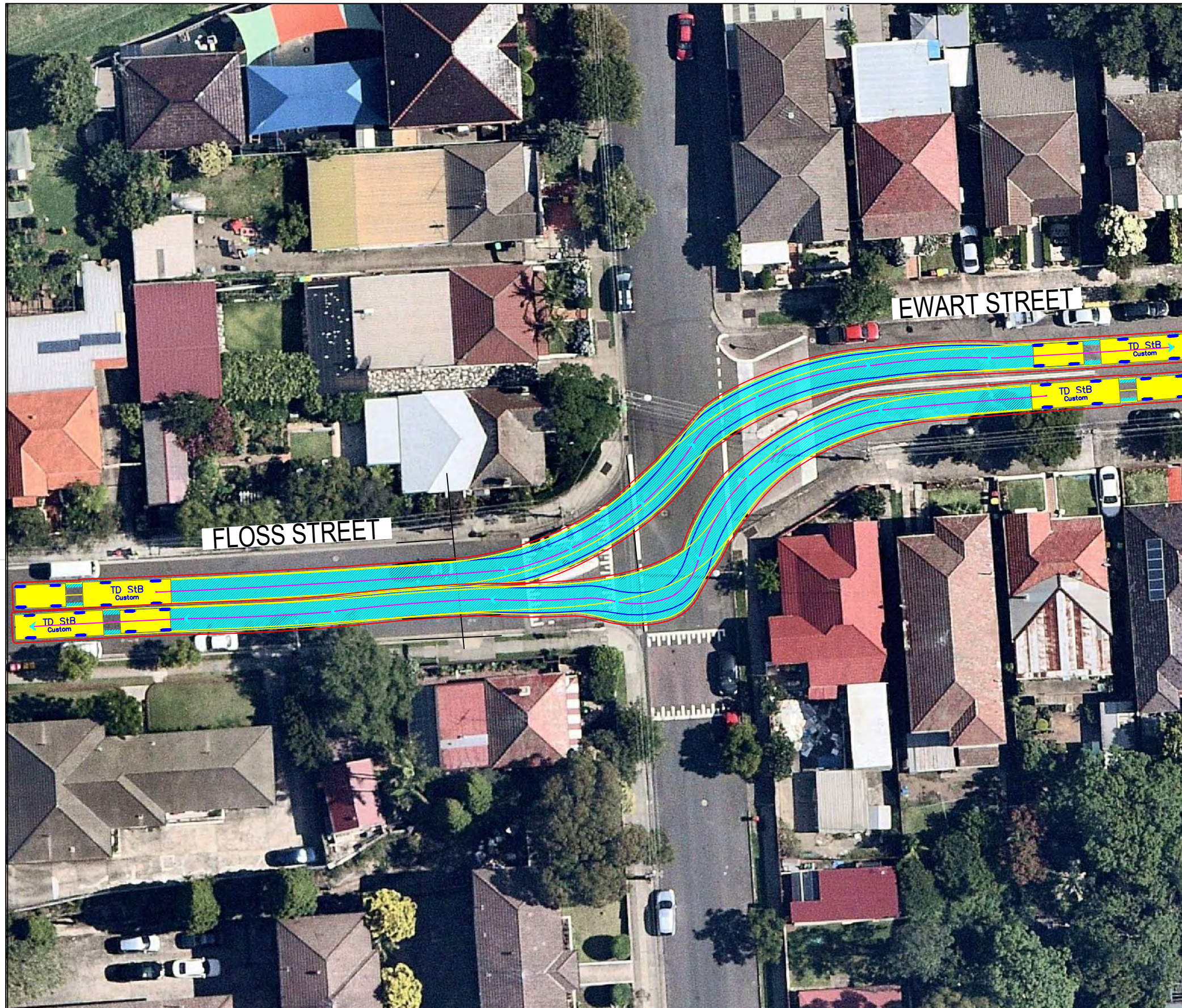
Gold Coast
Suite 26, 58 Riverwalk Avenue, Robina QLD 4226.
P: (07) 5562-5377
W: www.bitziosconsulting.com.au
Brisbane
Level 2, 428 Upper Edward Street, Spring Hill 4000.
P: (07) 3831-4442
E: admin@bitziosconsulting.com.au
Sydney
Studio 203, 3 Gladstone Street, Newtown NSW 2042.
P: (02) 9557 6202

REVISIONS			
Issue	Revisions/Descriptions	Drawn	Date
001	NOT USED	-	-
002	NOT USED	-	-
003	NOT USED	-	-
004	NOT USED	-	-
005	NOT USED	-	-
006	AMENDMENTS TO FURTHER REV 1 CTMP COMMENTS	M.H	18.04.2019
007	NO CHANGES	M.H	10.07.2019
008	ADD HRV ROUTE TO AREA 15	M.H	30.07.2019

No.	Name	Signature	No.	Date
009	NO CHANGE		M.H	23.08.2019
010	NO CHANGE		M.H	08.11.2019
011	NO CHANGES		M.H	11.11.2019

ENGINEERING CERTIFICATION (RPEQ)

Project	SYDNEY METRO CITY & SOUTHWEST SOUTHWEST METRO EARLY WORKS	Design	M.H	Drawn	M.H	Checked	T.W
Title	SWEPT PATH AREA 7B ENTRY MOVEMENT	NOT FOR CONSTRUCTION		Date	11.11.2019		
Project Number	P3519	Sheet Number	21	Issue	011		

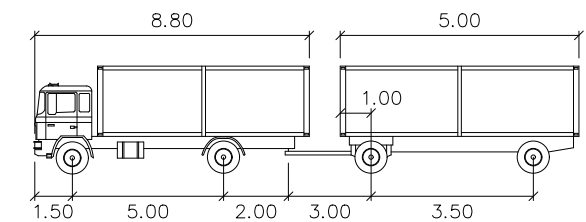
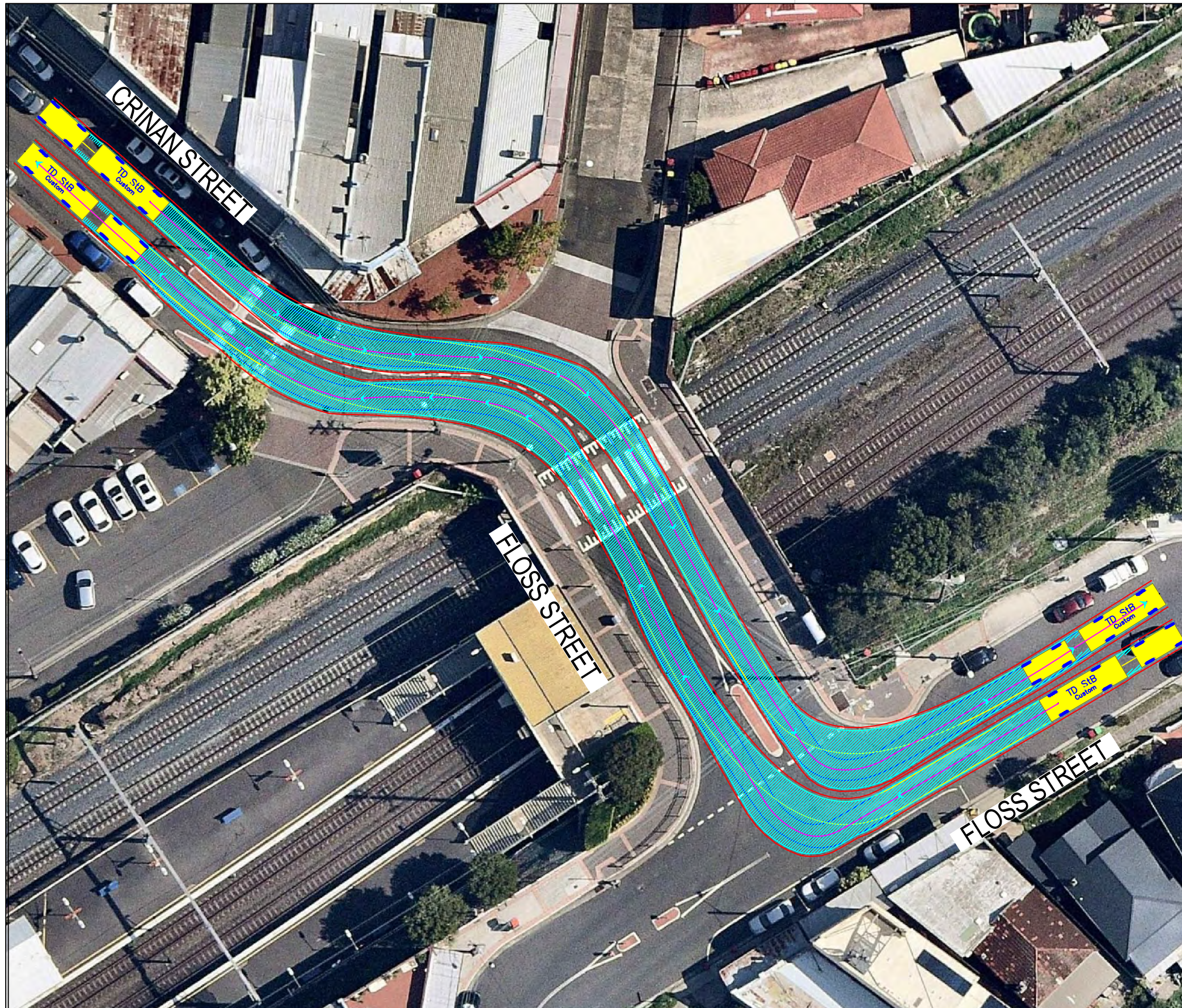


TD StB	units	meters		
First Unit Width	:	2.50	Lock to Lock Time	: 6.0
Trailer Width	:	2.30	Steering Angle	: 37.9
First Unit Track	:	2.50	Articulating Angle	: 70.0
Trailer Track	:	2.30		

DESIGN VEHICLE

Issue	Revisions/Descriptions	Drawn	Date	009	M.H	23.08.2019
001	SWEPT PATH	M.H	27.02.2019	010	M.H	08.11.2019
002	SWEPT PATH - PRECONSTRUCTION CTMP	M.H	04.03.2019	011	M.H	11.11.2019
003	MINOR AMENDMENTS	M.H	27.03.2019			
004	MINOR AMENDMENTS	M.H	01.04.2019			
005	AMENDMENTS TO REV 1 CTMP COMMENTS	M.H	12.04.2019	ENGINEERING CERTIFICATION (RPEQ)		
006	AMENDMENTS TO FURTHER REV 1 CTMP COMMENTS	M.H	18.04.2019	Name	Signature	No.
007	NO CHANGES	M.H	10.07.2019			Date
008	ADD HRV ROUTE TO AREA 15	M.H	30.07.2019			

Project	Design	Drawn	Checked
SYDNEY METRO CITY & SOUTHWEST SOUTHWEST METRO EARLY WORKS	M.H	M.H	T.W
Title	NOT FOR CONSTRUCTION		
SWEPT PATH AREA 7B HAULAGE ROUTE 1	Project Number	Sheet Number	Date
	P3519	22	11.11.2019
			Issue
			011

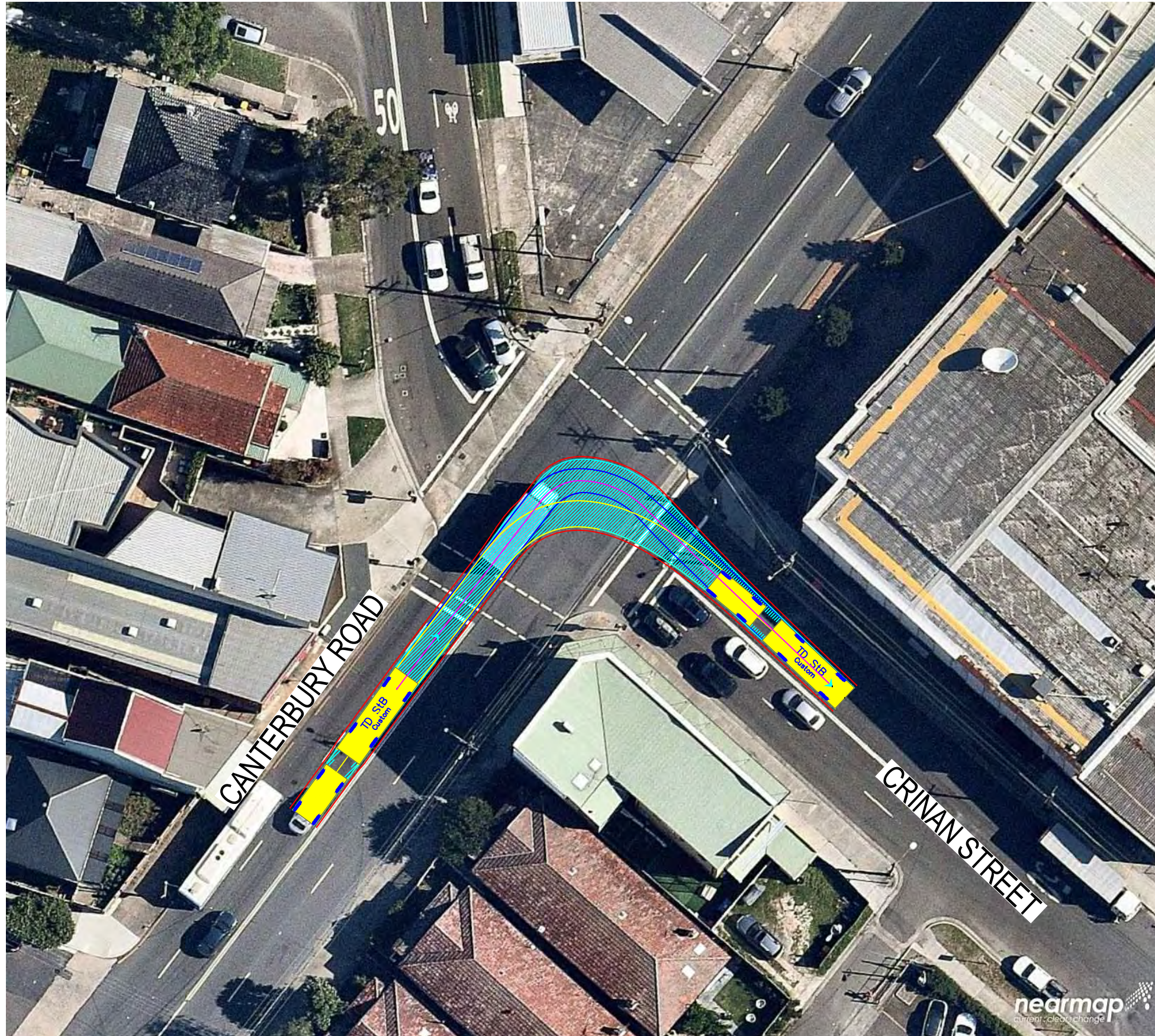


TD StB	units	TD StB	units
First Unit Width	: 2.50	Lock to Lock Time	: 6.0
Trailer Width	: 2.30	Steering Angle	: 37.9
First Unit Track	: 2.50	Articulating Angle	: 70.0
Trailer Track	: 2.30		

DESIGN VEHICLE

Issue	Revisions/Descriptions	Drawn	Date	009	NO CHANGE	M.H	23.08.2019
001	SWEPT PATH	M.H	27.02.2019	010	NO CHANGE	M.H	08.11.2019
002	SWEPT PATH - PRECONSTRUCTION CTMP	M.H	04.03.2019	011	NO CHANGES	M.H	11.11.2019
003	MINOR AMENDMENTS	M.H	27.03.2019	ENGINEERING CERTIFICATION (RPEQ)			
004	MINOR AMENDMENTS	M.H	01.04.2019				
005	AMENDMENTS TO REV 1 CTMP COMMENTS	M.H	12.04.2019	Name	Signature	No.	Date
006	AMENDMENTS TO FURTHER REV 1 CTMP COMMENTS	M.H	18.04.2019				
007	NO CHANGES	M.H	10.07.2019				
008	ADD HRV ROUTE TO AREA 15	M.H	30.07.2019				

Project	SYDNEY METRO CITY & SOUTHWEST SOUTHWEST METRO EARLY WORKS		
Design	M.H	Drawn	M.H
Checked	T.W		Date
			11.11.2019
Title	SWEPT PATH AREA 7B HAULAGE ROUTE 2		
Project Number	P3519	Sheet Number	23
Issue	011		

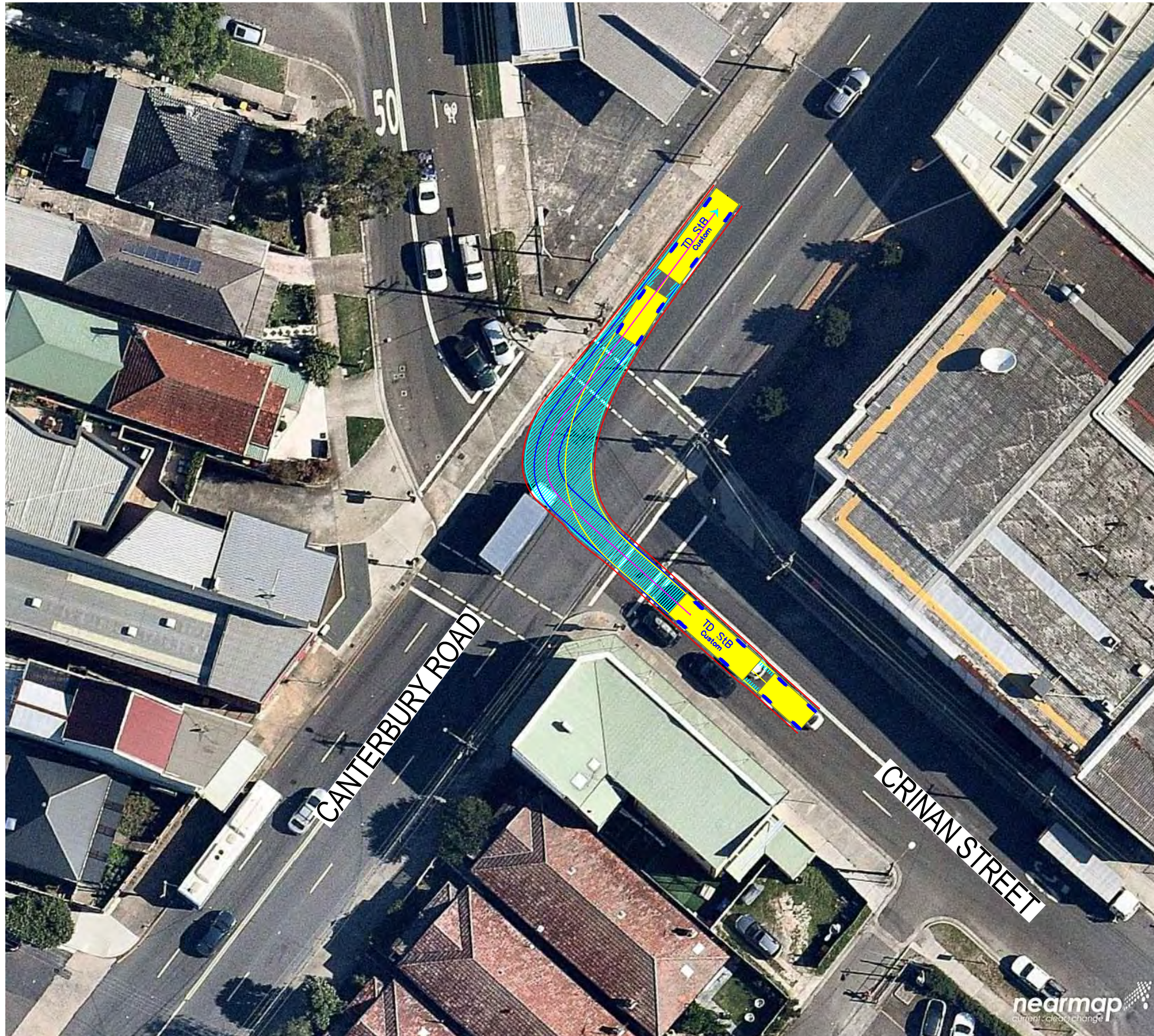


TD StB	meters		
First Unit Width	: 2.50	Lock to Lock Time	: 6.0
Trailer Width	: 2.30	Steering Angle	: 37.9
First Unit Track	: 2.50	Articulating Angle	: 70.0
Trailer Track	: 2.30		

DESIGN VEHICLE

Issue	Revisions/Descriptions	Drawn	Date				
009	NO CHANGE			M.H	23.08.2019		
010	NO CHANGE			M.H	08.11.2019		
011	NO CHANGES			M.H	11.11.2019		
ENGINEERING CERTIFICATION (RPEQ)							
		Name	Signature	No.	Date		

Project	SYDNEY METRO CITY & SOUTHWEST SOUTHWEST METRO EARLY WORKS	Design	M.H	Drawn	M.H	Checked	T.W
Title	SWEPT PATH AREA 7B CANTERBURY ROAD AND CRINAN STREET	NOT FOR CONSTRUCTION		Date	11.11.2019		
Project Number	P3519	Sheet Number	24	Issue	011		



TD StB	meters		
First Unit Width	: 2.50	Lock to Lock Time	: 6.0
Trailer Width	: 2.30	Steering Angle	: 37.9
First Unit Track	: 2.50	Articulating Angle	: 70.0
Trailer Track	: 2.30		

DESIGN VEHICLE

Issue	Revisions/Descriptions	Drawn	Date				
001	SWEPT PATH	M.H	27.02.2019	009	NO CHANGE	M.H	23.08.2019
002	SWEPT PATH - PRECONSTRUCTION CTMP	M.H	04.03.2019	010	NO CHANGE	M.H	08.11.2019
003	MINOR AMENDMENTS	M.H	27.03.2019	011	NO CHANGES	M.H	11.11.2019
004	MINOR AMENDMENTS	M.H	01.04.2019	ENGINEERING CERTIFICATION (RPEQ)			
005	AMENDMENTS TO REV 1 CTMP COMMENTS	M.H	12.04.2019	Name	Signature	No.	Date
006	AMENDMENTS TO FURTHER REV 1 CTMP COMMENTS	M.H	18.04.2019				
007	NO CHANGES	M.H	10.07.2019				
008	ADD HRV ROUTE TO AREA 15	M.H	30.07.2019				

Project	SYDNEY METRO CITY & SOUTHWEST SOUTHWEST METRO EARLY WORKS		
Design	M.H	Drawn	M.H
Checked	T.W		
Date	11.11.2019		
Title	SWEPT PATH AREA 7B CANTERBURY ROAD AND CRINAN STREET		
Project Number	P3519	Sheet Number	25
Issue	011		



REQUIRES REMOVAL OF 1 PARKING SPACE
SEE MAIN CTMP



TD StB		meters	
First Unit Width	: 2.50	Lock to Lock Time	: 6.0
Trailer Width	: 2.30	Steering Angle	: 37.9
First Unit Track	: 2.50	Articulating Angle	: 70.0
Trailer Track	: 2.30		

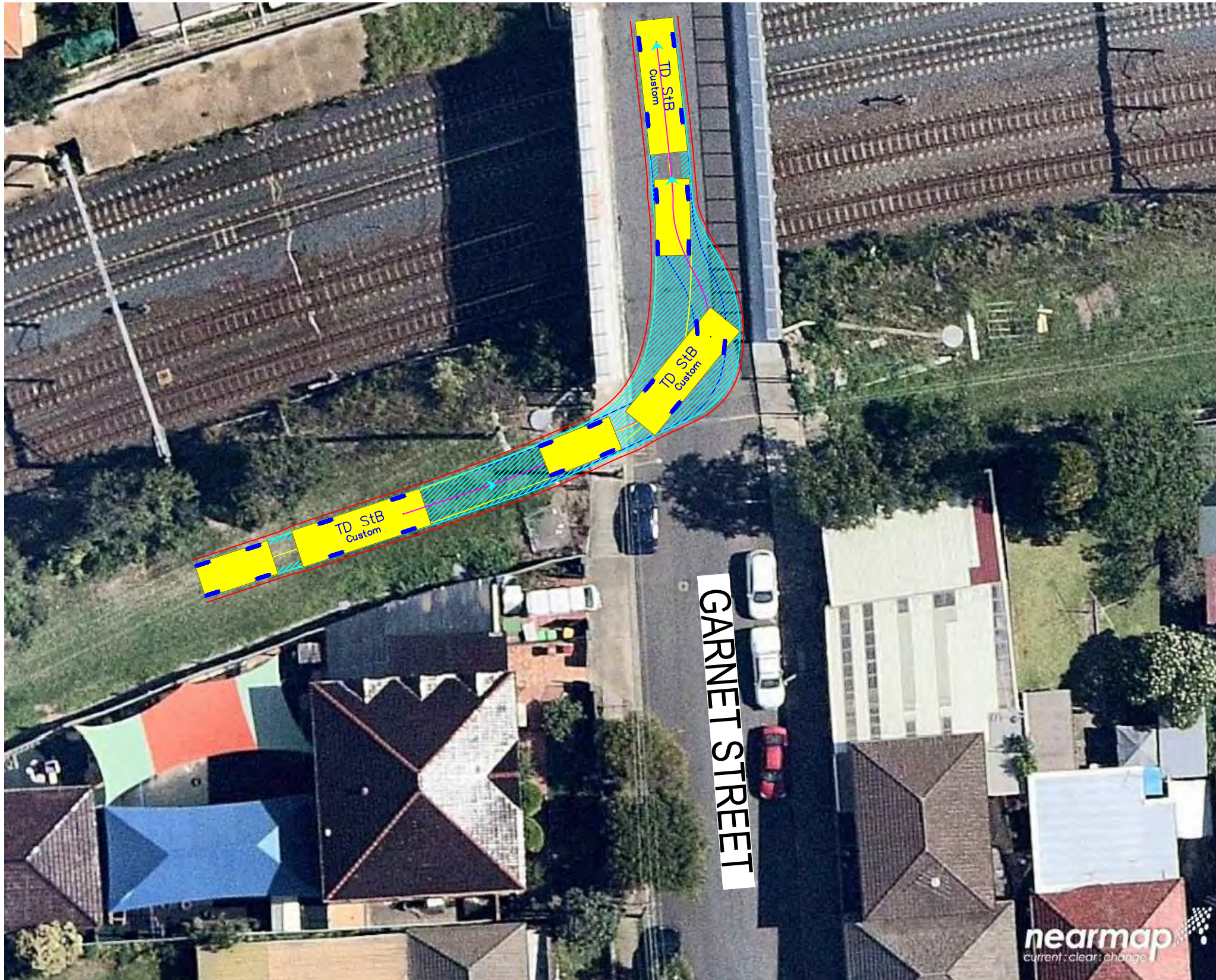
DESIGN VEHICLE

REVISIONS			
Issue	Revisions/Descriptions	Drawn	Date
001	SWEPT PATH	M.H	27.02.2019
002	SWEPT PATH - PRECONSTRUCTION CTMP	M.H	04.03.2019
003	MINOR AMENDMENTS	M.H	27.03.2019
004	MINOR AMENDMENTS	M.H	01.04.2019
005	AMENDMENTS TO REV 1 CTMP COMMENTS	M.H	12.04.2019
006	AMENDMENTS TO FURTHER REV 1 CTMP COMMENTS	M.H	18.04.2019
007	NO CHANGES	M.H	10.07.2019
008	ADD HRV ROUTE TO AREA 15	M.H	30.07.2019

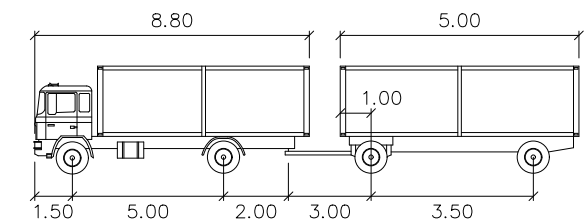
Issue	Description	Drawn	Date
009	NO CHANGE	M.H	23.08.2019
010	NO CHANGE	M.H	08.11.2019
011	NO CHANGES	M.H	11.11.2019

ENGINEERING CERTIFICATION (RPEQ)			
Name	Signature	No.	Date

Project	SYDNEY METRO CITY & SOUTHWEST SOUTHWEST METRO EARLY WORKS		
Design	M.H	Drawn	M.H
Checked	T.W		Date
Title		SWEPT PATH AREA 7C ENTRY MOVEMENT	
Project Number	P3519	Sheet Number	26
Issue	011		11.11.2019



REQUIRES REMOVAL OF 3 PARKING SPACES
SEE MAIN CTMP

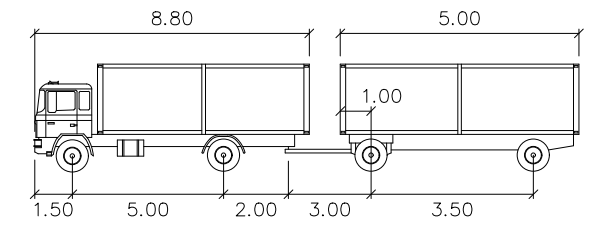
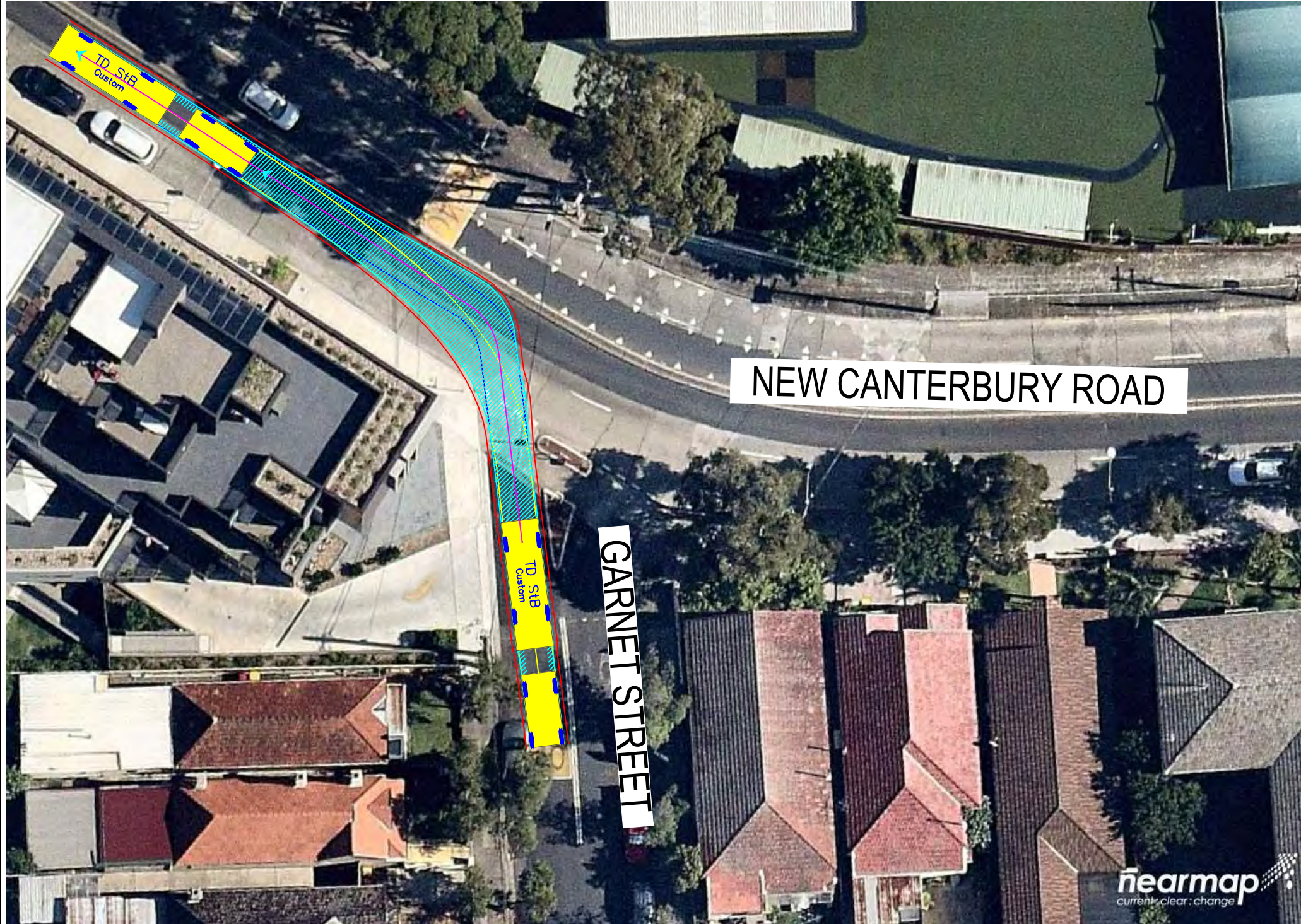


TD StB		meters	
First Unit Width	: 2.50	Lock to Lock Time	: 6.0
Trailer Width	: 2.30	Steering Angle	: 37.9
First Unit Track	: 2.50	Articulating Angle	: 70.0
Trailer Track	: 2.30		

DESIGN VEHICLE

REVISIONS				Drawn	Date	Issue	Revisions/Descriptions	M.H	Date
001	SWEPT PATH	M.H	27.02.2019	009	NO CHANGE	M.H	23.08.2019		
002	SWEPT PATH - PRECONSTRUCTION CTMP	M.H	04.03.2019	010	NO CHANGE	M.H	08.11.2019		
003	MINOR AMENDMENTS	M.H	27.03.2019	011	NO CHANGES	M.H	11.11.2019		
004	MINOR AMENDMENTS	M.H	01.04.2019	ENGINEERING CERTIFICATION (RPEQ)					
005	AMENDMENTS TO REV 1 CTMP COMMENTS	M.H	12.04.2019	Name	Signature	No.	Date		
006	AMENDMENTS TO FURTHER REV 1 CTMP COMMENTS	M.H	18.04.2019						
007	NO CHANGES	M.H	10.07.2019						
008	ADD HRV ROUTE TO AREA 15	M.H	30.07.2019						

Project	SYDNEY METRO CITY & SOUTHWEST SOUTHWEST METRO EARLY WORKS		
Design	M.H	Drawn	M.H
Checked	T.W		Date
			11.11.2019
Title	SWEPT PATH AREA 7C EXIT MOVEMENT		
Project Number	P3519	Sheet Number	27
Issue	011		

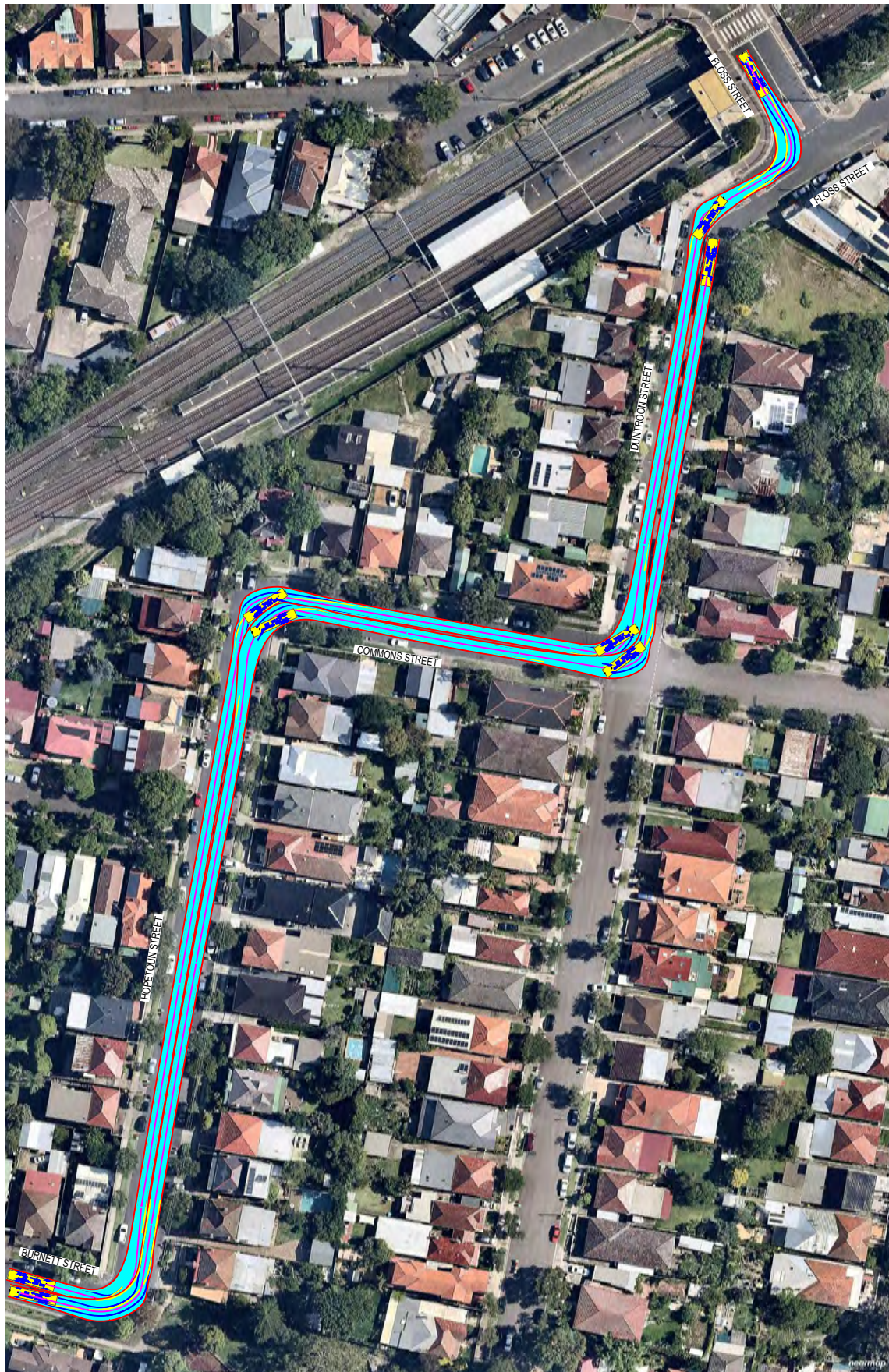


TD StB	meters			
First Unit Width	: 2.50	Lock to Lock Time	: 6.0	
Trailer Width	: 2.30	Steering Angle	: 37.9	
First Unit Track	: 2.50	Articulating Angle	: 70.0	
Trailer Track	: 2.30			

DESIGN VEHICLE

REVISIONS		Drawn	Date	Issue	Revisions/Descriptions	Drawn	Date
001	SWEPT PATH	M.H	27.02.2019	009	NO CHANGE	M.H	23.08.2019
002	SWEPT PATH - PRECONSTRUCTION CTMP	M.H	04.03.2019	010	NO CHANGE	M.H	08.11.2019
003	MINOR AMENDMENTS	M.H	27.03.2019	011	NO CHANGES	M.H	11.11.2019
004	MINOR AMENDMENTS	M.H	01.04.2019	ENGINEERING CERTIFICATION (RPEQ)			
005	AMENDMENTS TO REV 1 CTMP COMMENTS	M.H	12.04.2019				
006	AMENDMENTS TO FURTHER REV 1 CTMP COMMENTS	M.H	18.04.2019	Name	Signature	No.	Date
007	NO CHANGES	M.H	10.07.2019				
008	ADD HRV ROUTE TO AREA 15	M.H	30.07.2019				

Project	SYDNEY METRO CITY & SOUTHWEST SOUTHWEST METRO EARLY WORKS		
Design	M.H	Drawn	M.H
Checked	T.W		Date
Title			11.11.2019
SWEPT PATH AREA 7C GARNET STREET AND NEW CANTERBURY ROAD INTERSECTION			
Project Number	P3519	Sheet Number	28
Issue			011



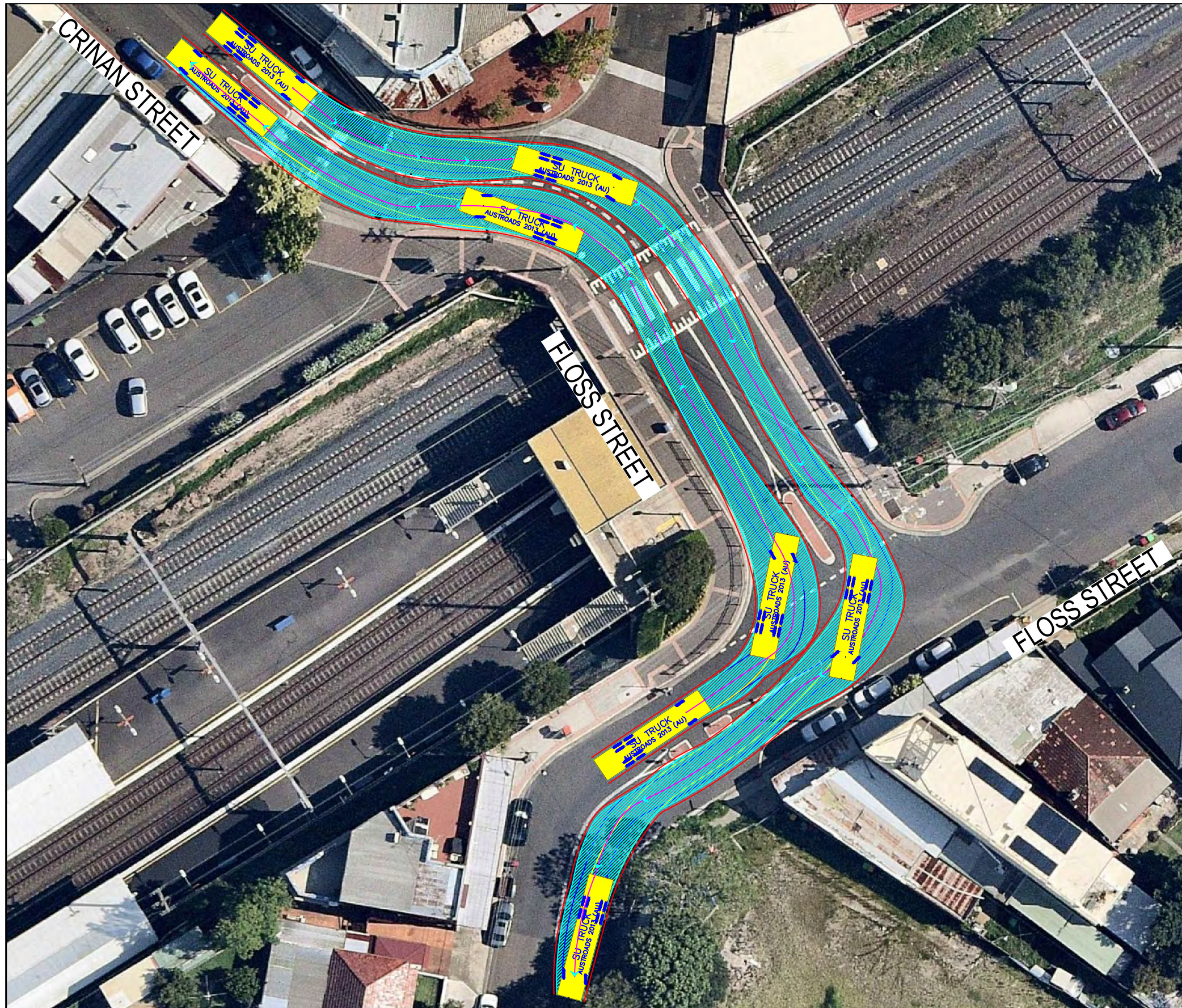
SU TRUCK meters

Width : 2.50
 Track : 2.50
 Lock to Lock Time : 6.0
 Steering Angle : 36.6

DESIGN VEHICLE

REVISIONS		Drawn	Date	Issue	Description	M.H	Date
001	NOT USED	-	-	009	NO CHANGE	M.H	23.08.2019
002	SWEPT PATH - PRECONSTRUCTION CTMP	M.H	04.03.2019	010	NO CHANGE	M.H	08.11.2019
003	MINOR AMENDMENTS	M.H	27.03.2019	011	NO CHANGES	M.H	11.11.2019
004	MINOR AMENDMENTS	M.H	01.04.2019	ENGINEERING CERTIFICATION (RPEQ)			
005	AMENDMENTS TO REV 1 CTMP COMMENTS	M.H	12.04.2019				
006	AMENDMENTS TO FURTHER REV 1 CTMP COMMENTS	M.H	18.04.2019	Name	Signature	No.	Date
007	NO CHANGES	M.H	10.07.2019				
008	ADD HRV ROUTE TO AREA 15	M.H	30.07.2019				

Project		Design	Drawn	Checked
SYDNEY METRO CITY & SOUTHWEST SOUTHWEST METRO EARLY WORKS		M.H	M.H	T.W
Title		NOT FOR CONSTRUCTION		
		Date	11.11.2019	
SWEPT PATH AREA 9A ENTRY AND EXIT ROUTE 1		Project Number	Sheet Number	Issue
		P3519	29	011



SU TRUCK meters

Width : 12.50

Track : 2.50

Lock to Lock Time : 6.0

Steering Angle : 36.6

DESIGN VEHICLE

BITZIOS
-consulting
traffic engineering ■ transport planning

Gold Coast
Suite 26, 58 Riverwalk Avenue, Robina QLD 4226.
P: (07) 5562-5377
W: www.bitziosconsulting.com.au

Brisbane
Level 2, 428 Upper Edward Street, Spring Hill 4000.
P: (07) 3831-4442
E: admin@bitziosconsulting.com.au

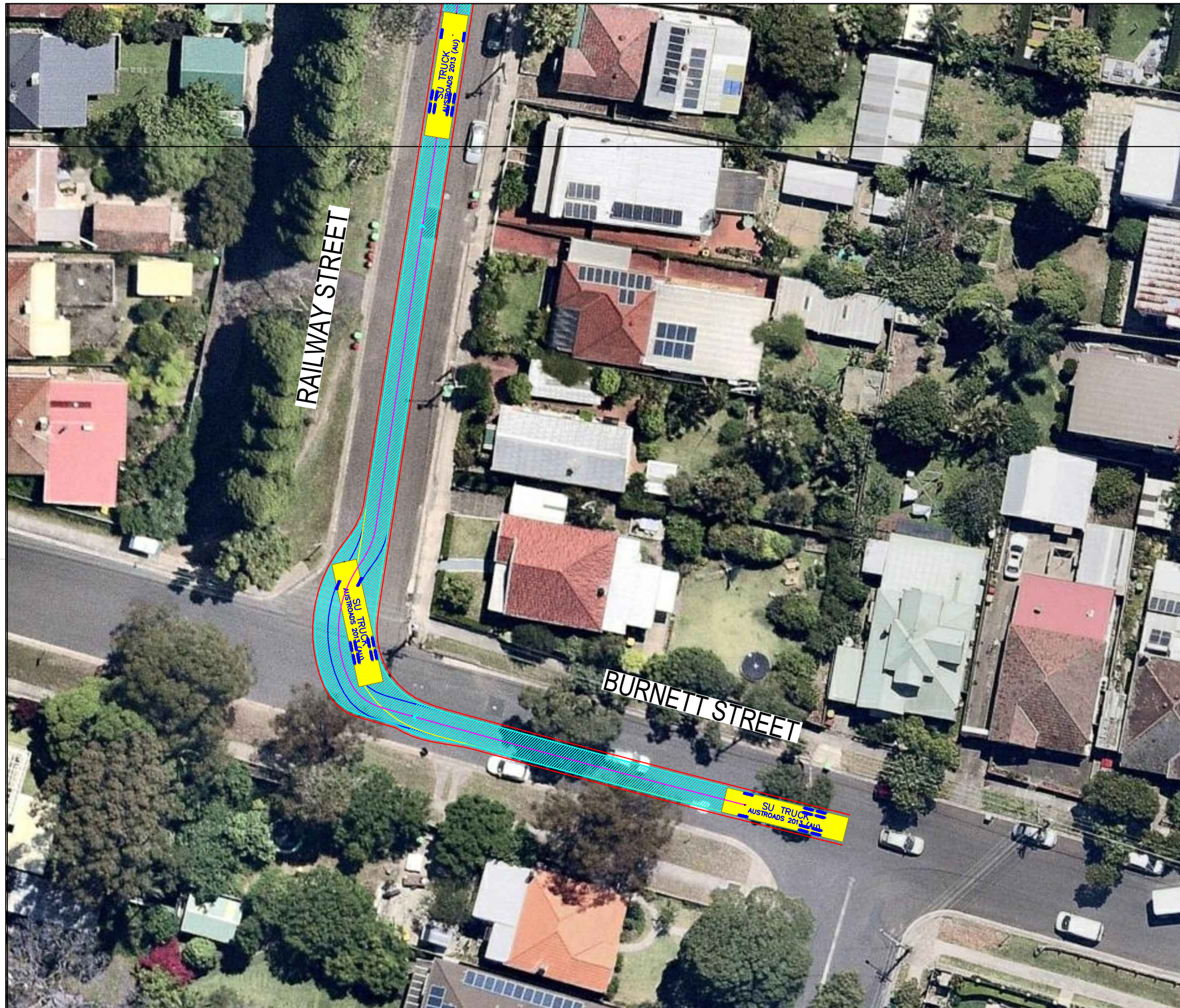
Sydney
Studio 203, 3 Gladstone Street, Newtown NSW 2042.
P: (02) 9557 6202

REVISIONS		Drawn	Date	Issue	Description	M.H	Date
001	NOT USED	-	-	009	NO CHANGE	M.H	23.08.2019
002	SWEPT PATH - PRECONSTRUCTION CTMP	M.H	04.03.2019	010	NO CHANGE	M.H	08.11.2019
003	MINOR AMENDMENTS	M.H	27.03.2019	011	NO CHANGES	M.H	11.11.2019
004	MINOR AMENDMENTS	M.H	01.04.2019	ENGINEERING CERTIFICATION (RPEQ)			
005	AMENDMENTS TO REV 1 CTMP COMMENTS	M.H	12.04.2019				
006	AMENDMENTS TO FURTHER REV 1 CTMP COMMENTS	M.H	18.04.2019	Name	Signature	No.	Date
007	NO CHANGES	M.H	10.07.2019				
008	ADD HRV ROUTE TO AREA 15	M.H	30.07.2019				

Project
SYDNEY METRO CITY & SOUTHWEST
SOUTHWEST METRO EARLY WORKS

Title
SWEPT PATH
AREA 9A
ENTRY AND EXIT ROUTE 2

Design	Drawn	Checked
M.H	M.H	T.W
NOT FOR CONSTRUCTION		
Project Number	Sheet Number	Issue
P3519	30	011
		Date 11.11.2019



SU TRUCK meters

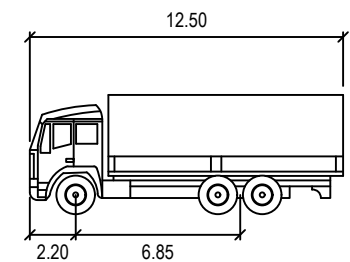
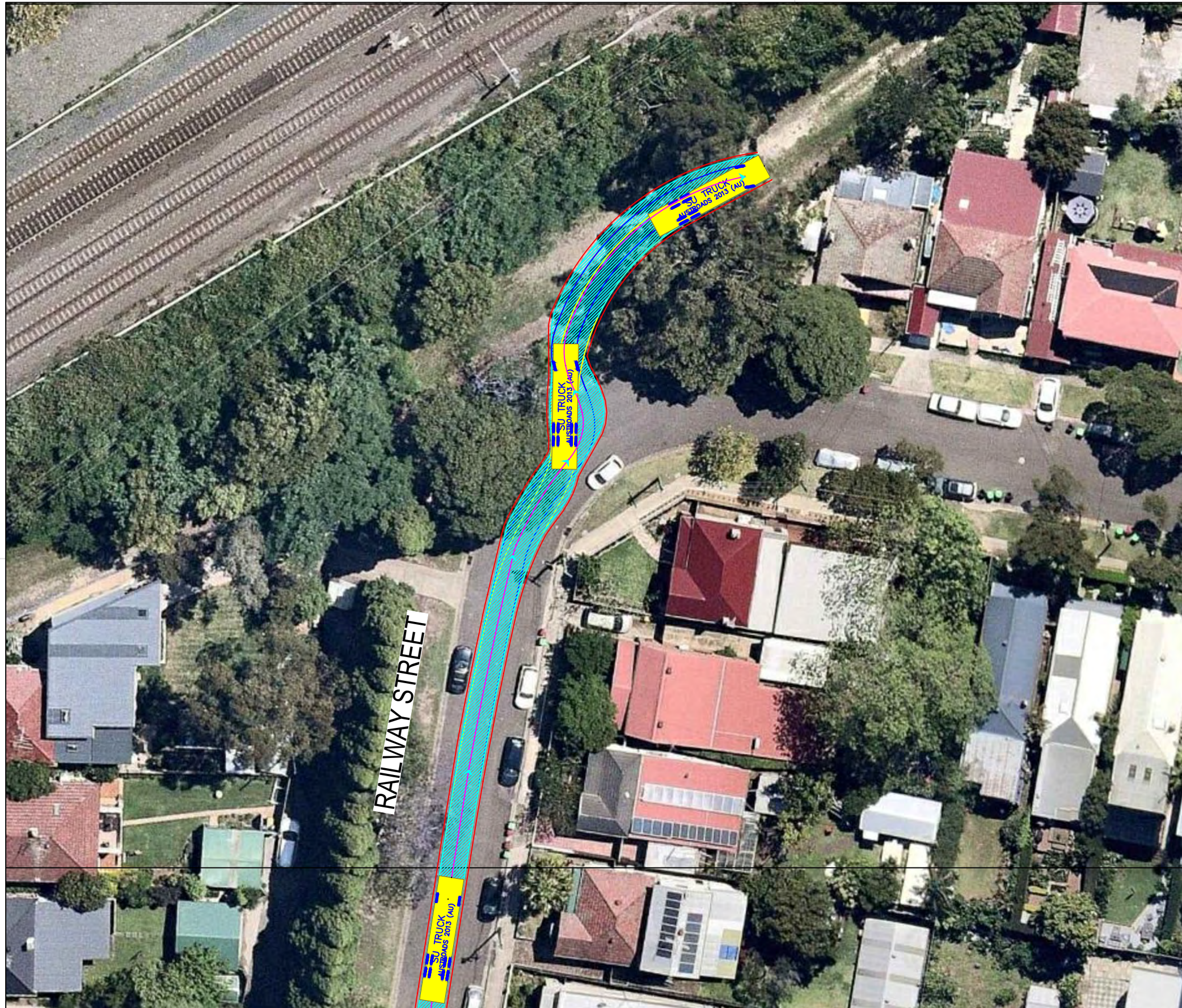
Width : 2.50
 Track : 2.50
 Lock to Lock Time : 6.0
 Steering Angle : 36.6

DESIGN VEHICLE

REVISIONS		Drawn	Date	Issue	Description	Design	Date
001	NOT USED	-	-	009	NO CHANGE	M.H	23.08.2019
002	SWEPT PATH - PRECONSTRUCTION CTMP	M.H	04.03.2019	010	NO CHANGE	M.H	08.11.2019
003	MINOR AMENDMENTS	M.H	27.03.2019	011	NO CHANGES	M.H	11.11.2019
004	MINOR AMENDMENTS	M.H	01.04.2019	ENGINEERING CERTIFICATION (RPEQ)			
005	AMENDMENTS TO REV 1 CTMP COMMENTS	M.H	12.04.2019				
006	AMENDMENTS TO FURTHER REV 1 CTMP COMMENTS	M.H	18.04.2019	Name	Signature	No.	Date
007	NO CHANGES	M.H	10.07.2019				
008	ADD HRV ROUTE TO AREA 15	M.H	30.07.2019				

Project	SYDNEY METRO CITY & SOUTHWEST SOUTHWEST METRO EARLY WORKS
Title	SWEPT PATH AREA 9A ENTRY MOVEMENT 1

Design	M.H	Drawn	M.H	Checked	T.W
NOT FOR CONSTRUCTION					
Date	11.11.2019				
Project Number	P3519	Sheet Number	31	Issue	011



SU TRUCK meters

Width : 12.50
 Track : 2.20
 Lock to Lock Time : 6.0
 Steering Angle : 36.6

DESIGN VEHICLE

BITZIOS
 consulting
 traffic engineering ■ transport planning

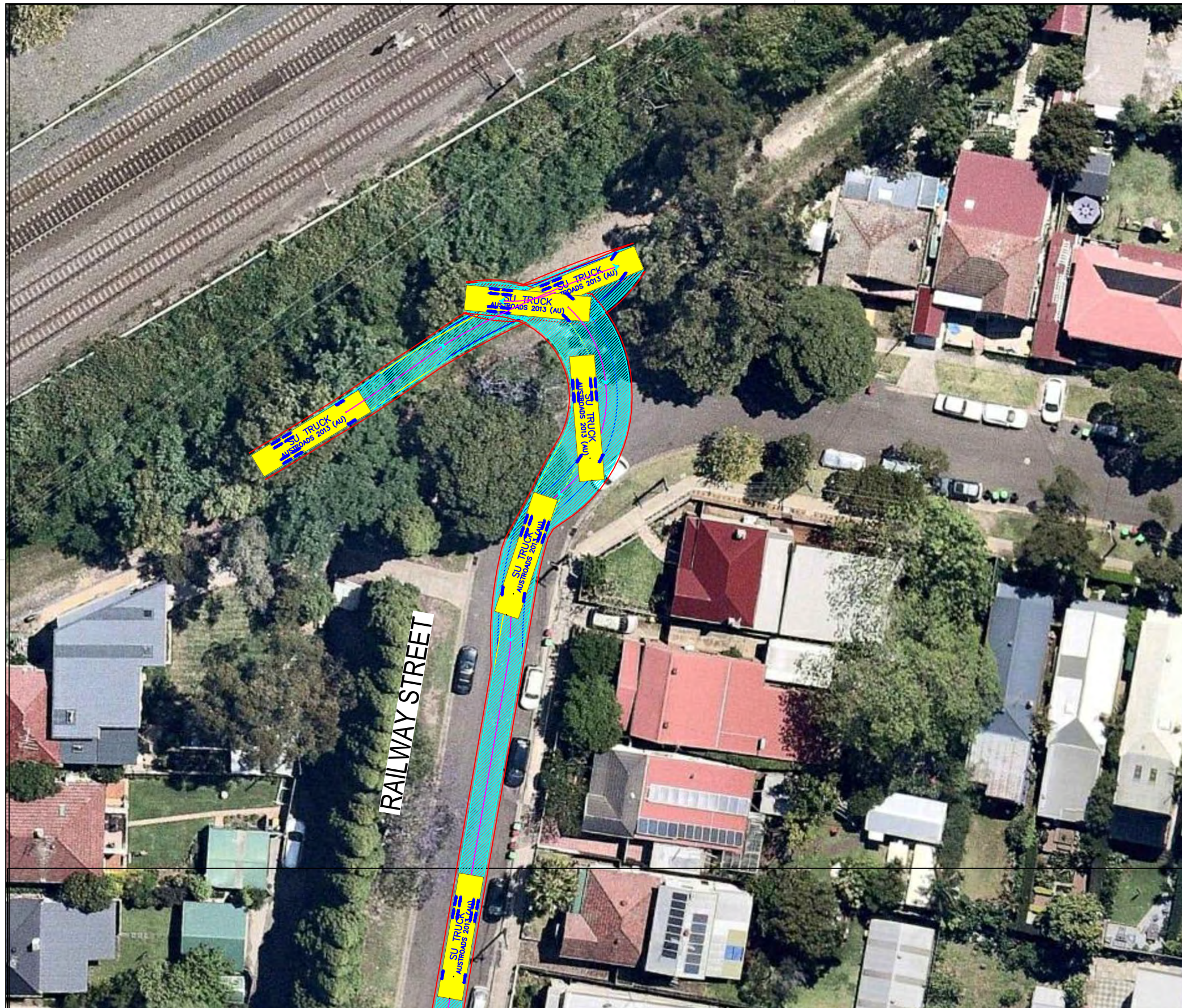
Gold Coast
 Suite 26, 58 Riverwalk Avenue, Robina QLD 4226.
 P: (07) 5562-5377
 W: www.bitziosconsulting.com.au
Brisbane
 Level 2, 428 Upper Edward Street, Spring Hill 4000.
 P: (07) 3831-4442
 E: admin@bitziosconsulting.com.au
Sydney
 Studio 203, 3 Gladstone Street, Newtown NSW 2042.
 P: (02) 9557 6202

REVISIONS		Drawn	Date	Issue	Revisions/Descriptions	Drawn	Date
001	NOT USED	-	-	009	NO CHANGE	M.H	23.08.2019
002	SWEPT PATH - PRECONSTRUCTION CTMP	M.H	04.03.2019	010	NO CHANGE	M.H	08.11.2019
003	MINOR AMENDMENTS	M.H	27.03.2019	011	NO CHANGES	M.H	11.11.2019
004	MINOR AMENDMENTS	M.H	01.04.2019	ENGINEERING CERTIFICATION (RPEQ)			
005	AMENDMENTS TO REV 1 CTMP COMMENTS	M.H	12.04.2019	Name	Signature	No.	Date
006	AMENDMENTS TO FURTHER REV 1 CTMP COMMENTS	M.H	18.04.2019				
007	NO CHANGES	M.H	10.07.2019				
008	ADD HRV ROUTE TO AREA 15	M.H	30.07.2019				

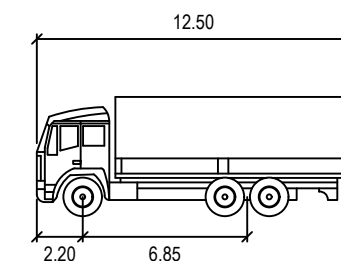
Project
 SYDNEY METRO CITY & SOUTHWEST
 SOUTHWEST METRO EARLY WORKS

Title
 SWEPT PATH
 AREA 9A
 ENTRY MOVEMENT 2

Design	Drawn	Checked
M.H	M.H	T.W
NOT FOR CONSTRUCTION		Date
Project Number		11.11.2019
P3519	Sheet Number	Issue
32	32	011



REQUIRES REMOVAL OF 1 PARKING SPACE
SEE MAIN CTMP



SU TRUCK meters
 Width : 2.50
 Track : 2.50
 Lock to Lock Time : 6.0
 Steering Angle : 36.6

DESIGN VEHICLE

REVISIONS		Drawn	Date	Issue	Revisions/Descriptions	Drawn	Date
001	NOT USED	-	-	009	NO CHANGE	M.H	23.08.2019
002	SWEPT PATH - PRECONSTRUCTION CTMP	M.H	04.03.2019	010	NO CHANGE	M.H	08.11.2019
003	MINOR AMENDMENTS	M.H	27.03.2019	011	NO CHANGES	M.H	11.11.2019
004	MINOR AMENDMENTS	M.H	01.04.2019	ENGINEERING CERTIFICATION (RPEQ)			
005	AMENDMENTS TO REV 1 CTMP COMMENTS	M.H	12.04.2019	Name	Signature	No.	Date
006	AMENDMENTS TO FURTHER REV 1 CTMP COMMENTS	M.H	18.04.2019				
007	NO CHANGES	M.H	10.07.2019				
008	ADD HRV ROUTE TO AREA 15	M.H	30.07.2019				

Project	SYDNEY METRO CITY & SOUTHWEST SOUTHWEST METRO EARLY WORKS
Title	SWEPT PATH AREA 9A EXIT MOVEMENT 1

Design	M.H	Drawn	M.H	Checked	T.W	
NOT FOR CONSTRUCTION					Date	11.11.2019
Project Number	P3519	Sheet Number	33	Issue	011	



SU TRUCK meters

Width : 12.50
 Track : 6.85
 Lock to Lock Time : 6.0
 Steering Angle : 36.6

DESIGN VEHICLE

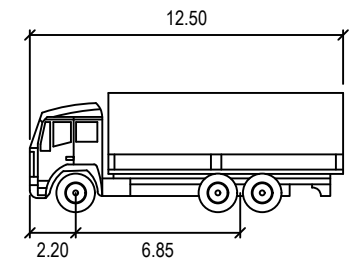
BITZIOS
 consulting
 traffic engineering ■ transport planning

Gold Coast
 Suite 26, 58 Rivenwalk Avenue, Robina QLD 4226.
 P: (07) 5562-5377
 W: www.bitziosconsulting.com.au
Brisbane
 Level 2, 428 Upper Edward Street, Spring Hill 4000.
 P: (07) 3831-4442
 E: admin@bitziosconsulting.com.au
Sydney
 Studio 203, 3 Gladstone Street, Newtown NSW 2042.
 P: (02) 9557 6202

REVISIONS		Drawn	Date	Issue	Revisions/Descriptions	Drawn	Date
001	NOT USED	-	-	009	NO CHANGE	M.H	23.08.2019
002	SWEPT PATH - PRECONSTRUCTION CTMP	M.H	04.03.2019	010	NO CHANGE	M.H	08.11.2019
003	MINOR AMENDMENTS	M.H	27.03.2019	011	NO CHANGES	M.H	11.11.2019
004	MINOR AMENDMENTS	M.H	01.04.2019	ENGINEERING CERTIFICATION (RPEQ)			
005	AMENDMENTS TO REV 1 CTMP COMMENTS	M.H	12.04.2019	Name	Signature	No.	Date
006	AMENDMENTS TO FURTHER REV 1 CTMP COMMENTS	M.H	18.04.2019				
007	NO CHANGES	M.H	10.07.2019				
008	ADD HRV ROUTE TO AREA 15	M.H	30.07.2019				

Project	SYDNEY METRO CITY & SOUTHWEST SOUTHWEST METRO EARLY WORKS		
Design	M.H	Drawn	M.H
Checked	T.W		Date
			11.11.2019
Title	SWEPT PATH AREA 9A EXIT MOVEMENT 2		
Project Number	P3519	Sheet Number	34
Issue	011		

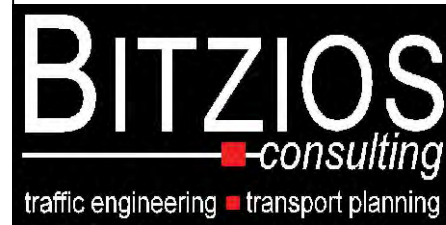
NOT FOR CONSTRUCTION



SU TRUCK meters

Width : 2.50
 Track : 2.50
 Lock to Lock Time : 6.0
 Steering Angle : 36.6

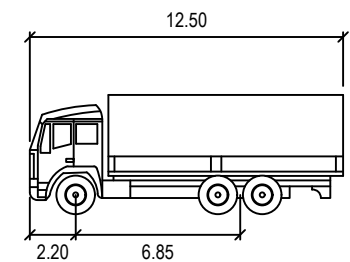
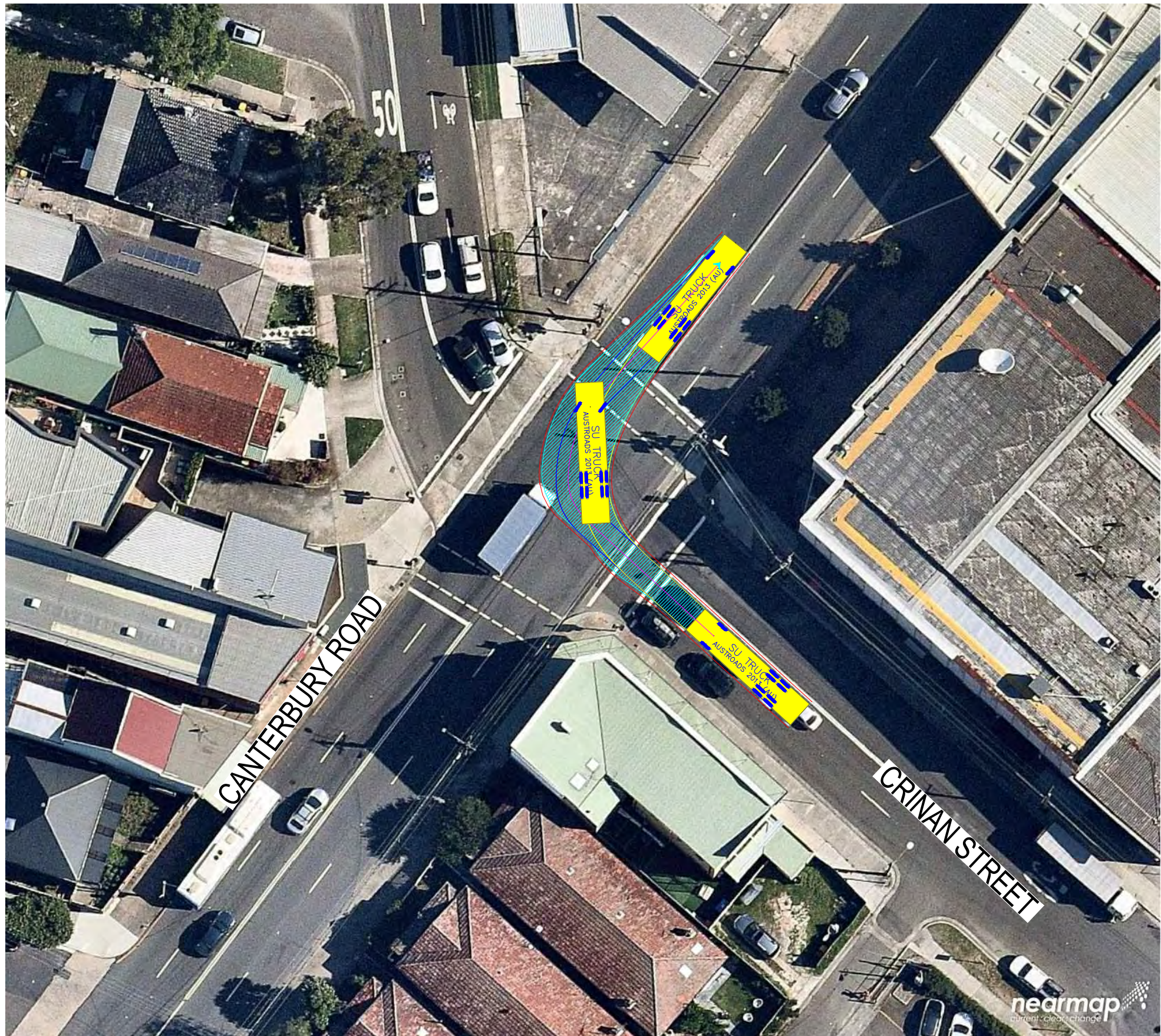
DESIGN VEHICLE



Gold Coast
 Suite 26, 58 Riverwalk Avenue, Robina QLD 4226.
 P: (07) 5562-5377
 W: www.bitziosconsulting.com.au
Brisbane
 Level 2, 428 Upper Edward Street, Spring Hill 4000.
 P: (07) 3831-4442
 E: admin@bitziosconsulting.com.au
Sydney
 Studio 203, 3 Gladstone Street, Newtown NSW 2042.
 P: (02) 9557 6202

REVISIONS		Drawn	Date	Issue	Revisions/Descriptions	Drawn	Date
001	NOT USED	-	-	009	NO CHANGE	M.H	23.08.2019
002	SWEPT PATH - PRECONSTRUCTION CTMP	M.H	04.03.2019	010	NO CHANGE	M.H	08.11.2019
003	MINOR AMENDMENTS	M.H	27.03.2019	011	NO CHANGES	M.H	11.11.2019
004	MINOR AMENDMENTS	M.H	01.04.2019	ENGINEERING CERTIFICATION (RPEQ)			
005	AMENDMENTS TO REV 1 CTMP COMMENTS	M.H	12.04.2019				
006	AMENDMENTS TO FURTHER REV 1 CTMP COMMENTS	M.H	18.04.2019	Name	Signature	No.	Date
007	NO CHANGES	M.H	10.07.2019				
008	ADD HRV ROUTE TO AREA 15	M.H	30.07.2019				

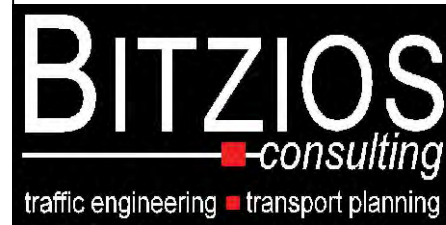
Project		Design	Drawn	Checked
SYDNEY METRO CITY & SOUTHWEST SOUTHWEST METRO EARLY WORKS		M.H	M.H	T.W
Title		NOT FOR CONSTRUCTION		
		Date	11.11.2019	
SWEPT PATH AREA 9A ENTRY MOVEMENT 3		Project Number	Sheet Number	Issue
		P3519	35	011



SU TRUCK meters

Width : 12.50
 Track : 2.20
 Lock to Lock Time : 6.85
 Steering Angle : 36.6

DESIGN VEHICLE



Gold Coast
 Suite 26, 58 Riverwalk Avenue, Robina QLD 4226.
 P: (07) 5562-5377
 W: www.bitziosconsulting.com.au

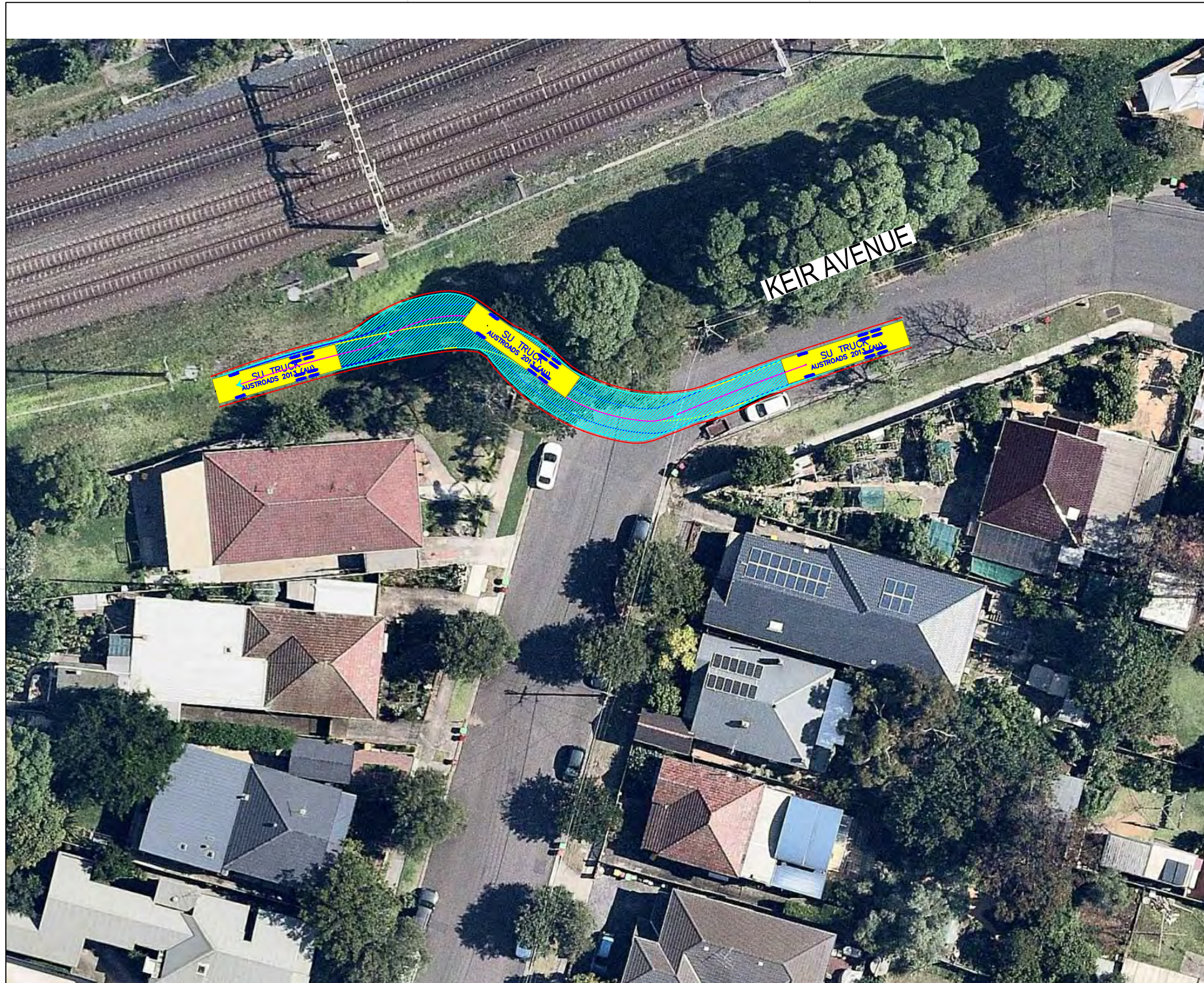
Brisbane
 Level 2, 428 Upper Edward Street, Spring Hill 4000.
 P: (07) 3831-4442
 E: admin@bitziosconsulting.com.au

Sydney
 Studio 203, 3 Gladstone Street, Newtown NSW 2042.
 P: (02) 9557 6202

Issue	Revisions/Descriptions	Drawn	Date				
001	NOT USED	-	-	009	NO CHANGE	M.H	23.08.2019
002	SWEPT PATH - PRECONSTRUCTION CTMP	M.H	04.03.2019	010	NO CHANGE	M.H	08.11.2019
003	MINOR AMENDMENTS	M.H	27.03.2019	011	NO CHANGES	M.H	11.11.2019
004	MINOR AMENDMENTS	M.H	01.04.2019	ENGINEERING CERTIFICATION (RPEQ)			
005	AMENDMENTS TO REV 1 CTMP COMMENTS	M.H	12.04.2019				
006	AMENDMENTS TO FURTHER REV 1 CTMP COMMENTS	M.H	18.04.2019	Name	Signature	No.	Date
007	NO CHANGES	M.H	10.07.2019				
008	ADD HRV ROUTE TO AREA 15	M.H	30.07.2019				

Project	SYDNEY METRO CITY & SOUTHWEST SOUTHWEST METRO EARLY WORKS		
Design	M.H	Drawn	M.H
Checked	T.W		Date
			11.11.2019
Title	SWEPT PATH AREA 9A EXIT MOVEMENT 3		
Project Number	P3519	Sheet Number	36
Issue	011		

NOT FOR CONSTRUCTION



SU TRUCK meters

Width : 2.50
 Track : 2.50
 Lock to Lock Time : 6.0
 Steering Angle : 36.6

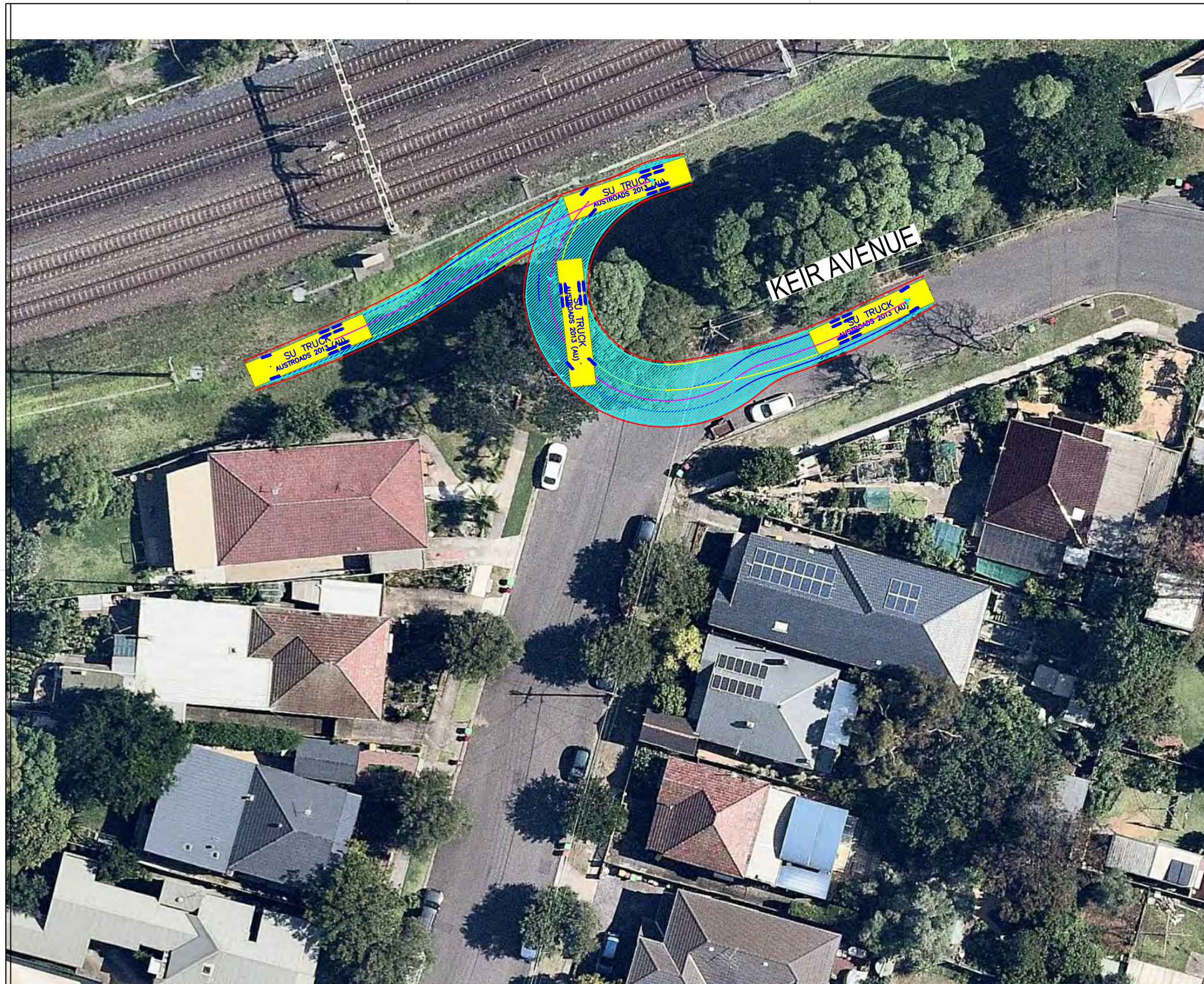
DESIGN VEHICLE

REVISIONS		Drawn	Date	009	NO CHANGE	M.H	23.08.2019
Issue	Revisions/Descriptions			010	NO CHANGE	M.H	08.11.2019
001	NOT USED	-	-	011	NO CHANGES	M.H	11.11.2019
002	SWEPT PATH - PRECONSTRUCTION CTMP	M.H	04.03.2019				
003	MINOR AMENDMENTS	M.H	27.03.2019				
004	MINOR AMENDMENTS	M.H	01.04.2019				
005	AMENDMENTS TO REV 1 CTMP COMMENTS	M.H	12.04.2019				
006	AMENDMENTS TO FURTHER REV 1 CTMP COMMENTS	M.H	18.04.2019				
007	NO CHANGES	M.H	10.07.2019				
008	ADD HRV ROUTE TO AREA 15	M.H	30.07.2019				

ENGINEERING CERTIFICATION (RPEQ)			
Name	Signature	No.	Date

Project	SYDNEY METRO CITY & SOUTHWEST SOUTHWEST METRO EARLY WORKS		
Design	M.H	Drawn	M.H
Checked	T.W		Date
Title		SWEPT PATH AREA 9B ENTRY MOVEMENT 1	
Project Number		Sheet Number	
P3519		37	
Issue		011	

NOT FOR CONSTRUCTION



SU TRUCK meters

Width : 12.50
 Track : 2.20
 Lock to Lock Time : 6.0
 Steering Angle : 36.6

DESIGN VEHICLE

REVISIONS		Drawn	Date	009	NO CHANGE	M.H	23.08.2019
Issue	Revisions/Descriptions			010	NO CHANGE	M.H	08.11.2019
001	NOT USED	-	-	011	NO CHANGES	M.H	11.11.2019
002	SWEPT PATH - PRECONSTRUCTION CTMP	M.H	04.03.2019				
003	MINOR AMENDMENTS	M.H	27.03.2019				
004	MINOR AMENDMENTS	M.H	01.04.2019				
005	AMENDMENTS TO REV 1 CTMP COMMENTS	M.H	12.04.2019				
006	AMENDMENTS TO FURTHER REV 1 CTMP COMMENTS	M.H	18.04.2019				
007	NO CHANGES	M.H	10.07.2019				
008	ADD HRV ROUTE TO AREA 15	M.H	30.07.2019				

ENGINEERING CERTIFICATION (RPEQ)			
Name	Signature	No.	Date

Project	SYDNEY METRO CITY & SOUTHWEST SOUTHWEST METRO EARLY WORKS		
Design	M.H	Drawn	M.H
Checked	T.W		Date
Title			11.11.2019
SWEPT PATH AREA 9B EXIT MOVEMENT1			Issue
Project Number	P3519	Sheet Number	38
		Issue	011

NOT FOR CONSTRUCTION

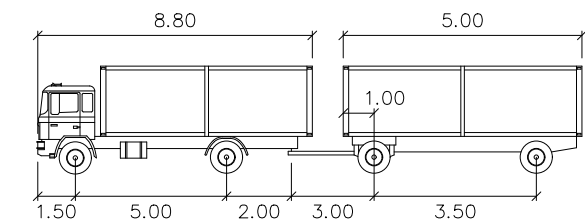


TD StB	meters		
First Unit Width	: 2.50	Lock to Lock Time	: 6.0
Trailer Width	: 2.30	Steering Angle	: 37.9
First Unit Track	: 2.50	Articulating Angle	: 70.0
Trailer Track	: 2.30		

DESIGN VEHICLE

REVISIONS		Drawn	Date	Issue	Revisions/Descriptions	M.H	Date
001	NOT USED	-	-	009	NO CHANGE	M.H	23.08.2019
002	SWEPT PATH - PRECONSTRUCTION CTMP	M.H	04.03.2019	010	NO CHANGE	M.H	08.11.2019
003	MINOR AMENDMENTS	M.H	27.03.2019	011	NO CHANGES	M.H	11.11.2019
004	MINOR AMENDMENTS	M.H	01.04.2019	ENGINEERING CERTIFICATION (RPEQ)			
005	AMENDMENTS TO REV 1 CTMP COMMENTS	M.H	12.04.2019	Name	Signature	No.	Date
006	AMENDMENTS TO FURTHER REV 1 CTMP COMMENTS	M.H	18.04.2019				
007	NO CHANGES	M.H	10.07.2019				
008	ADD HRV ROUTE TO AREA 15	M.H	30.07.2019				

Project	SYDNEY METRO CITY & SOUTHWEST SOUTHWEST METRO EARLY WORKS		
Design	M.H	Drawn	M.H
Checked			T.W
Title	SWEPT PATH AREA 9B ENTRY MOVEMENT 2		
NOT FOR CONSTRUCTION		Date	11.11.2019
Project Number	P3519	Sheet Number	39
Issue	011		



TD StB	meters		
First Unit Width	: 2.50	Lock to Lock Time	: 6.0
Trailer Width	: 2.30	Steering Angle	: 37.9
First Unit Track	: 2.50	Articulating Angle	: 70.0
Trailer Track	: 2.30		

DESIGN VEHICLE

REVISIONS		Drawn	Date	Issue	Description	M.H	Date
001	NOT USED	-	-	009	NO CHANGE	M.H	23.08.2019
002	SWEPT PATH - PRECONSTRUCTION CTMP	M.H	04.03.2019	010	NO CHANGE	M.H	08.11.2019
003	MINOR AMENDMENTS	M.H	27.03.2019	011	NO CHANGES	M.H	11.11.2019
004	MINOR AMENDMENTS	M.H	01.04.2019	ENGINEERING CERTIFICATION (RPEQ)			
005	AMENDMENTS TO REV 1 CTMP COMMENTS	M.H	12.04.2019	Name	Signature	No.	Date
006	AMENDMENTS TO FURTHER REV 1 CTMP COMMENTS	M.H	18.04.2019				
007	NO CHANGES	M.H	10.07.2019				
008	ADD HRV ROUTE TO AREA 15	M.H	30.07.2019				

Project	SYDNEY METRO CITY & SOUTHWEST SOUTHWEST METRO EARLY WORKS	Design	M.H	Drawn	M.H	Checked	T.W
Title	SWEPT PATH AREA 9B EXIT MOVEMENT 2	NOT FOR CONSTRUCTION		Date	11.11.2019		
Project Number	P3519	Sheet Number	40	Issue	011		



TD StB	meters		
First Unit Width	: 2.50	Lock to Lock Time	: 6.0
Trailer Width	: 2.30	Steering Angle	: 37.9
First Unit Track	: 2.50	Articulating Angle	: 70.0
Trailer Track	: 2.30		

DESIGN VEHICLE

BITZIOS
consulting
traffic engineering ■ transport planning

Gold Coast
Suite 26, 58 Riverwalk Avenue, Robina QLD 4226.
P: (07) 5562-5377
W: www.bitziosconsulting.com.au
Brisbane
Level 2, 428 Upper Edward Street, Spring Hill 4000.
P: (07) 3831-4442
E: admin@bitziosconsulting.com.au
Sydney
Studio 203, 3 Gladstone Street, Newtown NSW 2042.
P: (02) 9557 6202

Issue	Revisions/Descriptions	Drawn	Date				
001	NOT USED	-	-	009	NO CHANGE	M.H	23.08.2019
002	SWEPT PATH - PRECONSTRUCTION CTMP	M.H	04.03.2019	010	NO CHANGE	M.H	08.11.2019
003	MINOR AMENDMENTS	M.H	27.03.2019	011	NO CHANGES	M.H	11.11.2019
004	MINOR AMENDMENTS	M.H	01.04.2019	ENGINEERING CERTIFICATION (RPEQ)			
005	AMENDMENTS TO REV 1 CTMP COMMENTS	M.H	12.04.2019	Name	Signature	No.	Date
006	AMENDMENTS TO FURTHER REV 1 CTMP COMMENTS	M.H	18.04.2019				
007	NO CHANGES	M.H	10.07.2019				
008	ADD HRV ROUTE TO AREA 15	M.H	30.07.2019				

Project	SYDNEY METRO CITY & SOUTHWEST SOUTHWEST METRO EARLY WORKS	Design	M.H	Drawn	M.H	Checked	T.W
Title	SWEPT PATH AREA 9C ENTRY MOVEMENT	NOT FOR CONSTRUCTION		Date	11.11.2019		
Project Number	P3519	Sheet Number	41	Issue	011		



TD StB	meters		
First Unit Width	: 2.50	Lock to Lock Time	: 6.0
Trailer Width	: 2.30	Steering Angle	: 37.9
First Unit Track	: 2.50	Articulating Angle	: 70.0
Trailer Track	: 2.30		

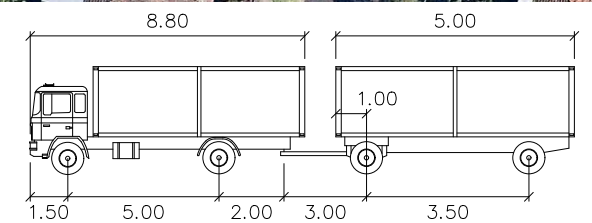
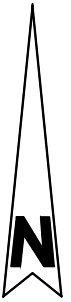
DESIGN VEHICLE

BITZIOS
consulting
traffic engineering ■ transport planning

Gold Coast
Suite 26, 58 Riverwalk Avenue, Robina QLD 4226.
P: (07) 5562-5377
W: www.bitziosconsulting.com.au
Brisbane
Level 2, 428 Upper Edward Street, Spring Hill 4000.
P: (07) 3831-4442
E: admin@bitziosconsulting.com.au
Sydney
Studio 203, 3 Gladstone Street, Newtown NSW 2042.
P: (02) 9557 6202

Issue	Revisions/Descriptions	Drawn	Date				
001	NOT USED	-	-	009	NO CHANGE	M.H	23.08.2019
002	SWEPT PATH - PRECONSTRUCTION CTMP	M.H	04.03.2019	010	NO CHANGE	M.H	08.11.2019
003	MINOR AMENDMENTS	M.H	27.03.2019	011	NO CHANGES	M.H	11.11.2019
004	MINOR AMENDMENTS	M.H	01.04.2019	ENGINEERING CERTIFICATION (RPEQ)			
005	AMENDMENTS TO REV 1 CTMP COMMENTS	M.H	12.04.2019	Name	Signature	No.	Date
006	AMENDMENTS TO FURTHER REV 1 CTMP COMMENTS	M.H	18.04.2019				
007	NO CHANGES	M.H	10.07.2019				
008	ADD HRV ROUTE TO AREA 15	M.H	30.07.2019				

Project	SYDNEY METRO CITY & SOUTHWEST SOUTHWEST METRO EARLY WORKS		
Design	M.H	Drawn	M.H
Checked			T.W
Title	SWEPT PATH AREA 9C EXIT MOVEMENT		
Project Number	P3519	Sheet Number	42
Date			11.11.2019
Issue			011



TD StB	meters		
First Unit Width	: 2.50	Lock to Lock Time	: 6.0
Trailer Width	: 2.30	Steering Angle	: 37.9
First Unit Track	: 2.50	Articulating Angle	: 70.0
Trailer Track	: 2.30		

DESIGN VEHICLE

Issue	Revisions/Descriptions	Drawn	Date			
001	NOT USED	-	-	009	NO CHANGE	M.H 23.08.2019
002	SWEPT PATH - PRECONSTRUCTION CTMP	M.H	04.03.2019	010	NO CHANGE	M.H 08.11.2019
003	MINOR AMENDMENTS	M.H	27.03.2019	011	NO CHANGES	M.H 11.11.2019
004	MINOR AMENDMENTS	M.H	01.04.2019	ENGINEERING CERTIFICATION (RPEQ)		
005	AMENDMENTS TO REV 1 CTMP COMMENTS	M.H	12.04.2019	Name	Signature	No.
006	AMENDMENTS TO FURTHER REV 1 CTMP COMMENTS	M.H	18.04.2019			Date
007	NO CHANGES	M.H	10.07.2019			
008	ADD HRV ROUTE TO AREA 15	M.H	30.07.2019			

Project	SYDNEY METRO CITY & SOUTHWEST SOUTHWEST METRO EARLY WORKS		Design	M.H	Drawn	M.H	Checked	T.W
Title	SWEPT PATH AREA 9C ENTRY ROUTE		NOT FOR CONSTRUCTION			Date	11.11.2019	
	Project Number	P3519	Sheet Number	43	Issue	011		

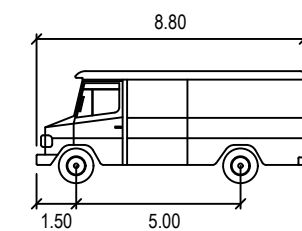
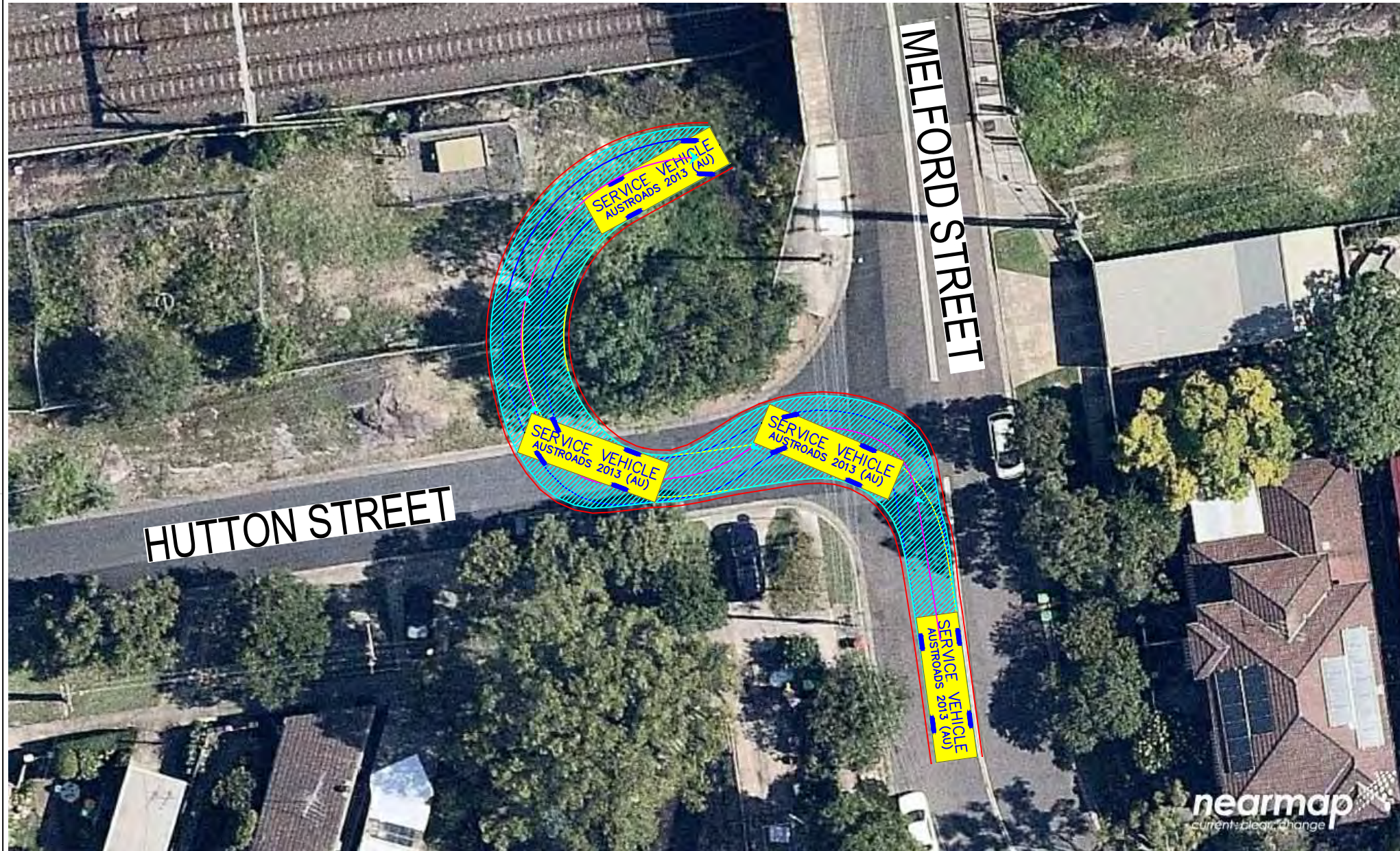
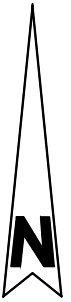


TD StB	meters		
First Unit Width	: 2.50	Lock to Lock Time	: 6.0
Trailer Width	: 2.30	Steering Angle	: 37.9
First Unit Track	: 2.50	Articulating Angle	: 70.0
Trailer Track	: 2.30		

DESIGN VEHICLE

REVISIONS		Drawn	Date	009	NO CHANGE	M.H	23.08.2019
Issue	Revisions/Descriptions			010	NO CHANGE	M.H	08.11.2019
001	NOT USED	-	-	011	NO CHANGES	M.H	11.11.2019
002	SWEPT PATH - PRECONSTRUCTION CTMP	M.H	04.03.2019				
003	MINOR AMENDMENTS	M.H	27.03.2019				
004	MINOR AMENDMENTS	M.H	01.04.2019				
005	AMENDMENTS TO REV 1 CTMP COMMENTS	M.H	12.04.2019				
006	AMENDMENTS TO FURTHER REV 1 CTMP COMMENTS	M.H	18.04.2019				
007	NO CHANGES	M.H	10.07.2019				
008	ADD HRV ROUTE TO AREA 15	M.H	30.07.2019				
ENGINEERING CERTIFICATION (RPEQ)							
		Name	Signature	No.	Date		

Project	SYDNEY METRO CITY & SOUTHWEST SOUTHWEST METRO EARLY WORKS		
Design	M.H	Drawn	M.H
Checked			T.W
Title	SWEPT PATH AREA 9C EXIT ROUTE - CRINAN STREET AND MELFORD STREET ROUNDABOUT		
Project Number	P3519	Sheet Number	44
Date			11.11.2019
Issue			011



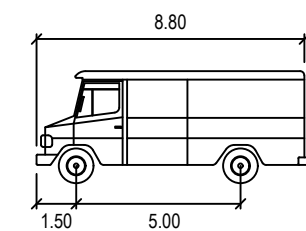
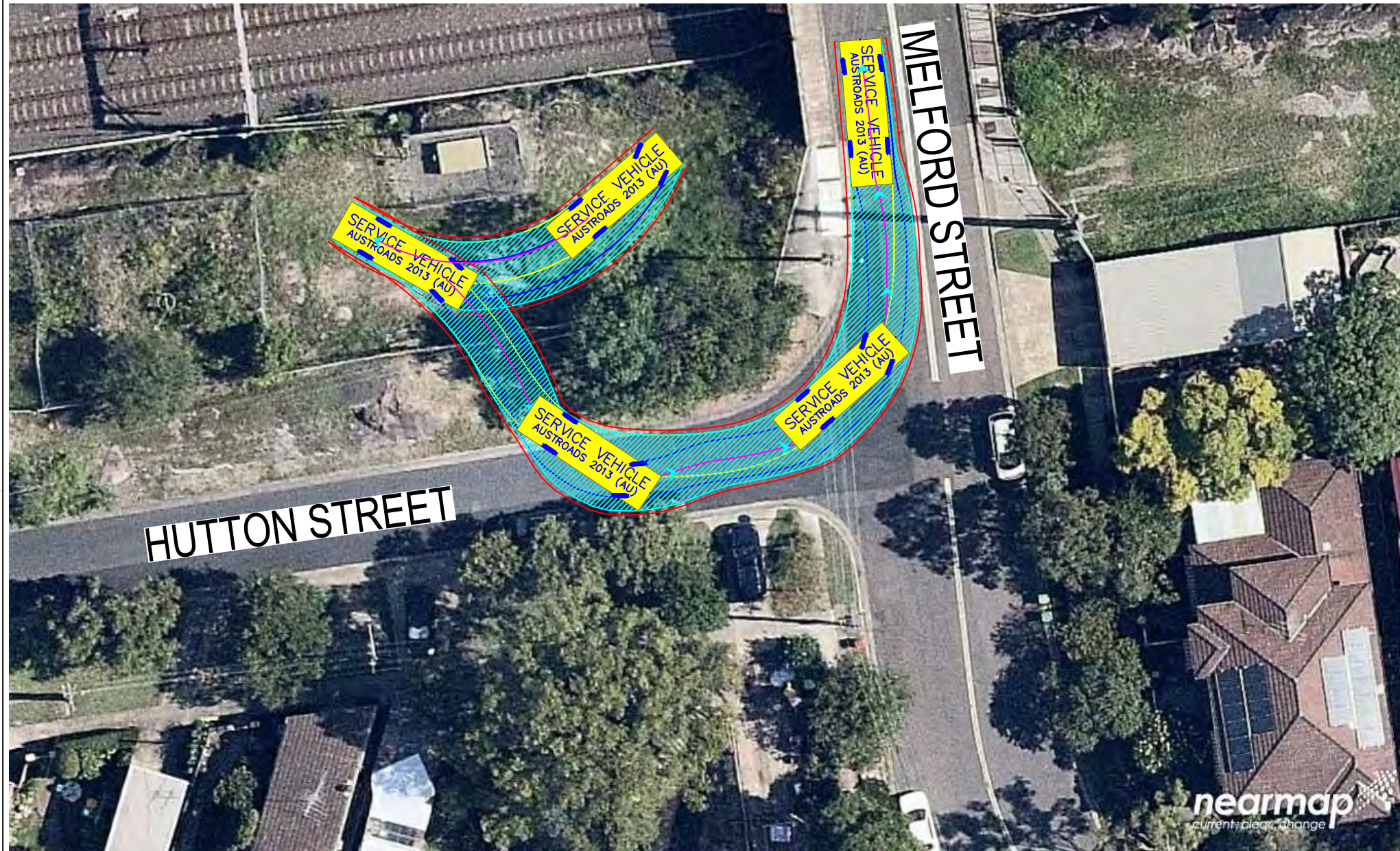
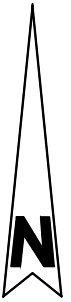
SERVICE VEHICLE
 meters
 Width : 2.50
 Track : 2.50
 Lock to Lock Time : 6.0
 Steering Angle : 38.7

DESIGN VEHICLE

REVISIONS		Drawn	Date	009	NO CHANGE	M.H	23.08.2019
Issue	Revisions/Descriptions			010	NO CHANGE	M.H	08.11.2019
001	NOT USED	-	-	011	NO CHANGES	M.H	11.11.2019
002	SWEPT PATH - PRECONSTRUCTION CTMP	M.H	04.03.2019	ENGINEERING CERTIFICATION (RPEQ) Name Signature No. Date			
003	MINOR AMENDMENTS	M.H	27.03.2019				
004	MINOR AMENDMENTS	M.H	01.04.2019				
005	AMENDMENTS TO REV 1 CTMP COMMENTS	M.H	12.04.2019				
006	AMENDMENTS TO FURTHER REV 1 CTMP COMMENTS	M.H	18.04.2019				
007	NO CHANGES	M.H	10.07.2019				
008	ADD HRV ROUTE TO AREA 15	M.H	30.07.2019				

Project	SYDNEY METRO CITY & SOUTHWEST SOUTHWEST METRO EARLY WORKS
Title	SWEPT PATH AREA 9D ENTRY

Design	M.H	Drawn	M.H	Checked	T.W	
NOT FOR CONSTRUCTION					Date	11.11.2019
Project Number	P3519	Sheet Number	45	Issue	011	



SERVICE VEHICLE

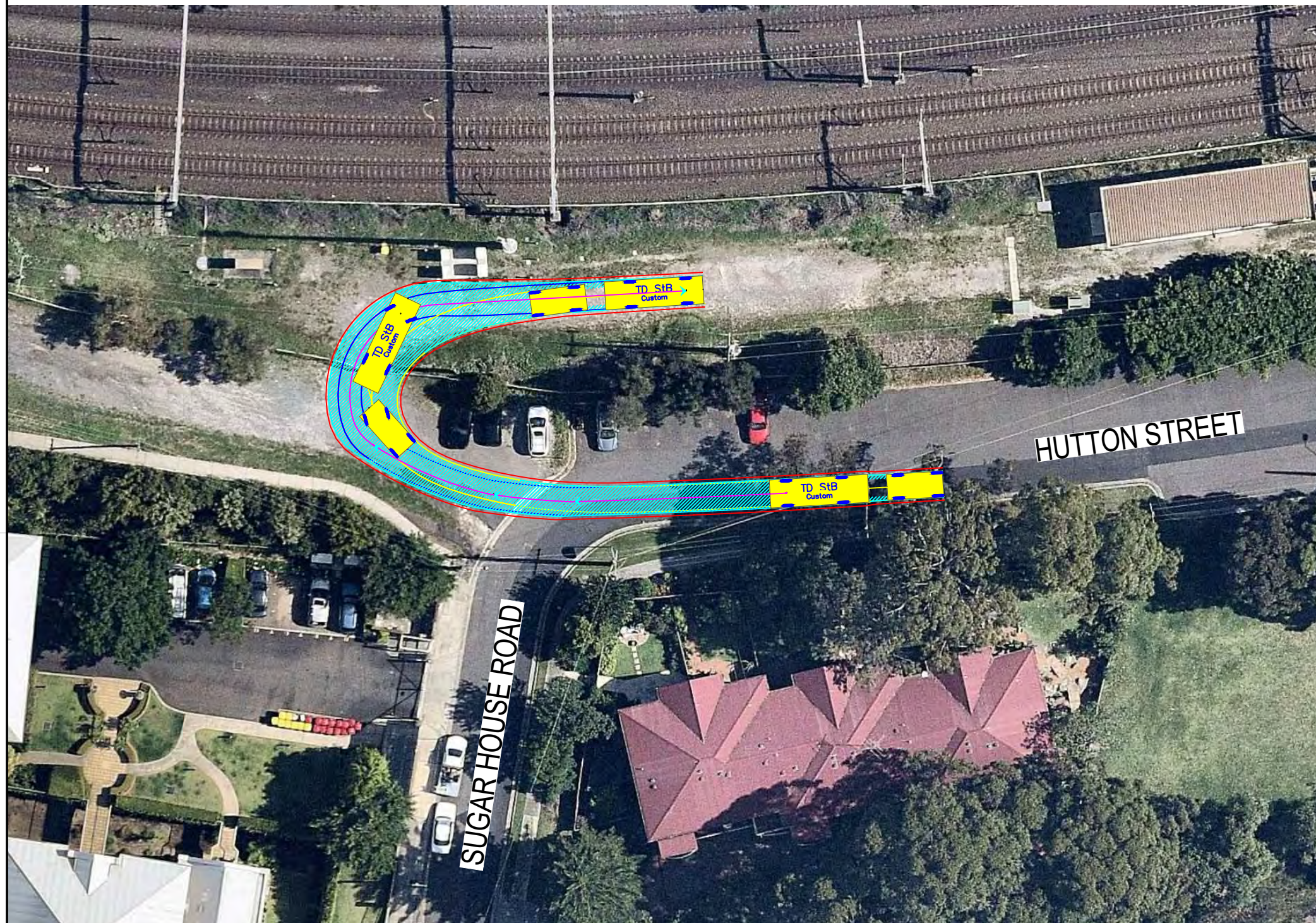
	meters
Width	: 2.50
Track	: 2.50
Lock to Lock Time	: 6.0
Steering Angle	: 38.7

DESIGN VEHICLE

REVISIONS		Drawn	Date	Issue	Description	M.H	Date
001	NOT USED	-	-	009	NO CHANGE	M.H	23.08.2019
002	SWEPT PATH - PRECONSTRUCTION CTMP	M.H	04.03.2019	010	NO CHANGE	M.H	08.11.2019
003	MINOR AMENDMENTS	M.H	27.03.2019	011	NO CHANGES	M.H	11.11.2019
004	MINOR AMENDMENTS	M.H	01.04.2019	ENGINEERING CERTIFICATION (RPEQ)			
005	AMENDMENTS TO REV 1 CTMP COMMENTS	M.H	12.04.2019				
006	AMENDMENTS TO FURTHER REV 1 CTMP COMMENTS	M.H	18.04.2019	Name	Signature	No.	Date
007	NO CHANGES	M.H	10.07.2019				
008	ADD HRV ROUTE TO AREA 15	M.H	30.07.2019				

Project	SYDNEY METRO CITY & SOUTHWEST SOUTHWEST METRO EARLY WORKS		
Design	M.H	Drawn	M.H
Checked	T.W		Date
Title			11.11.2019
SWEPT PATH AREA 9D EXIT			Issue
Project Number	P3519	Sheet Number	46
		Issue	011

NOT FOR CONSTRUCTION

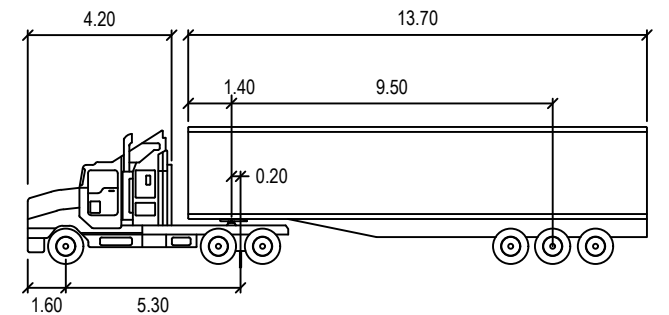
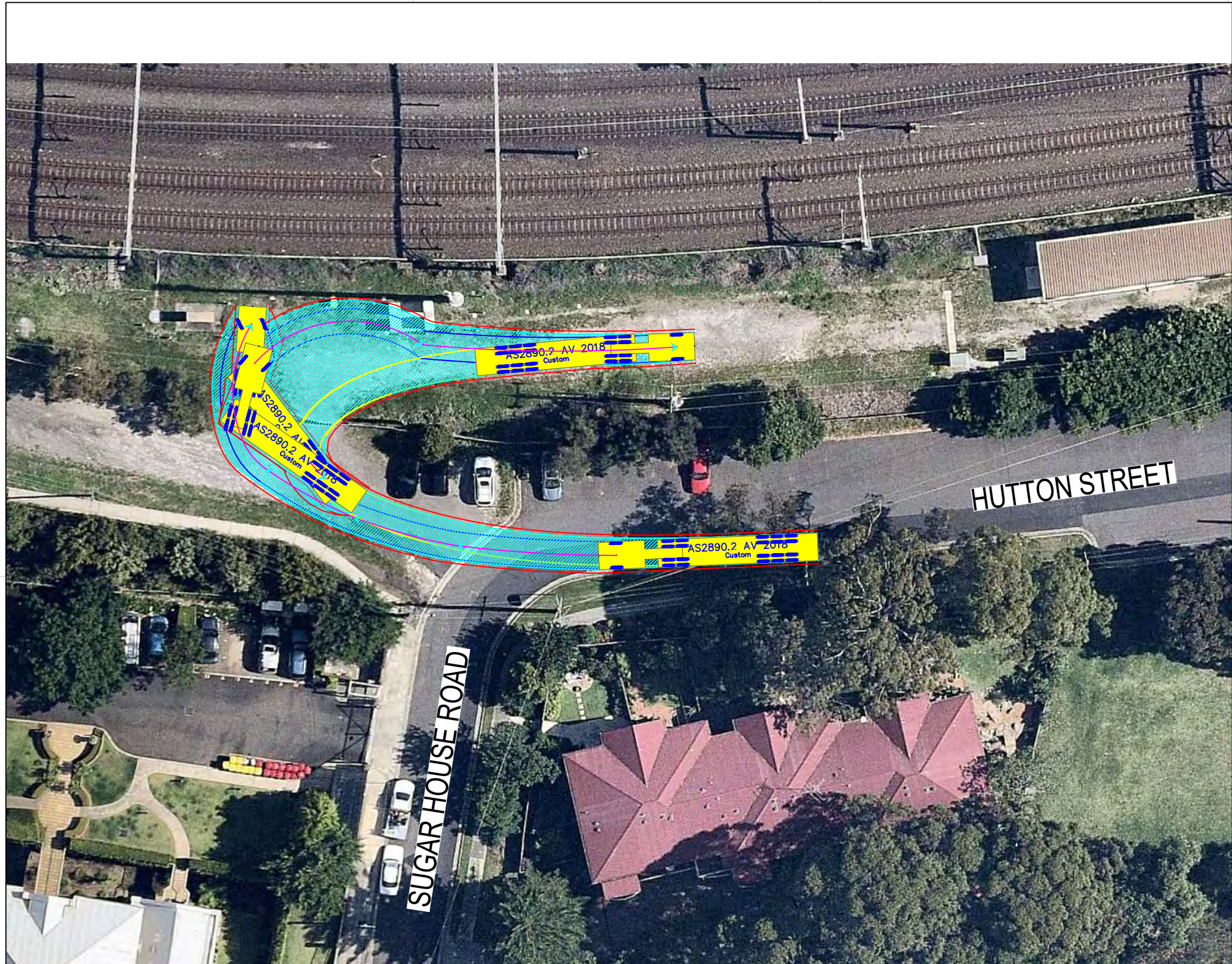


TD StB	meters		
First Unit Width	: 2.50	Lock to Lock Time	: 6.0
Trailer Width	: 2.30	Steering Angle	: 37.9
First Unit Track	: 2.50	Articulating Angle	: 70.0
Trailer Track	: 2.30		

DESIGN VEHICLE

REVISIONS		Drawn	Date	Issue	Revisions/Descriptions	M.H	Date
001	NOT USED	-	-	009	NO CHANGE	M.H	23.08.2019
002	SWEPT PATH - PRECONSTRUCTION CTMP	M.H	04.03.2019	010	NO CHANGE	M.H	08.11.2019
003	MINOR AMENDMENTS	M.H	27.03.2019	011	NO CHANGES	M.H	11.11.2019
004	MINOR AMENDMENTS	M.H	01.04.2019	ENGINEERING CERTIFICATION (RPEQ)			
005	AMENDMENTS TO REV 1 CTMP COMMENTS	M.H	12.04.2019	Name	Signature	No.	Date
006	AMENDMENTS TO FURTHER REV 1 CTMP COMMENTS	M.H	18.04.2019				
007	NO CHANGES	M.H	10.07.2019				
008	ADD HRV ROUTE TO AREA 15	M.H	30.07.2019				

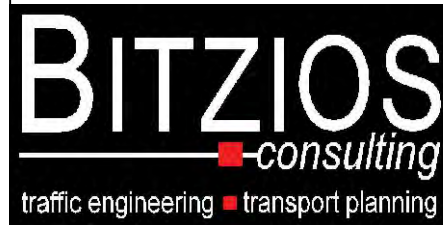
Project	SYDNEY METRO CITY & SOUTHWEST SOUTHWEST METRO EARLY WORKS		Design	M.H	Drawn	M.H	Checked	T.W
Title	SWEPT PATH AREA 11A ENTRY		NOT FOR CONSTRUCTION			Date	11.11.2019	
Project Number	P3519	Sheet Number	47	Issue	011			



S ARTICULATED 19M meters

Tractor Width	: 2.50	Lock to Lock Time	: 6.0
Trailer Width	: 2.50	Steering Angle	: 27.7
Tractor Track	: 2.50	Articulating Angle	: 70.0
Trailer Track	: 2.50		

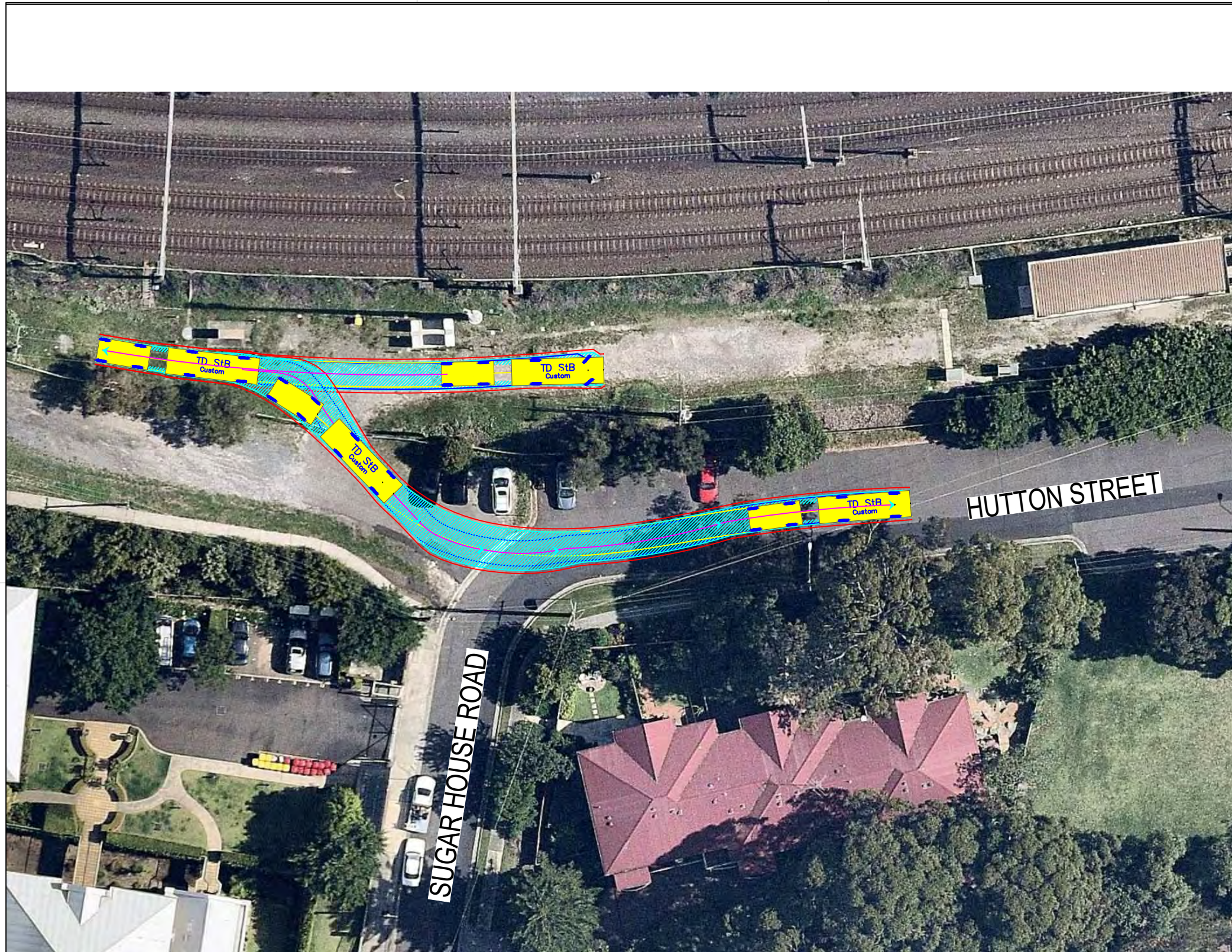
DESIGN VEHICLE



Gold Coast
 Suite 26, 58 Riverwalk Avenue, Robina QLD 4226.
 P: (07) 5562-5377
 W: www.bitziosconsulting.com.au
Brisbane
 Level 2, 428 Upper Edward Street, Spring Hill 4000.
 P: (07) 3831-4442
 E: admin@bitziosconsulting.com.au
Sydney
 Studio 203, 3 Gladstone Street, Newtown NSW 2042.
 P: (02) 9557 6202

REVISIONS		Drawn	Date	009	NO CHANGE	M.H	23.08.2019
Issue	Revisions/Descriptions			010	NO CHANGE	M.H	08.11.2019
001	NOT USED	-	-	011	NO CHANGES	M.H	11.11.2019
002	NOT USED	-	-	ENGINEERING CERTIFICATION (RPEQ)			
003	NOT USED	-	-				
004	NOT USED	-	-				
005	NOT USED	-	-				
006	AMENDMENTS TO FURTHER REV 1 CTMP COMMENTS	M.H	18.04.2019	Name	Signature	No.	Date
007	NO CHANGES	M.H	10.07.2019				
008	ADD HRV ROUTE TO AREA 15	M.H	30.07.2019				

Project	SYDNEY METRO CITY & SOUTHWEST SOUTHWEST METRO EARLY WORKS		
Design	M.H	Drawn	M.H
Checked	T.W		Date
Title		SWEPT PATH AREA 11A ENTRY	
NOT FOR CONSTRUCTION		Date	11.11.2019
Project Number	P3519	Sheet Number	48
Issue	011		

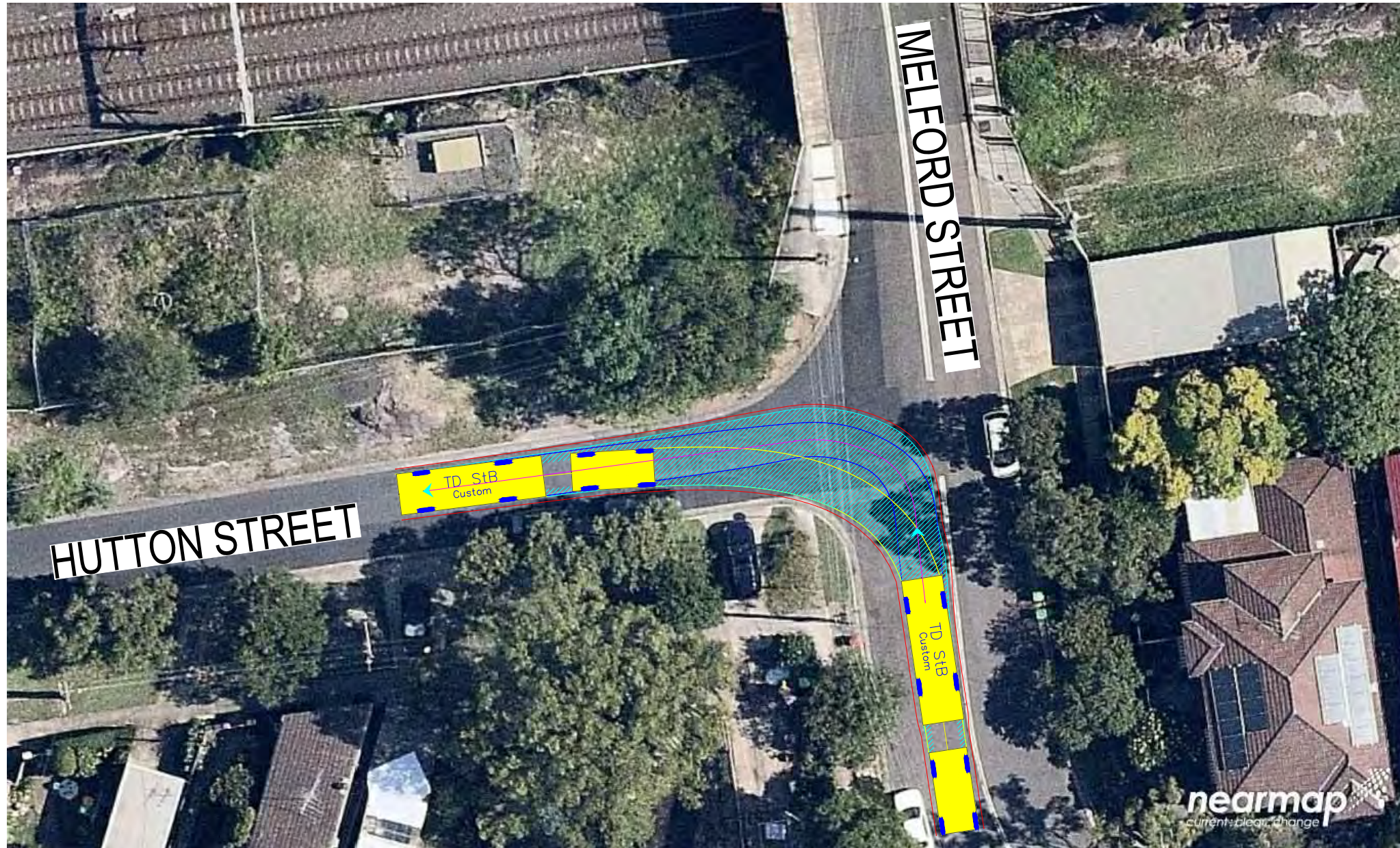
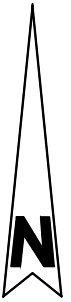


TD StB	First Unit Width	Trailer Width	First Unit Track	Trailer Track	Lock to Lock Time	Steering Angle	Articulating Angle
	: 2.50	: 2.30	: 2.50	: 2.30	: 6.0	: 37.9	: 70.0

DESIGN VEHICLE

Issue	Revisions/Descriptions	Drawn	Date	009	NO CHANGE	M.H	23.08.2019
001	NOT USED	-	-	010	NO CHANGE	M.H	08.11.2019
002	SWEPT PATH - PRECONSTRUCTION CTMP	M.H	04.03.2019	011	NO CHANGES	M.H	11.11.2019
003	MINOR AMENDMENTS	M.H	27.03.2019	ENGINEERING CERTIFICATION (RPEQ)			
004	MINOR AMENDMENTS	M.H	01.04.2019				
005	AMENDMENTS TO REV 1 CTMP COMMENTS	M.H	12.04.2019	Name	Signature	No.	Date
006	AMENDMENTS TO FURTHER REV 1 CTMP COMMENTS	M.H	18.04.2019				
007	NO CHANGES	M.H	10.07.2019				
008	ADD HRV ROUTE TO AREA 15	M.H	30.07.2019				

Project	SYDNEY METRO CITY & SOUTHWEST SOUTHWEST METRO EARLY WORKS	Design	M.H	Drawn	M.H	Checked	T.W
Title	SWEPT PATH AREA 11A EXIT	NOT FOR CONSTRUCTION		Date	11.11.2019		
Project Number	P3519	Sheet Number	49	Issue	011		

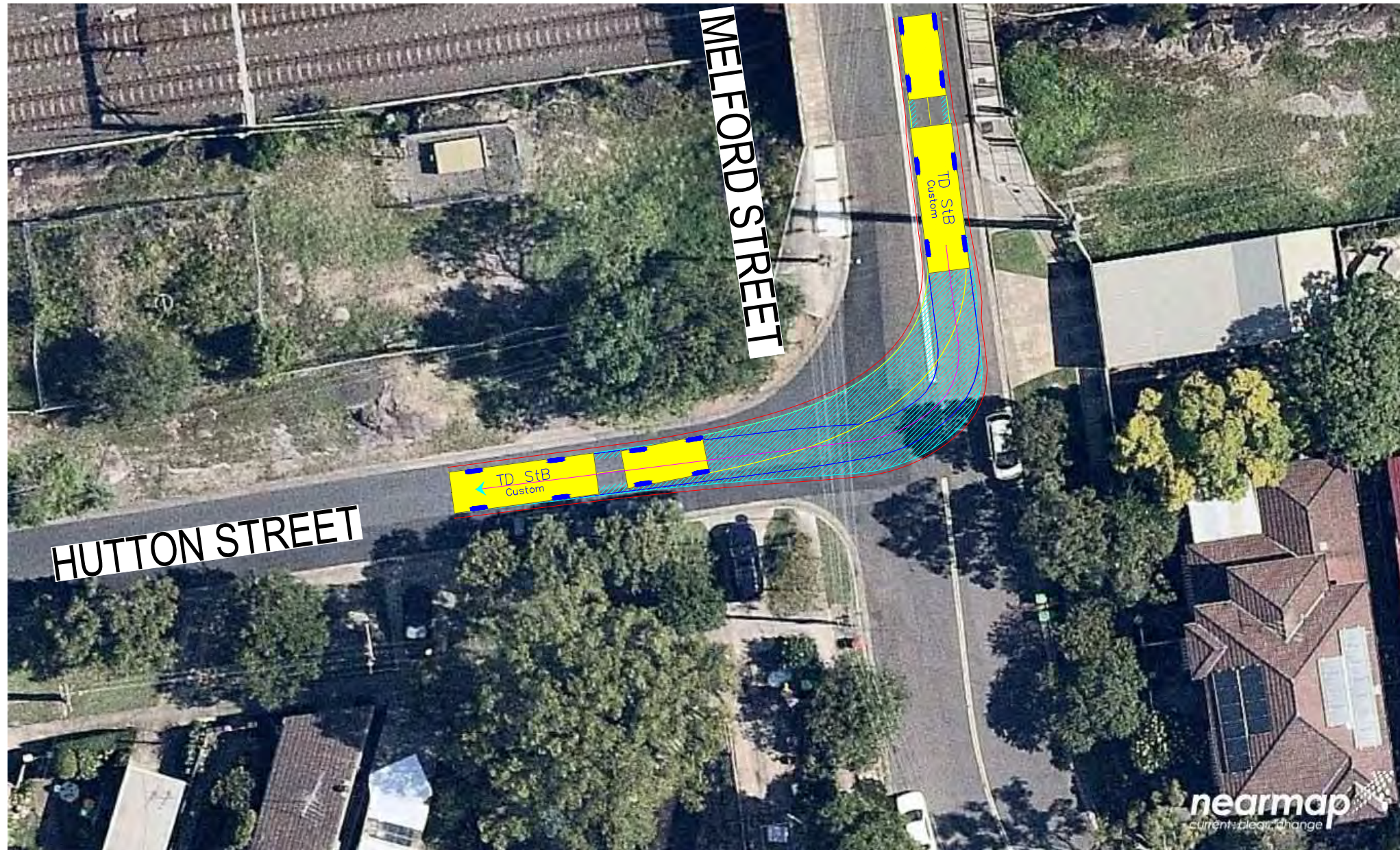
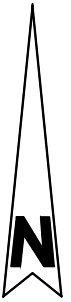


TD StB	meters	
First Unit Width	: 2.50	Lock to Lock Time : 6.0
Trailer Width	: 2.30	Steering Angle : 37.9
First Unit Track	: 2.50	Articulating Angle : 70.0
Trailer Track	: 2.30	

DESIGN VEHICLE

REVISIONS		Drawn	Date	Issue	Description	M.H	Date
001	NOT USED	-	-	009	NO CHANGE	M.H	23.08.2019
002	SWEPT PATH - PRECONSTRUCTION CTMP	M.H	04.03.2019	010	NO CHANGE	M.H	08.11.2019
003	MINOR AMENDMENTS	M.H	27.03.2019	011	NO CHANGES	M.H	11.11.2019
004	MINOR AMENDMENTS	M.H	01.04.2019	ENGINEERING CERTIFICATION (RPEQ)			
005	AMENDMENTS TO REV 1 CTMP COMMENTS	M.H	12.04.2019				
006	AMENDMENTS TO FURTHER REV 1 CTMP COMMENTS	M.H	18.04.2019	Name	Signature	No.	Date
007	NO CHANGES	M.H	10.07.2019				
008	ADD HRV ROUTE TO AREA 15	M.H	30.07.2019				

Project	SYDNEY METRO CITY & SOUTHWEST SOUTHWEST METRO EARLY WORKS		Design	M.H	Drawn	M.H	Checked	T.W
Title	SWEPT PATH AREA 11A ENTRY ROUTE 1		NOT FOR CONSTRUCTION		Date	11.11.2019		
Project Number	P3519				Sheet Number	50		Issue



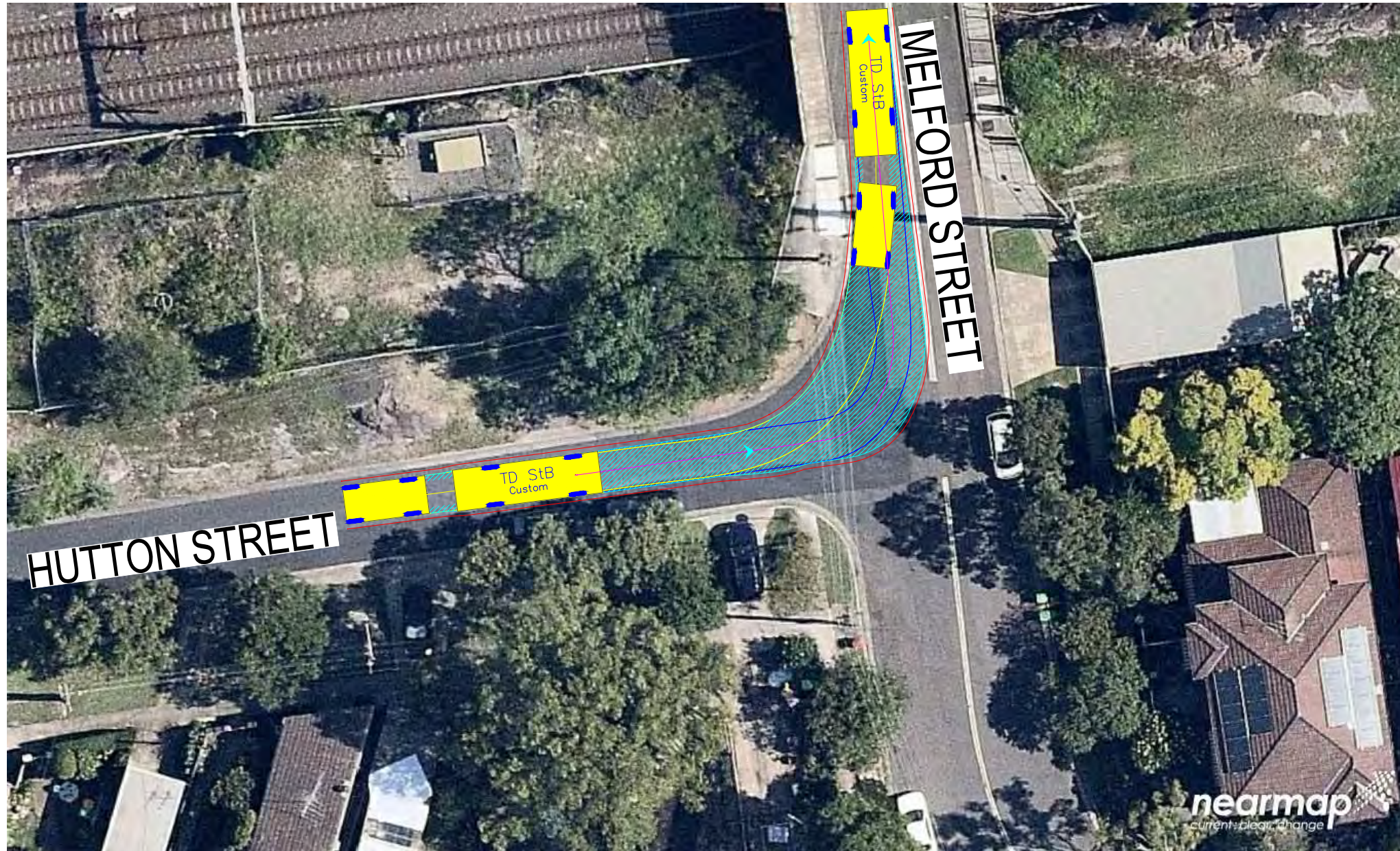
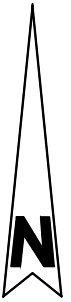
TD StB	meters		
First Unit Width	: 2.50	Lock to Lock Time	: 6.0
Trailer Width	: 2.30	Steering Angle	: 37.9
First Unit Track	: 2.50	Articulating Angle	: 70.0
Trailer Track	: 2.30		

DESIGN VEHICLE

REVISIONS		Drawn	Date	Issue	Description	M.H	Date
001	NOT USED	-	-	009	NO CHANGE	M.H	23.08.2019
002	SWEPT PATH - PRECONSTRUCTION CTMP	M.H	04.03.2019	010	NO CHANGE	M.H	08.11.2019
003	MINOR AMENDMENTS	M.H	27.03.2019	011	NO CHANGES	M.H	11.11.2019
004	MINOR AMENDMENTS	M.H	01.04.2019	ENGINEERING CERTIFICATION (RPEQ)			
005	AMENDMENTS TO REV 1 CTMP COMMENTS	M.H	12.04.2019	Name	Signature	No.	Date
006	AMENDMENTS TO FURTHER REV 1 CTMP COMMENTS	M.H	18.04.2019				
007	NO CHANGES	M.H	10.07.2019				
008	ADD HRV ROUTE TO AREA 15	M.H	30.07.2019				

Project	SYDNEY METRO CITY & SOUTHWEST SOUTHWEST METRO EARLY WORKS		
Design	M.H	Drawn	M.H
Checked	T.W		Date
			11.11.2019
Title	SWEPT PATH AREA 11A ENTRY ROUTE 2		
Project Number	P3519	Sheet Number	51
Issue	011		

NOT FOR CONSTRUCTION



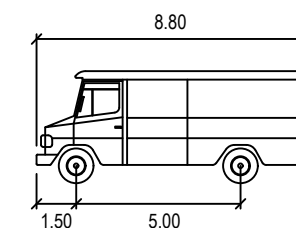
TD StB	meters	
First Unit Width	: 2.50	Lock to Lock Time : 6.0
Trailer Width	: 2.30	Steering Angle : 37.9
First Unit Track	: 2.50	Articulating Angle : 70.0
Trailer Track	: 2.30	

DESIGN VEHICLE

Issue	Revisions/Descriptions	Drawn	Date			M.H	23.08.2019
001	NOT USED	-	-	009	NO CHANGE	M.H	08.11.2019
002	SWEPT PATH - PRECONSTRUCTION CTMP	M.H	04.03.2019	010	NO CHANGE	M.H	11.11.2019
003	MINOR AMENDMENTS	M.H	27.03.2019	011	NO CHANGES	M.H	
004	MINOR AMENDMENTS	M.H	01.04.2019	ENGINEERING CERTIFICATION (RPEQ)			
005	AMENDMENTS TO REV 1 CTMP COMMENTS	M.H	12.04.2019	Name	Signature	No.	Date
006	AMENDMENTS TO FURTHER REV 1 CTMP COMMENTS	M.H	18.04.2019				
007	NO CHANGES	M.H	10.07.2019				
008	ADD HRV ROUTE TO AREA 15	M.H	30.07.2019				

Project	SYDNEY METRO CITY & SOUTHWEST SOUTHWEST METRO EARLY WORKS		
Design	M.H	Drawn	M.H
Checked			T.W
			Date
			11.11.2019
Title	SWEPT PATH AREA 11A EXIT ROUTE		
Project Number	P3519	Sheet Number	52
Issue	011		

NOT FOR CONSTRUCTION

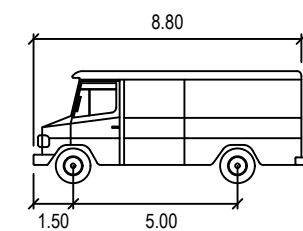


SERVICE VEHICLE
 meters
 Width : 2.50
 Track : 2.50
 Lock to Lock Time : 6.0
 Steering Angle : 38.7

DESIGN VEHICLE

Issue	Revisions/Descriptions	Drawn	Date				
001	NOT USED	-	-	009	NO CHANGE	M.H	23.08.2019
002	SWEPT PATH - PRECONSTRUCTION CTMP	M.H	04.03.2019	010	NO CHANGE	M.H	08.11.2019
003	MINOR AMENDMENTS	M.H	27.03.2019	011	NO CHANGES	M.H	11.11.2019
004	MINOR AMENDMENTS	M.H	01.04.2019	ENGINEERING CERTIFICATION (RPEQ)			
005	AMENDMENTS TO REV 1 CTMP COMMENTS	M.H	12.04.2019	Name	Signature	No.	Date
006	AMENDMENTS TO FURTHER REV 1 CTMP COMMENTS	M.H	18.04.2019				
007	NO CHANGES	M.H	10.07.2019				
008	ADD HRV ROUTE TO AREA 15	M.H	30.07.2019				

Project	SYDNEY METRO CITY & SOUTHWEST SOUTHWEST METRO EARLY WORKS	Design	M.H	Drawn	M.H	Checked	T.W
Title	SWEPT PATH AREA 11B ENTRY	NOT FOR CONSTRUCTION		Date	11.11.2019		
Project Number	P3519	Sheet Number	53	Issue	011		



SERVICE VEHICLE

	meters
Width	: 2.50
Track	: 2.50
Lock to Lock Time	: 6.0
Steering Angle	: 38.7

DESIGN VEHICLE

REVISIONS		Drawn	Date	Issue	Description	Drawn	Date
001	NOT USED	-	-	009	NO CHANGE	M.H	23.08.2019
002	SWEPT PATH - PRECONSTRUCTION CTMP	M.H	04.03.2019	010	NO CHANGE	M.H	08.11.2019
003	MINOR AMENDMENTS	M.H	27.03.2019	011	NO CHANGES	M.H	11.11.2019
004	MINOR AMENDMENTS	M.H	01.04.2019	ENGINEERING CERTIFICATION (RPEQ)			
005	AMENDMENTS TO REV 1 CTMP COMMENTS	M.H	12.04.2019				
006	AMENDMENTS TO FURTHER REV 1 CTMP COMMENTS	M.H	18.04.2019	Name	Signature	No.	Date
007	NO CHANGES	M.H	10.07.2019				
008	ADD HRV ROUTE TO AREA 15	M.H	30.07.2019				

Project	SYDNEY METRO CITY & SOUTHWEST SOUTHWEST METRO EARLY WORKS		
Design	M.H	Drawn	M.H
Checked	T.W		Date
	11.11.2019		Issue
	011		
Title	SWEPT PATH AREA 11B EXIT		
Project Number	P3519	Sheet Number	54

NOT FOR CONSTRUCTION



SU TRUCK meters

Width : 2.50

Track : 2.50

Lock to Lock Time : 6.0

Steering Angle : 36.6

DESIGN VEHICLE

BITZIOS
-consulting
traffic engineering ■ transport planning

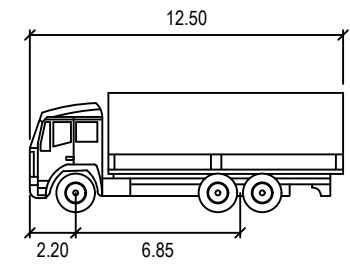
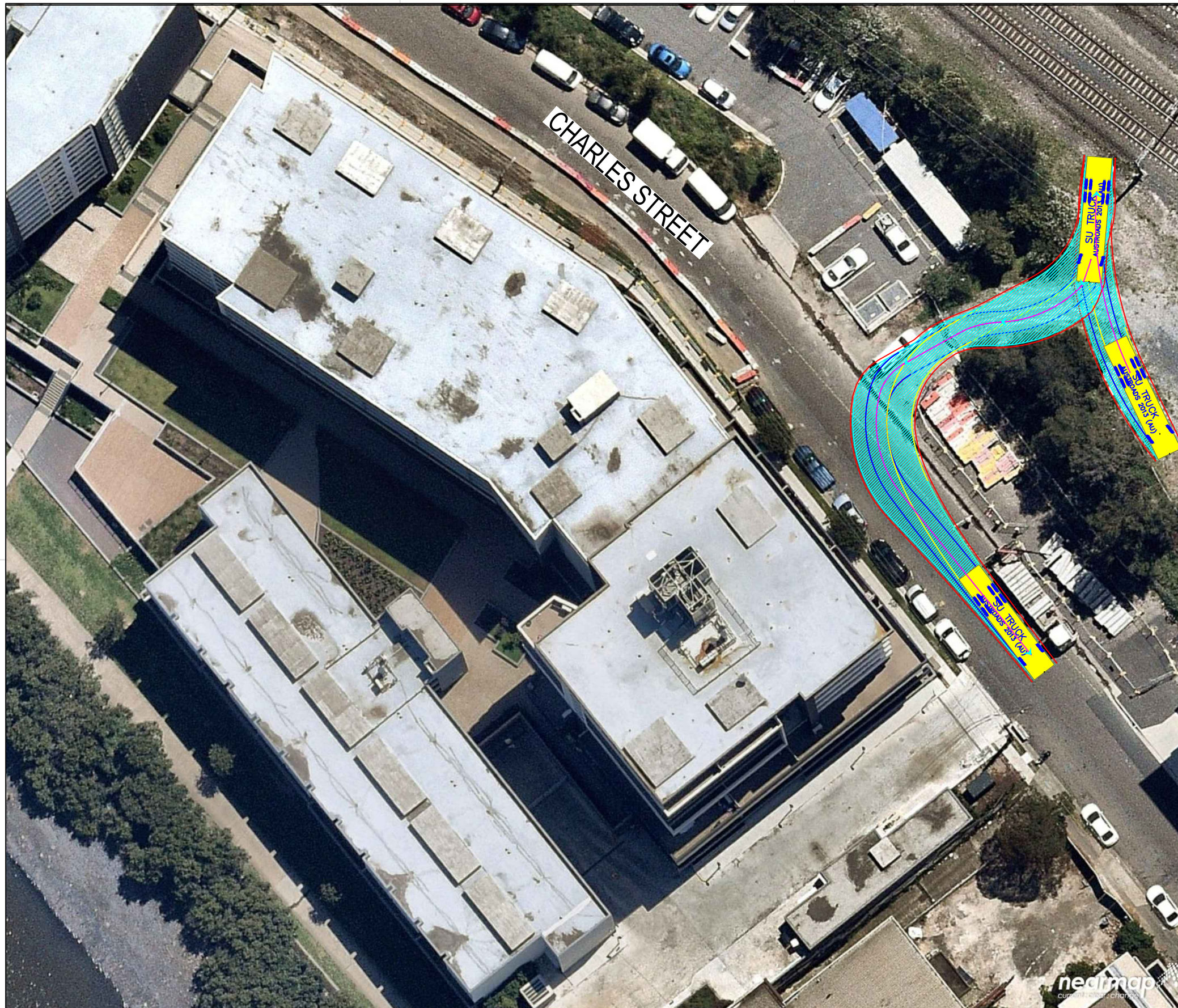
Gold Coast
Suite 26, 58 Riverwalk Avenue, Robina QLD 4226.
P: (07) 5562-5377
W: www.bitziosconsulting.com.au
Brisbane
Level 2, 428 Upper Edward Street, Spring Hill 4000.
P: (07) 3831-4442
E: admin@bitziosconsulting.com.au
Sydney
Studio 203, 3 Gladstone Street, Newtown NSW 2042.
P: (02) 9557 6202

Issue	Revisions/Descriptions	Drawn	Date	009	NO CHANGE	M.H	23.08.2019
001	NOT USED	-	-	010	NO CHANGE	M.H	08.11.2019
002	SWEPT PATH - PRECONSTRUCTION CTMP	M.H	04.03.2019	011	NO CHANGES	M.H	11.11.2019
003	MINOR AMENDMENTS	M.H	27.03.2019	ENGINEERING CERTIFICATION (RPEQ)			
004	MINOR AMENDMENTS	M.H	01.04.2019				
005	AMENDMENTS TO REV 1 CTMP COMMENTS	M.H	12.04.2019	Name	Signature	No.	Date
006	AMENDMENTS TO FURTHER REV 1 CTMP COMMENTS	M.H	18.04.2019				
007	NO CHANGES	M.H	10.07.2019				
008	ADD HRV ROUTE TO AREA 15	M.H	30.07.2019				

Project
SYDNEY METRO CITY & SOUTHWEST
SOUTHWEST METRO EARLY WORKS

Title
SWEPT PATH
AREA 13A
ENTRY

Design	Drawn	Checked
M.H	M.H	T.W
NOT FOR CONSTRUCTION		
Project Number	Sheet Number	Issue
P3519	55	011
		Date 11.11.2019



SU TRUCK meters

Width : 2.50

Track : 2.50

Lock to Lock Time : 6.0

Steering Angle : 36.6

DESIGN VEHICLE

BITZIOS
-consulting
traffic engineering ■ transport planning

Gold Coast
Suite 26, 58 Riverwalk Avenue, Robina QLD 4226.
P: (07) 5562-5377
W: www.bitziosconsulting.com.au

Brisbane
Level 2, 428 Upper Edward Street, Spring Hill 4000.
P: (07) 3831-4442
E: admin@bitziosconsulting.com.au

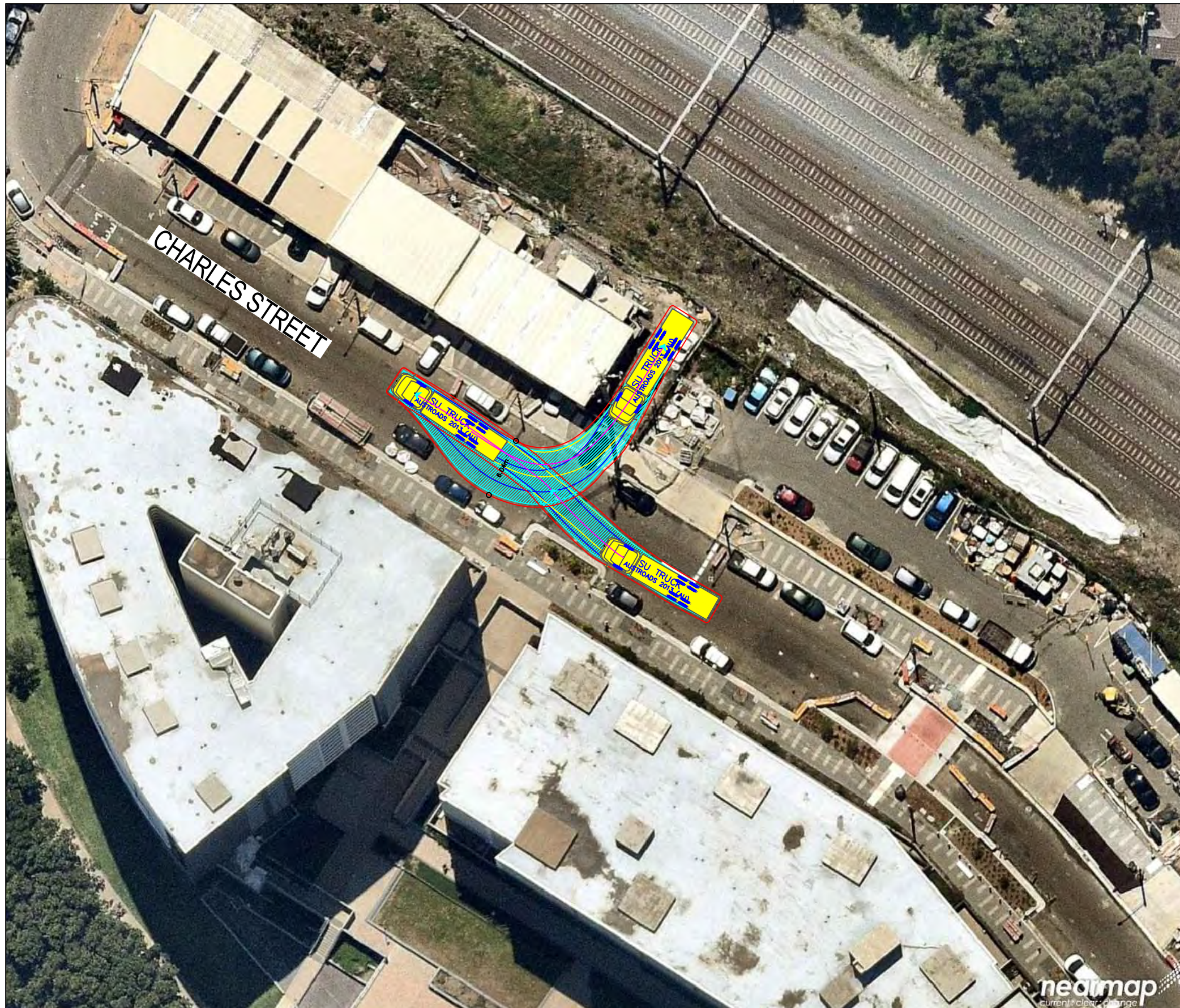
Sydney
Studio 203, 3 Gladstone Street, Newtown NSW 2042.
P: (02) 9557 6202

REVISIONS		Drawn	Date	Issue	Description	Drawn	Date
009	NO CHANGE			M.H	23.08.2019		
010	NO CHANGE			M.H	08.11.2019		
011	NO CHANGES			M.H	11.11.2019		
ENGINEERING CERTIFICATION (RPEQ)							
		Name	Signature	No.	Date		

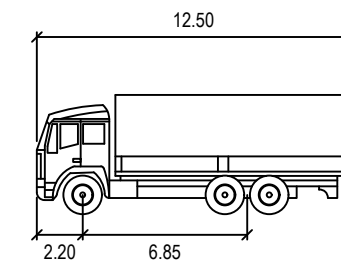
Project
SYDNEY METRO CITY & SOUTHWEST
SOUTHWEST METRO EARLY WORKS

Title
SWEPT PATH
AREA 13A
EXIT

Design	Drawn	Checked
M.H	M.H	T.W
NOT FOR CONSTRUCTION		
Project Number	Sheet Number	Issue
P3519	56	011
		Date 11.11.2019



REQUIRES TRAFFIC CONTROLLER TO HOLD WESTBOUND TRAFFIC WHILE TRUCK COMPLETES TURNING MANOEUVRE



SU TRUCK meters
 Width : 2.50
 Track : 2.50
 Lock to Lock Time : 6.0
 Steering Angle : 36.6

DESIGN VEHICLE

BITZIOS
 consulting
 traffic engineering ■ transport planning

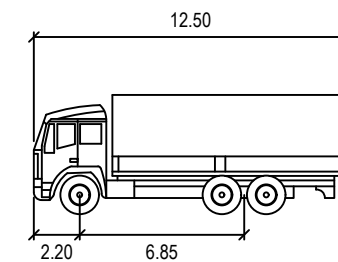
Gold Coast
 Suite 26, 58 Riverwalk Avenue, Robina QLD 4226.
 P: (07) 5562-5377
 W: www.bitziosconsulting.com.au
Brisbane
 Level 2, 428 Upper Edward Street, Spring Hill 4000.
 P: (07) 3831-4442
 E: admin@bitziosconsulting.com.au
Sydney
 Studio 203, 3 Gladstone Street, Newtown NSW 2042.
 P: (02) 9557 6202

REVISIONS		Drawn	Date	009	NOT USED	-	-																																
Issue	Revisions/Descriptions			010	INITIAL SWEEP PATH	M.H	08.11.2019																																
001	NOT USED	-	-	011	CHANGE TO 20 CHARLES ST	M.H	11.11.2019																																
002	NOT USED	-	-	ENGINEERING CERTIFICATION (RPEQ) <table border="1"> <thead> <tr> <th>Name</th> <th>Signature</th> <th>No.</th> <th>Date</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>				Name	Signature	No.	Date																												
Name	Signature	No.	Date																																				
003	NOT USED	-	-																																				
004	NOT USED	-	-																																				
005	NOT USED	-	-																																				
006	NOT USED	-	-																																				
007	NOT USED	-	-																																				
008	NOT USED	-	-																																				

Project		Design	Drawn	Checked
SYDNEY METRO CITY & SOUTHWEST SOUTHWEST METRO EARLY WORKS		M.H	M.H	A.G
Title		NOT FOR CONSTRUCTION		
SWEEP PATH ACCESS V - 20 CHARLES STREET ENTRY		Date	11.11.2019	
Project Number	Sheet Number	Issue		
P3519	57	011		



REQUIRES TRAFFIC CONTROLLER TO HOLD WESTBOUND TRAFFIC WHILE TRUCK COMPLETES TURNING MANOEUVRE



SU TRUCK meters
 Width : 12.50
 Track : 2.20
 Lock to Lock Time : 6.0
 Steering Angle : 36.6

DESIGN VEHICLE

REVISIONS		Drawn	Date	009	NOT USED	-	-																																
Issue	Revisions/Descriptions			010	INITIAL SWEEP PATH	M.H	08.11.2019																																
001	NOT USED	-	-	011	CHANGE TO 20 CHARLES ST	M.H	11.11.2019																																
002	NOT USED	-	-	ENGINEERING CERTIFICATION (RPEQ) <table border="1"> <thead> <tr> <th>Name</th> <th>Signature</th> <th>No.</th> <th>Date</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>				Name	Signature	No.	Date																												
Name	Signature	No.	Date																																				
003	NOT USED	-	-																																				
004	NOT USED	-	-																																				
005	NOT USED	-	-																																				
006	NOT USED	-	-																																				
007	NOT USED	-	-																																				
008	NOT USED	-	-																																				

Project		Design	Drawn	Checked
SYDNEY METRO CITY & SOUTHWEST SOUTHWEST METRO EARLY WORKS		M.H	M.H	A.G
Title		NOT FOR CONSTRUCTION		
SWEPT PATH ACCESS V - 20 CHARLES STREET EXIT		Date	11.11.2019	
Project Number	Sheet Number	Issue		
P3519	58	011		



SU TRUCK meters

Width : 2.50
 Track : 2.50
 Lock to Lock Time : 6.0
 Steering Angle : 36.6

DESIGN VEHICLE

REVISIONS		Drawn	Date	Issue	Revisions/Descriptions	Drawn	Date
009	NO CHANGE	M.H	23.08.2019				
010	NO CHANGE	M.H	08.11.2019				
011	NO CHANGES	M.H	11.11.2019				
ENGINEERING CERTIFICATION (RPEQ)							
005	AMENDMENTS TO REV 1 CTMP COMMENTS	M.H	12.04.2019				
006	AMENDMENTS TO FURTHER REV 1 CTMP COMMENTS	M.H	18.04.2019				
007	NO CHANGES	M.H	10.07.2019				
008	ADD HRV ROUTE TO AREA 15	M.H	30.07.2019				
		Name	Signature	No.	Date		

Project	SYDNEY METRO CITY & SOUTHWEST SOUTHWEST METRO EARLY WORKS
Title	SWEPT PATH AREA 13A ACCESS ROUTE

Design	M.H	Drawn	M.H	Checked	T.W	
NOT FOR CONSTRUCTION					Date	11.11.2019
Project Number	P3519	Sheet Number	59	Issue	011	



SU TRUCK meters

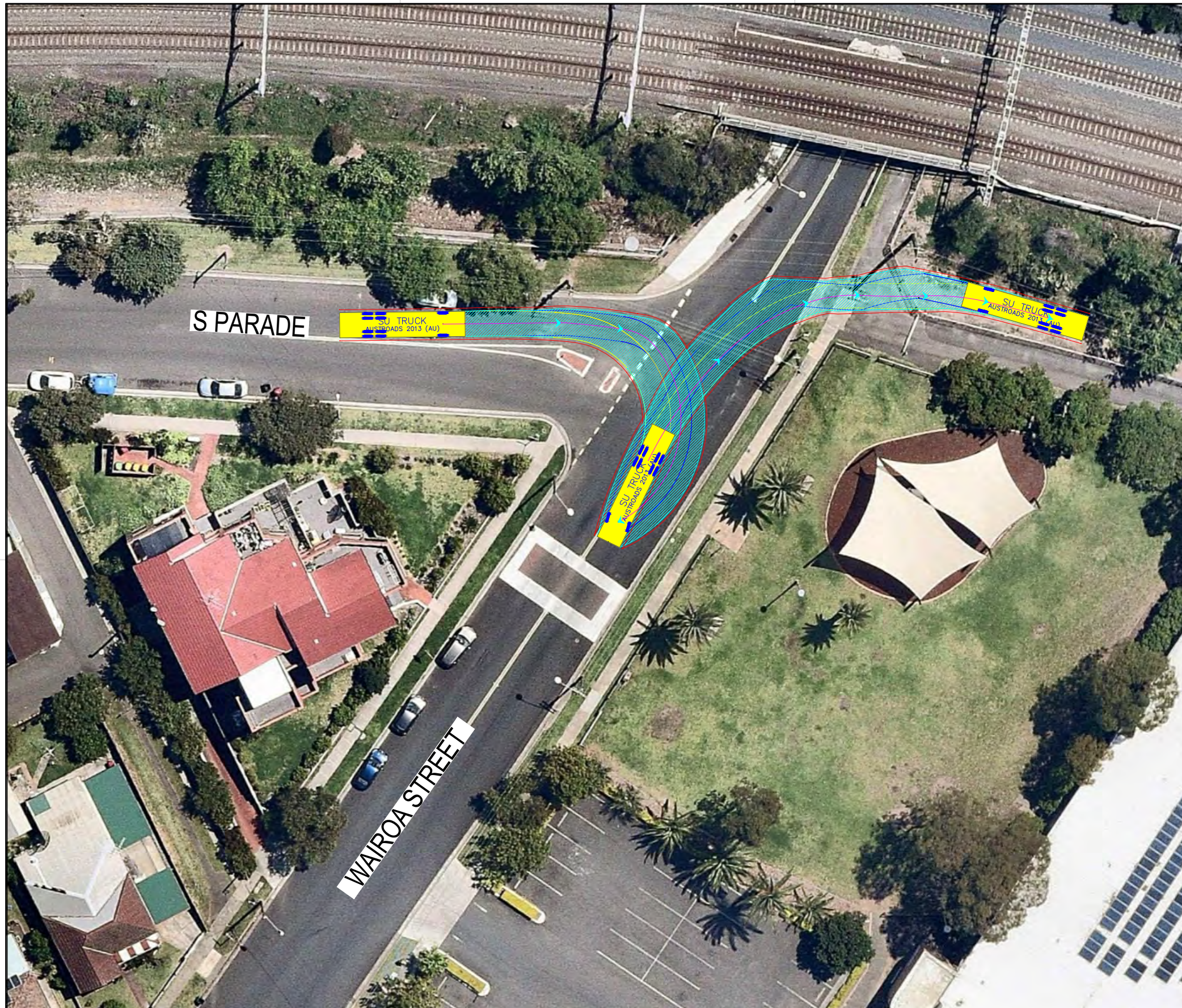
Width : 2.50
 Track : 2.50
 Lock to Lock Time : 6.0
 Steering Angle : 36.6

DESIGN VEHICLE

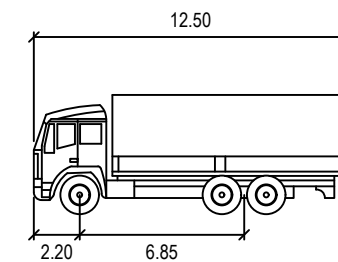
Issue	Revisions/Descriptions	Drawn	Date	009	NO CHANGE	M.H	23.08.2019
001	NOT USED	-	-	010	NO CHANGE	M.H	08.11.2019
002	SWEPT PATH - PRECONSTRUCTION CTMP	M.H	04.03.2019	011	NO CHANGES	M.H	11.11.2019
003	MINOR AMENDMENTS	M.H	27.03.2019	ENGINEERING CERTIFICATION (RPEQ)			
004	MINOR AMENDMENTS	M.H	01.04.2019				
005	AMENDMENTS TO REV 1 CTMP COMMENTS	M.H	12.04.2019	Name	Signature	No.	Date
006	AMENDMENTS TO FURTHER REV 1 CTMP COMMENTS	M.H	18.04.2019				
007	NO CHANGES	M.H	10.07.2019				
008	ADD HRV ROUTE TO AREA 15	M.H	30.07.2019				

Project	SYDNEY METRO CITY & SOUTHWEST SOUTHWEST METRO EARLY WORKS
Title	SWEPT PATH AREA 13A EGRESS ROUTE

Design	M.H	Drawn	M.H	Checked	T.W	
NOT FOR CONSTRUCTION					Date	11.11.2019
Project Number	P3519	Sheet Number	60	Issue	011	



REQUIRES TRAFFIC CONTROL
SEE TCP FOR THESE MANOEUVRES



SU TRUCK meters
 Width : 2.50
 Track : 2.50
 Lock to Lock Time : 6.0
 Steering Angle : 36.6

DESIGN VEHICLE

ISSUES		REVISIONS		Drawn	Date	M.H	Date
Issue	Revisions/Descriptions	Drawn	Date				
001	NOT USED	-	-			M.H	23.08.2019
002	SWEPT PATH - PRECONSTRUCTION CTMP	M.H	04.03.2019			M.H	08.11.2019
003	MINOR AMENDMENTS	M.H	27.03.2019			M.H	11.11.2019
004	CHANGE VEHICLE TYPE	M.H	01.04.2019				
005	AMENDMENTS TO REV 1 CTMP COMMENTS	M.H	12.04.2019				
006	AMENDMENTS TO FURTHER REV 1 CTMP COMMENTS	M.H	18.04.2019				
007	NO CHANGES	M.H	10.07.2019				
008	ADD HRV ROUTE TO AREA 15	M.H	30.07.2019				

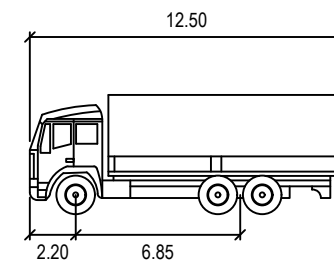
ENGINEERING CERTIFICATION (RPEQ)			
Name	Signature	No.	Date

Project	SYDNEY METRO CITY & SOUTHWEST SOUTHWEST METRO EARLY WORKS
Title	SWEPT PATH AREA 13B REVERSE ENTRY TO GATE

Design	M.H	Drawn	M.H	Checked	T.W
NOT FOR CONSTRUCTION					
Project Number	P3519	Sheet Number	61	Date	11.11.2019
		Issue			011



REQUIRES TRAFFIC CONTROL
SEE TCP FOR THESE MANOEUVRES



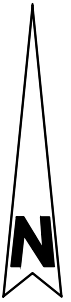
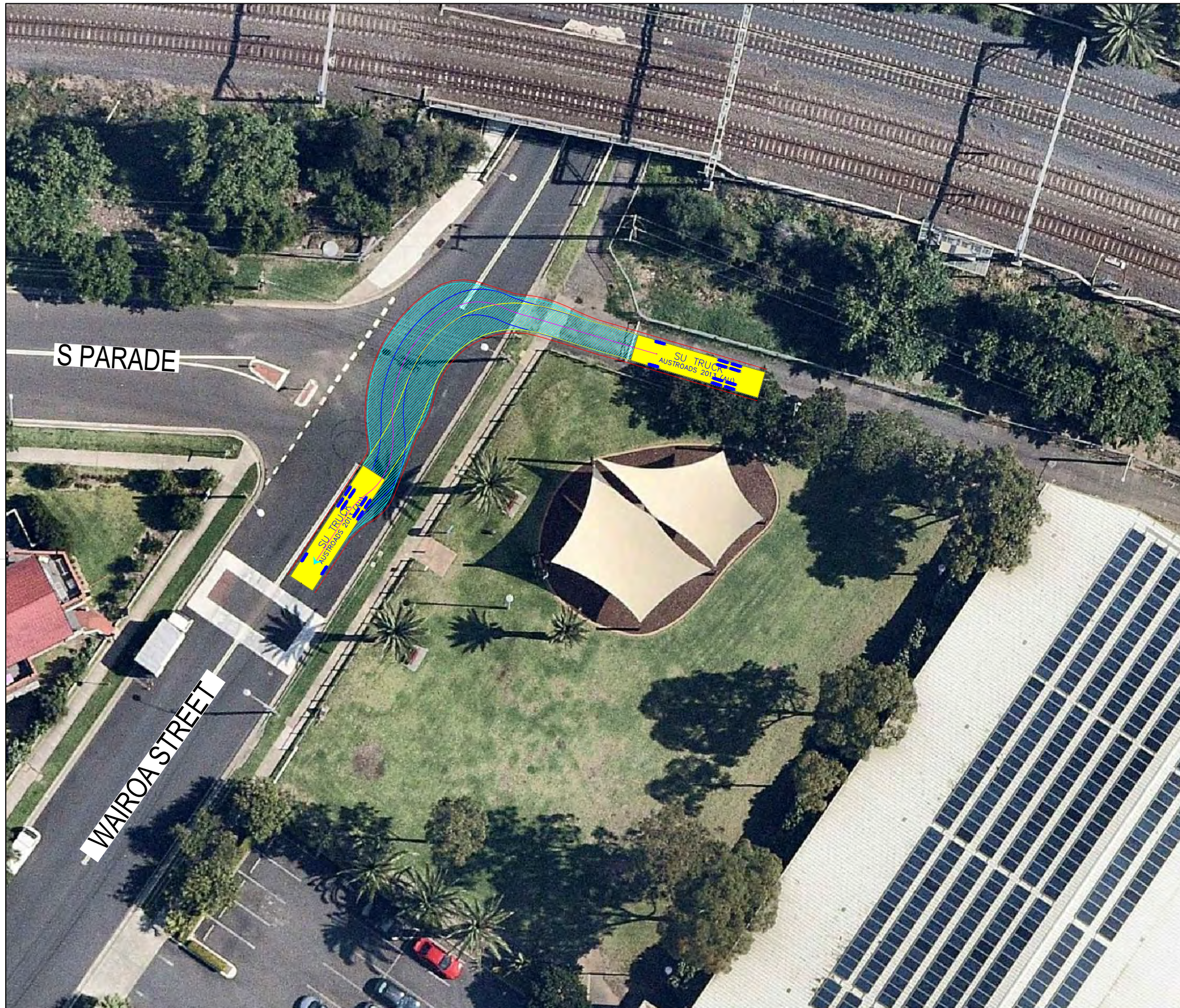
SU TRUCK meters
 Width : 2.50
 Track : 2.50
 Lock to Lock Time : 6.0
 Steering Angle : 36.6

DESIGN VEHICLE

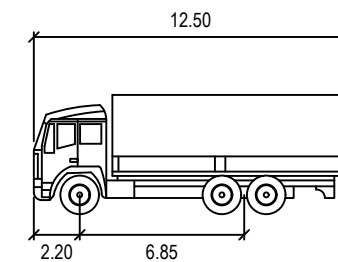
REVISIONS		Drawn	Date	Issue	Revisions/Descriptions	M.H	Date
001	NOT USED	-	-	009	NO CHANGE	M.H	23.08.2019
002	SWEPT PATH - PRECONSTRUCTION CTMP	M.H	04.03.2019	010	NO CHANGE	M.H	08.11.2019
003	MINOR AMENDMENTS	M.H	27.03.2019	011	NO CHANGES	M.H	11.11.2019
004	CHANGE VEHICLE TYPE	M.H	01.04.2019	ENGINEERING CERTIFICATION (RPEQ)			
005	AMENDMENTS TO REV 1 CTMP COMMENTS	M.H	12.04.2019				
006	AMENDMENTS TO FURTHER REV 1 CTMP COMMENTS	M.H	18.04.2019				
007	NO CHANGES	M.H	10.07.2019				
008	ADD HRV ROUTE TO AREA 15	M.H	30.07.2019	Name	Signature	No.	Date

Project	SYDNEY METRO CITY & SOUTHWEST SOUTHWEST METRO EARLY WORKS	
Title	SWEPT PATH AREA 13B REVERSE ENTRY TO COOKS RIVER PATH	

Design	M.H	Drawn	M.H	Checked	T.W
NOT FOR CONSTRUCTION					
Date	11.11.2019				
Project Number	P3519	Sheet Number	62	Issue	011



REQUIRES TRAFFIC CONTROL
SEE TCP FOR THIS MANOEUVRE



SU TRUCK meters

Width : 2.50
Track : 2.50
Lock to Lock Time : 6.0
Steering Angle : 36.6

DESIGN VEHICLE

BITZIOS
consulting
traffic engineering ■ transport planning

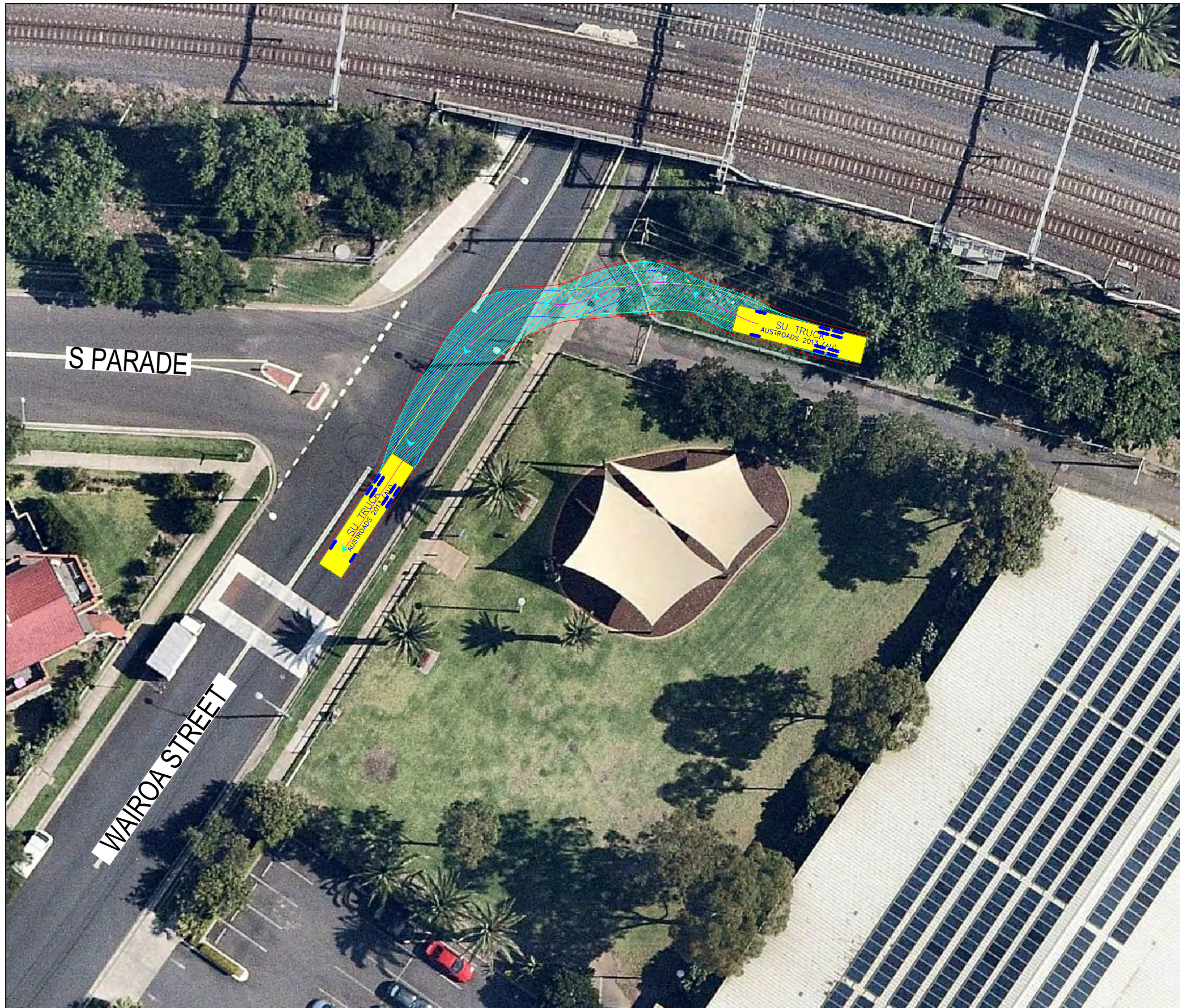
Gold Coast
Suite 26, 58 Riverwalk Avenue, Robina QLD 4226.
P: (07) 5562-5377
W: www.bitziosconsulting.com.au
Brisbane
Level 2, 428 Upper Edward Street, Spring Hill 4000.
P: (07) 3831-4442
E: admin@bitziosconsulting.com.au
Sydney
Studio 203, 3 Gladstone Street, Newtown NSW 2042.
P: (02) 9557 6202

REVISIONS		Drawn	Date	Issue	Description	M.H	Date
001	NOT USED	-	-	009	NO CHANGE	M.H	23.08.2019
002	SWEPT PATH - PRECONSTRUCTION CTMP	M.H	04.03.2019	010	NO CHANGE	M.H	08.11.2019
003	MINOR AMENDMENTS	M.H	27.03.2019	011	NO CHANGES	M.H	11.11.2019
004	MINOR AMENDMENTS	M.H	01.04.2019	ENGINEERING CERTIFICATION (RPEQ)			
005	AMENDMENTS TO REV 1 CTMP COMMENTS	M.H	12.04.2019				
006	AMENDMENTS TO FURTHER REV 1 CTMP COMMENTS	M.H	18.04.2019				
007	NO CHANGES	M.H	10.07.2019				
008	ADD HRV ROUTE TO AREA 15	M.H	30.07.2019	Name	Signature	No.	Date

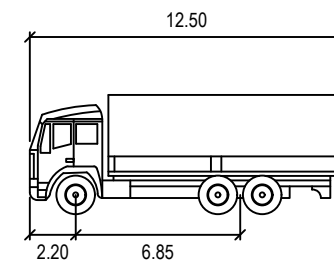
Project
SYDNEY METRO CITY & SOUTHWEST
SOUTHWEST METRO EARLY WORKS

Title
SWEPT PATH
AREA 13B
COOKS RIVER PATH EXIT

Design	Drawn	Checked
M.H	M.H	T.W
NOT FOR CONSTRUCTION		Date
11.11.2019		Issue
Project Number	Sheet Number	Issue
P3519	63	003



REQUIRES TRAFFIC CONTROL
SEE TCP FOR THIS MANOEUVRE



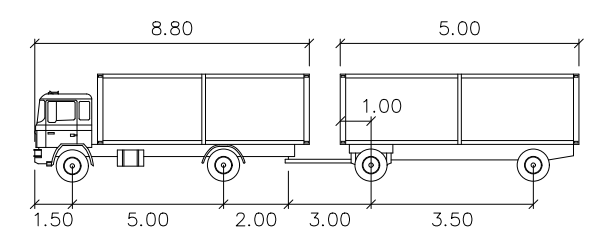
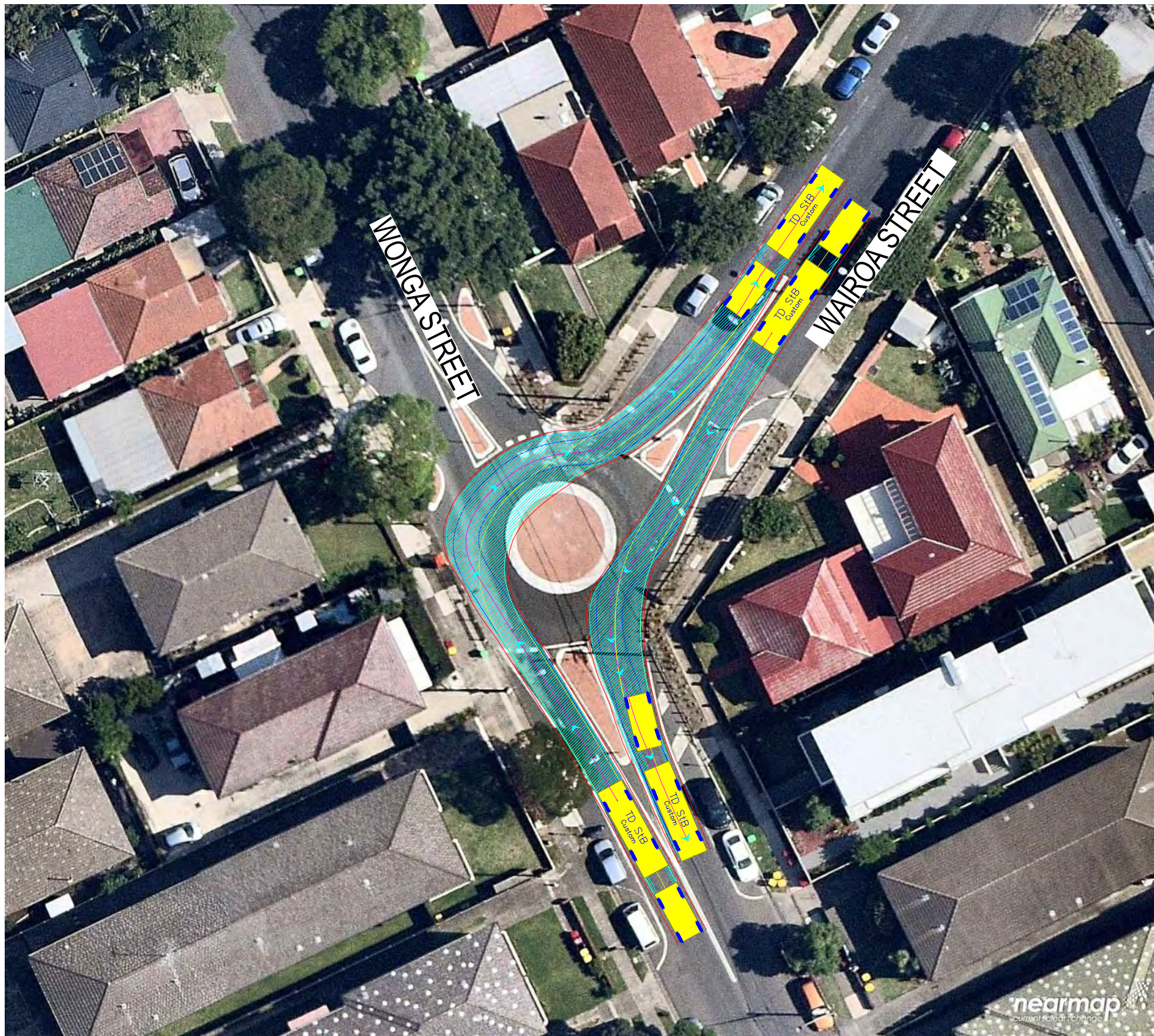
SU TRUCK meters
 Width : 12.50
 Track : 2.20
 Lock to Lock Time : 6.0
 Steering Angle : 36.6

DESIGN VEHICLE

REVISIONS		Drawn	Date	Issue	Description	Drawn	Date
001	NOT USED	-	-	009	NO CHANGE	M.H	23.08.2019
002	SWEPT PATH - PRECONSTRUCTION CTMP	M.H	04.03.2019	010	NO CHANGE	M.H	08.11.2019
003	MINOR AMENDMENTS	M.H	27.03.2019	011	NO CHANGES	M.H	11.11.2019
004	MINOR AMENDMENTS	M.H	01.04.2019	ENGINEERING CERTIFICATION (RPEQ)			
005	AMENDMENTS TO REV 1 CTMP COMMENTS	M.H	12.04.2019				
006	AMENDMENTS TO FURTHER REV 1 CTMP COMMENTS	M.H	18.04.2019	Name	Signature	No.	Date
007	NO CHANGES	M.H	10.07.2019				
008	ADD HRV ROUTE TO AREA 15	M.H	30.07.2019				

Project	SYDNEY METRO CITY & SOUTHWEST SOUTHWEST METRO EARLY WORKS
Title	SWEPT PATH AREA 13B GATE EXIT

Design	M.H	Drawn	M.H	Checked	T.W	
NOT FOR CONSTRUCTION					Date	11.11.2019
Project Number	P3519	Sheet Number	64	Issue	011	



TD StB	meters		
First Unit Width	: 2.50	Lock to Lock Time	: 6.0
Trailer Width	: 2.30	Steering Angle	: 37.9
First Unit Track	: 2.50	Articulating Angle	: 70.0
Trailer Track	: 2.30		

DESIGN VEHICLE

BITZIOS
consulting
traffic engineering ■ transport planning

Gold Coast
Suite 26, 58 Riverwalk Avenue, Robina QLD 4226.
P: (07) 5562-5377
W: www.bitziosconsulting.com.au
Brisbane
Level 2, 428 Upper Edward Street, Spring Hill 4000.
P: (07) 3831-4442
E: admin@bitziosconsulting.com.au
Sydney
Studio 203, 3 Gladstone Street, Newtown NSW 2042.
P: (02) 9557 6202

REVISIONS		Drawn	Date	Issue	By	Date
001	NOT USED	-	-	009	NO CHANGE	M.H 23.08.2019
002	SWEPT PATH - PRECONSTRUCTION CTMP	M.H	04.03.2019	010	NO CHANGE	M.H 08.11.2019
003	MINOR AMENDMENTS	M.H	27.03.2019	011	NO CHANGES	M.H 11.11.2019
004	MINOR AMENDMENTS	M.H	01.04.2019	ENGINEERING CERTIFICATION (RPEQ)		
005	AMENDMENTS TO REV 1 CTMP COMMENTS	M.H	12.04.2019			
006	AMENDMENTS TO FURTHER REV 1 CTMP COMMENTS	M.H	18.04.2019	Name	Signature	No.
007	NO CHANGES	M.H	10.07.2019			Date
008	ADD HRV ROUTE TO AREA 15	M.H	30.07.2019			

Project	SYDNEY METRO CITY & SOUTHWEST SOUTHWEST METRO EARLY WORKS		
Design	M.H	Drawn	M.H
Checked			T.W
			Date
			11.11.2019
Title	SWEPT PATH AREA 13B ENTRY/EXIT ROUTE 1		
Project Number	P3519	Sheet Number	65
Issue			011

NOT FOR CONSTRUCTION



SU TRUCK meters

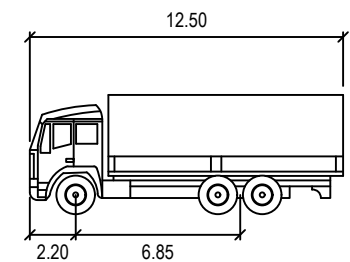
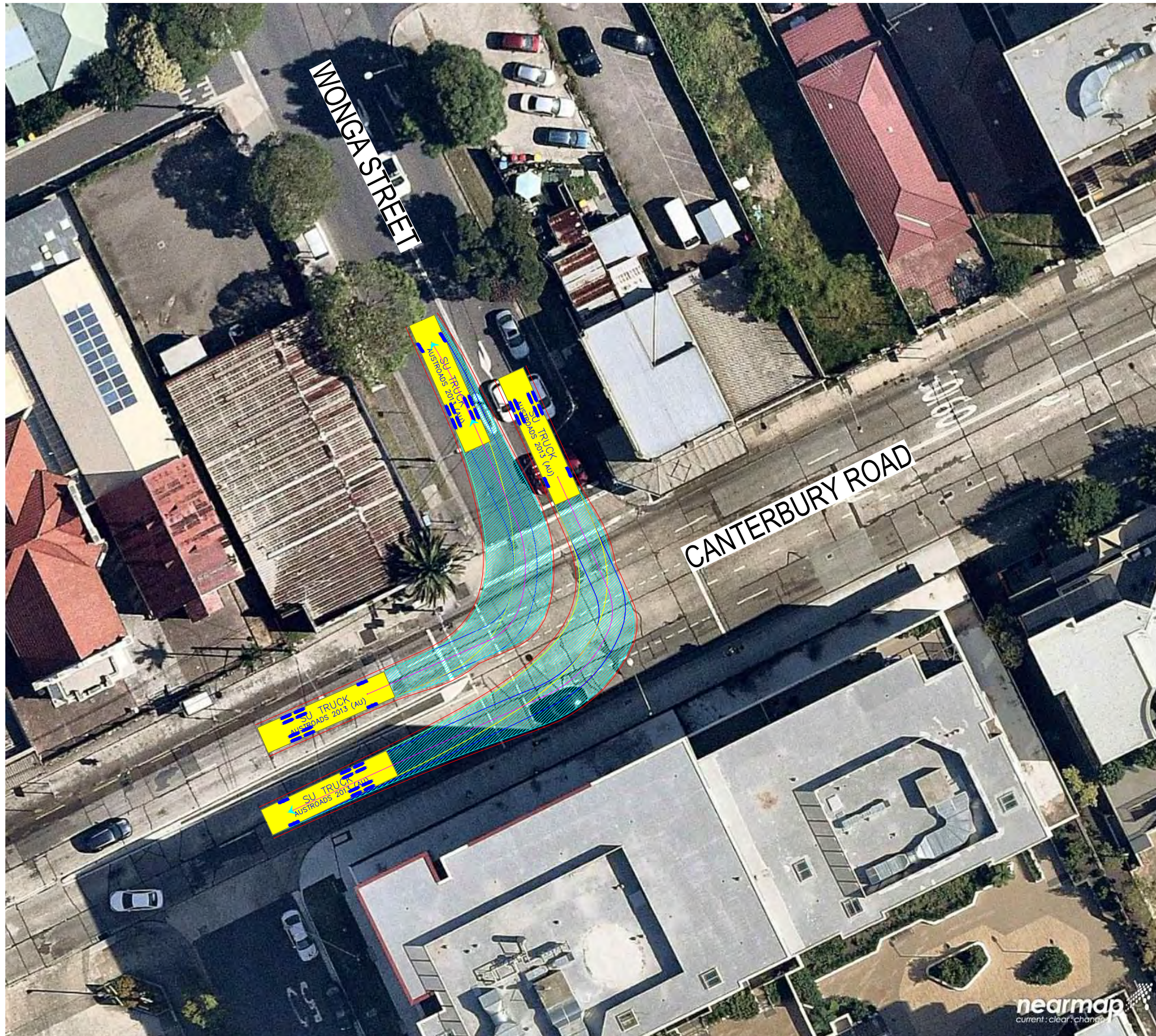
Width : 2.50
 Track : 2.50
 Lock to Lock Time : 6.0
 Steering Angle : 36.6

DESIGN VEHICLE

REVISIONS		Drawn	Date	Issue	Revisions/Descriptions	Drawn	Date
009	NO CHANGE	M.H	23.08.2019				
010	NO CHANGE	M.H	08.11.2019				
011	NO CHANGES	M.H	11.11.2019				
004	MINOR AMENDMENTS	M.H	01.04.2019	ENGINEERING CERTIFICATION (RPEQ)			
005	AMENDMENTS TO REV 1 CTMP COMMENTS	M.H	12.04.2019	Name	Signature	No.	Date
006	AMENDMENTS TO FURTHER REV 1 CTMP COMMENTS	M.H	18.04.2019				
007	NO CHANGES	M.H	10.07.2019				
008	ADD HRV ROUTE TO AREA 15	M.H	30.07.2019				

Project	SYDNEY METRO CITY & SOUTHWEST SOUTHWEST METRO EARLY WORKS
Title	SWEPT PATH AREA 13B ENTRY/EXIT ROUTE 1

Design	M.H	Drawn	M.H	Checked	T.W	
NOT FOR CONSTRUCTION					Date	11.11.2019
Project Number	P3519	Sheet Number	66	Issue	011	



SU TRUCK		units
Width	: 2.50	meters
Track	: 2.50	meters
Lock to Lock Time	: 6.0	seconds
Steering Angle	: 36.6	degrees

DESIGN VEHICLE

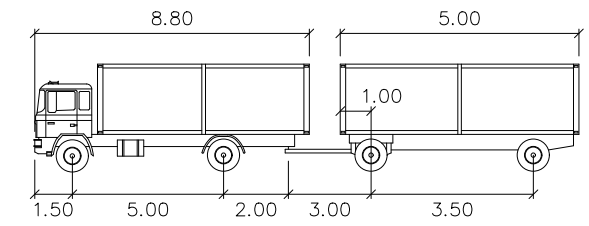
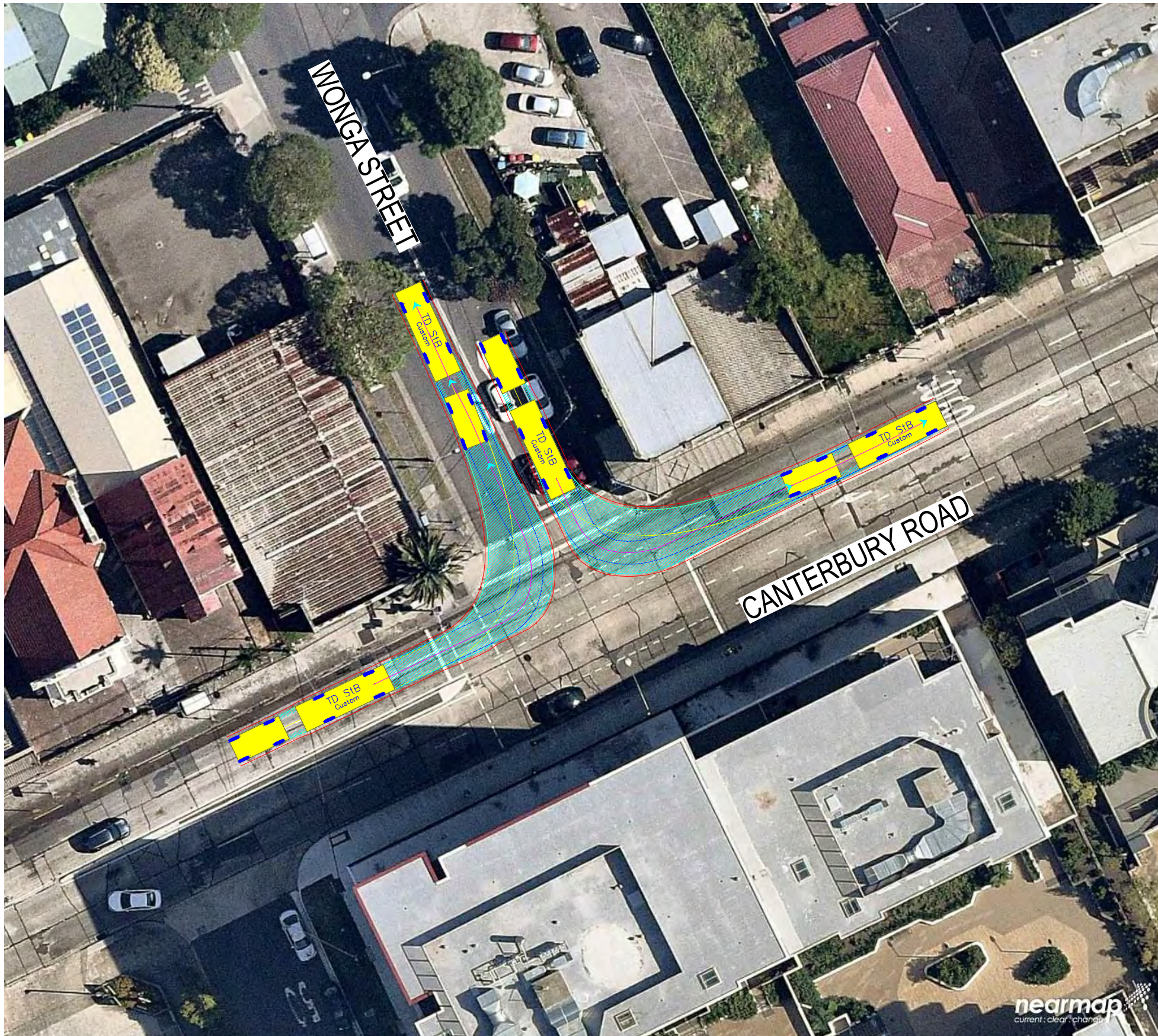
REVISIONS			
Issue	Revisions/Descriptions	Drawn	Date
001	NOT USED	-	-
002	SWEPT PATH - PRECONSTRUCTION CTMP	M.H	04.03.2019
003	MINOR AMENDMENTS	M.H	27.03.2019
004	MINOR AMENDMENTS	M.H	01.04.2019
005	AMENDMENTS TO REV 1 CTMP COMMENTS	M.H	12.04.2019
006	AMENDMENTS TO FURTHER REV 1 CTMP COMMENTS	M.H	18.04.2019
008	NO CHANGES	M.H	10.07.2019
008	ADD HRV ROUTE TO AREA 15	M.H	30.07.2019

Issue	Description	Drawn	Date
009	NO CHANGE	M.H	23.08.2019
010	NO CHANGE	M.H	08.11.2019
011	NO CHANGES	M.H	11.11.2019

ENGINEERING CERTIFICATION (RPEQ)			
Name	Signature	No.	Date

Project	SYDNEY METRO CITY & SOUTHWEST SOUTHWEST METRO EARLY WORKS		
Design	M.H	Drawn	M.H
Checked	T.W		
Date	11.11.2019		
Title	SWEPT PATH AREA 13B ENTRY/EXIT ROUTE 2		
Project Number	P3519	Sheet Number	67
Issue	011		

NOT FOR CONSTRUCTION



TD StB		meters	
First Unit Width	: 2.50	Lock to Lock Time	: 6.0
Trailer Width	: 2.30	Steering Angle	: 37.9
First Unit Track	: 2.50	Articulating Angle	: 70.0
Trailer Track	: 2.30		

DESIGN VEHICLE

REVISIONS			
Issue	Revisions/Descriptions	Drawn	Date
009	NO CHANGE	M.H	23.08.2019
010	NO CHANGE	M.H	08.11.2019
011	NO CHANGES	M.H	11.11.2019
ENGINEERING CERTIFICATION (RPEQ)			
Name		Signature	No.
			Date

Project	SYDNEY METRO CITY & SOUTHWEST SOUTHWEST METRO EARLY WORKS	Design	M.H	Drawn	M.H	Checked	T.W
Title	SWEPT PATH AREA 13B ENTRY/EXIT ROUTE 2	NOT FOR CONSTRUCTION		Date	11.11.2019		
Project Number	P3519	Sheet Number	68	Issue	011		



SU TRUCK meters

Width : 2.50
 Track : 2.50
 Lock to Lock Time : 6.0
 Steering Angle : 36.6

DESIGN VEHICLE

Issue	Revisions/Descriptions	Drawn	Date	009	NO CHANGE	M.H	23.08.2019
001	NOT USED	-	-	010	NO CHANGE	M.H	08.11.2019
002	NOT USED	-	-	011	NO CHANGES	M.H	11.11.2019
003	NOT USED	-	-	ENGINEERING CERTIFICATION (RPEQ)			
004	NOT USED	-	-	Name	Signature	No.	Date
005	AMENDMENTS TO REV 1 CTMP COMMENTS	M.H	12.04.2019				
006	AMENDMENTS TO FURTHER REV 1 CTMP COMMENTS	M.H	18.04.2019				
007	NO CHANGES	M.H	10.07.2019				
008	ADD HRV ROUTE TO AREA 15	M.H	30.07.2019				

Project	SYDNEY METRO CITY & SOUTHWEST SOUTHWEST METRO EARLY WORKS
Title	SWEPT PATH AREA 13C KERBSIDE

Design	M.H	Drawn	M.H	Checked	T.W	
NOT FOR CONSTRUCTION					Date	11.11.2019
Project Number	P3519	Sheet Number	69	Issue	011	

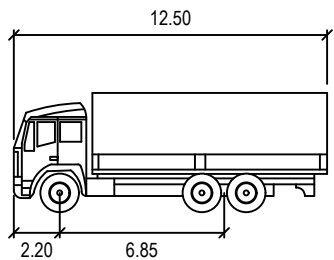


TD StB	meters			
First Unit Width	: 2.50	Lock to Lock Time	: 6.0	
Trailer Width	: 2.30	Steering Angle	: 37.9	
First Unit Track	: 2.50	Articulating Angle	: 70.0	
Trailer Track	: 2.30			

DESIGN VEHICLE

REVISIONS		Drawn	Date	Issue	Description	Drawn	Date
009	NO CHANGE			M.H	23.08.2019		
010	NO CHANGE			M.H	08.11.2019		
011	NO CHANGES			M.H	11.11.2019		
ENGINEERING CERTIFICATION (RPEQ)							
		Name	Signature	No.	Date		

Project	SYDNEY METRO CITY & SOUTHWEST SOUTHWEST METRO EARLY WORKS		Design	M.H	Drawn	M.H	Checked	T.W
Title	SWEPT PATH AREA 13C ENTRY		NOT FOR CONSTRUCTION			Date	11.11.2019	
Project Number	P3519	Sheet Number	70	Issue	011			



SU TRUCK meters

Width : 2.50
 Track : 2.50
 Lock to Lock Time : 6.0
 Steering Angle : 36.6

DESIGN VEHICLE

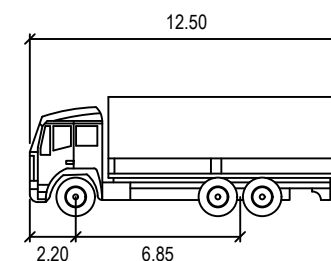
BITZIOS
 consulting
 traffic engineering ■ transport planning

Gold Coast
 Suite 26, 58 Riverwalk Avenue, Robina QLD 4226.
 P: (07) 5562-5377
 W: www.bitziosconsulting.com.au
Brisbane
 Level 2, 428 Upper Edward Street, Spring Hill 4000.
 P: (07) 3831-4442
 E: admin@bitziosconsulting.com.au
Sydney
 Studio 203, 3 Gladstone Street, Newtown NSW 2042.
 P: (02) 9557 6202

ISSUES		REVISIONS		Drawn	Date	Issue	Revisions/Descriptions	Drawn	Date
001	NOT USED	-	-	-	-	009	NO CHANGE	M.H	23.08.2019
002	SWEPT PATH - PRECONSTRUCTION CTMP	M.H	04.03.2019	010	NO CHANGE	M.H	08.11.2019		
003	MINOR AMENDMENTS	M.H	27.03.2019	011	NO CHANGES	M.H	11.11.2019		
004	MINOR AMENDMENTS	M.H	01.04.2019	ENGINEERING CERTIFICATION (RPEQ)					
005	AMENDMENTS TO REV 1 CTMP COMMENTS	M.H	12.04.2019	Name	Signature	No.	Date		
006	AMENDMENTS TO FURTHER REV 1 CTMP COMMENTS	M.H	18.04.2019						
007	NO CHANGES	M.H	10.07.2019						
008	ADD HRV ROUTE TO AREA 15	M.H	30.07.2019						

Project	SYDNEY METRO CITY & SOUTHWEST SOUTHWEST METRO EARLY WORKS		
Design	M.H	Drawn	M.H
Checked	T.W		Date
			11.11.2019
Title	SWEPT PATH AREA 13C ENTRY ROUTE 1		
Project Number	P3519	Sheet Number	71
Issue	011		

NOT FOR CONSTRUCTION



SU TRUCK meters

Width : 2.50
 Track : 2.50
 Lock to Lock Time : 6.0
 Steering Angle : 36.6

DESIGN VEHICLE

Issue	Revisions/Descriptions	Drawn	Date	009	NO CHANGE	M.H	23.08.2019
001	NOT USED	-	-	010	NO CHANGE	M.H	08.11.2019
002	SWEPT PATH - PRECONSTRUCTION CTMP	M.H	04.03.2019	011	NO CHANGES	M.H	11.11.2019
003	MINOR AMENDMENTS	M.H	27.03.2019	ENGINEERING CERTIFICATION (RPEQ)			
004	MINOR AMENDMENTS	M.H	01.04.2019				
005	AMENDMENTS TO REV 1 CTMP COMMENTS	M.H	12.04.2019	Name	Signature	No.	Date
006	AMENDMENTS TO FURTHER REV 1 CTMP COMMENTS	M.H	18.04.2019				
007	NO CHANGES	M.H	10.07.2019				
008	ADD HRV ROUTE TO AREA 15	M.H	30.07.2019				

Project	SYDNEY METRO CITY & SOUTHWEST SOUTHWEST METRO EARLY WORKS		
Design	M.H	Drawn	M.H
Checked	T.W		Date
Title			11.11.2019
SWEPT PATH AREA 13C ENTRY ROUTE 2			Issue
Project Number	P3519	Sheet Number	72
			011

NOT FOR CONSTRUCTION



SU TRUCK meters

Width : 2.50
 Track : 2.50
 Lock to Lock Time : 6.0
 Steering Angle : 36.6

DESIGN VEHICLE

BITZIOS
 consulting
 traffic engineering ■ transport planning

Gold Coast
 Suite 26, 58 Riverwalk Avenue, Robina QLD 4226.
 P: (07) 5562-5377
 W: www.bitziosconsulting.com.au
Brisbane
 Level 2, 428 Upper Edward Street, Spring Hill 4000.
 P: (07) 3831-4442
 E: admin@bitziosconsulting.com.au
Sydney
 Studio 203, 3 Gladstone Street, Newtown NSW 2042.
 P: (02) 9557 6202

REVISIONS		Drawn	Date	Issue	Description	M.H	Date
001	NOT USED	-	-	009	NO CHANGE	M.H	23.08.2019
002	SWEPT PATH - PRECONSTRUCTION CTMP	M.H	04.03.2019	010	NO CHANGE	M.H	08.11.2019
003	MINOR AMENDMENTS	M.H	27.03.2019	011	NO CHANGES	M.H	11.11.2019
004	MINOR AMENDMENTS	M.H	01.04.2019	ENGINEERING CERTIFICATION (RPEQ)			
005	AMENDMENTS TO REV 1 CTMP COMMENTS	M.H	12.04.2019				
006	AMENDMENTS TO FURTHER REV 1 CTMP COMMENTS	M.H	18.04.2019				
007	NO CHANGES	M.H	10.07.2019				
008	ADD HRV ROUTE TO AREA 15	M.H	30.07.2019	Name	Signature	No.	Date

Project
 SYDNEY METRO CITY & SOUTHWEST
 SOUTHWEST METRO EARLY WORKS

Title
 SWEPT PATH
 AREA 13C
 EXIT

Design	Drawn	Checked
M.H	M.H	T.W
NOT FOR CONSTRUCTION		
Project Number	Sheet Number	Issue
P3519	73	011
		Date 11.11.2019



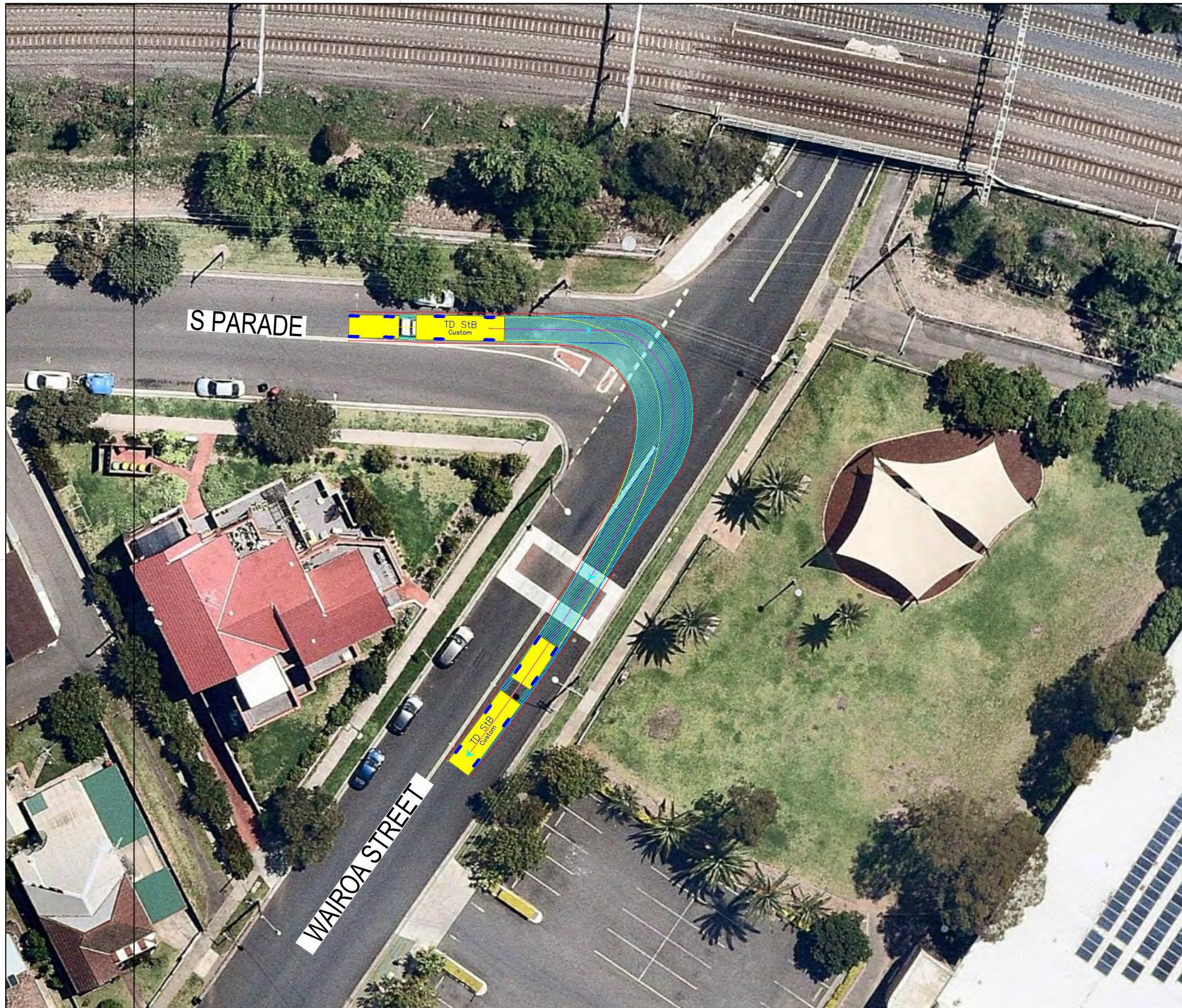
SU TRUCK meters

Width : 2.50
 Track : 2.50
 Lock to Lock Time : 6.0
 Steering Angle : 36.6

DESIGN VEHICLE

REVISIONS		Drawn	Date	Issue	Description	Author	Date
001	NOT USED	-	-	009	NO CHANGE	M.H	23.08.2019
002	SWEPT PATH - PRECONSTRUCTION CTMP	M.H	04.03.2019	010	NO CHANGE	M.H	08.11.2019
003	MINOR AMENDMENTS	M.H	27.03.2019	011	NO CHANGES	M.H	11.11.2019
004	MINOR AMENDMENTS	M.H	01.04.2019	ENGINEERING CERTIFICATION (RPEQ)			
005	AMENDMENTS TO REV 1 CTMP COMMENTS	M.H	12.04.2019				
006	AMENDMENTS TO FURTHER REV 1 CTMP COMMENTS	M.H	18.04.2019				
007	NO CHANGES	M.H	10.07.2019				
008	ADD HRV ROUTE TO AREA 15	M.H	30.07.2019	Name	Signature	No.	Date

Project		Design	Drawn	Checked
SYDNEY METRO CITY & SOUTHWEST SOUTHWEST METRO EARLY WORKS		M.H	M.H	T.W
Title		NOT FOR CONSTRUCTION		
		Date	11.11.2019	
SWEPT PATH AREA 13C EXIT ROUTE 1		Project Number	Sheet Number	Issue
		P3519	74	011



TD StB	meters		
First Unit Width	: 2.50	Lock to Lock Time	: 6.0
Trailer Width	: 2.30	Steering Angle	: 37.9
First Unit Track	: 2.50	Articulating Angle	: 70.0
Trailer Track	: 2.30		

DESIGN VEHICLE

Issue	Revisions/Descriptions	Drawn	Date				
001	NOT USED	-	-	009	NO CHANGE	M.H	23.08.2019
002	SWEPT PATH - PRECONSTRUCTION CTMP	M.H	04.03.2019	010	NO CHANGE	M.H	08.11.2019
003	MINOR AMENDMENTS	M.H	27.03.2019	011	NO CHANGES	M.H	11.11.2019
004	MINOR AMENDMENTS	M.H	01.04.2019	ENGINEERING CERTIFICATION (RPEQ)			
005	AMENDMENTS TO REV 1 CTMP COMMENTS	M.H	12.04.2019	Name	Signature	No.	Date
006	AMENDMENTS TO FURTHER REV 1 CTMP COMMENTS	M.H	18.04.2019				
007	NO CHANGES	M.H	10.07.2019				
008	ADD HRV ROUTE TO AREA 15	M.H	30.07.2019				

Project	SYDNEY METRO CITY & SOUTHWEST SOUTHWEST METRO EARLY WORKS		
Design	M.H	Drawn	M.H
Checked			T.W
			Date
			11.11.2019
Title	SWEPT PATH AREA 13C EXIT ROUTE 1		
Project Number	P3519	Sheet Number	75
Issue			011

NOT FOR CONSTRUCTION

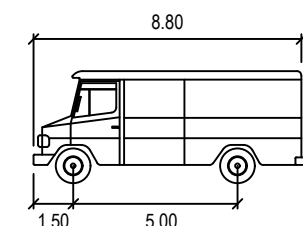


TD StB	units	TD StB	units
First Unit Width	: 2.50	Lock to Lock Time	: 6.0
Trailer Width	: 2.30	Steering Angle	: 37.9
First Unit Track	: 2.50	Articulating Angle	: 70.0
Trailer Track	: 2.30		

DESIGN VEHICLE

Issue	Revisions/Descriptions	Drawn	Date				
001	NOT USED	-	-	009	NO CHANGE	M.H	23.08.2019
002	SWEPT PATH - PRECONSTRUCTION CTMP	M.H	27.03.2019	010	NO CHANGE	M.H	08.11.2019
003	MINOR AMENDMENTS	M.H	27.03.2019	011	NO CHANGES	M.H	11.11.2019
004	MINOR AMENDMENTS	M.H	01.04.2019	ENGINEERING CERTIFICATION (RPEQ)			
005	AMENDMENTS TO REV 1 CTMP COMMENTS	M.H	12.04.2019	Name	Signature	No.	Date
006	AMENDMENTS TO FURTHER REV 1 CTMP COMMENTS	M.H	18.04.2019				
007	NO CHANGES	M.H	10.07.2019				
008	ADD HRV ROUTE TO AREA 15	M.H	30.07.2019				

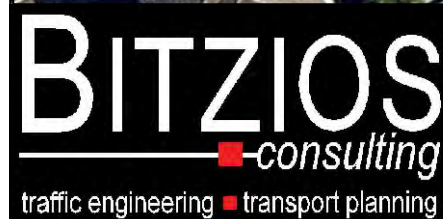
Project	SYDNEY METRO CITY & SOUTHWEST SOUTHWEST METRO EARLY WORKS	Design	M.H	Drawn	M.H	Checked	T.W
Title	SWEPT PATH AREA 13D ENTRY ROUTE	NOT FOR CONSTRUCTION		Date	11.11.2019		
Project Number	P3519	Sheet Number	76	Issue	011		



SERVICE VEHICLE

meters	
Width	: 2.50
Track	: 2.50
Lock to Lock Time	: 6.0
Steering Angle	: 38.7

DESIGN VEHICLE

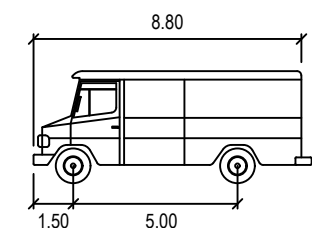


Gold Coast
 Suite 26, 58 Riverwalk Avenue, Robina QLD 4226.
 P: (07) 5562-5377
 W: www.bitziosconsulting.com.au
Brisbane
 Level 2, 428 Upper Edward Street, Spring Hill 4000.
 P: (07) 3831-4442
 E: admin@bitziosconsulting.com.au
Sydney
 Studio 203, 3 Gladstone Street, Newtown NSW 2042.
 P: (02) 9557 6202

REVISIONS		Drawn	Date	Issue	Description	Drawn	Date
009	NO CHANGE	M.H	23.08.2019	009	NO CHANGE	M.H	23.08.2019
010	NO CHANGE	M.H	08.11.2019	010	NO CHANGE	M.H	08.11.2019
011	NO CHANGES	M.H	11.11.2019	011	NO CHANGES	M.H	11.11.2019
ENGINEERING CERTIFICATION (RPEQ)							
		Name	Signature	No.	Date		

Project	SYDNEY METRO CITY & SOUTHWEST SOUTHWEST METRO EARLY WORKS
Title	SWEPT PATH AREA 13D ENTRY

Design	M.H	Drawn	M.H	Checked	T.W	
NOT FOR CONSTRUCTION					Date	11.11.2019
Project Number	P3519	Sheet Number	77	Issue	011	



SERVICE VEHICLE

	metres
Width	: 2.50
Track	: 2.50
Lock to Lock Time	: 6.0
Steering Angle	: 38.7

DESIGN VEHICLE



Gold Coast
 Suite 26, 58 Riverwalk Avenue, Robina QLD 4226.
 P: (07) 5562-5377
 W: www.bitziosconsulting.com.au
Brisbane
 Level 2, 428 Upper Edward Street, Spring Hill 4000.
 P: (07) 3831-4442
 E: admin@bitziosconsulting.com.au
Sydney
 Studio 203, 3 Gladstone Street, Newtown NSW 2042.
 P: (02) 9557 6202

ISSUES		REVISIONS		Drawn	Date	Issue	Description	Drawn	Date
001	NOT USED	-	-	-	-	009	NO CHANGE	M.H	23.08.2019
002	SWEPT PATH - PRECONSTRUCTION CTMP	M.H	04.03.2019	010	NO CHANGE	M.H	08.11.2019		
003	MINOR AMENDMENTS	M.H	27.03.2019	011	NO CHANGES	M.H	11.11.2019		
004	MINOR AMENDMENTS	M.H	01.04.2019	ENGINEERING CERTIFICATION (RPEQ)					
005	AMENDMENTS TO REV 1 CTMP COMMENTS	M.H	12.04.2019	Name	Signature	No.	Date		
006	AMENDMENTS TO FURTHER REV 1 CTMP COMMENTS	M.H	18.04.2019						
007	NO CHANGES	M.H	10.07.2019						
008	ADD HRV ROUTE TO AREA 15	M.H	30.07.2019						

Project		Design	Drawn	Checked
SYDNEY METRO CITY & SOUTHWEST SOUTHWEST METRO EARLY WORKS		M.H	M.H	T.W
Title		NOT FOR CONSTRUCTION		Date
SWEPT PATH AREA 13D EXIT				11.11.2019
Project Number	Sheet Number	Issue		
P3519	78	011		



TD StB	meters	
First Unit Width	: 2.50	Lock to Lock Time : 6.0
Trailer Width	: 2.30	Steering Angle : 37.9
First Unit Track	: 2.50	Articulating Angle : 70.0
Trailer Track	: 2.30	

DESIGN VEHICLE

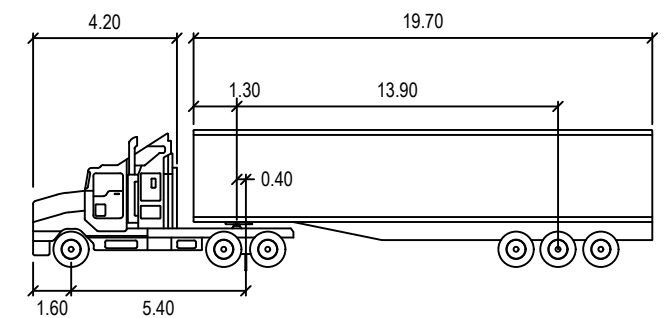
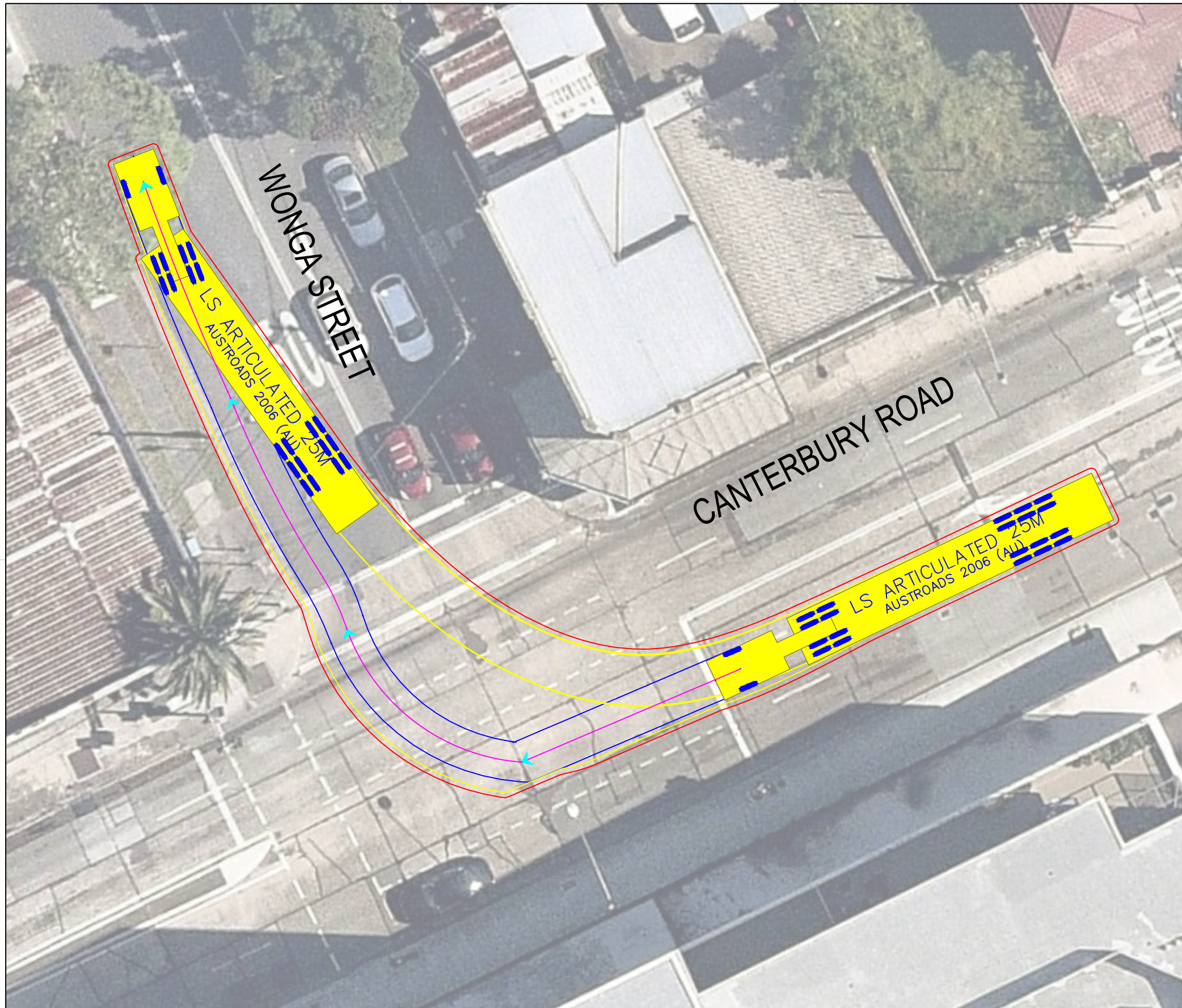
BITZIOS
-consulting
traffic engineering ■ transport planning

Gold Coast
Suite 26, 58 Riverwalk Avenue, Robina QLD 4226.
P: (07) 5562-5377
W: www.bitziosconsulting.com.au
Brisbane
Level 2, 428 Upper Edward Street, Spring Hill 4000.
P: (07) 3831-4442
E: admin@bitziosconsulting.com.au
Sydney
Studio 203, 3 Gladstone Street, Newtown NSW 2042.
P: (02) 9557 6202

REVISIONS		Drawn	Date	Issue	Description	M.H	Date
009	NO CHANGE			009	NO CHANGE	M.H	23.08.2019
010	NO CHANGE			010	NO CHANGE	M.H	08.11.2019
011	NO CHANGES			011	NO CHANGES	M.H	11.11.2019
ENGINEERING CERTIFICATION (RPEQ)							
		Name	Signature	No.	Date		

Project	SYDNEY METRO CITY & SOUTHWEST SOUTHWEST METRO EARLY WORKS		
Design	M.H	Drawn	M.H
Checked	T.W		Date
			11.11.2019
Title	SWEPT PATH AREA 13D KERBSIDE STOP		
Project Number	P3519	Sheet Number	79
Issue	011		

NOT FOR CONSTRUCTION

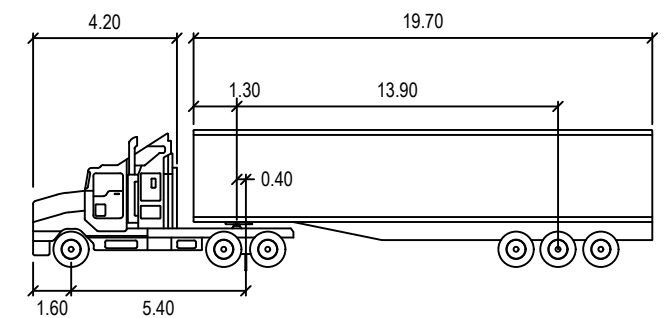
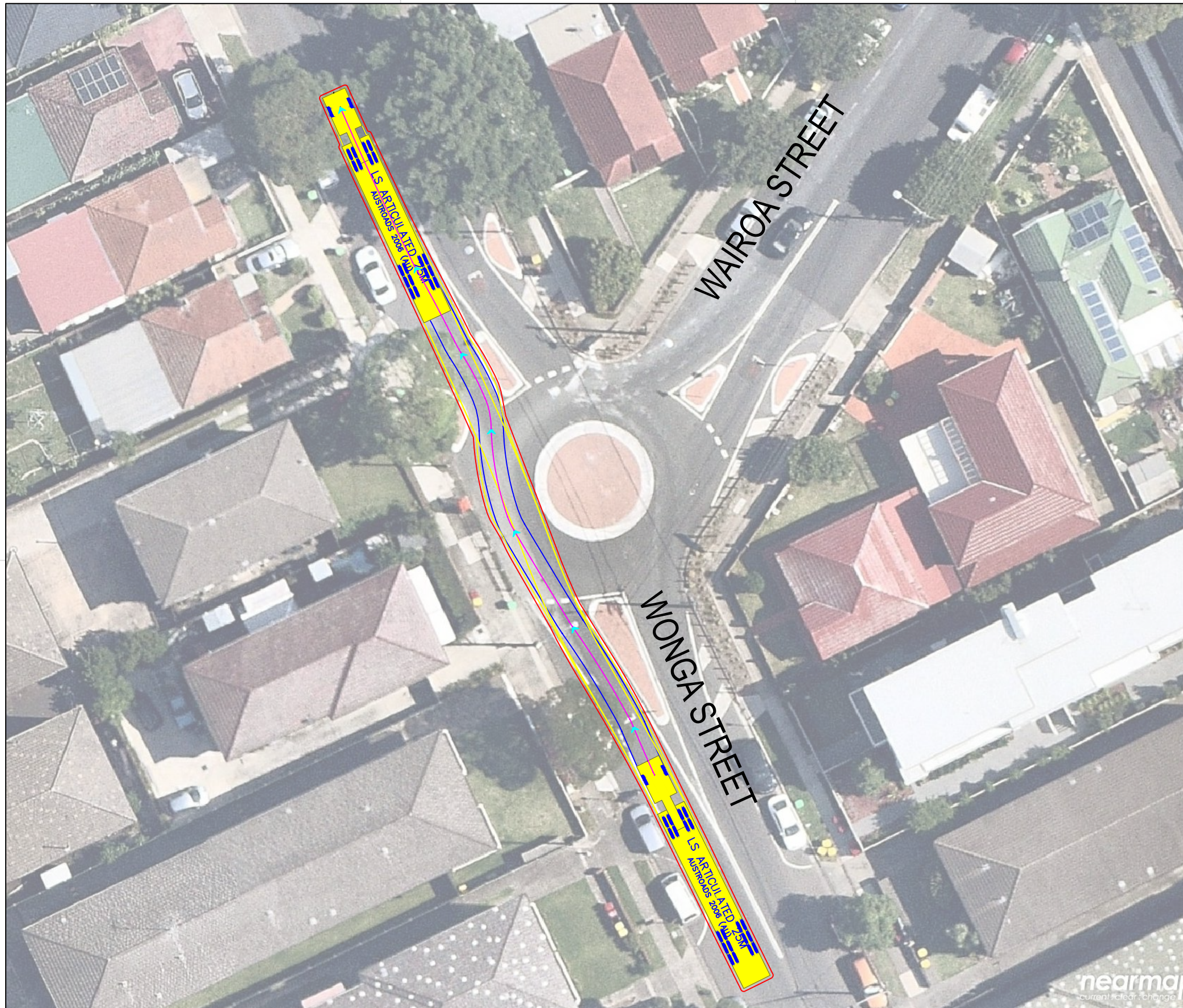


LS ARTICULATED 25M		meters	
Tractor Width	: 2.50	Lock to Lock Time	: 6.0
Trailer Width	: 3.00	Steering Angle	: 28.3
Tractor Track	: 2.50	Articulating Angle	: 70.0
Trailer Track	: 3.00		

DESIGN VEHICLE

REVISIONS			
Issue	Revisions/Descriptions	Drawn	Date
001	INITIAL SWEEP PATH	M.H	04.12.2019

Project SYDNEY METRO CITY AND SOUTHWEST SYDENHAM TO BANKSTOWN	Design M.H	Drawn M.H	Checked A.G
	<div style="border: 2px solid red; padding: 5px; display: inline-block;">NOT FOR CONSTRUCTION</div>		Date 04.12.2019
Title ENTRY CANTERBURY ROAD TO WONGA STREET			Project Number P3519

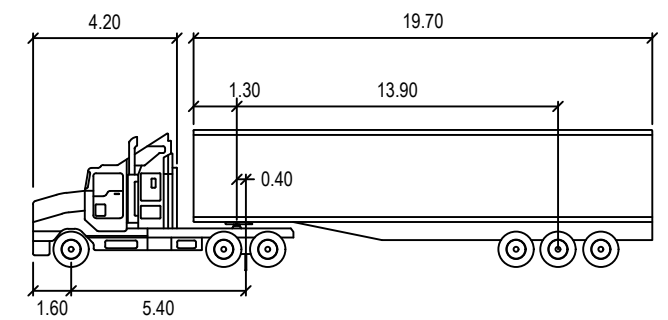
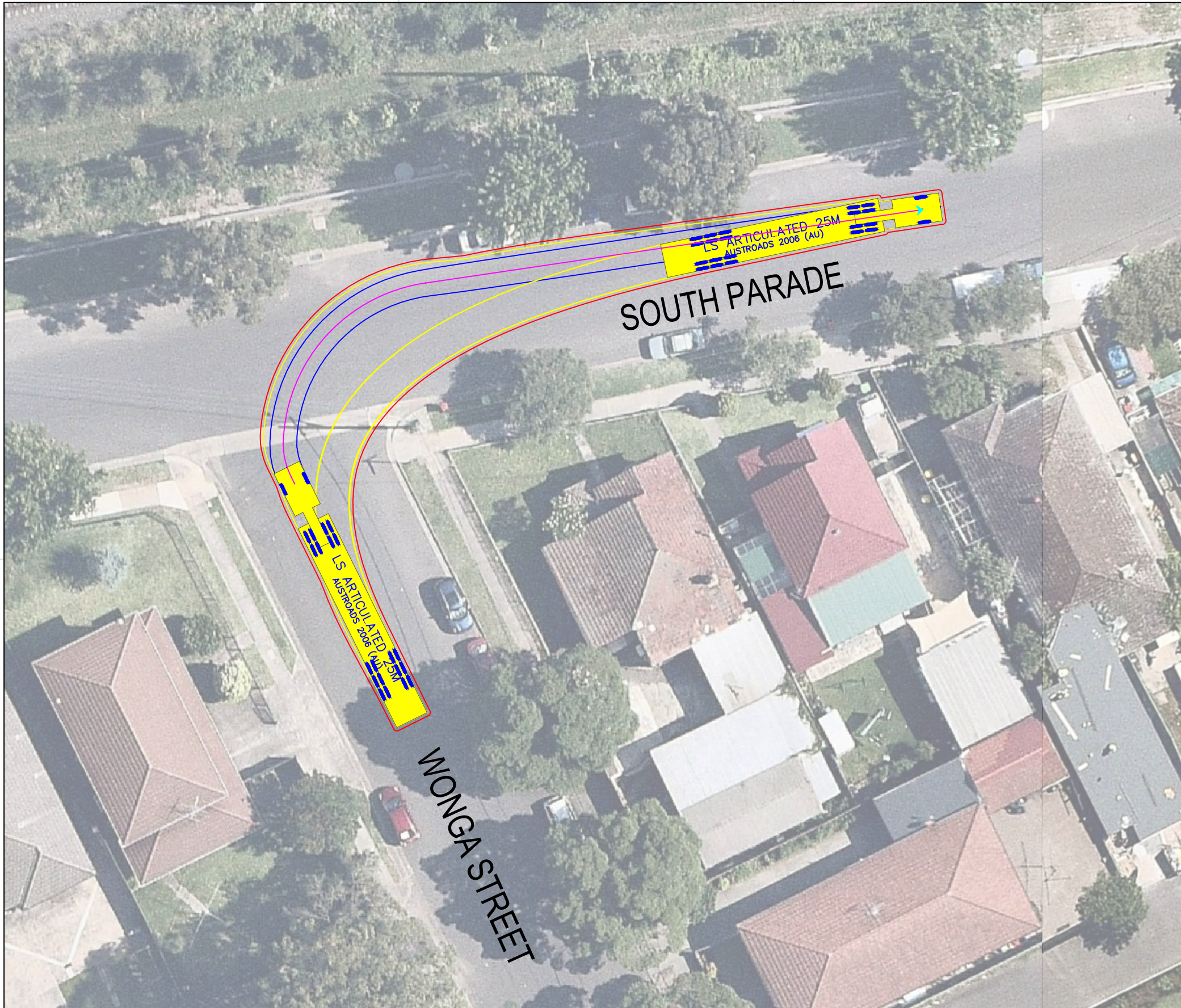


LS ARTICULATED 25M		meters	
Tractor Width	: 2.50	Lock to Lock Time	: 6.0
Trailer Width	: 3.00	Steering Angle	: 28.3
Tractor Track	: 2.50	Articulating Angle	: 70.0
Trailer Track	: 3.00		

DESIGN VEHICLE

REVISIONS			
Issue	Revisions/Descriptions	Drawn	Date
001	INITIAL SWEPT PATH	M.H	04.12.2019

Project	SYDNEY METRO CITY AND SOUTHWEST SYDENHAM TO BANKSTOWN	Design	M.H	Drawn	M.H	Checked	A.G
Title	ENTRY WONGA STREET THROUGH ROUNDABOUT	NOT FOR CONSTRUCTION		Date	04.12.2019		
Project Number	P3519	Sheet Number	2	Issue	001		

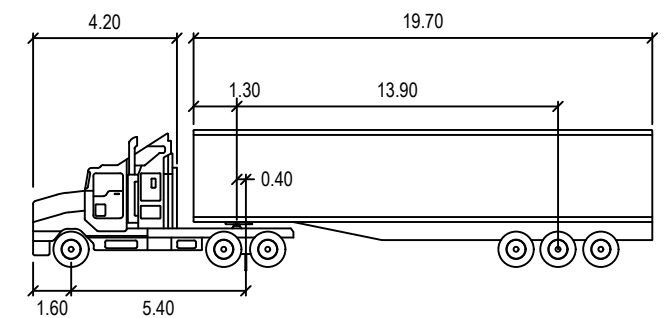
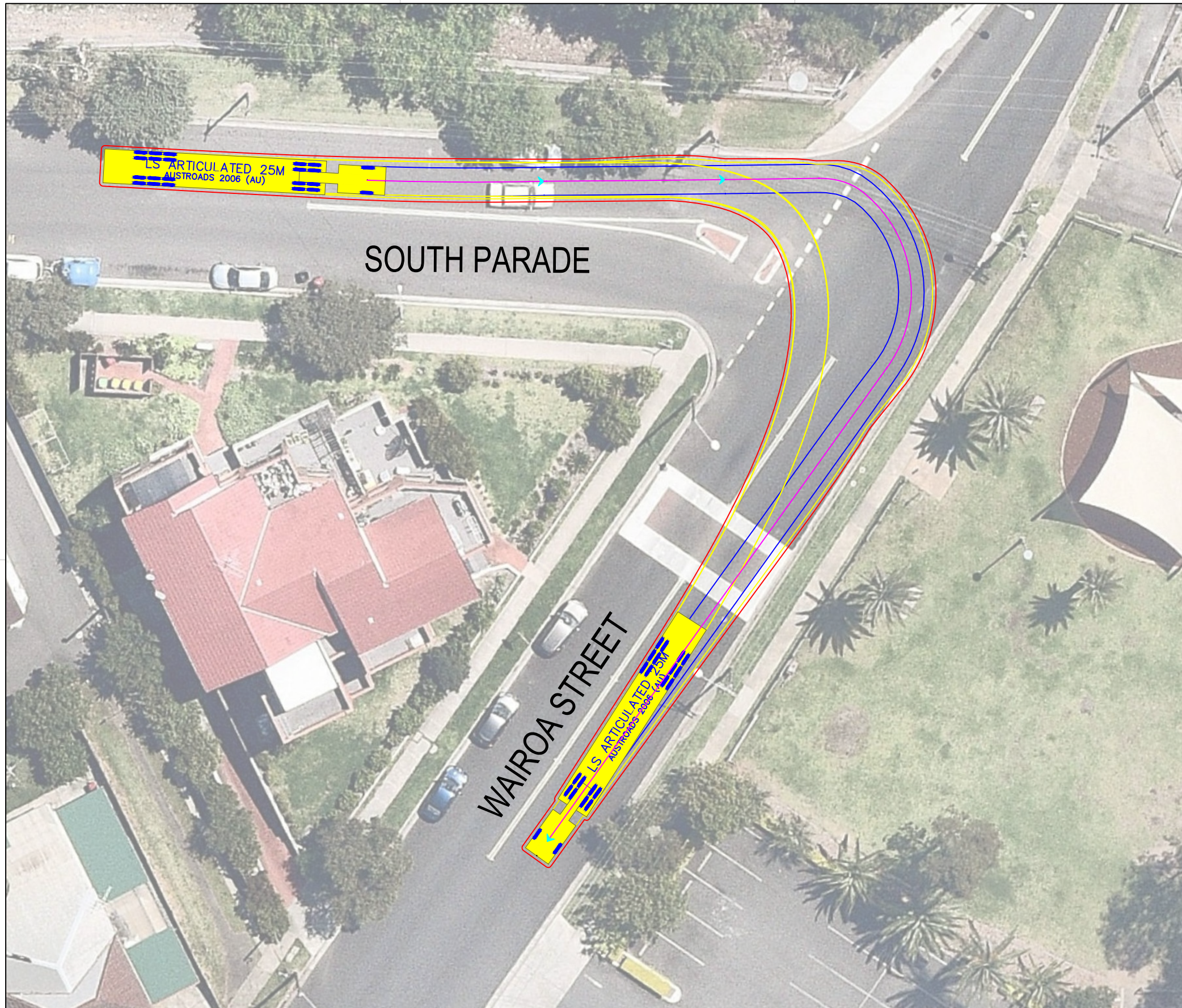


LS ARTICULATED 25M		meters	
Tractor Width	: 2.50	Lock to Lock Time	: 6.0
Trailer Width	: 3.00	Steering Angle	: 28.3
Tractor Track	: 2.50	Articulating Angle	: 70.0
Trailer Track	: 3.00		

DESIGN VEHICLE

REVISIONS			
Issue	Revisions/Descriptions	Drawn	Date
001	INITIAL SWEEP PATH	M.H	04.12.2019

Project	SYDNEY METRO CITY AND SOUTHWEST SYDENHAM TO BANKSTOWN	Design	M.H	Drawn	M.H	Checked	A.G
Title	ENTRY WONGA STREET RIGHT TO SOUTH PARADE	NOT FOR CONSTRUCTION		Date	04.12.2019		
Project Number	P3519	Sheet Number	3	Issue	001		

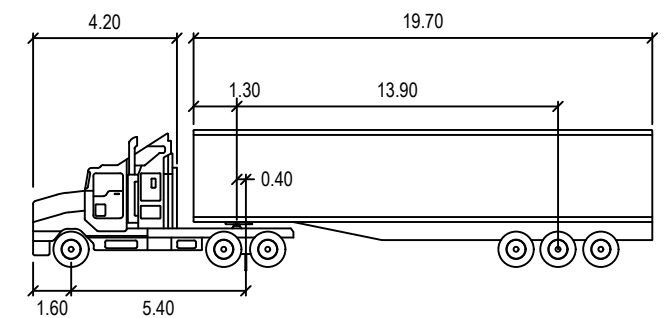
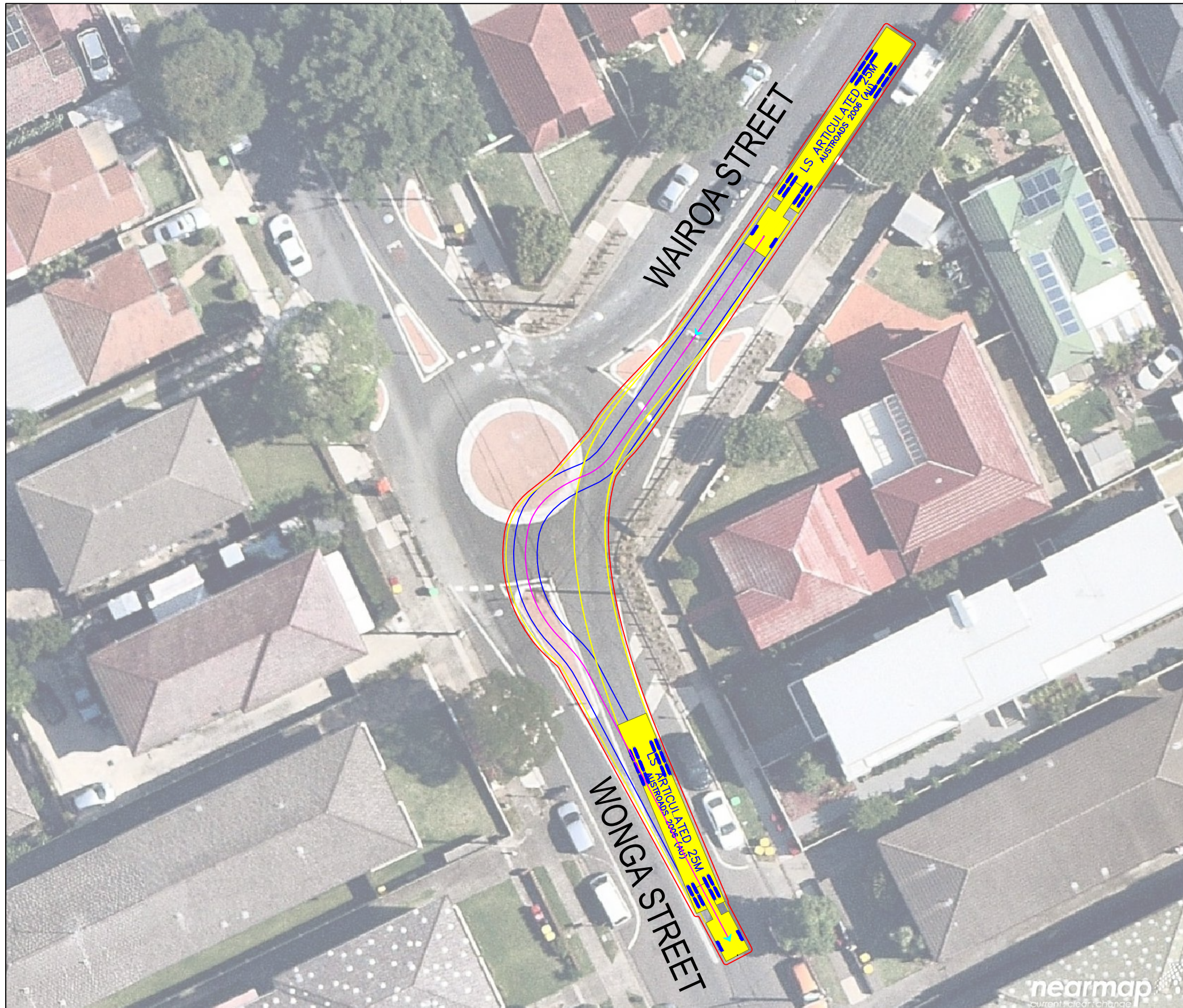


LS ARTICULATED 25M		meters	
Tractor Width	: 2.50	Lock to Lock Time	: 6.0
Trailer Width	: 3.00	Steering Angle	: 28.3
Tractor Track	: 2.50	Articulating Angle	: 70.0
Trailer Track	: 3.00		

DESIGN VEHICLE

REVISIONS			
Issue	Revisions/Descriptions	Drawn	Date
001	INITIAL SWEEP PATH	M.H	04.12.2019

Project SYDNEY METRO CITY AND SOUTHWEST SYDENHAM TO BANKSTOWN	Design M.H	Drawn M.H	Checked A.G
	NOT FOR CONSTRUCTION		Date 04.12.2019
Title ENTRY SOUTH PARADE RIGHT TO WAIROA AVENUE	Project Number P3519	Sheet Number 4	Issue 001

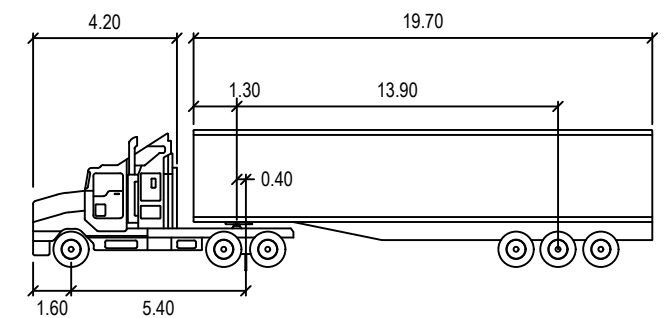


LS ARTICULATED 25M		meters	
Tractor Width	: 2.50	Lock to Lock Time	: 6.0
Trailer Width	: 3.00	Steering Angle	: 28.3
Tractor Track	: 2.50	Articulating Angle	: 70.0
Trailer Track	: 3.00		

DESIGN VEHICLE

REVISIONS			
Issue	Revisions/Descriptions	Drawn	Date
001	INITIAL SWEEP PATH	M.H	04.12.2019

Project SYDNEY METRO CITY AND SOUTHWEST SYDENHAM TO BANKSTOWN	Design M.H	Drawn M.H	Checked A.G
	<div style="border: 2px solid red; padding: 5px; text-align: center; color: red; font-weight: bold;">NOT FOR CONSTRUCTION</div>		Date 04.12.2019
Title EGRESS WAIROA AVENUE LEFT TO WONGA STREET			Project Number P3519

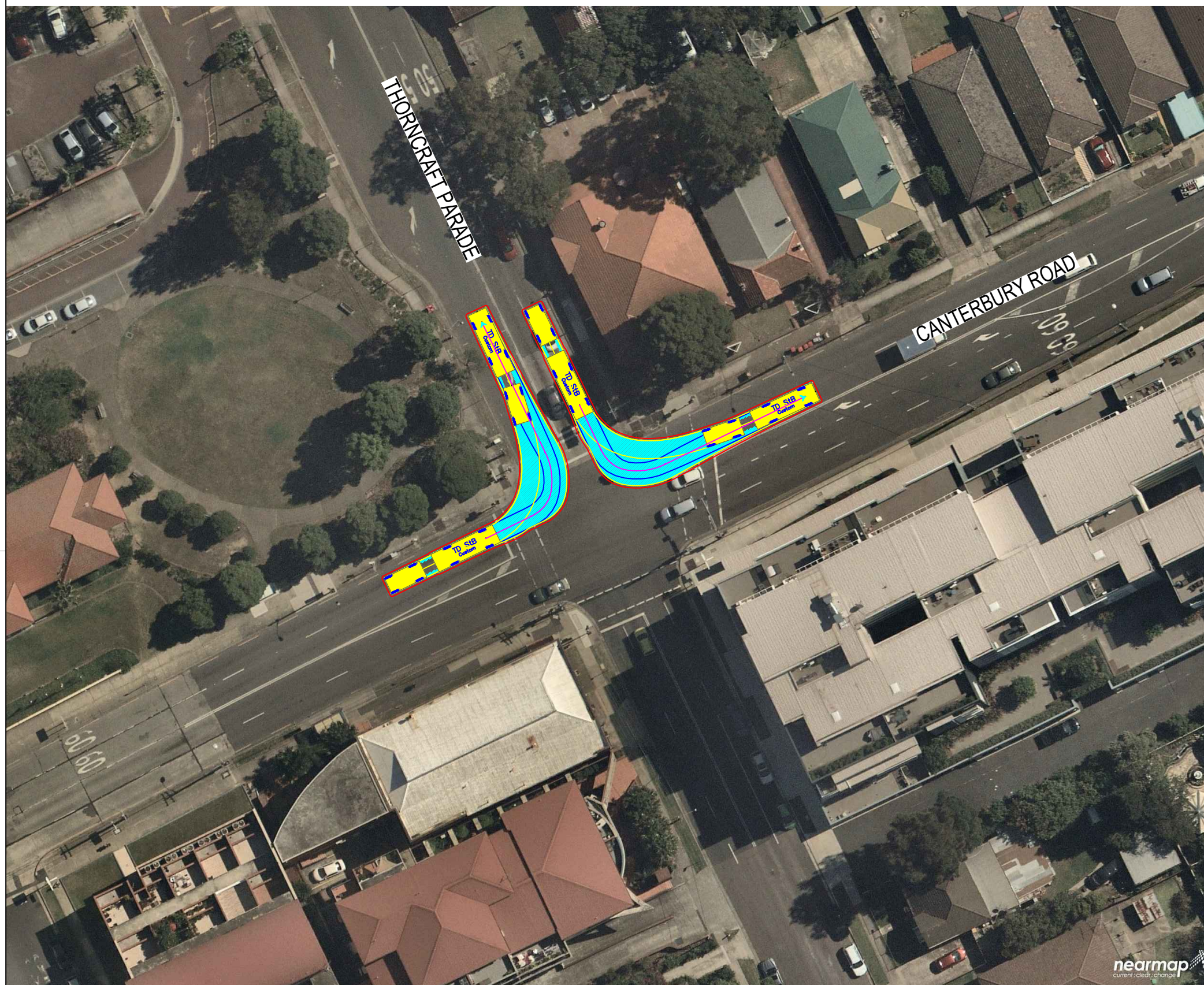


LS ARTICULATED 25M		meters	
Tractor Width	: 2.50	Lock to Lock Time	: 6.0
Trailer Width	: 3.00	Steering Angle	: 28.3
Tractor Track	: 2.50	Articulating Angle	: 70.0
Trailer Track	: 3.00		

DESIGN VEHICLE

REVISIONS			
Issue	Revisions/Descriptions	Drawn	Date
001	INITIAL SWEPT PATH	M.H	04.12.2019

Project	SYDNEY METRO CITY AND SOUTHWEST SYDENHAM TO BANKSTOWN	Design	M.H	Drawn	M.H	Checked	A.G
Title	EGRESS WONGA STREET RIGHT TO CANTERBURY ROAD	NOT FOR CONSTRUCTION		Date	04.12.2019		
Project Number	P3519	Sheet Number	6	Issue	001		



TD StB	meters			
First Unit Width	: 2.50	Lock to Lock Time	: 6.0	
Trailer Width	: 2.30	Steering Angle	: 37.9	
First Unit Track	: 2.50	Articulating Angle	: 70.0	
Trailer Track	: 2.30			

DESIGN VEHICLE

REVISIONS		Drawn	Date	Issue	Description	M.H	Date
001	NOT USED	-	-	009	NO CHANGE	M.H	23.08.2019
002	SWEPT PATH - PRECONSTRUCTION CTMP	M.H	04.03.2019	010	NO CHANGE	M.H	08.11.2019
003	MINOR AMENDMENTS	M.H	27.03.2019	011	NO CHANGES	M.H	11.11.2019
004	MINOR AMENDMENTS	M.H	01.04.2019	ENGINEERING CERTIFICATION (RPEQ)			
005	AMENDMENTS TO REV 1 CTMP COMMENTS	M.H	12.04.2019				
006	AMENDMENTS TO FURTHER REV 1 CTMP COMMENTS	M.H	18.04.2019	Name	Signature	No.	Date
007	NO CHANGES	M.H	10.07.2019				
008	ADD HRV ROUTE TO AREA 15	M.H	30.07.2019				

Project	SYDNEY METRO CITY & SOUTHWEST SOUTHWEST METRO EARLY WORKS		Design	M.H	Drawn	M.H	Checked	T.W
Title	SWEPT PATH AREA 15 START/END OF ROUTE		NOT FOR CONSTRUCTION		Date	11.11.2019		
Project Number	P3519	Sheet Number	80	Issue	011			



TD StB	meters		
First Unit Width	: 2.50	Lock to Lock Time	: 6.0
Trailer Width	: 2.30	Steering Angle	: 37.9
First Unit Track	: 2.50	Articulating Angle	: 70.0
Trailer Track	: 2.30		

DESIGN VEHICLE

BITZIOS
consulting
traffic engineering ■ transport planning

Gold Coast
Suite 26, 58 Riverwalk Avenue, Robina QLD 4226.
P: (07) 5562-5377
W: www.bitziosconsulting.com.au
Brisbane
Level 2, 428 Upper Edward Street, Spring Hill 4000.
P: (07) 3831-4442
E: admin@bitziosconsulting.com.au
Sydney
Studio 203, 3 Gladstone Street, Newtown NSW 2042.
P: (02) 9557 6202

REVISIONS		Drawn	Date	Issue	Revisions/Descriptions	Drawn	Date
009	NO CHANGE	M.H	23.08.2019	001	NOT USED	-	-
010	NO CHANGE	M.H	08.11.2019	002	SWEPT PATH - PRECONSTRUCTION CTMP	M.H	04.03.2019
011	NO CHANGES	M.H	11.11.2019	003	MINOR AMENDMENTS	M.H	27.03.2019
				004	MINOR AMENDMENTS	M.H	01.04.2019
				005	AMENDMENTS TO REV 1 CTMP COMMENTS	M.H	12.04.2019
				006	AMENDMENTS TO FURTHER REV 1 CTMP COMMENTS	M.H	18.04.2019
				007	NO CHANGES	M.H	10.07.2019
				008	ADD HRV ROUTE TO AREA 15	M.H	30.07.2019

Project	SYDNEY METRO CITY & SOUTHWEST SOUTHWEST METRO EARLY WORKS		
Design	M.H	Drawn	M.H
Checked	T.W		
Date	11.11.2019		
Title	SWEPT PATH AREA 15 ENTRY 1		
Project Number	P3519	Sheet Number	81
Issue	011		

NOT FOR CONSTRUCTION



TD StB	meters		
First Unit Width	: 2.50	Lock to Lock Time	: 6.0
Trailer Width	: 2.30	Steering Angle	: 37.9
First Unit Track	: 2.50	Articulating Angle	: 70.0
Trailer Track	: 2.30		

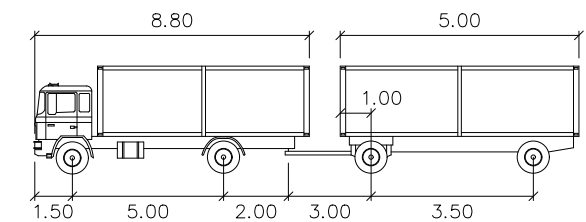
DESIGN VEHICLE

BITZIOS
consulting
traffic engineering ■ transport planning

Gold Coast
Suite 26, 58 Rivenwalk Avenue, Robina QLD 4226.
P: (07) 5562-5377
W: www.bitziosconsulting.com.au
Brisbane
Level 2, 428 Upper Edward Street, Spring Hill 4000.
P: (07) 3831-4442
E: admin@bitziosconsulting.com.au
Sydney
Studio 203, 3 Gladstone Street, Newtown NSW 2042.
P: (02) 9557 6202

Issue	Revisions/Descriptions	Drawn	Date				
009	NO CHANGE			M.H	23.08.2019		
010	NO CHANGE			M.H	08.11.2019		
011	NO CHANGES			M.H	11.11.2019		
ENGINEERING CERTIFICATION (RPEQ)							
		Name	Signature	No.	Date		
001	NOT USED						
002	SWEPT PATH - PRECONSTRUCTION CTMP	M.H	04.03.2019				
003	MINOR AMENDMENTS	M.H	27.03.2019				
004	MINOR AMENDMENTS	M.H	01.04.2019				
005	AMENDMENTS TO REV 1 CTMP COMMENTS	M.H	12.04.2019				
006	AMENDMENTS TO FURTHER REV 1 CTMP COMMENTS	M.H	18.04.2019				
007	NO CHANGES	M.H	10.07.2019				
008	ADD HRV ROUTE TO AREA 15	M.H	30.07.2019				

Project	SYDNEY METRO CITY & SOUTHWEST SOUTHWEST METRO EARLY WORKS		
Design	M.H	Drawn	M.H
Checked	T.W		
Date	11.11.2019		
Title	SWEPT PATH AREA 15 ENTRY 2		
Project Number	P3519	Sheet Number	82
Issue	011		



TD StB	meters	
First Unit Width	: 2.50	Lock to Lock Time : 6.0
Trailer Width	: 2.30	Steering Angle : 37.9
First Unit Track	: 2.50	Articulating Angle : 70.0
Trailer Track	: 2.30	

DESIGN VEHICLE

Issue	REVISIONS Revisions/Descriptions	Drawn	Date				
001	NOT USED	-	-	009	NO CHANGE	M.H	23.08.2019
002	SWEPT PATH - PRECONSTRUCTION CTMP	M.H	04.03.2019	010	NO CHANGE	M.H	08.11.2019
003	MINOR AMENDMENTS	M.H	27.03.2019	011	NO CHANGES	M.H	11.11.2019
004	MINOR AMENDMENTS	M.H	01.04.2019	ENGINEERING CERTIFICATION (RPEQ)			
005	AMENDMENTS TO REV 1 CTMP COMMENTS	M.H	12.04.2019				
006	AMENDMENTS TO FURTHER REV 1 CTMP COMMENTS	M.H	18.04.2019	Name	Signature	No.	Date
007	NO CHANGES	M.H	10.07.2019				
008	ADD HRV ROUTE TO AREA 15	M.H	30.07.2019				

Project	SYDNEY METRO CITY & SOUTHWEST SOUTHWEST METRO EARLY WORKS		Design	M.H	Drawn	M.H	Checked	T.W
Title	SWEPT PATH AREA 15 EXIT 1		NOT FOR CONSTRUCTION		Date	11.11.2019		
Project Number	P3519	Sheet Number	83	Issue	011			



TD StB	meters		
First Unit Width	: 2.50	Lock to Lock Time	: 6.0
Trailer Width	: 2.30	Steering Angle	: 37.9
First Unit Track	: 2.50	Articulating Angle	: 70.0
Trailer Track	: 2.30		

DESIGN VEHICLE

BITZIOS
consulting
traffic engineering ■ transport planning

Gold Coast
Suite 26, 58 Riverwalk Avenue, Robina QLD 4226.
P: (07) 5562-5377
W: www.bitziosconsulting.com.au
Brisbane
Level 2, 428 Upper Edward Street, Spring Hill 4000.
P: (07) 3831-4442
E: admin@bitziosconsulting.com.au
Sydney
Studio 203, 3 Gladstone Street, Newtown NSW 2042.
P: (02) 9557 6202

REVISIONS		Drawn	Date	Issue	Description	Drawn	Date
001	NOT USED	-	-	009	NO CHANGE	M.H	23.08.2019
002	SWEPT PATH - PRECONSTRUCTION CTMP	M.H	04.03.2019	010	NO CHANGE	M.H	08.11.2019
003	MINOR AMENDMENTS	M.H	27.03.2019	011	NO CHANGES	M.H	11.11.2019
004	MINOR AMENDMENTS	M.H	01.04.2019	ENGINEERING CERTIFICATION (RPEQ)			
005	AMENDMENTS TO REV 1 CTMP COMMENTS	M.H	12.04.2019	Name	Signature	No.	Date
006	AMENDMENTS TO FURTHER REV 1 CTMP COMMENTS	M.H	18.04.2019				
007	NO CHANGES	M.H	10.07.2019				
008	ADD HRV ROUTE TO AREA 15	M.H	30.07.2019				

Project	SYDNEY METRO CITY & SOUTHWEST SOUTHWEST METRO EARLY WORKS		Design	M.H	Drawn	M.H	Checked	T.W
Title	SWEPT PATH AREA 15 EXIT 2		NOT FOR CONSTRUCTION			Date	11.11.2019	
Project Number	P3519	Sheet Number	84	Issue	011			



TD StB	meters			
First Unit Width	: 2.50	Lock to Lock Time	: 6.0	
Trailer Width	: 2.30	Steering Angle	: 37.9	
First Unit Track	: 2.50	Articulating Angle	: 70.0	
Trailer Track	: 2.30			

DESIGN VEHICLE

Issue	Revisions/Descriptions	Drawn	Date		M.H	23.08.2019
001	NOT USED	-	-	009	NO CHANGE	M.H 08.11.2019
002	SWEPT PATH - PRECONSTRUCTION CTMP	M.H	04.03.2019	010	NO CHANGE	M.H 11.11.2019
003	MINOR AMENDMENTS	M.H	27.03.2019	011	NO CHANGES	
004	MINOR AMENDMENTS	M.H	01.04.2019	ENGINEERING CERTIFICATION (RPEQ)		
005	AMENDMENTS TO REV 1 CTMP COMMENTS	M.H	12.04.2019	Name	Signature	No.
006	AMENDMENTS TO FURTHER REV 1 CTMP COMMENTS	M.H	18.04.2019			Date
007	NO CHANGES	M.H	10.07.2019			
008	ADD HRV ROUTE TO AREA 15	M.H	30.07.2019			

Project	SYDNEY METRO CITY & SOUTHWEST SOUTHWEST METRO EARLY WORKS	Design	M.H	Drawn	M.H	Checked	T.W
Title	SWEPT PATH AREA 15 ENTRY/EXIT ROUTE 1	NOT FOR CONSTRUCTION		Date	11.11.2019		
Project Number	P3519	Sheet Number	85	Issue	011		

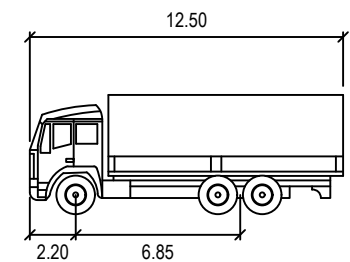
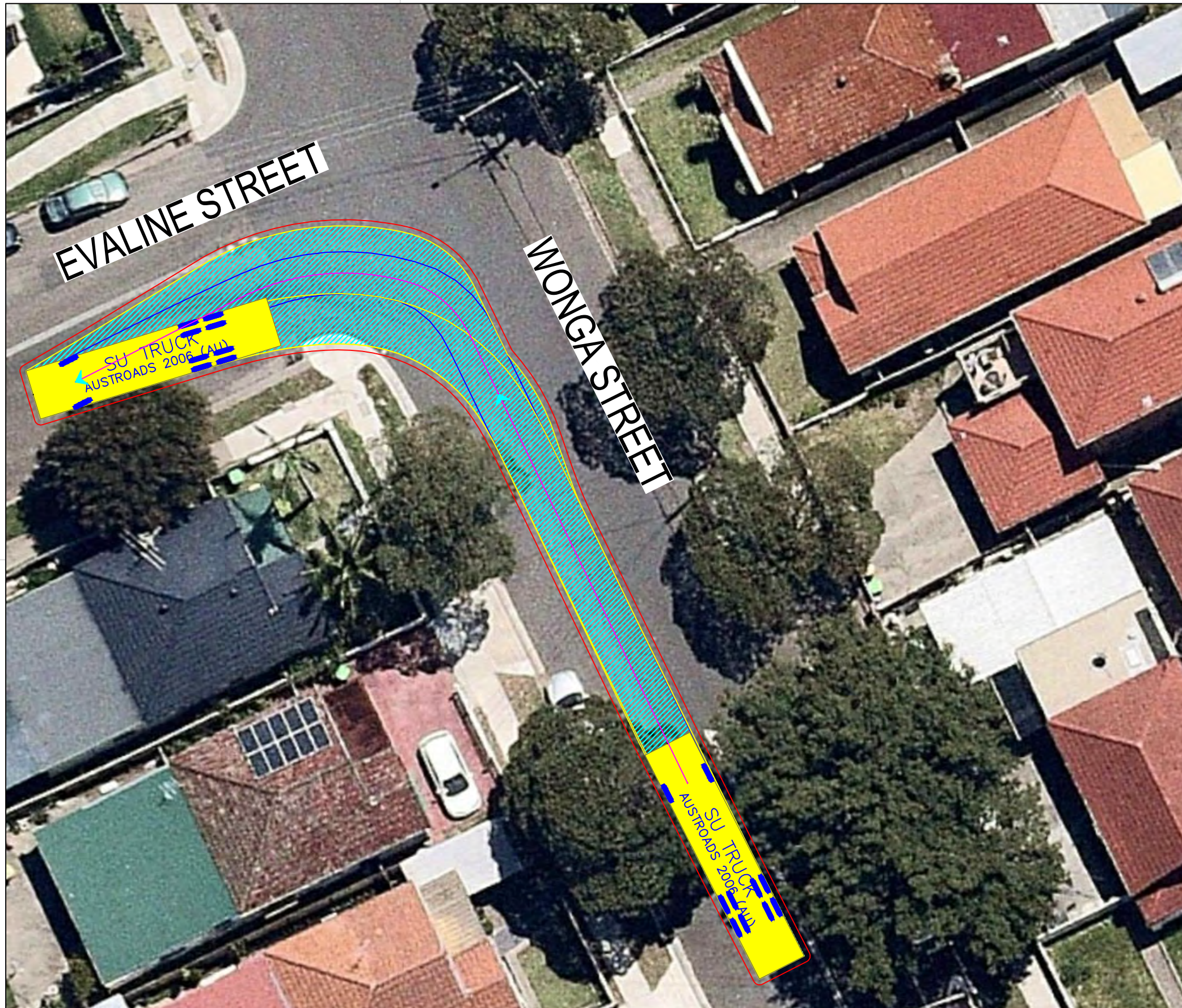


TD StB	meters			
First Unit Width	: 2.50	Lock to Lock Time	: 6.0	
Trailer Width	: 2.30	Steering Angle	: 37.9	
First Unit Track	: 2.50	Articulating Angle	: 70.0	
Trailer Track	: 2.30			

DESIGN VEHICLE

Issue	Revisions/Descriptions	Drawn	Date				
009	NO CHANGE			M.H	23.08.2019		
010	NO CHANGE			M.H	08.11.2019		
011	NO CHANGES			M.H	11.11.2019		
ENGINEERING CERTIFICATION (RPEQ)							
		Name	Signature	No.	Date		

Project	SYDNEY METRO CITY & SOUTHWEST SOUTHWEST METRO EARLY WORKS		Design	M.H	Drawn	M.H	Checked	T.W
Title	SWEPT PATH AREA 15 ENTRY/EXIT ROUTE 2		NOT FOR CONSTRUCTION		Date	11.11.2019		
Project Number	P3519	Sheet Number	86	Issue	011			



SU TRUCK meters

Width : 2.50

Track : 6.85

Lock to Lock Time : 6.0

Steering Angle : 36.6

DESIGN VEHICLE

BITZIOS
-consulting
traffic engineering ■ transport planning

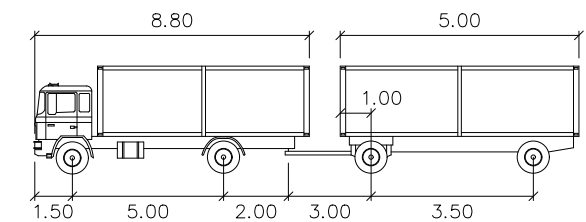
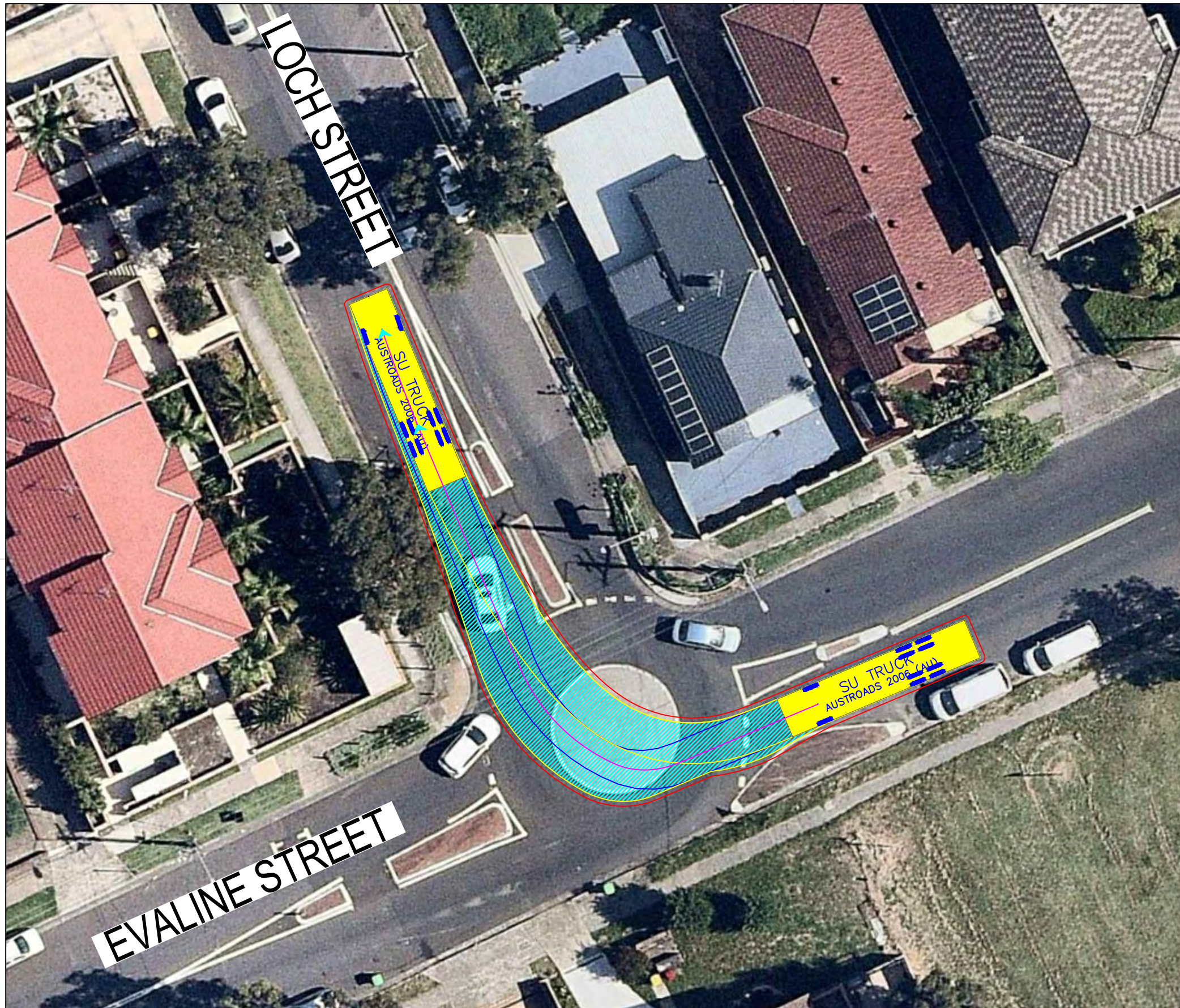
Gold Coast
Suite 26, 58 Riverwalk Avenue, Robina QLD 4226.
P: (07) 5562-5377
W: www.bitziosconsulting.com.au
Brisbane
Level 2, 428 Upper Edward Street, Spring Hill 4000.
P: (07) 3831-4442
E: admin@bitziosconsulting.com.au
Sydney
Studio 203, 3 Gladstone Street, Newtown NSW 2042.
P: (02) 9557 6202

Issue	REVISIONS Revisions/Descriptions	Drawn	Date				
001	NOT USED	-	-	009	NO CHANGE	M.H	23.08.2019
002	NOT USED	-	-	010	NO CHANGE	M.H	08.11.2019
003	NOT USED	-	-	011	NO CHANGES	M.H	11.11.2019
004	NOT USED	-	-	ENGINEERING CERTIFICATION (RPEQ)			
005	NOT USED	-	-	Name	Signature	No.	Date
006	NOT USED	-	-				
007	NOT USED	-	-				
008	ADD HRV ROUTE TO AREA 15	M.H	30.07.2019				

Project
SYDNEY METRO CITY & SOUTHWEST
SOUTHWEST METRO EARLY WORKS

Title
SWEPT PATH
AREA 15
ENTRY ROUTE 1

Design	Drawn	Checked
M.H	M.H	T.W
NOT FOR CONSTRUCTION		Date
		11.11.2019
Project Number	Sheet Number	Issue
P3519	87	011

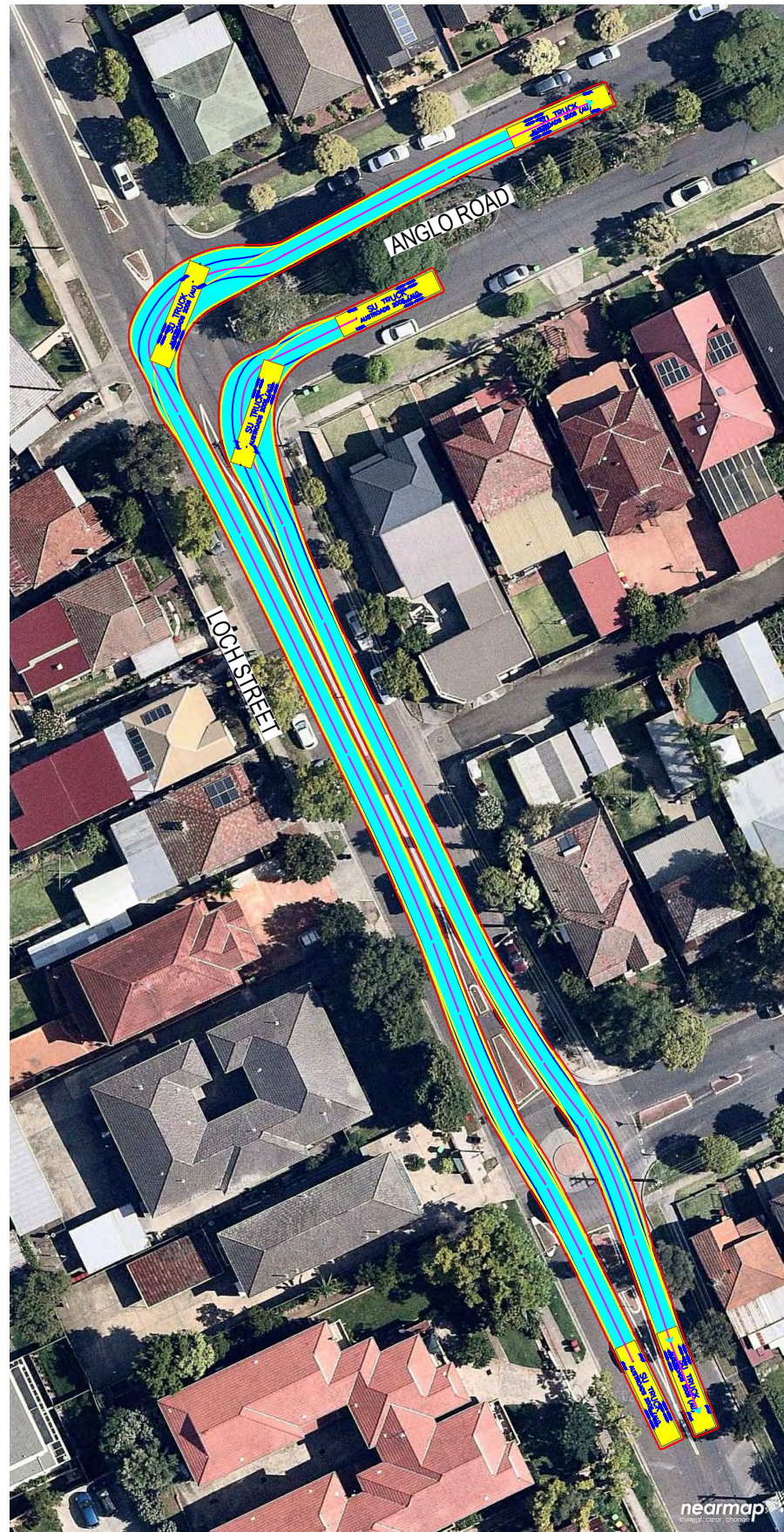


TD StB		meters	
First Unit Width	: 2.50	Lock to Lock Time	: 6.0
Trailer Width	: 2.30	Steering Angle	: 37.9
First Unit Track	: 2.50	Articulating Angle	: 70.0
Trailer Track	: 2.30		

DESIGN VEHICLE

REVISIONS		Drawn	Date	Issue	Description	M.H	Date
001	NOT USED	-	-	009	NO CHANGE	M.H	23.08.2019
002	NOT USED	-	-	010	NO CHANGE	M.H	08.11.2019
003	NOT USED	-	-	011	NO CHANGES	M.H	11.11.2019
004	NOT USED	-	-	ENGINEERING CERTIFICATION (RPEQ)			
005	NOT USED	-	-	Name	Signature	No.	Date
006	NOT USED	-	-				
007	NOT USED	-	-				
008	ADD HRV ROUTE TO AREA 15	M.H	30.07.2019				

Project		Design	Drawn	Checked
SYDNEY METRO CITY & SOUTHWEST SOUTHWEST METRO EARLY WORKS		M.H	M.H	T.W
Title		NOT FOR CONSTRUCTION		
		Date	11.11.2019	
SWEEP PATH AREA 15 ENTRY ROUTE 2		Project Number	Sheet Number	Issue
		P3519	88	011



SU TRUCK meters

Width : 2.50
 Track : 2.50
 Lock to Lock Time : 6.0
 Steering Angle : 36.6

DESIGN VEHICLE

REVISIONS		Drawn	Date	Issue	Revisions/Descriptions	M.H	Date
001	NOT USED	-	-	009	NO CHANGE	M.H	23.08.2019
002	NOT USED	-	-	010	NO CHANGE	M.H	08.11.2019
003	NOT USED	-	-	011	NO CHANGES	M.H	11.11.2019
004	NOT USED	-	-	ENGINEERING CERTIFICATION (RPEQ)			
005	NOT USED	-	-	Name	Signature	No.	Date
006	NOT USED	-	-				
007	NOT USED	-	-				
008	ADD HRV ROUTE TO AREA 15	M.H	30.07.2019				

Project	SYDNEY METRO CITY & SOUTHWEST SOUTHWEST METRO EARLY WORKS
Title	SWEPT PATH AREA 15 ENTRY/EXIT ROUTE 1

Design	M.H	Drawn	M.H	Checked	T.W	
NOT FOR CONSTRUCTION					Date	11.11.2019
Project Number	P3519	Sheet Number	89	Issue	011	



SU TRUCK meters

Width : 2.50
 Track : 2.50
 Lock to Lock Time : 6.0
 Steering Angle : 36.6

DESIGN VEHICLE

BITZIOS
 consulting
 traffic engineering ■ transport planning

Gold Coast
 Suite 26, 58 Rivenwalk Avenue, Robina QLD 4226.
 P: (07) 5562-5377
 W: www.bitziosconsulting.com.au
Brisbane
 Level 2, 428 Upper Edward Street, Spring Hill 4000.
 P: (07) 3831-4442
 E: admin@bitziosconsulting.com.au
Sydney
 Studio 203, 3 Gladstone Street, Newtown NSW 2042.
 P: (02) 9557 6202

REVISIONS		Drawn	Date	Issue	Description	By	Date
009	NO CHANGE			M.H	23.08.2019		
010	NO CHANGE			M.H	08.11.2019		
011	NO CHANGES			M.H	11.11.2019		
ENGINEERING CERTIFICATION (RPEQ)							
		Name	Signature	No.	Date		
006	NOT USED						
005	NOT USED						
004	NOT USED						
003	NOT USED						
002	NOT USED						
001	NOT USED						
008	ADD HRV ROUTE TO AREA 15	M.H	30.07.2019				

Project
 SYDNEY METRO CITY & SOUTHWEST
 SOUTHWEST METRO EARLY WORKS

Title
 SWEPT PATH
 AREA 15
 ENTRY/EXIT ROUTE 2

Design	Drawn	Checked
M.H	M.H	T.W
NOT FOR CONSTRUCTION		Date
		11.11.2019
Project Number	Sheet Number	Issue
P3519	90	011



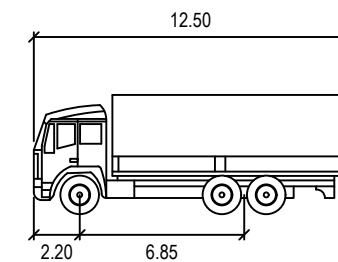
SU TRUCK		units
Width	: 2.50	meters
Track	: 2.50	
Lock to Lock Time	: 6.0	
Steering Angle	: 36.6	

DESIGN VEHICLE

REVISIONS		Drawn	Date	Issue	Description	Drawn	Date
001	NOT USED	-	-	009	NO CHANGE	M.H	23.08.2019
002	NOT USED	-	-	010	NO CHANGE	M.H	08.11.2019
003	NOT USED	-	-	011	NO CHANGES	M.H	11.11.2019
004	NOT USED	-	-	ENGINEERING CERTIFICATION (RPEQ)			
005	NOT USED	-	-	Name	Signature	No.	Date
006	NOT USED	-	-				
007	NOT USED	-	-				
008	ADD HRV ROUTE TO AREA 15	M.H	30.07.2019				

Project	SYDNEY METRO CITY & SOUTHWEST SOUTHWEST METRO EARLY WORKS
Title	SWEPT PATH AREA 15 GATE ENTRY

Design	M.H	Drawn	M.H	Checked	T.W
NOT FOR CONSTRUCTION					
Project Number	P3519	Sheet Number	91	Date	11.11.2019
				Issue	011



SU TRUCK meters

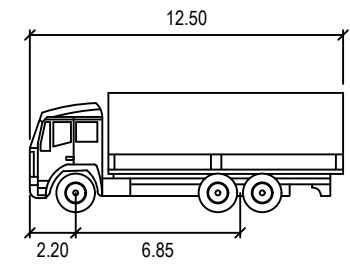
Width : 12.50
 Track : 2.20
 Lock to Lock Time : 6.0
 Steering Angle : 36.6

DESIGN VEHICLE

REVISIONS		Drawn	Date
Issue	Revisions/Descriptions		
001	NOT USED	-	-
002	NOT USED	-	-
003	NOT USED	-	-
004	NOT USED	-	-
005	NOT USED	-	-
006	NOT USED	-	-
007	NOT USED	-	-
008	ADD HRV ROUTE TO AREA 15	M.H	30.07.2019

No.	Date	Name	Signature	No.	Date
009	NO CHANGE			M.H	23.08.2019
010	NO CHANGE			M.H	08.11.2019
011	NO CHANGES			M.H	11.11.2019

Project	SYDNEY METRO CITY & SOUTHWEST SOUTHWEST METRO EARLY WORKS		
Design	M.H	Drawn	M.H
Checked			T.W
Title		SWEPT PATH AREA 15 GATE EXIT	
Project Number		P3519	
Sheet Number		92	
Date		11.11.2019	
Issue		011	



SU TRUCK meters

Width : 2.50

Track : 2.50

Lock to Lock Time : 6.0

Steering Angle : 36.6

DESIGN VEHICLE



Gold Coast
 Suite 26, 58 Rivenwalk Avenue, Robina QLD 4226.
 P: (07) 5562-5377
 W: www.bitziosconsulting.com.au

Brisbane
 Level 2, 428 Upper Edward Street, Spring Hill 4000.
 P: (07) 3831-4442
 E: admin@bitziosconsulting.com.au

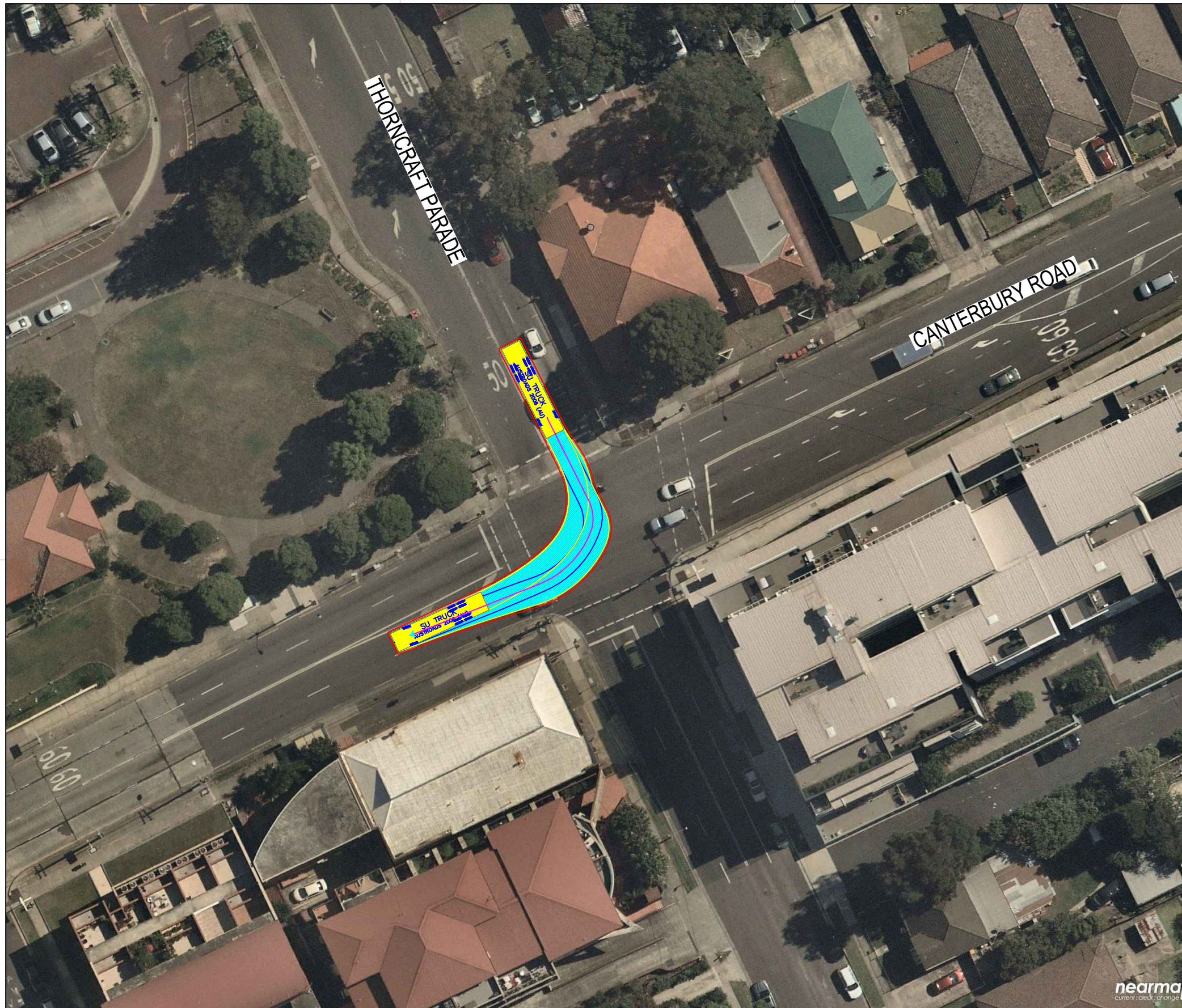
Sydney
 Studio 203, 3 Gladstone Street, Newtown NSW 2042.
 P: (02) 9557 6202

REVISIONS		Drawn	Date	Issue	Description	M.H	Date
001	NOT USED	-	-	009	NO CHANGE	M.H	23.08.2019
002	NOT USED	-	-	010	NO CHANGE	M.H	08.11.2019
003	NOT USED	-	-	011	NO CHANGES	M.H	11.11.2019
004	NOT USED	-	-	ENGINEERING CERTIFICATION (RPEQ)			
005	NOT USED	-	-				
006	NOT USED	-	-				
007	NOT USED	-	-				
008	ADD HRV ROUTE TO AREA 15	M.H	30.07.2019				

Project
 SYDNEY METRO CITY & SOUTHWEST
 SOUTHWEST METRO EARLY WORKS

Title
 SWEPT PATH
 AREA 15
 EXIT ROUTE 2

Design	Drawn	Checked
M.H	M.H	T.W
NOT FOR CONSTRUCTION		Date
		11.11.2019
Project Number	Sheet Number	Issue
P3519	93	011



SU TRUCK meters

Width : 2.50

Track : 2.50

Lock to Lock Time : 6.0

Steering Angle : 36.6

DESIGN VEHICLE

BITZIOS
-consulting
traffic engineering ■ transport planning

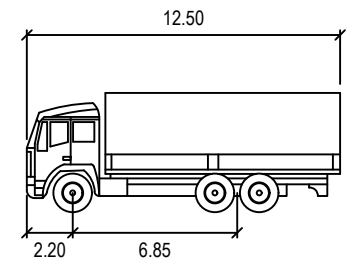
Gold Coast
Suite 26, 58 Riverwalk Avenue, Robina QLD 4226.
P: (07) 5562-5377
W: www.bitziosconsulting.com.au
Brisbane
Level 2, 428 Upper Edward Street, Spring Hill 4000.
P: (07) 3831-4442
E: admin@bitziosconsulting.com.au
Sydney
Studio 203, 3 Gladstone Street, Newtown NSW 2042.
P: (02) 9557 6202

REVISIONS		Drawn	Date	Issue	Description	Drawn	Date
009	NO CHANGE	M.H	23.08.2019	009	NO CHANGE	M.H	23.08.2019
010	NO CHANGE	M.H	08.11.2019	010	NO CHANGE	M.H	08.11.2019
011	NO CHANGES	M.H	11.11.2019	011	NO CHANGES	M.H	11.11.2019
ENGINEERING CERTIFICATION (RPEQ)							
		Name	Signature	No.	Date		
005	NOT USED	-	-	-	-		
006	NOT USED	-	-	-	-		
007	NOT USED	-	-	-	-		
008	ADD HRV ROUTE TO AREA 15	M.H	30.07.2019	-	-		

Project
SYDNEY METRO CITY & SOUTHWEST
SOUTHWEST METRO EARLY WORKS

Title
SWEPT PATH
AREA 15
EXIT ROUTE

Design	Drawn	Checked
M.H	M.H	T.W
NOT FOR CONSTRUCTION		Date
		11.11.2019
Project Number	Sheet Number	Issue
P3519	94	011



SU TRUCK meters

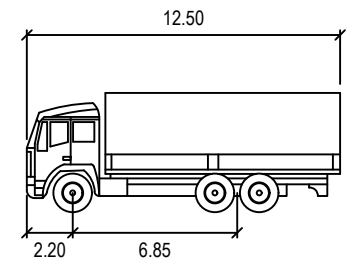
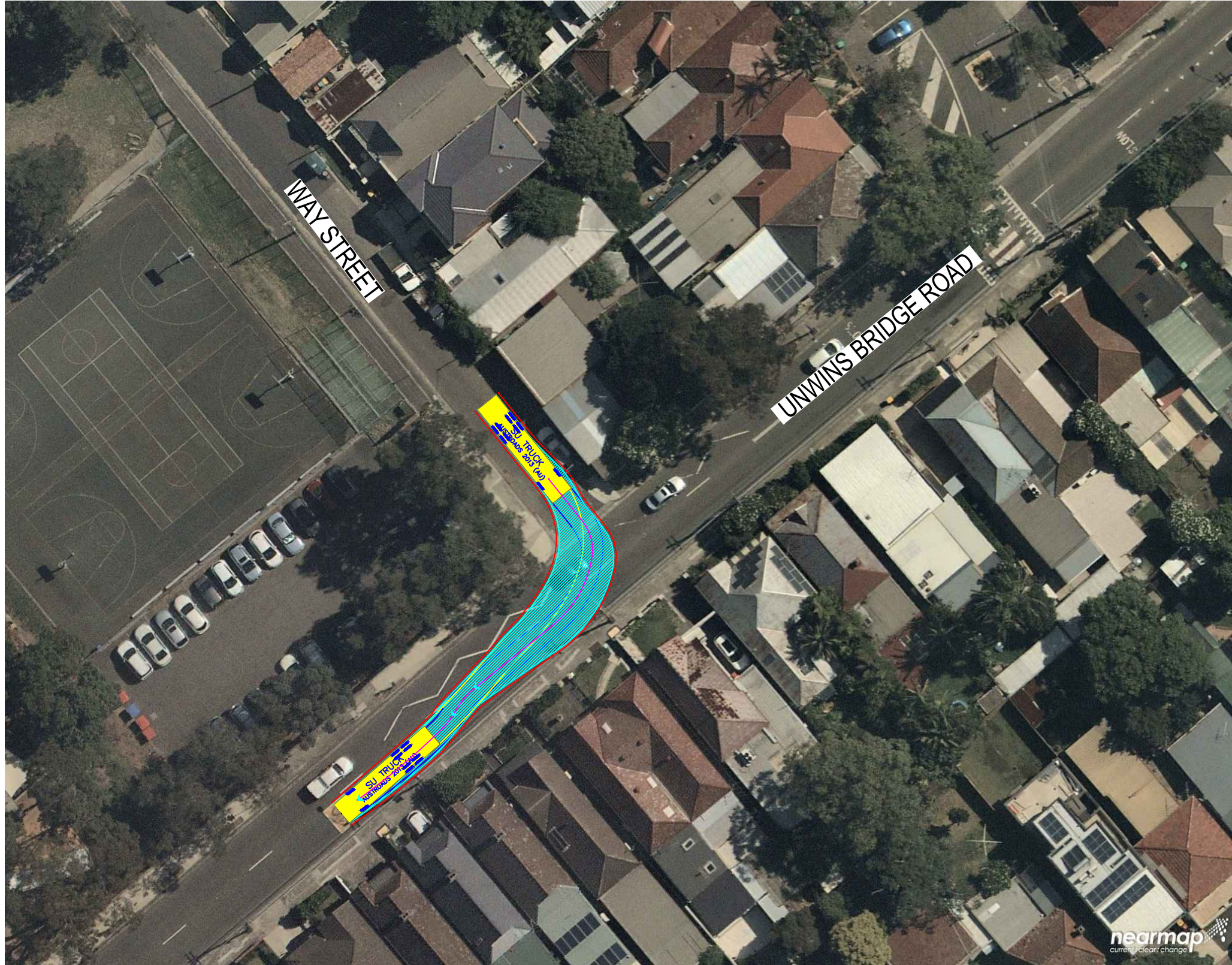
Width : 2.50
 Track : 2.50
 Lock to Lock Time : 6.0
 Steering Angle : 36.6

DESIGN VEHICLE

REVISIONS		Drawn	Date	Issue	Description	Drawn	Date
001	NOT USED	-	-	009	NO CHANGE	M.H	23.08.2019
002	NOT USED	-	-	010	NO CHANGE	M.H	08.11.2019
003	MINOR AMENDMENTS	M.H	27.03.2019	011	NO CHANGES	M.H	11.11.2019
004	MINOR AMENDMENTS	M.H	01.04.2019	ENGINEERING CERTIFICATION (RPEQ)			
005	AMENDMENTS TO REV 1 CTMP COMMENTS	M.H	12.04.2019				
006	AMENDMENTS TO FURTHER REV 1 CTMP COMMENTS	M.H	18.04.2019				
007	NO CHANGES	M.H	10.07.2019				
008	ADD HRV ROUTE TO AREA 15	M.H	30.07.2019	Name	Signature	No.	Date

Project	SYDNEY METRO CITY & SOUTHWEST SOUTHWEST METRO EARLY WORKS
Title	SWEPT PATH WAY STREET LAYDOWN ENTRY

Design	M.H	Drawn	M.H	Checked	T.W	
NOT FOR CONSTRUCTION					Date	11.11.2019
Project Number	P3519	Sheet Number	95	Issue	011	



SU TRUCK meters

Width : 12.50
 Track : 2.50
 Lock to Lock Time : 6.0
 Steering Angle : 36.6

DESIGN VEHICLE

REVISIONS		Drawn	Date	Issue	Description	Drawn	Date
001	NOT USED	-	-	009	NO CHANGE	M.H	23.08.2019
002	NOT USED	-	-	010	NO CHANGE	M.H	08.11.2019
003	MINOR AMENDMENTS	M.H	27.03.2019	011	NO CHANGES	M.H	11.11.2019
004	MINOR AMENDMENTS	M.H	01.04.2019	ENGINEERING CERTIFICATION (RPEQ)			
005	AMENDMENTS TO REV 1 CTMP COMMENTS	M.H	12.04.2019				
006	AMENDMENTS TO FURTHER REV 1 CTMP COMMENTS	M.H	18.04.2019				
007	NO CHANGES	M.H	10.07.2019				
008	ADD HRV ROUTE TO AREA 15	M.H	30.07.2019	Name	Signature	No.	Date

Project	SYDNEY METRO CITY & SOUTHWEST SOUTHWEST METRO EARLY WORKS
Title	SWEPT PATH WAY STREET LAYDOWN EXIT

Design	M.H	Drawn	M.H	Checked	T.W	
NOT FOR CONSTRUCTION					Date	11.11.2019
Project Number	P3519	Sheet Number	96	Issue	011	



Edit Vehicle Details

General Data
 Name: AV 20m Rear Steer
 Library: Custom
 Region: Local
 Type: Special Wind Blade Trailer
 Class: Transport - Special
 Lock to Lock Time: 6.0 sec.
 Steering Lock Angle: 40.0 deg.

Creation Units: meters

Overall Vehicle Length: 20.40 m

Current Part Data (1/2)

Tractor: Pin Behind
 Width: 2.50

Steering: Front Only

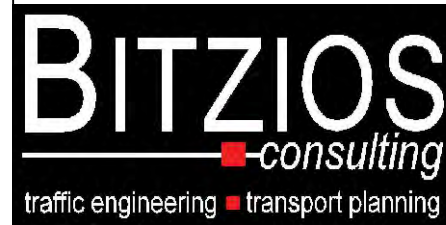
Front Axle Group
 Axles: 1
 Wheels: 2
 Track: 2.50 m

Rear Axle Group
 Axles: 2
 Wheels: 4
 Track: 2.50 m

Dimensions: 4.20, 0.20, 1.60, 5.40

Buttons: OK, Cancel, Help

DESIGN VEHICLE



Gold Coast
 Suite 26, 58 Riverwalk Avenue, Robina QLD 4226.
 P: (07) 5562-5377
 W: www.bitziosconsulting.com.au

Brisbane
 Level 2, 428 Upper Edward Street, Spring Hill 4000.
 P: (07) 3831-4442
 E: admin@bitziosconsulting.com.au

Sydney
 Studio 203, 3 Gladstone Street, Newtown NSW 2042.
 P: (02) 9557 6202

REVISIONS		Drawn	Date	Issue	Description	Drawn	Date
001	NOT USED	-	-	009	NO CHANGE	M.H	23.08.2019
002	NOT USED	-	-	010	NO CHANGE	M.H	08.11.2019
003	MINOR AMENDMENTS	M.H	27.03.2019	011	NO CHANGES	M.H	11.11.2019
004	MINOR AMENDMENTS	M.H	01.04.2019	ENGINEERING CERTIFICATION (RPEQ)			
005	AMENDMENTS TO REV 1 CTMP COMMENTS	M.H	12.04.2019				
006	AMENDMENTS TO FURTHER REV 1 CTMP COMMENTS	M.H	18.04.2019				
007	NO CHANGES	M.H	10.07.2019				
008	ADD HRV ROUTE TO AREA 15	M.H	30.07.2019	Name	Signature	No.	Date

Project	SYDNEY METRO CITY & SOUTHWEST SOUTHWEST METRO EARLY WORKS		
Design	M.H	Drawn	M.H
Checked			T.W
		Date	11.11.2019
NOT FOR CONSTRUCTION		Project Number	P3519
		Sheet Number	97
		Issue	011
Title: SWEEP PATH WAY STREET LAYDOWN ENTRY			



Edit Vehicle Details

General Data
 Name: AV 20m Rear Steer
 Library: Custom
 Region: Local
 Type: Special Wind Blade Trailer
 WisDO
 Class: Transport - Special
 Lock to Lock Time: 6.0 sec.
 Steering Lock Angle: 40.0 deg.

Creation Units: meters
 Overall Vehicle Length: 20.40 m

Current Part Data (1/2)

Tractor: Pin Behind
 Width: 2.50

Steering: Front Only

Front Axle Group
 Axles: 1
 Wheels: 2
 Track: 2.50 m

Rear Axle Group
 Axles: 2
 Wheels: 4
 Track: 2.50 m

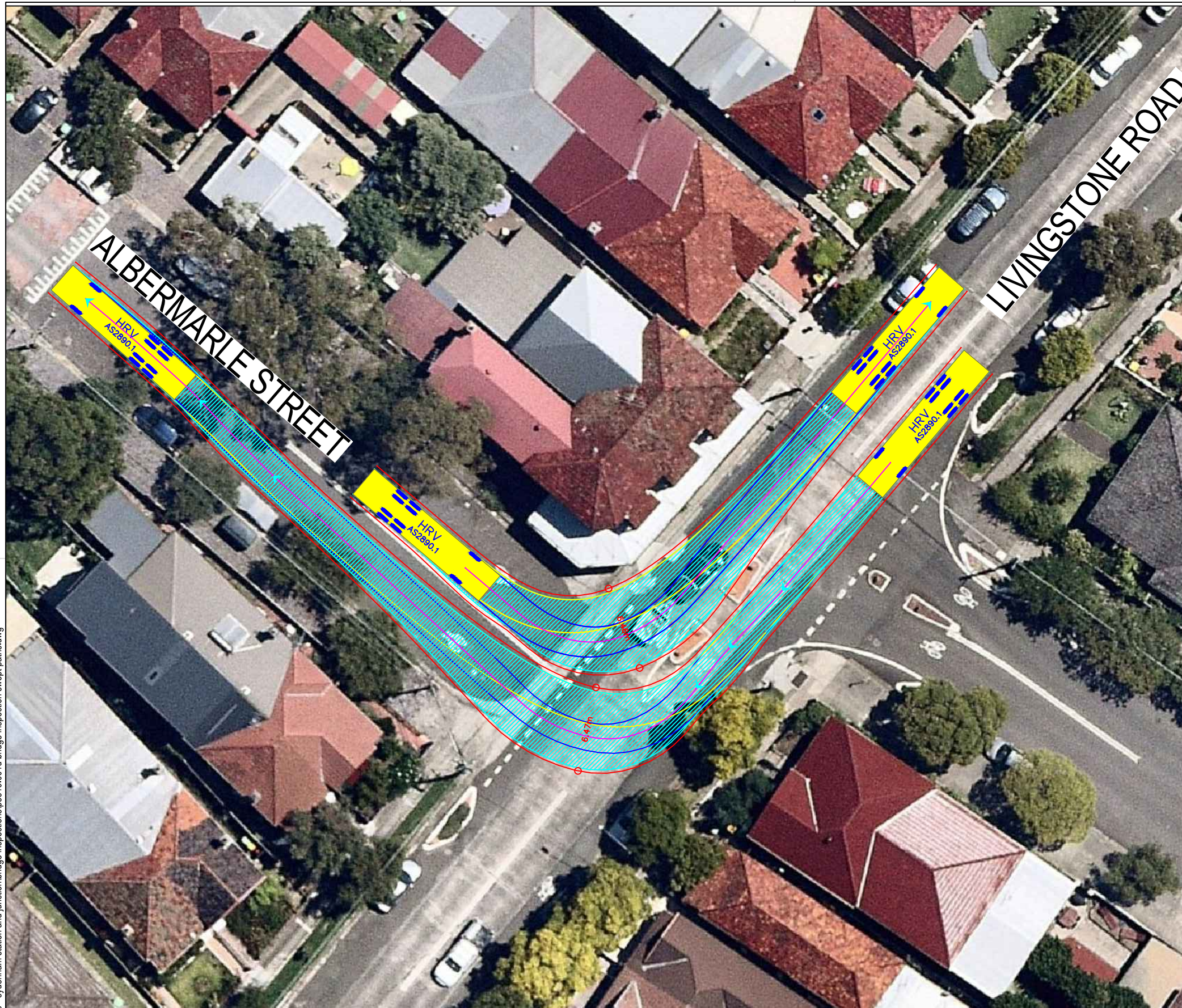
Dimensions: 4.20, 0.20, 1.60, 5.40

OK Cancel Help

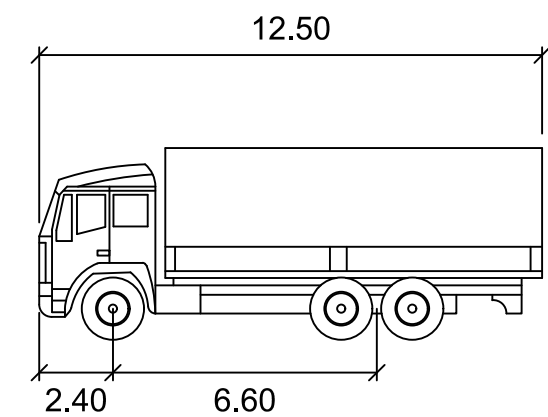
DESIGN VEHICLE

Issue	Revisions/Descriptions	Drawn	Date	009	NO CHANGE	M.H	23.08.2019
001	NOT USED	-	-	010	NO CHANGE	M.H	08.11.2019
002	NOT USED	-	-	011	NO CHANGES	M.H	11.11.2019
003	MINOR AMENDMENTS	M.H	27.03.2019	ENGINEERING CERTIFICATION (RPEQ)			
004	MINOR AMENDMENTS	M.H	01.04.2019				
005	AMENDMENTS TO REV 1 CTMP COMMENTS	M.H	12.04.2019	Name	Signature	No.	Date
006	AMENDMENTS TO FURTHER REV 1 CTMP COMMENTS	M.H	18.04.2019				
007	NO CHANGES	M.H	10.07.2019				
008	ADD HRV ROUTE TO AREA 15	M.H	30.07.2019				

Project	SYDNEY METRO CITY & SOUTHWEST SOUTHWEST METRO EARLY WORKS		
Design	M.H	Drawn	M.H
Checked			T.W
			Date
			11.11.2019
Title	SWEEP PATH WAY STREET LAYDOWN EXIT		
Project Number	P3519	Sheet Number	98
Issue			011



Note:
 Left turn from Albermarle Street onto Livingstone Road is not suitable for HRV due to encroachment of front of vehicle onto pedestrian refuge.



HRV meters

Width : 2.50
 Track : 2.50
 Lock to Lock Time : 6.0
 Steering Angle : 36.6

DESIGN VEHICLE

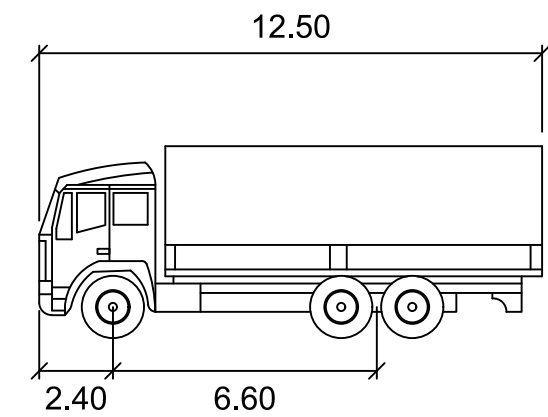
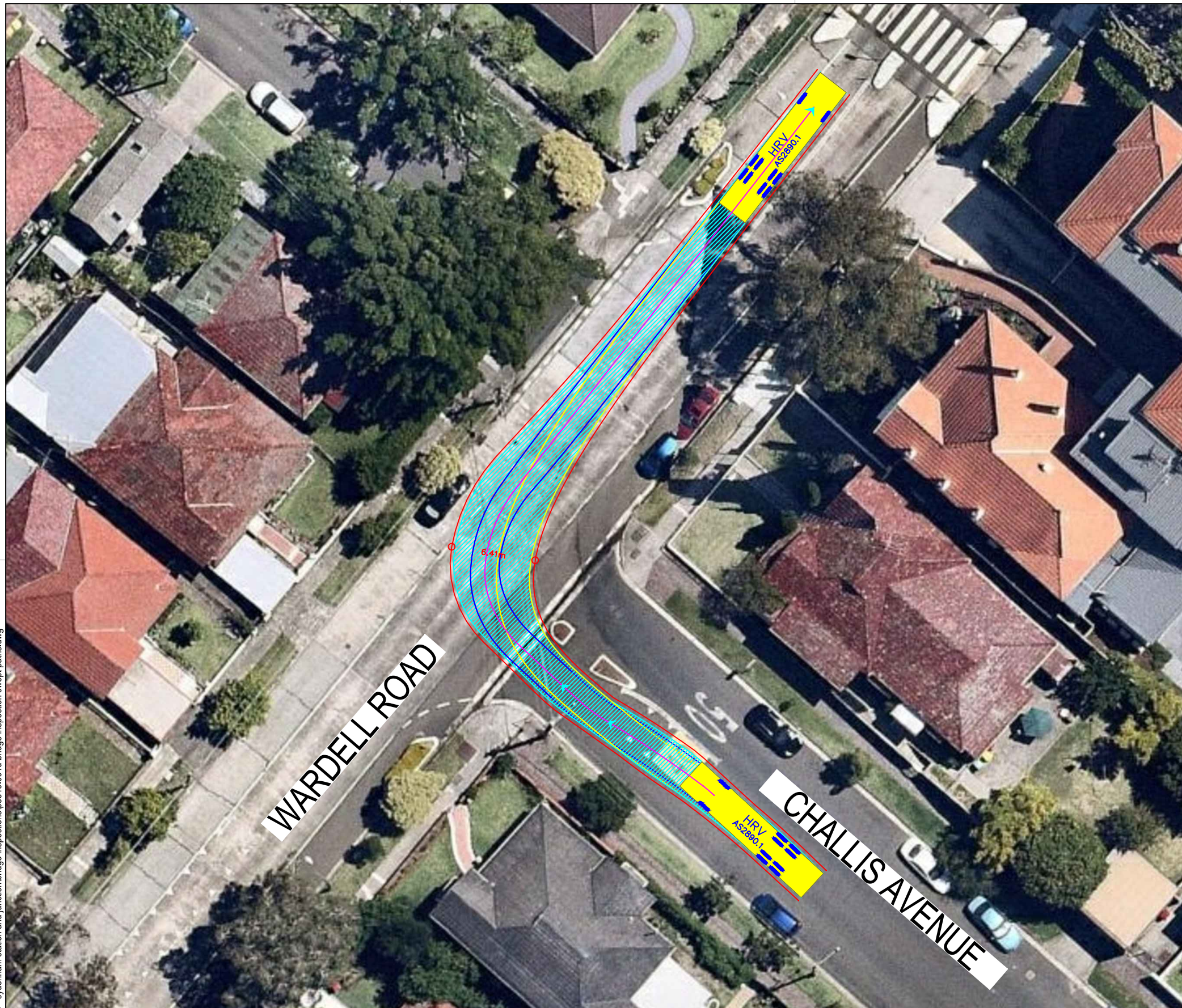
REVISIONS			
Issue	Revisions/Descriptions	Drawn	Date
001	NOT USED	-	-
002	NOT USED	-	-
003	NOT USED	-	-
004	NOT USED	-	-
005	NOT USED	-	-
006	AMENDMENTS TO FURTHER REV 1 CTMP COMMENTS	J.Y	23.04.2019

ENGINEERING CERTIFICATION (RPEQ)

Name	Signature	No.	Date

Project	SYDNEY METRO CITY & SOUTHWEST SOUTHWEST METRO EARLY WORKS
Title	SWEPT PATH TRENCHING - ALBERMARLE BRIDGE CLOSURE LIVINGSTONE ROAD RIGHT TURN INTO ALBERMARLE STREET

Design	J.Y	Drawn	J.Y	Checked	T.W
NOT FOR CONSTRUCTION					
Date	23.04.2019				
Project Number	P3519	Sheet Number	109	Issue	006



HRV	meters
Width	: 2.50
Track	: 2.50
Lock to Lock Time	: 6.0
Steering Angle	: 36.6

DESIGN VEHICLE

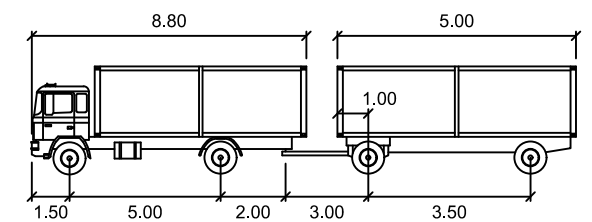
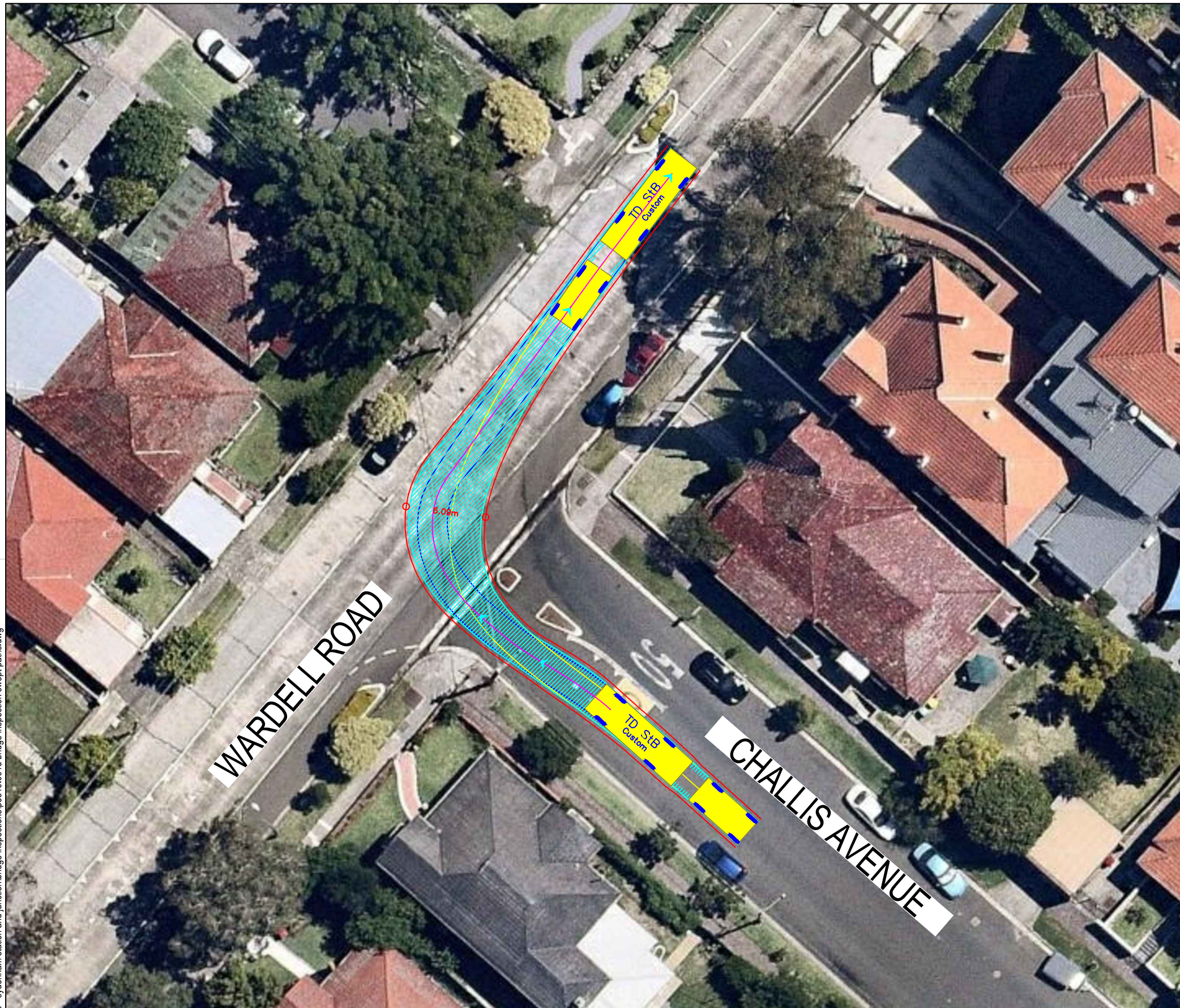
REVISIONS		Drawn	Date
Issue	Revisions/Descriptions		
001	NOT USED	-	-
002	NOT USED	-	-
003	NOT USED	-	-
004	NOT USED	-	-
005	NOT USED	-	-
006	AMENDMENTS TO FURTHER REV 1 CTMP COMMENTS	J.Y	23.04.2019

Name	Signature	No.	Date

ENGINEERING CERTIFICATION (RPEQ)

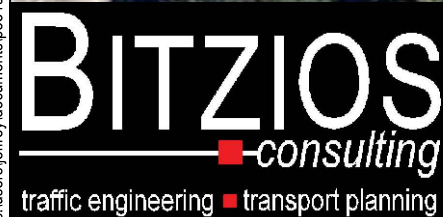
Project SYDNEY METRO CITY & SOUTHWEST SOUTHWEST METRO EARLY WORKS	Design J.Y	Drawn J.Y	Checked T.W
	NOT FOR CONSTRUCTION		
Title SWEEP PATH TRENCHING - ALBERMARLE BRIDGE CLOSURE CHALLIS AVENUE RIGHT TURN INTO WARDELL ROAD	Project Number P3519	Sheet Number 111	Date 23.04.2019 Issue 006

c:\users\jeffrey\documents\p3519 - sydenham station and junction\bridge inspections\p3519_001d bridge inspection swept paths.dwg



TD StB	units	TD StB	units
First Unit Width	: 2.50	Lock to Lock Time	: 6.0
Trailer Width	: 2.30	Steering Angle	: 37.9
First Unit Track	: 2.50	Articulating Angle	: 70.0
Trailer Track	: 2.30		

DESIGN VEHICLE



Gold Coast
 Suite 26, 58 Riverwalk Avenue, Robina QLD 4226.
 P: (07) 5562-5377
 W: www.bitziosconsulting.com.au

Brisbane
 Level 2, 428 Upper Edward Street, Spring Hill 4000.
 P: (07) 3831-4442
 E: admin@bitziosconsulting.com.au

Sydney
 Studio 203, 3 Gladstone Street, Newtown NSW 2042.
 P: (02) 9557 6202

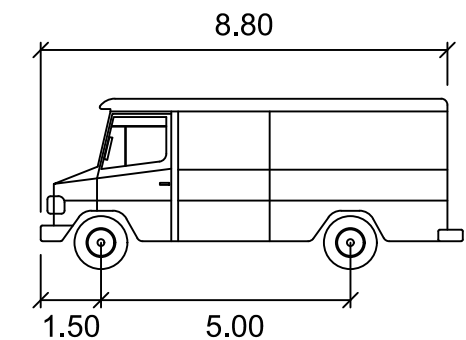
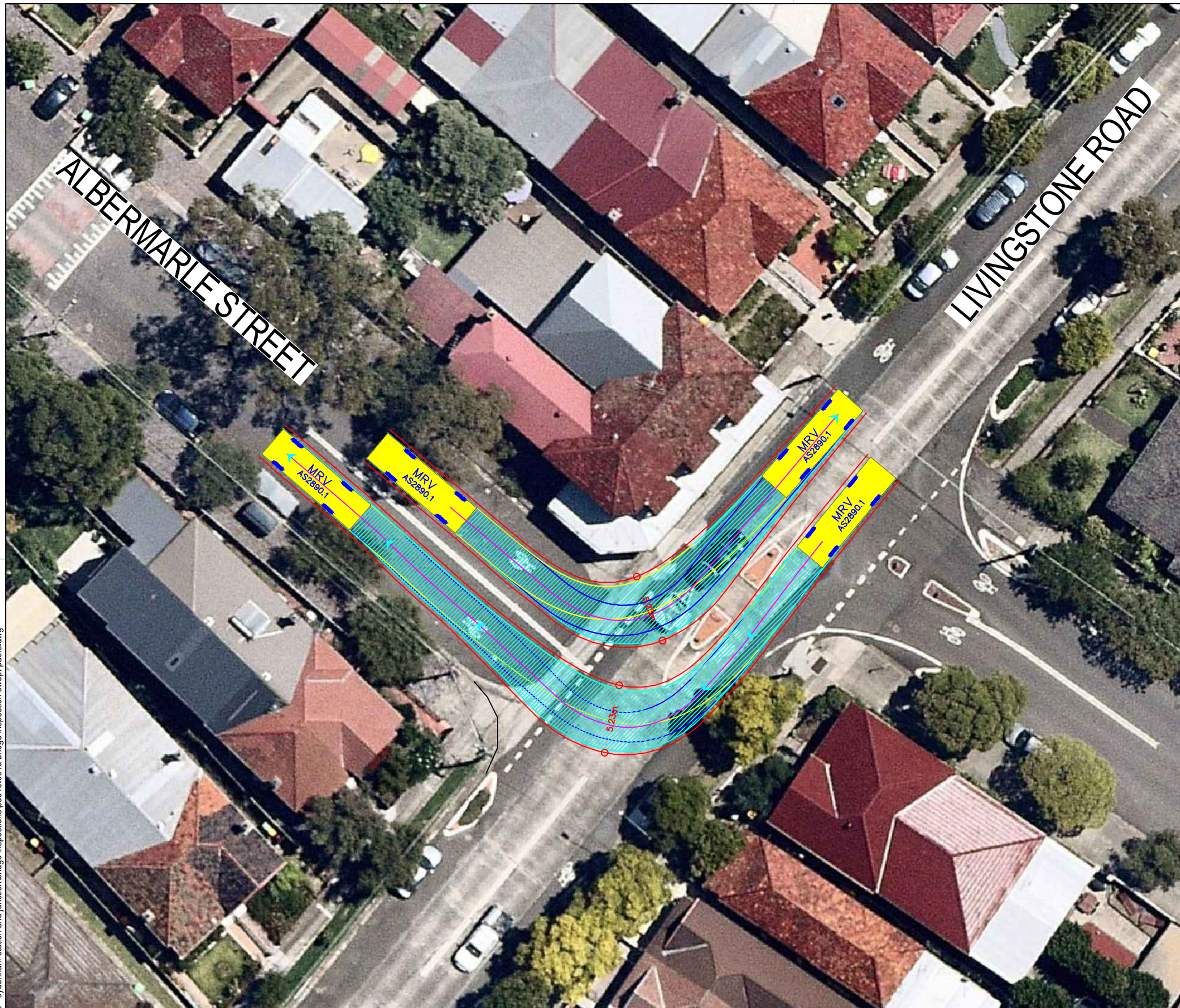
REVISIONS			
Issue	Revisions/Descriptions	Drawn	Date
001	NOT USED	-	-
002	NOT USED	-	-
003	NOT USED	-	-
004	NOT USED	-	-
005	NOT USED	-	-
006	AMENDMENTS TO FURTHER REV 1 CTMP COMMENTS	J.Y	23.04.2019

ENGINEERING CERTIFICATION (RPEQ)			
Name	Signature	No.	Date

Project	SYDNEY METRO CITY & SOUTHWEST SOUTHWEST METRO EARLY WORKS
Title	SWEPT PATH TRENCHING - ALBERMARLE BRIDGE CLOSURE CHALLIS AVENUE RIGHT TURN INTO WARDELL ROAD

Design	J.Y	Drawn	J.Y	Checked	T.W
NOT FOR CONSTRUCTION					
Project Number	P3519	Sheet Number	113	Date	23.04.2019
		Issue	006		

c:\users\jeffrey\documents\inspections\p3519 - sydenham station and junction\bridge inspections\p3519_001d bridge inspection swept paths.dwg



MRV meters

Width : 2.50
 Track : 2.50
 Lock to Lock Time : 6.0
 Steering Angle : 34.0

DESIGN VEHICLE

BITZIOS
 consulting
 traffic engineering ■ transport planning

Gold Coast
 Suite 26, 58 Riverwalk Avenue, Robina QLD 4226.
 P: (07) 5562-5377
 W: www.bitziosconsulting.com.au
Brisbane
 Level 2, 428 Upper Edward Street, Spring Hill 4000.
 P: (07) 3831-4442
 E: admin@bitziosconsulting.com.au
Sydney
 Studio 203, 3 Gladstone Street, Newtown NSW 2042.
 P: (02) 9557 6202

REVISIONS		Drawn	Date
Issue	Revisions/Descriptions		
001	NOT USED	-	-
002	NOT USED	-	-
003	NOT USED	-	-
004	NOT USED	-	-
005	NOT USED	-	-
006	AMENDMENTS TO FURTHER REV 1 CTMP COMMENTS	J.Y	23.04.2019

ENGINEERING CERTIFICATION (RPEQ)

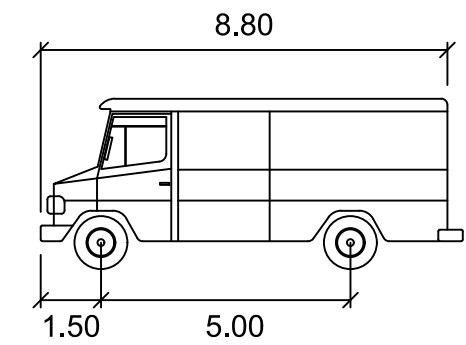
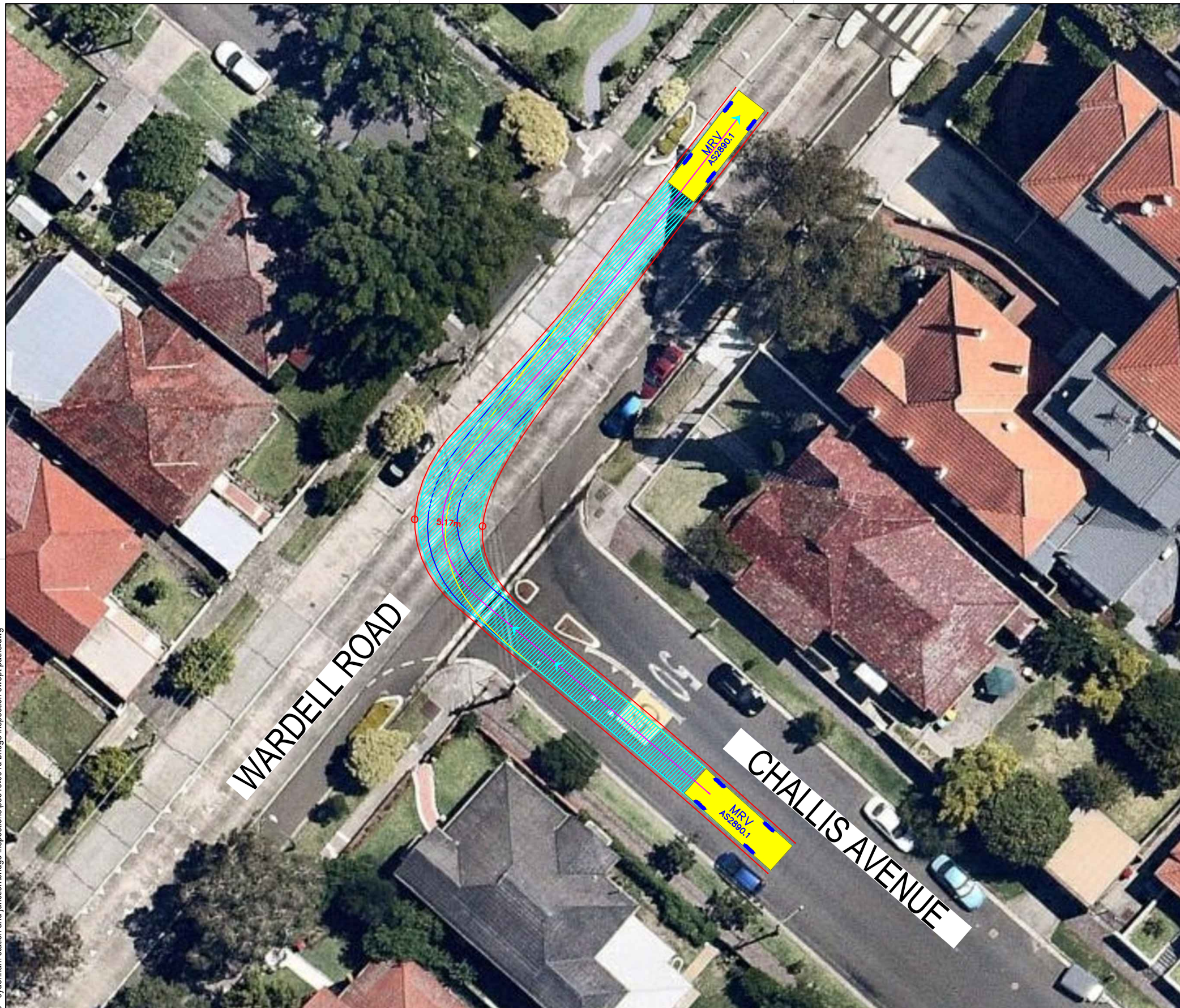
Name	Signature	No.	Date

Project
 SYDNEY METRO CITY & SOUTHWEST
 SOUTHWEST METRO EARLY WORKS

Title
 SWEEP PATH
 TRENCHING - ALBERMARLE BRIDGE CLOSURE
 LIVINGSTONE ROAD
 RIGHT TURN INTO ALBERMARLE STREET

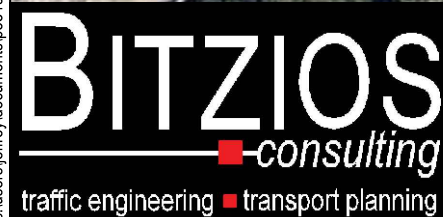
Design	Drawn	Checked
J.Y	J.Y	T.W
NOT FOR CONSTRUCTION		
Project Number	Sheet Number	Issue
P3519	114	006
		Date 23.04.2019

c:\users\jeffrey\documents\p3519 - sydenham station and junction\bridge inspections\p3519_001d bridge inspection swept paths.dwg



MRV		meters
Width	: 2.50	
Track	: 2.50	
Lock to Lock Time	: 6.0	
Steering Angle	: 34.0	

DESIGN VEHICLE



Gold Coast
 Suite 26, 58 Riverwalk Avenue, Robina QLD 4226.
 P: (07) 5562-5377
 W: www.bitziosconsulting.com.au
Brisbane
 Level 2, 428 Upper Edward Street, Spring Hill 4000.
 P: (07) 3831-4442
 E: admin@bitziosconsulting.com.au
Sydney
 Studio 203, 3 Gladstone Street, Newtown NSW 2042.
 P: (02) 9557 6202

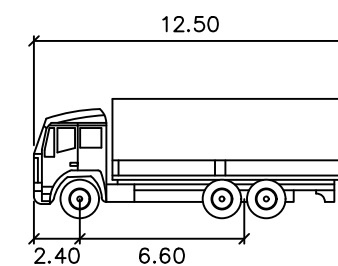
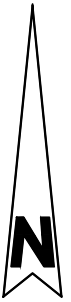
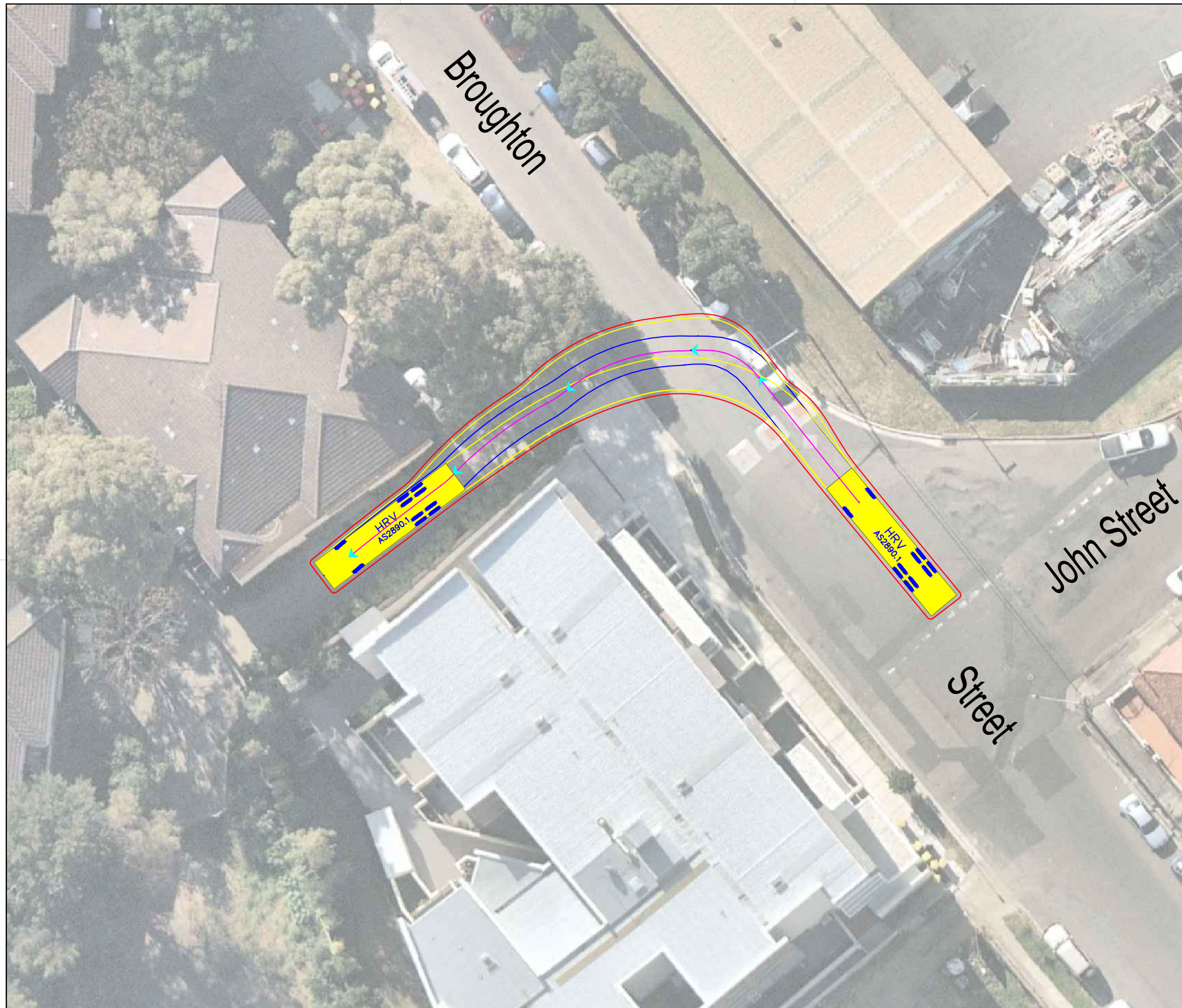
REVISIONS			
Issue	Revisions/Descriptions	Drawn	Date
001	NOT USED	-	-
002	NOT USED	-	-
003	NOT USED	-	-
004	NOT USED	-	-
005	NOT USED	-	-
006	AMENDMENTS TO FURTHER REV 1 CTMP COMMENTS	J.Y	23.04.2019

ENGINEERING CERTIFICATION (RPEQ)			
Name	Signature	No.	Date

Project	SYDNEY METRO CITY & SOUTHWEST SOUTHWEST METRO EARLY WORKS
Title	SWEPT PATH TRENCHING - ALBERMARLE BRIDGE CLOSURE CHALLIS AVENUE RIGHT TURN INTO WARDELL ROAD

Design	J.Y	Drawn	J.Y	Checked	T.W
NOT FOR CONSTRUCTION					
Date	23.04.2019				
Project Number	P3519	Sheet Number	116	Issue	006

c:\users\jeffrey\documents\inspections\p3519 - sydenham station and junction\bridge inspections\p3519_001d bridge inspection swept paths.dwg



HRV

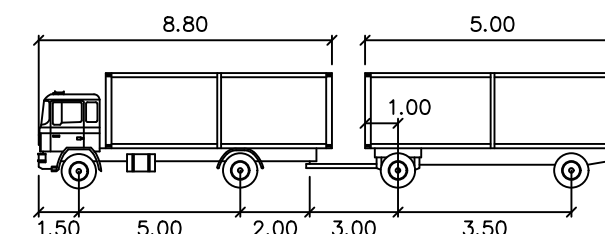
meters

Width : 12.50
 Track : 2.40
 Lock to Lock Time : 6.0
 Steering Angle : 36.6

DESIGN VEHICLE

REVISIONS			
Issue	Revisions/Descriptions	Drawn	Date
001	Swept Path Analysis	M.H	04.12.2019

Project Broughton Street Access Gate	Design M.H	Drawn M.H	Checked A.G
	NOT FOR CONSTRUCTION		
Title Swept Path Analysis Broughton Street and John Street HRV - Forward Left Turn Entry	Project Number P3519	Sheet Number 117	Date 04.12.2019
	Issue 006		



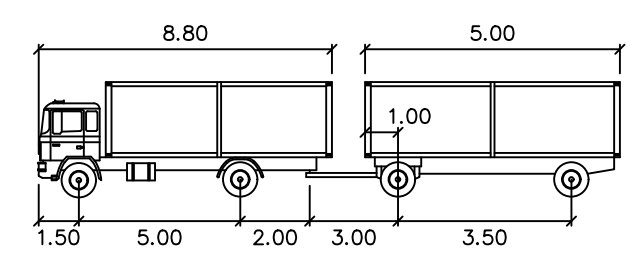
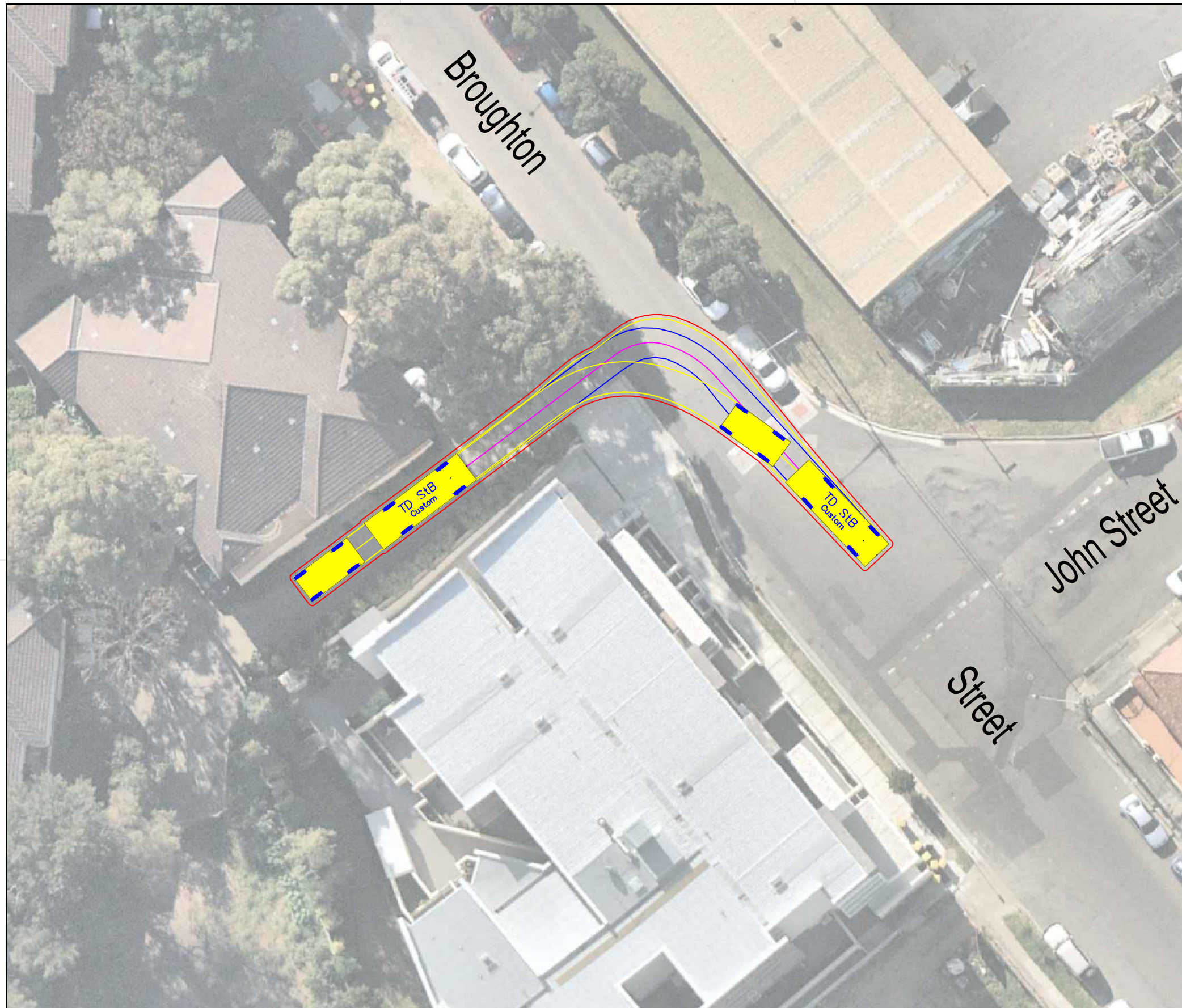
TD StB

	meters		
First Unit Width	: 2.50	Lock to Lock Time	: 6.0
Trailer Width	: 2.30	Steering Angle	: 37.9
First Unit Track	: 2.50	Articulating Angle	: 70.0
Trailer Track	: 2.30		

DESIGN VEHICLE

REVISIONS			
Issue	Revisions/Descriptions	Drawn	Date
001	Swept Path Analysis	M.H	04.12.2019

Project	Broughton Street Access Gate	Design	M.H	Drawn	M.H	Checked	A.G
Title	Swept Path Analysis Broughton Street and John Street MRV with Trailer - Forward Left Turn Entry	NOT FOR CONSTRUCTION		Date	04.12.2019		
		Project Number	P3519	Sheet Number	123	Issue	006



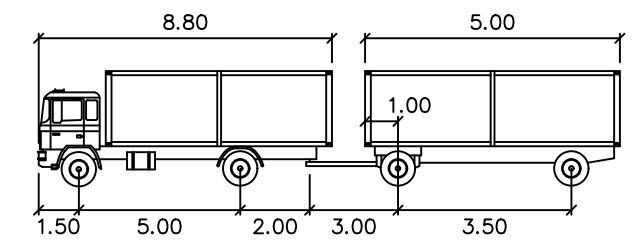
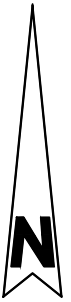
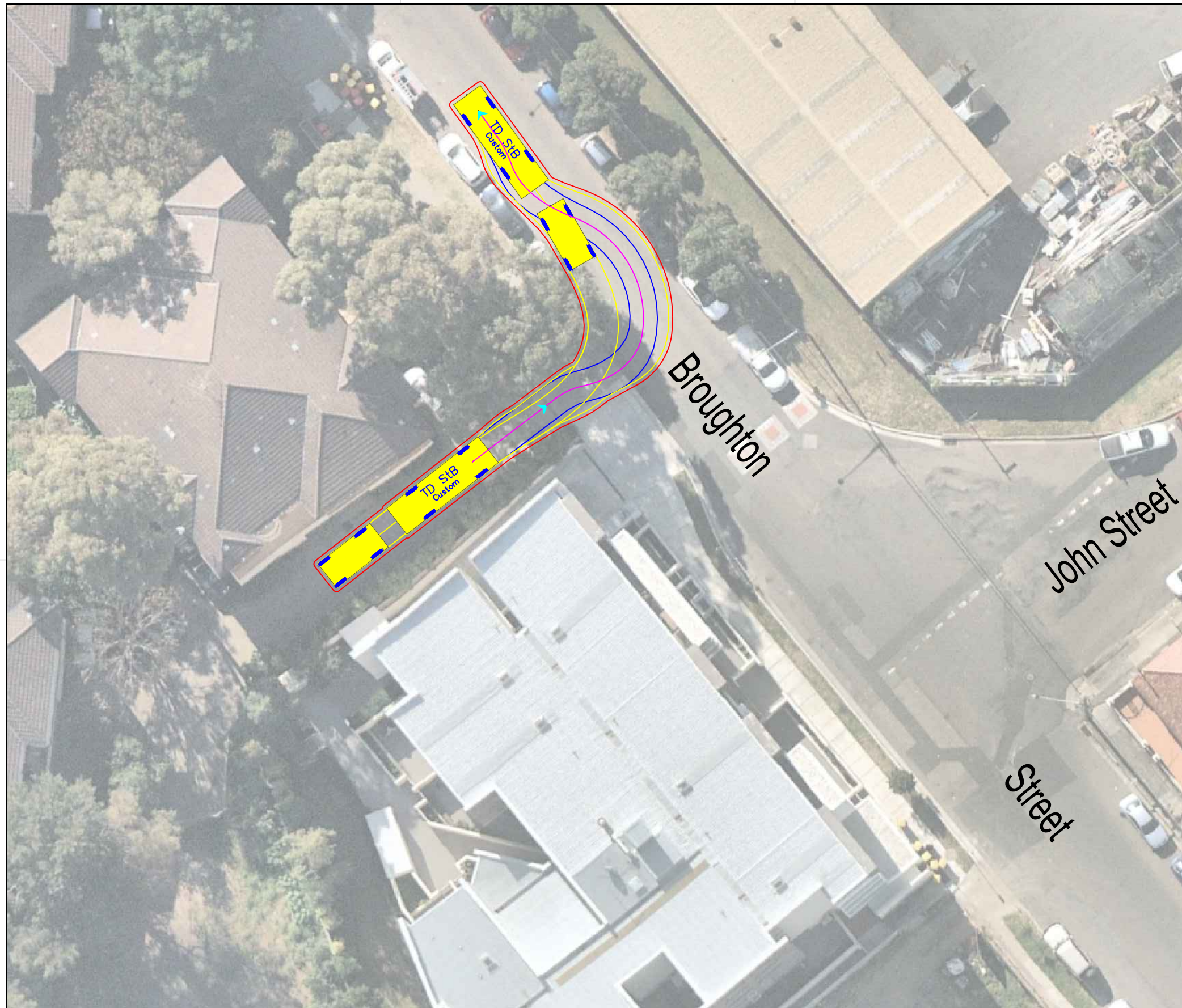
TD StB

		meters	
First Unit Width	: 2.50	Lock to Lock Time	: 6.0
Trailer Width	: 2.30	Steering Angle	: 37.9
First Unit Track	: 2.50	Articulating Angle	: 70.0
Trailer Track	: 2.30		

DESIGN VEHICLE

REVISIONS			
Issue	Revisions/Descriptions	Drawn	Date
001	Swept Path Analysis	M.H	04.12.2019

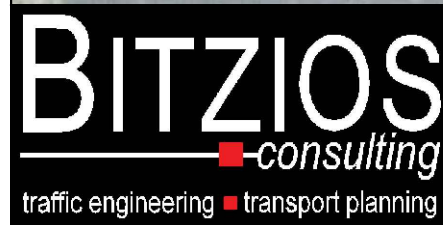
Project Broughton Street Access Gate	Design M.H	Drawn M.H	Checked A.G
	NOT FOR CONSTRUCTION		Date 04.12.2019
Title Swept Path Analysis Broughton Street and John Street MRV with Trailer - Forward Right Turn Exit	Project Number P3519	Sheet Number 124	Issue 006



TD StB

	meters		
First Unit Width	: 2.50	Lock to Lock Time	: 6.0
Trailer Width	: 2.30	Steering Angle	: 37.9
First Unit Track	: 2.50	Articulating Angle	: 70.0
Trailer Track	: 2.30		

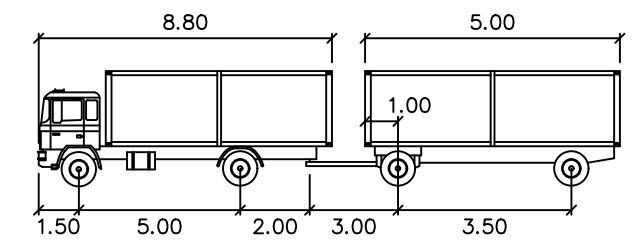
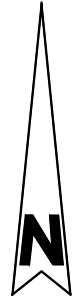
DESIGN VEHICLE



Gold Coast
 Suite 26, 58 Riverwalk Avenue, Robina QLD 4226.
 P: (07) 5562-5377
 W: www.bitziosconsulting.com.au
Brisbane
 Level 2, 428 Upper Edward Street, Spring Hill 4000.
 P: (07) 3831-4442
 E: admin@bitziosconsulting.com.au
Sydney
 Studio 203, 3 Gladstone Street, Newtown NSW 2042.
 P: (02) 9557 6202

REVISIONS			
Issue	Revisions/Descriptions	Drawn	Date
001	Swept Path Analysis	M.H	04.12.2019

Project Broughton Street Access Gate	Design M.H	Drawn M.H	Checked A.G
	NOT FOR CONSTRUCTION		Date 04.12.2019
Title Swept Path Analysis Broughton Street and John Street MRV with Trailer - Forward Left Turn Exit	Project Number P3519	Sheet Number 125	Issue 006



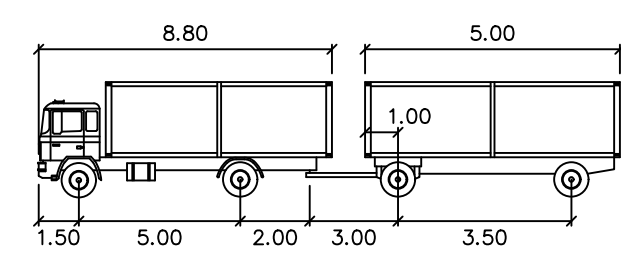
TD StB

		meters	
First Unit Width	: 2.50	Lock to Lock Time	: 6.0
Trailer Width	: 2.30	Steering Angle	: 37.9
First Unit Track	: 2.50	Articulating Angle	: 70.0
Trailer Track	: 2.30		

DESIGN VEHICLE

REVISIONS			
Issue	Revisions/Descriptions	Drawn	Date
001	Swept Path Analysis	M.H	04.12.2019

Project	Broughton Street Access Gate	Design	M.H	Drawn	M.H	Checked	A.G
Title	Swept Path Analysis Broughton Street and John Street MRV with Trailer - Entry Approach Through Gate	NOT FOR CONSTRUCTION		Date	04.12.2019		
		Project Number	P3519	Sheet Number	126	Issue	006



TD StB

	meters		
First Unit Width	: 2.50	Lock to Lock Time	: 6.0
Trailer Width	: 2.30	Steering Angle	: 37.9
First Unit Track	: 2.50	Articulating Angle	: 70.0
Trailer Track	: 2.30		

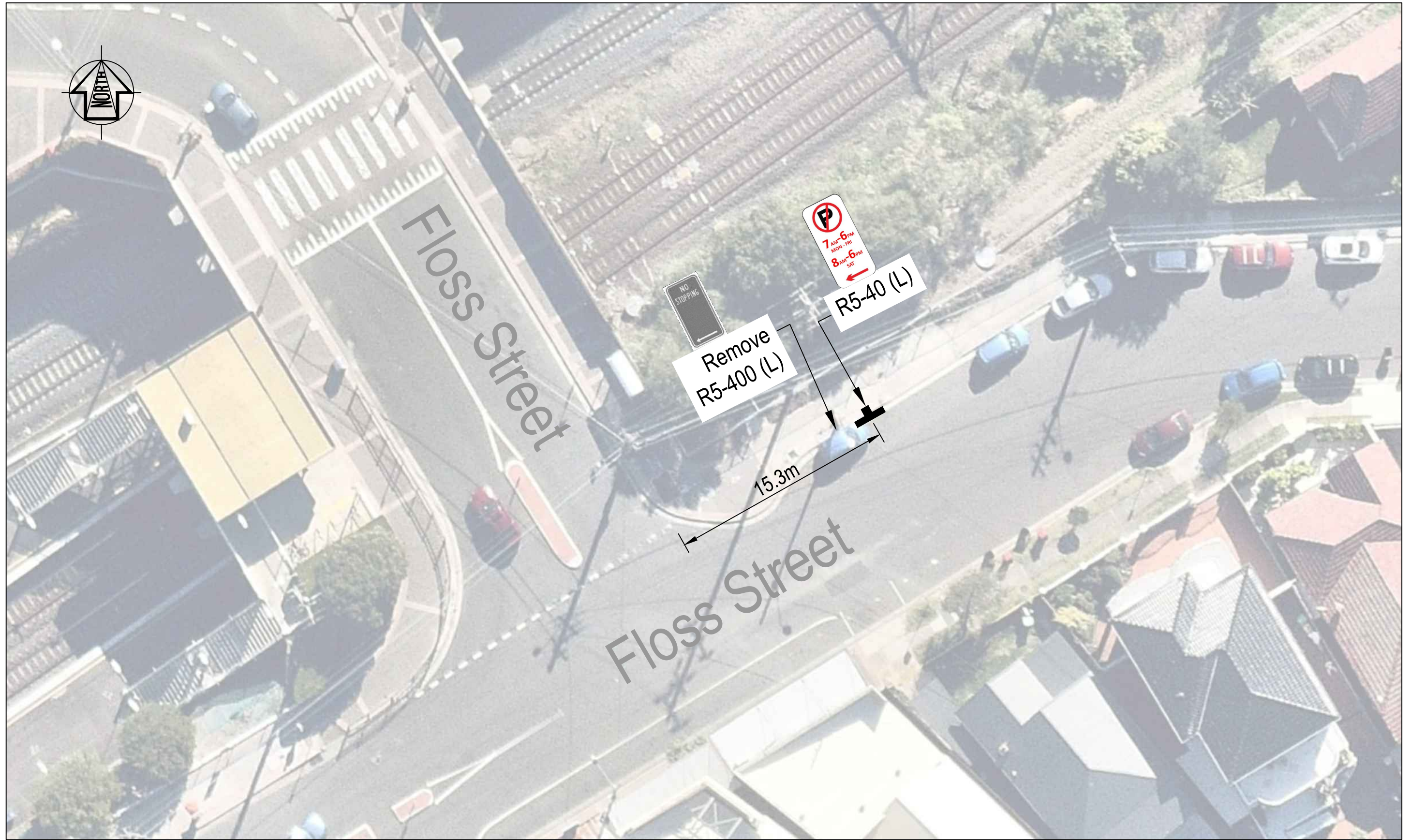
DESIGN VEHICLE

REVISIONS			
Issue	Revisions/Descriptions	Drawn	Date
001	Swept Path Analysis	M.H	04.12.2019

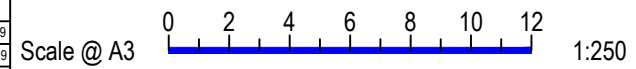
Project Broughton Street Access Gate	Design M.H	Drawn M.H	Checked A.G
	NOT FOR CONSTRUCTION		Date 04.12.2019
Title Swept Path Analysis Broughton Street and John Street MRV with Trailer - Exit Approach Through Gate	Project Number P3519	Sheet Number 127	Issue 006

11.1.7 [Parking Removal Signage](#)

The following drawings identify No Parking signs to be installed.



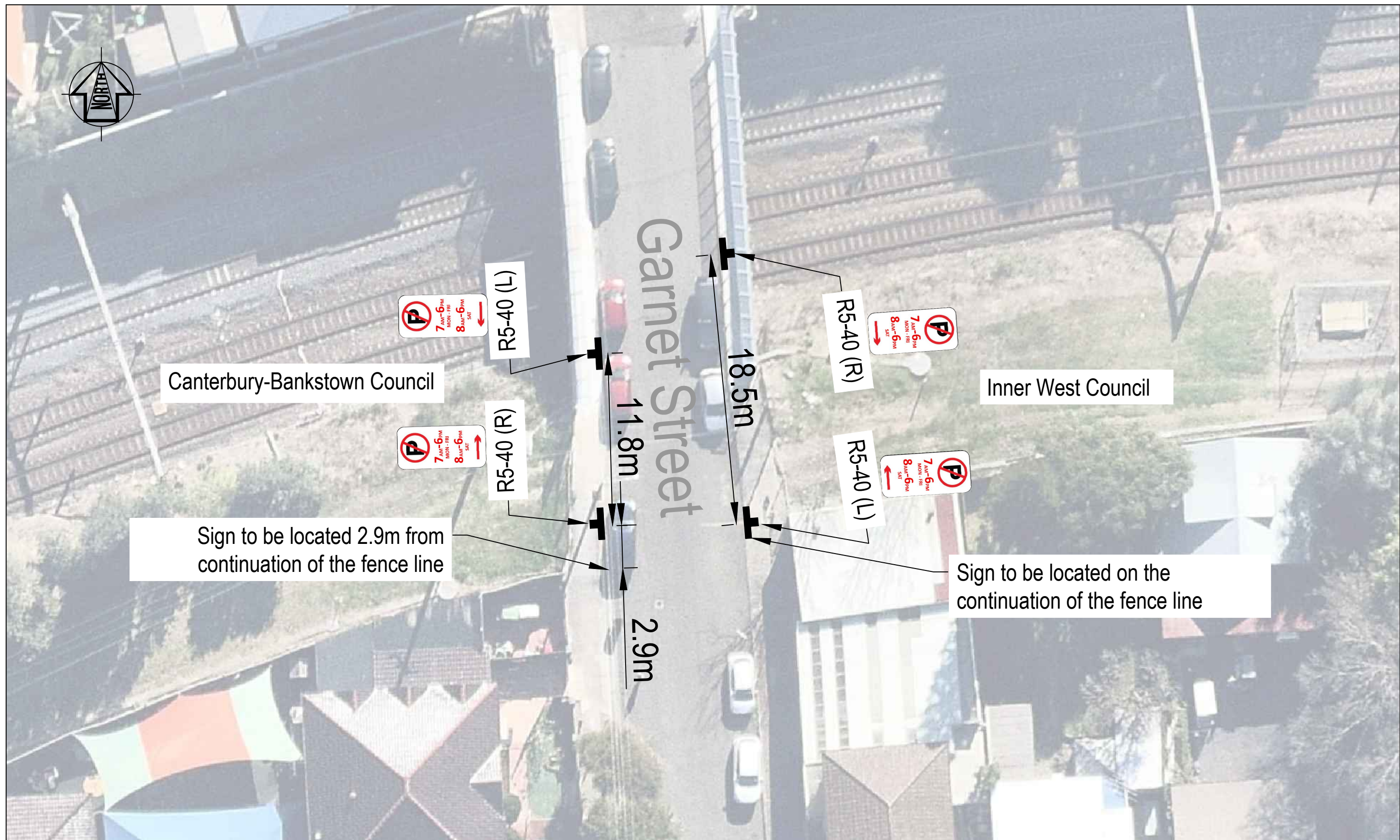
REVISIONS			
Issue	Revisions/Descriptions	Drawn	Date
001	Parking Restrictions - For Issue	F.J	19.08.2019
002	Revised Parking Restrictions - For Issue	F.J	23.08.2019
003	No Change	M.H	27.08.2019



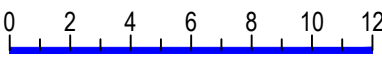
ENGINEERING CERTIFICATION (RPEQ)			
Name	Signature	No.	Date

Project	JHLORJV Sydenham Station and Junction
Title	Floss Street Parking Restrictions

Design	F.J	Drawn	F.J	Checked	M.D
CONCEPT ONLY					
Date	27.08.2019				
Project Number	P3519	Sheet Number	1	Issue	003



REVISIONS			
Issue	Revisions/Descriptions	Drawn	Date
001	Parking Restrictions - For Issue	F.J	19.08.2019
002	Revised Parking Restrictions - For Issue	F.J	23.08.2019
003	No Change	M.H	27.08.2019

Scale @ A3  1:250

ENGINEERING CERTIFICATION (RPEQ)

Name	Signature	No.	Date

Project	JHLORJV Sydenham Station and Junction		
Title	Garnet Street Parking Restrictions		

Design	F.J	Drawn	F.J	Checked	M.D	
CONCEPT ONLY						
Date	27.08.2019				Issue	002
Project Number	P3519	Sheet Number	2			



Railway Street

13.8m

R5-40 (R)

R5-40 (L)

Signs to be located in line with existing power poles

REVISIONS		Drawn	Date
Issue	Revisions/Descriptions		
001	Parking Restrictions - For Issue	F.J	19.08.2019
002	Revised Parking Restrictions - For Issue	F.J	23.08.2019
003	No Change	M.H	27.08.2019

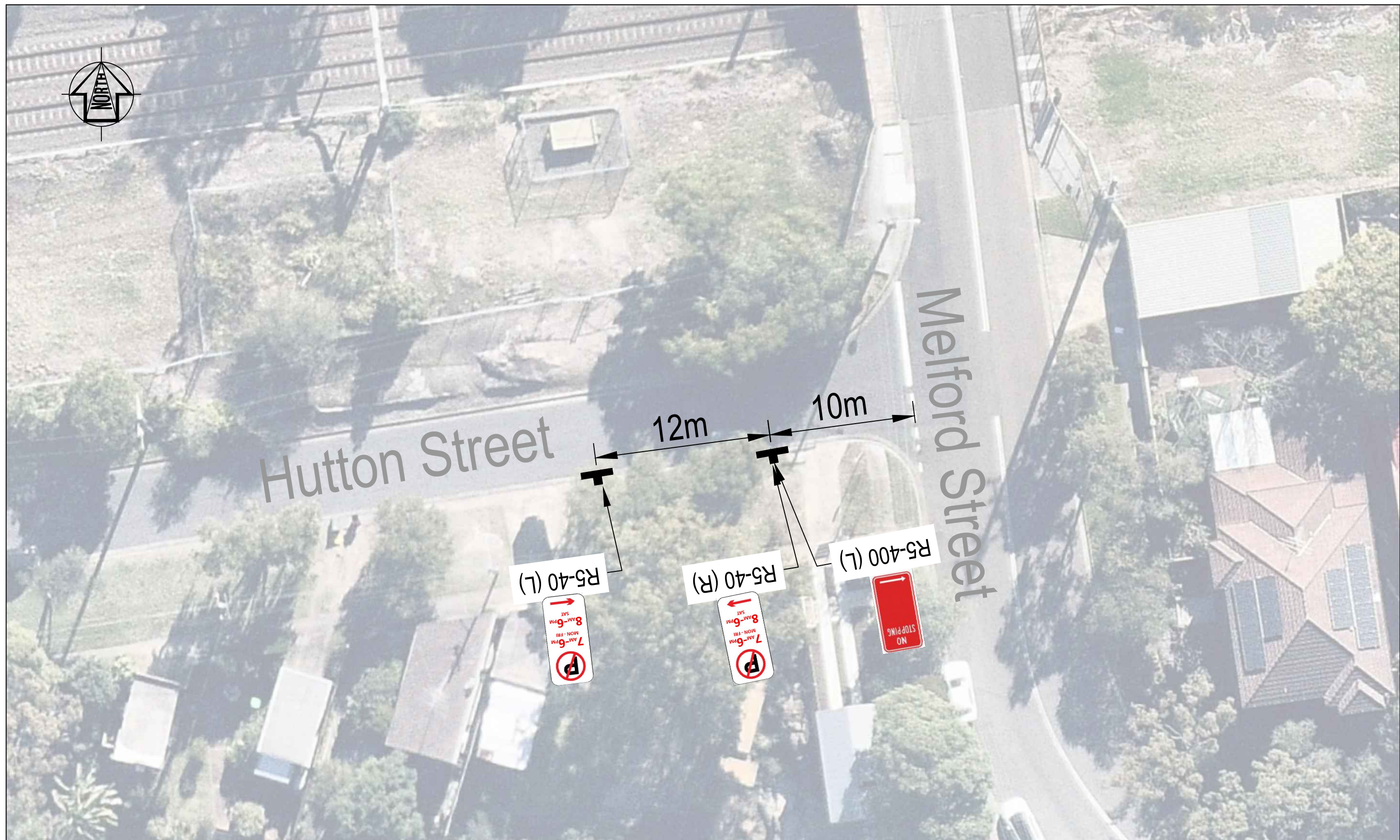
Scale @ A3 1:250

ENGINEERING CERTIFICATION (RPEQ)

Name	Signature	No.	Date

Project	JHLORJV Sydenham Station and Junction
Title	Railway Street Parking Restrictions

Design	F.J	Drawn	F.J	Checked	M.D
CONCEPT ONLY				Date	27.08.2019
Project Number	P3519	Sheet Number	3	Issue	003



REVISIONS			
Issue	Revisions/Descriptions	Drawn	Date
001	Parking Restrictions - For Issue	F.J	19.08.2019
002	Revised Parking Restrictions - For Issue	F.J	23.08.2019
003	No Change	M.H	27.08.2019

Scale @ A3 1:250

ENGINEERING CERTIFICATION (RPEQ)

Name	Signature	No.	Date

Project	JHLORJV Sydenham Station and Junction
Title	Hutton Street Parking Restrictions

Design	F.J	Drawn	F.J	Checked	M.D	
CONCEPT ONLY					Date	27.08.2019
Project Number	P3519	Sheet Number	4	Issue	003	



South Parade

Wairoa Street

5m

22.4m

R5-40 (L)

R5-40 (R)

Sign to be located in line with existing power poles

Sign to be located 5m from speed bump

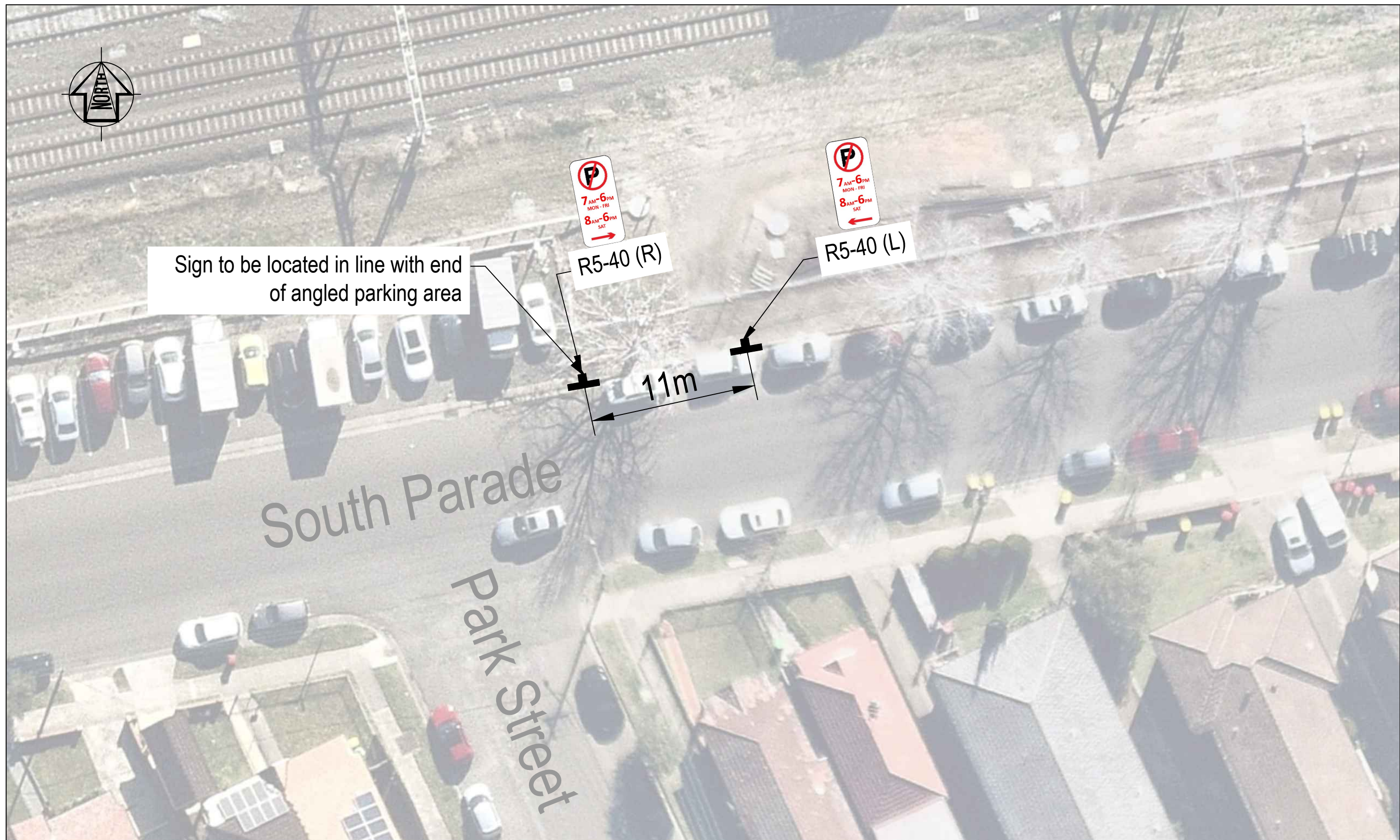
REVISIONS			
Issue	Revisions/Descriptions	Drawn	Date
001	Parking Restrictions - For Issue	F.J	19.08.2019
002	Revised Parking Restrictions - For Issue	F.J	23.08.2019
003	No Change	M.H	27.08.2019

Scale @ A3 1:250

ENGINEERING CERTIFICATION (RPEQ)			
Name	Signature	No.	Date

Project	JHLORJV Sydenham Station and Junction
Title	Wairoa Street Parking Restrictions

Design	F.J	Drawn	F.J	Checked	M.D
CONCEPT ONLY					
Project Number	P3519	Sheet Number	5	Date	27.08.2019
Issue					003



REVISIONS			
Issue	Revisions/Descriptions	Drawn	Date
001	Parking Restrictions - For Issue	F.J	19.08.2019
002	Revised Parking Restrictions - For Issue	F.J	23.08.2019
003	Amend Restriction Length	M.H	27.08.2019

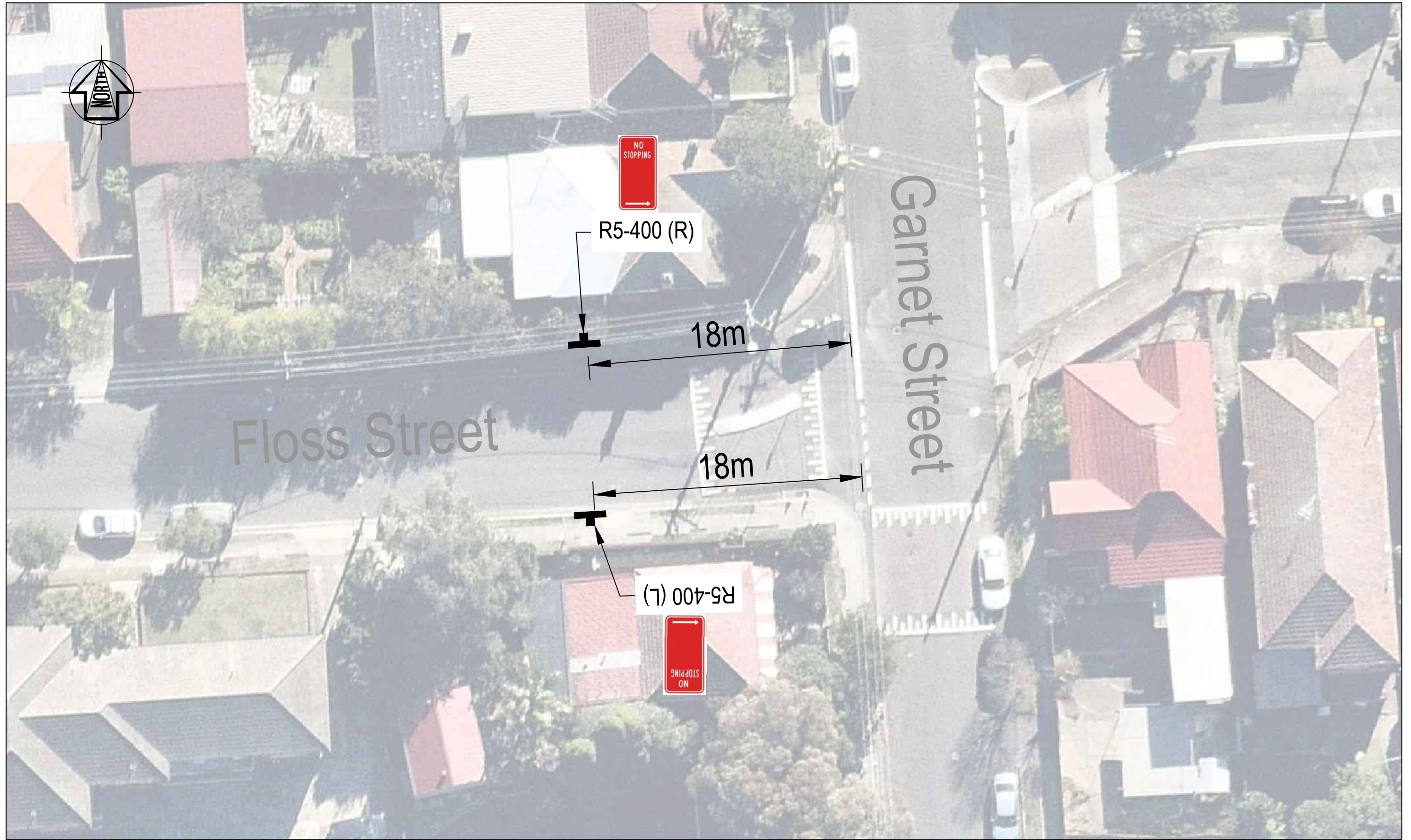
Scale @ A3 1:250

ENGINEERING CERTIFICATION (RPEQ)

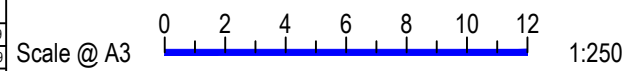
Name	Signature	No.	Date

Project	JHLORJV Sydenham Station and Junction
Title	South Parade Parking Restrictions

Design	M.H	Drawn	M.H	Checked	T.W
CONCEPT ONLY				Date	27.08.2019
Project Number	P3519	Sheet Number	6	Issue	003



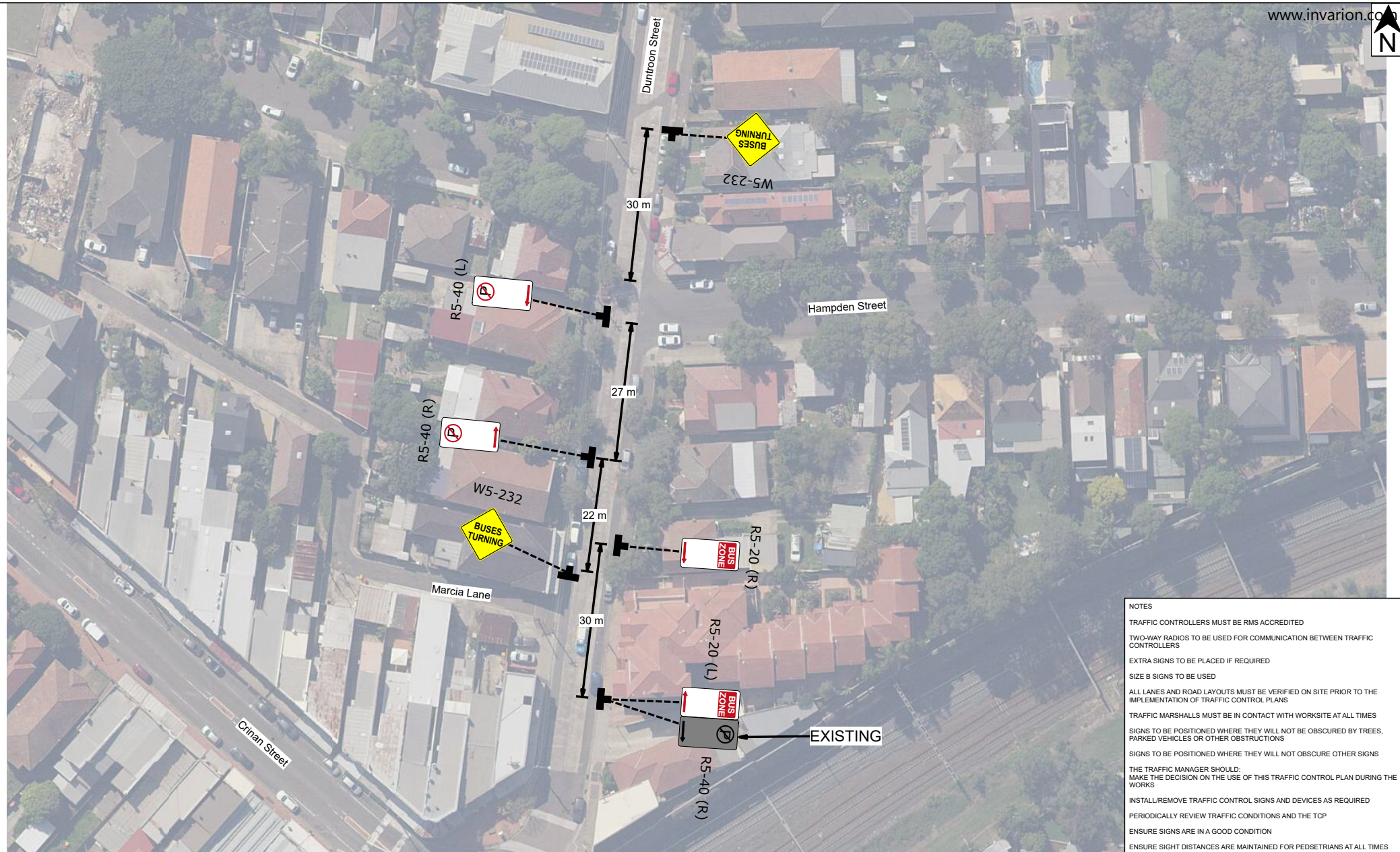
REVISIONS			
Issue	Revisions/Descriptions	Drawn	Date
001	Parking Restrictions - For Issue	F.J	19.08.2019
002	Revised Parking Restrictions - For Issue	F.J	23.08.2019
003	Amend Sheet Number	M.H	27.08.2019



ENGINEERING CERTIFICATION (RPEQ)			
Name	Signature	No.	Date

Project	JHLORJV Sydenham Station and Junction		
Title	Floss Street Parking Restrictions		

Design	F.J	Drawn	F.J	Checked	M.D
CONCEPT ONLY					
Date	27.08.2019				
Project Number	P3519	Sheet Number	7	Issue	003



NOTES

- TRAFFIC CONTROLLERS MUST BE RMS ACCREDITED
- TWO-WAY RADIOS TO BE USED FOR COMMUNICATION BETWEEN TRAFFIC CONTROLLERS
- EXTRA SIGNS TO BE PLACED IF REQUIRED
- SIZE B SIGNS TO BE USED
- ALL LANES AND ROAD LAYOUTS MUST BE VERIFIED ON SITE PRIOR TO THE IMPLEMENTATION OF TRAFFIC CONTROL PLANS
- TRAFFIC MARSHALLS MUST BE IN CONTACT WITH WORKSITE AT ALL TIMES
- SIGNS TO BE POSITIONED WHERE THEY WILL NOT BE OBSCURED BY TREES, PARKED VEHICLES OR OTHER OBSTRUCTIONS
- SIGNS TO BE POSITIONED WHERE THEY WILL NOT OBSCURE OTHER SIGNS
- THE TRAFFIC MANAGER SHOULD:
MAKE THE DECISION ON THE USE OF THIS TRAFFIC CONTROL PLAN DURING THE WORKS
- INSTALL/REMOVE TRAFFIC CONTROL SIGNS AND DEVICES AS REQUIRED
- PERIODICALLY REVIEW TRAFFIC CONDITIONS AND THE TCP
- ENSURE SIGNS ARE IN A GOOD CONDITION
- ENSURE SIGHT DISTANCES ARE MAINTAINED FOR PEDESTRIANS AT ALL TIMES

REVISIONS			
Issue	Revisions/Descriptions	Drawn	Date
001	INITIAL TCP	M.H	12/11/19

APPROVED
ALEX GIYAH
PREPARE A WORK ZONE TRAFFIC MANAGEMENT PLAN
CARD NO. 0051873071
EXPIRY 30/11/2021
Alex Giyahi

Project	SYDENHAM STATION AND JUNCTION			Design	M.H	Drawn	M.H	Checked	A.G
Title	TRAFFIC CONTROL PLAN GARNET AVENUE CLOSURE DUNTROUN STREET TEMPORARY BUS STOP			FOR CONSTRUCTION		Date	12/11/19		
				Project Number	P3519	Sheet Number	SMCSWSSJ-JHL -WEC-TF-PLN -0000 TBC	Issue	001

11.2 Appendix B – Traffic Control Plans

The following Traffic Control Plans (TCPs) are provided. These will be updated with the Traffic Control Supplier if necessary as the works progress and resubmitted if changed, for approval.

Table 60 – Traffic Control Plans

TCP Number	Location	Description of Control
SMCSWSSJ-JHL-WEC-TF-PLN-000003	Foord Avenue underbridge, Hurlstone Park - Northbound lane closure	3 NO. Traffic Controllers to implement stop-go contra-flow system
SMCSWSSJ-JHL-WEC-TF-PLN-000004	Broughton Street (Charles Street) underbridge, Canterbury - Northbound lane closure	2 NO. Traffic Controllers to implement stop-go contra-flow system
SMCSWSSJ-JHL-WEC-TF-PLN-000005	Wairoa Street underbridge, Canterbury - Northbound lane closure	5 NO. Traffic Controllers to implement stop-go contra-flow system
SMCSWSSJ-JHL-WEC-TF-PLN-000006	Victoria Street underbridge, Marrickville - Northbound lane closure	3 NO. Traffic Controllers to implement stop-go contra-flow system
SMCSWSSJ-JHL-WEC-TF-PLN-000007	Victoria Street underbridge, Marrickville - Southbound lane closure	3 NO. Traffic Controllers to implement stop-go contra-flow system
SMCSWSSJ-JHL-WEC-TF-PLN-000008	Foord Avenue underbridge, Hurlstone Park - Southbound lane closure	3 NO. Traffic Controllers to implement stop-go contra-flow system
SMCSWSSJ-JHL-WEC-TF-PLN-000009	Broughton Street (Charles Street) underbridge, Canterbury - Southbound lane closure	2 NO. Traffic Controllers to implement stop-go contra-flow system
SMCSWSSJ-JHL-WEC-TF-PLN-000010	Wairoa Street underbridge, Canterbury - Southbound lane closure	5 NO. Traffic Controllers to implement stop-go contra-flow system
SMCSWSSJ-JHL-WEC-TF-PLN-000011	Terrace Road (Ness Av) underbridge, Dulwich Hill - Entire Road Closure	Implement detour via Garnet Street bridge.
SMCSWSSJ-JHL-WEC-TF-PLN-000012	Albermarle Street overbridge, Dulwich Hill - Entire Road Closure	Implement detour via Livingstone Road, Beauchamp Street, Ewart Street, Wardell Road
SMCSWSSJ-JHL-WEC-TF-PLN-000013	Broughton Street (Charles Street) underbridge, Canterbury - Footpath Closure	2 NO. Traffic Controllers to implement temporary walkway
SMCSWSSJ-JHL-WEC-TF-PLN-000018	Randall Street, Dulwich Hill - Gate Access for HV vehicles	4 NO. Traffic Controllers to enable reverse from Livingstone Road to Randall Street to access Gate D (Area 3B/5A)
SMCSWSSJ-JHL-WEC-TF-PLN-000019	Wairoa Street, Canterbury - Gate Access for HV vehicles	3 NO. Traffic Controllers to enable reverse into access Gate P-1 at Cooks River Path (Area 13B)
SMCSWSSJ-JHL-WEC-TF-PLN-000020	Ewart Street, Dulwich Hill - Gate Access for HV vehicles	1 NO. Traffic Controllers to enable access to Gate G at Ewart Street (Area 7B)
SMCSWSSJ-JHL-WEC-TF-PLN-000022	Railway Street, Hurlstone Park - Gate Access for HV vehicles	2 NO. Traffic Controllers to enable access to Gate I at Railway Street (Area 9A)

TCP Number	Location	Description of Control
SMCSWSSJ-JHL-WEC-TF-PLN-000023	Riverdale Avenue, Marrickville - Gate Access for HV vehicles	3 NO. Traffic Controllers to enable access to Riverdale Access Gate (Area 1B possession only).
SMCSWSSJ-JHL-WEC-TF-PLN-000024	Melford St, Canterbury - Entire Road Closure	Implement detour via Duntroon Street bridge.
SMCSWSSJ-JHL-WEC-TF-PLN-000026	Way Street, Marrickville Bus Management TCP	Implement bus signage.
SMCSWSSJ-JHL-WEC-TF-PLN-000027	Livingstone Road, Marrickville Northbound Closure	Implement waterfilled barriers and signage.
SMCSWSSJ-JHL-WEC-TF-PLN-000028	Livingstone Road, Marrickville Southbound Closure	Implement waterfilled barriers and signage.
SMCSWSSJ-JHL-WEC-TF-PLN-000029	Melford Street, Canterbury - Gate Access for HV Vehicles	Implement signage for trucks turning area.
SMCSWSSJ-JHL-WEC-TF-PLN-000030	Warburton Street, Marrickville - Gate Access for HV vehicles	Implement signage for trucks turning area and remove parking spaces.
SMCSWSSJ-JHL-WEC-TF-PLN-000031	Broughton Street (Charles Street) underbridge, Canterbury - Northbound lane closure	2 NO. Traffic Controllers to implement stop-go contra-flow system
SMCSWSSJ-JHL-WEC-TF-PLN-000032	Wairoa Street Bridge, Canterbury - Full road closure	4 NO. Traffic Controllers - TBC
SMCSWSSJ-JHL-WEC-TF-PLN-000033	Melford Street, Canterbury - Southbound Closure	
SMCSWSSJ-JHL-WEC-TF-PLN-000034	Melford Street, Canterbury - Northbound Closure	
SMCSWSSJ-JHL-WEC-TF-PLN-000036	Livingstone Road, Marrickville - Footpath Closure	1 NO. Traffic Controllers to implement parking space removal & Pedestrian Control
SMCSWSSJ-JHL-WEC-TF-PLN-000037	Garnett St, Hurlstone Park - Full Road Closure	
SMCSWSSJ-JHL-WEC-TF-PLN-000038	Foord Ave, Hurlstone Park - Full Road Closure	
SMCSWSSJ-JHL-WEC-TF-PLN-000039	Charles St, Canterbury - Full Road Closure	
SMCSWSSJ-JHL-WEC-TF-PLN-000041	South Parade TCP (HV) - Campsie	
SMCSWSSJ-JHL-WEC-TF-PLN-000042	Charles St Site Compound Entrance	
SMCSWSSJ-JHL-WEC-TF-PLN-000043	Ness Avenue (Ewart St) Gate Control	
SMCSWSSJ-JHL-WEC-TF-PLN-000044	Broughton Street Gate Access	
SMCSWSSJ-JHL-WEC-TF-PLN-000045	Access Z Gate Access	
SMCSWSSJ-JHL-WEC-TF-PLN-000046	Garnet St Partial Road closure	2 NO. Traffic Controllers to implement stop-go contra-flow system

TCP Number	Location	Description of Control
SMCSWSSJ-JHL-WEC-TF-PLN-000047	Garnet St Partial Road closure	2 NO. Traffic Controllers to implement stop-go contra-flow system
SMCSWSSJ-JHL-WEC-TF-PLN-000048	Wairoa St Partial Road closure	2 NO. Traffic Controllers to implement stop-go contra-flow system
SMCSWSSJ-JHL-WEC-TF-PLN-000049	Wairoa St, Contraflow Western side	2 NO. Traffic Controllers to implement stop-go contra-flow system
SMCSWSSJ-JHL-WEC-TF-PLN-000050	Wairoa St, Contraflow Eastern side	2 NO. Traffic Controllers to implement stop-go contra-flow system



NOTES

- TRAFFIC CONTROLLERS MUST BE RMS ACCREDITED
- TWO-WAY RADIOS TO BE USED FOR COMMUNICATION BETWEEN TRAFFIC CONTROLLERS
- EXTRA SIGNS TO BE PLACED IF REQUIRED
- SIZE B SIGNS TO BE USED
- TRAFFIC CONTROLLERS TO MANAGE TRAFFIC AND PEDESTRIAN THROUGH THE WORK AREA
- TRAFFIC CONTROLLERS TO ENSURE THEY HAVE AN ESCAPE ROUTE AT ALL TIMES AND WEAR APPROPRIATE PPP
- ALL LANES AND ROAD LAYOUTS MUST BE VERIFIED ON SITE PRIOR TO THE IMPLEMENTATION OF TRAFFIC CONTROL PLANS
- CONE SPACING TO COMPLY WITH TCAWS MANUAL TABLE 5.1.
- TAPER LENGTH TO COMPLY WITH TCAWS MANUAL TABLE 5.2
- TRAFFIC MARSHALLS MUST BE IN CONTACT WITH WORKSITE AT ALL TIMES
- SIGNS TO BE POSITIONED WHERE THEY WILL NOT BE OBTSCURED BY TREES, PARKED VEHICLES OR OTHER OBSTRUCTIONS
- SIGNS TO BE POSITIONED WHERE THEY WILL NOT OBTSCURE OTHER SIGNS
- THE TRAFFIC MANAGER SHOULD MAKE THE DECISION ON THE USE OF THIS TRAFFIC CONTROL PLAN DURING THE WORKS
- INSTALL/REMOVE TRAFFIC CONTROL SIGNS AND DEVICES AS REQUIRED
- PERIODICALLY REVIEW TRAFFIC CONDITIONS AND THE TCP
- ENSURE SIGNS ARE IN A GOOD CONDITION
- ENSURE SIGHT DISTANCES ARE MAINTAINED FOR PEDESTRIANS AT ALL TIMES

Project	SYDENHAM TO BANKSTOWN WORKS	Design	M.H	Drawn	M.H	Checked	A.G
Title	SYDENHAM TO BANKSTOWN GATE ACCESS TRAFFIC CONTROL PLAN RAILWAY STREET GATE	Project Number	P3519	Sheet Number	SMCSWSS-JHL -WECTF-PLN -000022	Date	10/07/19
		FOR CONSTRUCTION					
		Issue	008				

APPROVED
ALEX GIYAH
CARD NO. 0051873071
EXPIRY 30/11/2021

PREPARE A WORK ZONE TRAFFIC MANAGEMENT PLAN

Issue	Revisions/Descriptions	Drawn	Date
001	INITIAL TCP	M.H	17/01/19
002	FOR CONSTRUCTION ISSUE	M.H	23/01/19
003	AMENDMENT DUE TO COULNIL COMMENTS	M.H	25/01/19
004	NO CHANGE	M.H	29/01/19
005	COMBINE SNEW TCPS AND AMEND SHEET NUMBER	M.H	17/04/19
006	AMENDMENT CTMP REV 1 COMMENTS	M.H	18/04/19
007	NO CHANGE	M.H	16/05/19
008	ADDED AND RELOCATED SIGNS	M.H	10/07/19

Gold Coast
Suite 26, 58 Riverwalk Avenue, Robina QLD 4226
P: (07) 5592 5377
W: www.bitziosconsulting.com.au

Brisbane
Level 2, 428 Upper Edward Street, Spring Hill 4000.
P: (07) 3831 4442
E: admin@bitziosconsulting.com.au

Sydney
Studio 203, 3 Gladstone Street, Newtown NSW 2042.
P: (02) 9557 6202

BITZIOS consulting

traffic engineering • transport planning

NOTES

- TRAFFIC CONTROLLERS MUST BE RMS ACCREDITED
- TWO-WAY RADIOS TO BE USED FOR COMMUNICATION BETWEEN TRAFFIC CONTROLLERS
- ON-STREET PARKING TO BE RESTRICTED WITH CONES DURING TCP OPERATION
- EXTRA SIGNS TO BE PLACED IF REQUIRED
- SIZE B SIGNS TO BE USED
- ALL LANES AND ROAD LAYOUTS MUST BE VERIFIED ON SITE PRIOR TO THE IMPLEMENTATION OF TRAFFIC CONTROL PLANS
- TRAFFIC MARSHALS MUST BE IN CONTACT WITH WORKSITE AT ALL TIMES
- SIGNS TO BE POSITIONED WHERE THEY WILL NOT BE OBSCURED BY TREES, PARKED VEHICLES OR OTHER OBSTRUCTIONS
- SIGNS TO BE POSITIONED WHERE THEY WILL NOT OBSCURE OTHER SIGNS
- THE TRAFFIC MANAGER SHOULD:
 - MAKE THE DECISION ON THE USE OF THIS TRAFFIC CONTROL PLAN DURING THE WORKS
- INSTALL/REMOVE TRAFFIC CONTROL SIGNS AND DEVICES AS REQUIRED
- PERIODICALLY REVIEW TRAFFIC CONDITIONS AND THE TCP
- ENSURE SIGNS ARE IN A GOOD CONDITION
- ENSURE SIGHT DISTANCES ARE MAINTAINED FOR PEDESTRIANS AT ALL TIMES



TRUCK TURNING AREA

CONE TO RESTRICT PARKING

BITZIOS
consulting
traffic engineering ■ transport planning

Gold Coast
Suite 26, 58 Riverwalk Avenue, Robina QLD 4226.
P: (07) 5562-5377
W: www.bitziosconsulting.com.au
Brisbane
Level 2, 428 Upper Edward Street, Spring Hill 4000.
P: (07) 3831-4442
E: admin@bitziosconsulting.com.au
Sydney
Studio 203, 3 Gladstone Street, Newtown NSW 2042.
P: (02) 9537-6202

REVISIONS				
Issue	Revisions/Descriptions	Drawn	Date	
001	INITIAL TCP	M.H	17/01/19	
002	FOR CONSTRUCTION ISSUE	M.H	23/01/19	
003	NO CHANGE	M.H	25/01/19	
004	NO CHANGE	M.H	29/01/19	
005	COMBINE SMEW TCPS AND AMEND SHEET NUMBER	M.H	11/04/19	
006	AMENDMENT CTMP REV 1 COMMENTS	M.H	18/04/19	
007	NO CHANGE	M.H	16/05/19	

APPROVED
ALEX GIYAH
PREPARE A WORK ZONE TRAFFIC MANAGEMENT PLAN
CARD NO. 0051873071
EXPIRY 30/11/2021

Project
SYDENHAM TO BANKSTOWN WORKS

Title
SYDENHAM TO BANKSTOWN GATE ACCESS
TRAFFIC CONTROL PLAN
RIVERDALE AVENUE GATE

Design	M.H	Drawn	M.H	Checked	A.G	
FOR CONSTRUCTION					Date	16/05/19
Project Number	P3519	Sheet Number	SMCSWSSJ-JHL -WEC-TF-PLN -000023	Issue	007	



Legend

Work Area



- NOTES**
- TRAFFIC CONTROLLERS MUST BE RMS ACCREDITED
 - TWO-WAY RADIOS TO BE USED FOR COMMUNICATION BETWEEN TRAFFIC CONTROLLERS
 - EXTRA SIGNS TO BE PLACED IF REQUIRED
 - SIZE B SIGNS TO BE USED
 - ALL LANES AND ROAD LAYOUTS MUST BE VERIFIED ON SITE PRIOR TO THE IMPLEMENTATION OF TRAFFIC CONTROL PLANS
 - TRAFFIC MARSHALLS MUST BE IN CONTACT WITH WORKSITE AT ALL TIMES
 - SIGNS TO BE POSITIONED WHERE THEY WILL NOT BE OBSCURED BY TREES, PARKED VEHICLES OR OTHER OBSTRUCTIONS
 - SIGNS TO BE POSITIONED WHERE THEY WILL NOT OBSCURE OTHER SIGNS
 - THE TRAFFIC MANAGER SHOULD MAKE THE DECISION ON THE USE OF THIS TRAFFIC CONTROL PLAN DURING THE WORKS
 - INSTALL/REMOVE TRAFFIC CONTROL SIGNS AND DEVICES AS REQUIRED
 - PERIODICALLY REVIEW TRAFFIC CONDITIONS AND THE TCP
 - ENSURE SIGNS ARE IN A GOOD CONDITION
 - ENSURE SIGHT DISTANCES ARE MAINTAINED FOR PEDSTRIANS AT ALL TIMES



Gold Coast
 Suite 26, 58 Riverwalk Avenue, Robina QLD 4226
 P: (07) 5562-5377
 W: www.bitziosconsulting.com.au
Brisbane
 Level 2, 428 Upper Edward Street, Spring Hill 4000
 P: (07) 3831-4442
 E: admin@bitziosconsulting.com.au
Sydney
 Studio 203, 3 Gladstone Street, Newtown NSW 2042
 P: (02) 9537-6202

REVISIONS				
Issue	Revisions/Descriptions	Drawn	Date	
001	NOT USED	-	-	-
002	NOT USED	-	-	-
003	NOT USED	-	-	-
004	NOT USED	-	-	-
005	NOT USED	-	-	-
006	NOT USED	-	-	-
007	INITIAL TCP	M.H	16/05/19	
008	ADD CANBERRA STREET SIGNAGE	M.H	26/08/19	

APPROVED
 ALEX GYAH
 PREPARE A WORK ZONE TRAFFIC MANAGEMENT PLAN
 CARD NO. 0051873071
 EXPIRY 30/11/2021

Project	SYDENHAM TO BANKSTOWN WORKS			Design	M.H	Drawn	M.H	Checked	A.G
Title	SYDENHAM TO BANKSTOWN BRIDGE WORKS TRAFFIC CONTROL PLAN MELFORD STREET ENTIRE ROAD CLOSURE			FOR CONSTRUCTION		Date	26/08/19		
Project Number	P3519	Sheet Number	SMCSWSSJ-JHL -WEC-TF-PLN -000024	Issue	008				



Legend

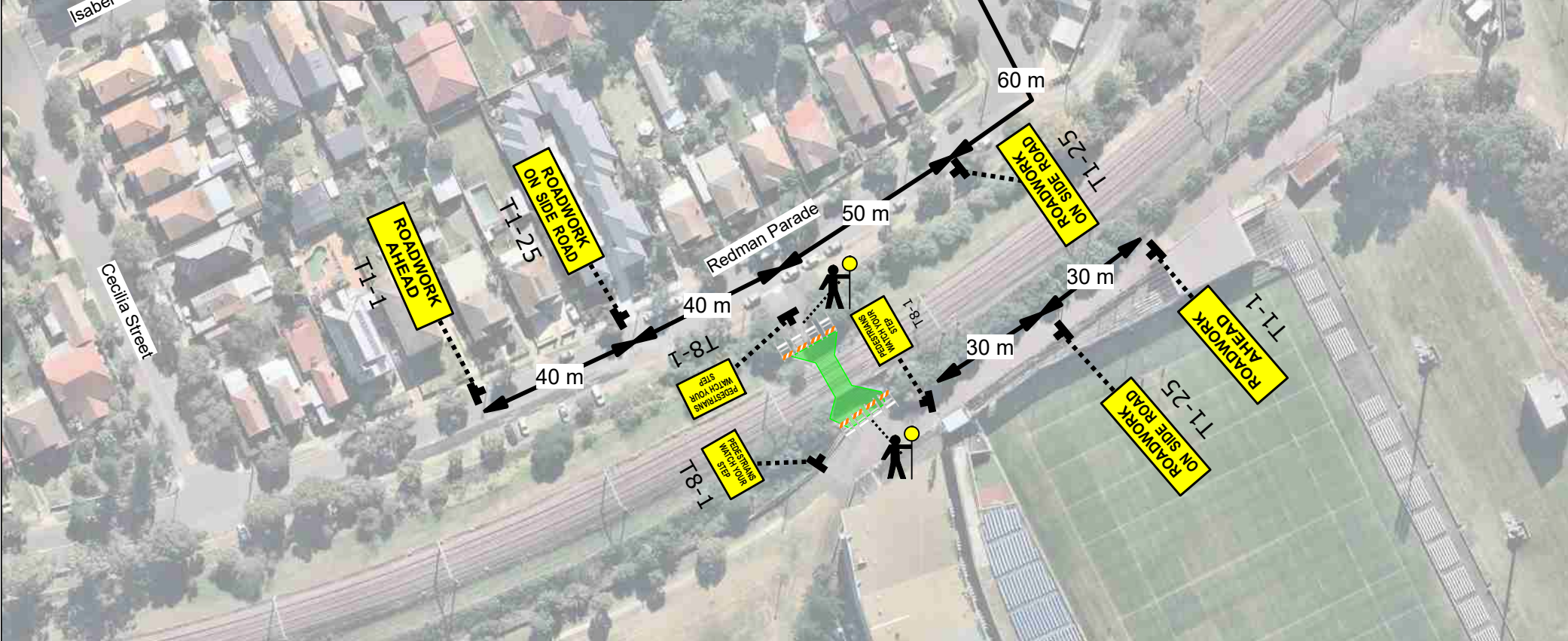
- Type I Barricade
- Work Area

NOTES

- TRAFFIC CONTROLLERS ARE TO ESCORT PEDESTRIANS THROUGH THE WORK SITE
- PROTECTIVE BARRIERS ARE TO BE PLACED AT WORK ZONE BOUNDARY
- TRAFFIC CONTROLLERS MUST BE RMS ACCREDITED
- TWO-WAY RADIOS TO BE USED FOR COMMUNICATION BETWEEN TRAFFIC CONTROLLERS
- EXTRA SIGNS TO BE PLACED IF REQUIRED
- SIZE B SIGNS TO BE USED
- ALL LANES AND ROAD LAYOUTS MUST BE VERIFIED ON SITE PRIOR TO THE IMPLEMENTATION OF TRAFFIC CONTROL PLANS
- TRAFFIC MARSHALS MUST BE IN CONTACT WITH WORKSITE AT ALL TIMES
- SIGNS TO BE POSITIONED WHERE THEY WILL NOT BE OBTSCURED BY TREES, PARKED VEHICLES OR OTHER OBSTRUCTIONS
- SIGNS TO BE POSITIONED WHERE THEY WILL NOT OBSCURE OTHER SIGNS

THE TRAFFIC MANAGER SHOULD:

- MAKE THE DECISION ON THE USE OF THIS TRAFFIC CONTROL PLAN DURING THE WORKS
- INSTALL/REMOVE TRAFFIC CONTROL SIGNS AND DEVICES AS REQUIRED
- PERIODICALLY REVIEW TRAFFIC CONDITIONS AND THE TCP
- ENSURE SIGNS ARE IN A GOOD CONDITION
- ENSURE SIGHT DISTANCES ARE MAINTAINED FOR PEDSTRIANS AT ALL TIMES



BITZIOS

consulting

traffic engineering ■ transport planning

Gold Coast
 Suite 26, 58 Riverwalk Avenue, Robina QLD 4226.
 P: (07) 5562-5377
 W: www.bitziosconsulting.com.au

Brisbane
 Level 2, 428 Upper Edward Street, Spring Hill 4000.
 P: (07) 3831-4442
 E: admin@bitziosconsulting.com.au

Sydney
 Studio 203, 3 Gladstone Street, Newtown NSW 2042.
 P: (02) 9537-6202

REVISIONS			
Issue	Revisions/Descriptions	Drawn	Date
001	INITIAL TCP	M.H	06/06/19

APPROVED
 ALEX GIYAH
 PREPARE A WORK ZONE TRAFFIC MANAGEMENT PLAN
 CARD NO. 0051873071
 EXPIRY 30/11/2021

Project	SYDENHAM TO BANKSTOWN WORKS	Design	M.H	Drawn	M.H	Checked	A.G
Title	SYDENHAM TO BANKSTOWN BRIDGE INSPECTION TRAFFIC CONTROL PLAN REDMAN PARADE PEDESTRIAN UNDERPASS FULL CLOSURE	FOR CONSTRUCTION		Date	06/06/19		
Project Number	P3519	Sheet Number	SMCSWSSJ-JHL -WEC-TF-PLN -000025	Issue	001		



Legend

- Bollard
- Bus Drop Off Area
- Pedestrian Area

NOTES

TRAFFIC CONTROLLERS MUST BE RMS ACCREDITED

TWO-WAY RADIOS TO BE USED FOR COMMUNICATION BETWEEN TRAFFIC CONTROLLERS

EXTRA SIGNS TO BE PLACED IF REQUIRED

SIZE B SIGNS TO BE USED

ALL LANES AND ROAD LAYOUTS MUST BE VERIFIED ON SITE PRIOR TO THE IMPLEMENTATION OF TRAFFIC CONTROL PLANS

TRAFFIC MARSHALLS MUST BE IN CONTACT WITH WORKSITE AT ALL TIMES

SIGNS TO BE POSITIONED WHERE THEY WILL NOT BE OBSCURED BY TREES, PARKED VEHICLES OR OTHER OBSTRUCTIONS

SIGNS TO BE POSITIONED WHERE THEY WILL NOT OBSCURE OTHER SIGNS

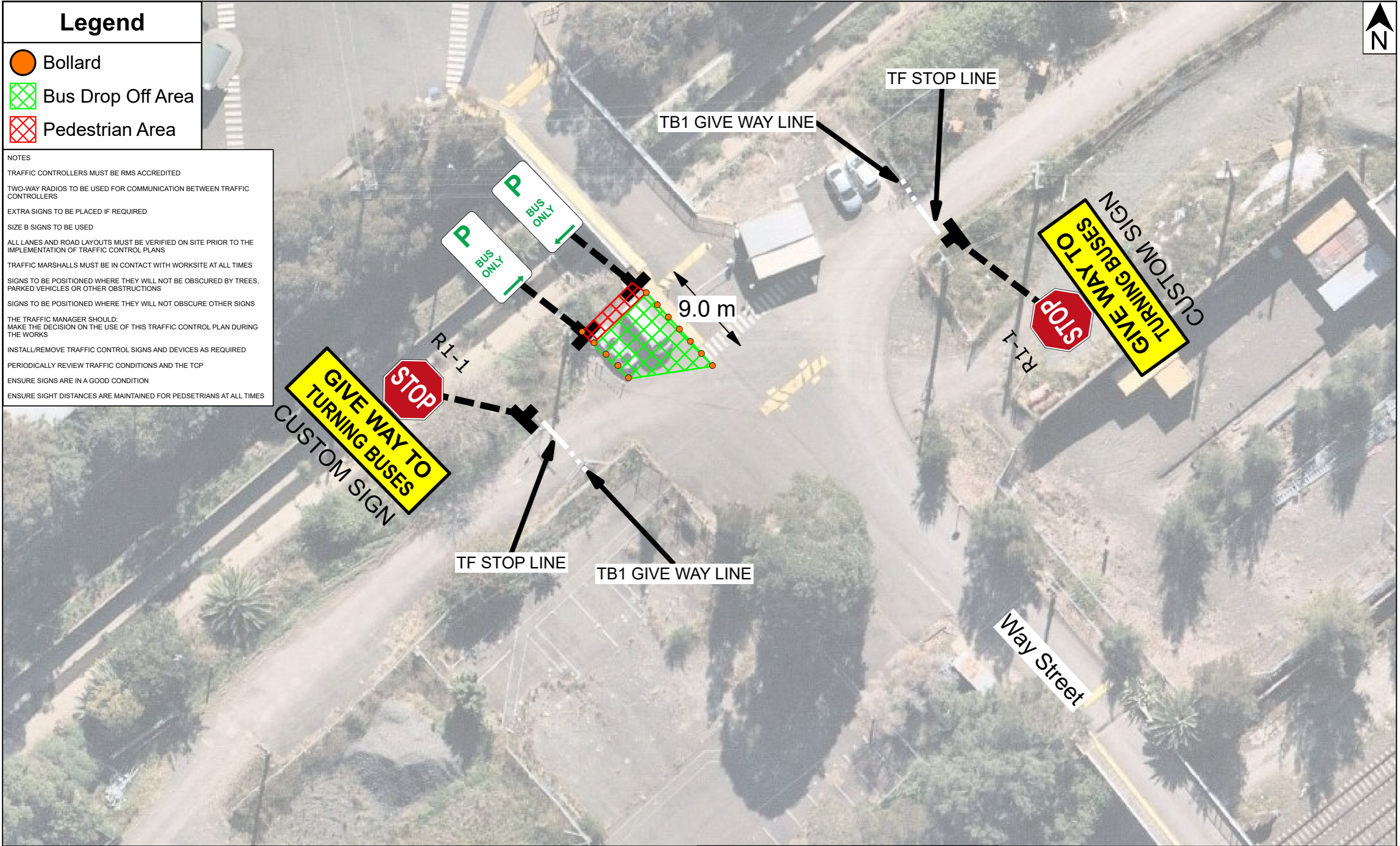
THE TRAFFIC MANAGER SHOULD:
MAKE THE DECISION ON THE USE OF THIS TRAFFIC CONTROL PLAN DURING THE WORKS

INSTALL/REMOVE TRAFFIC CONTROL SIGNS AND DEVICES AS REQUIRED

PERIODICALLY REVIEW TRAFFIC CONDITIONS AND THE TCP

ENSURE SIGNS ARE IN A GOOD CONDITION

ENSURE SIGHT DISTANCES ARE MAINTAINED FOR PEDESTRIANS AT ALL TIMES



BITZIOS
consulting
traffic engineering ■ transport planning

Gold Coast
Suite 26, 58 Riverwalk Avenue, Robina QLD 4226.
P: (07) 5562-5377
W: www.bitziosconsulting.com.au

Brisbane
Level 2, 428 Upper Edward Street, Spring Hill 4000.
P: (07) 3831-4442
E: admin@bitziosconsulting.com.au

Sydney
Studio 203, 3 Gladstone Street, Newtown NSW 2042.
P: (02) 9657 6202

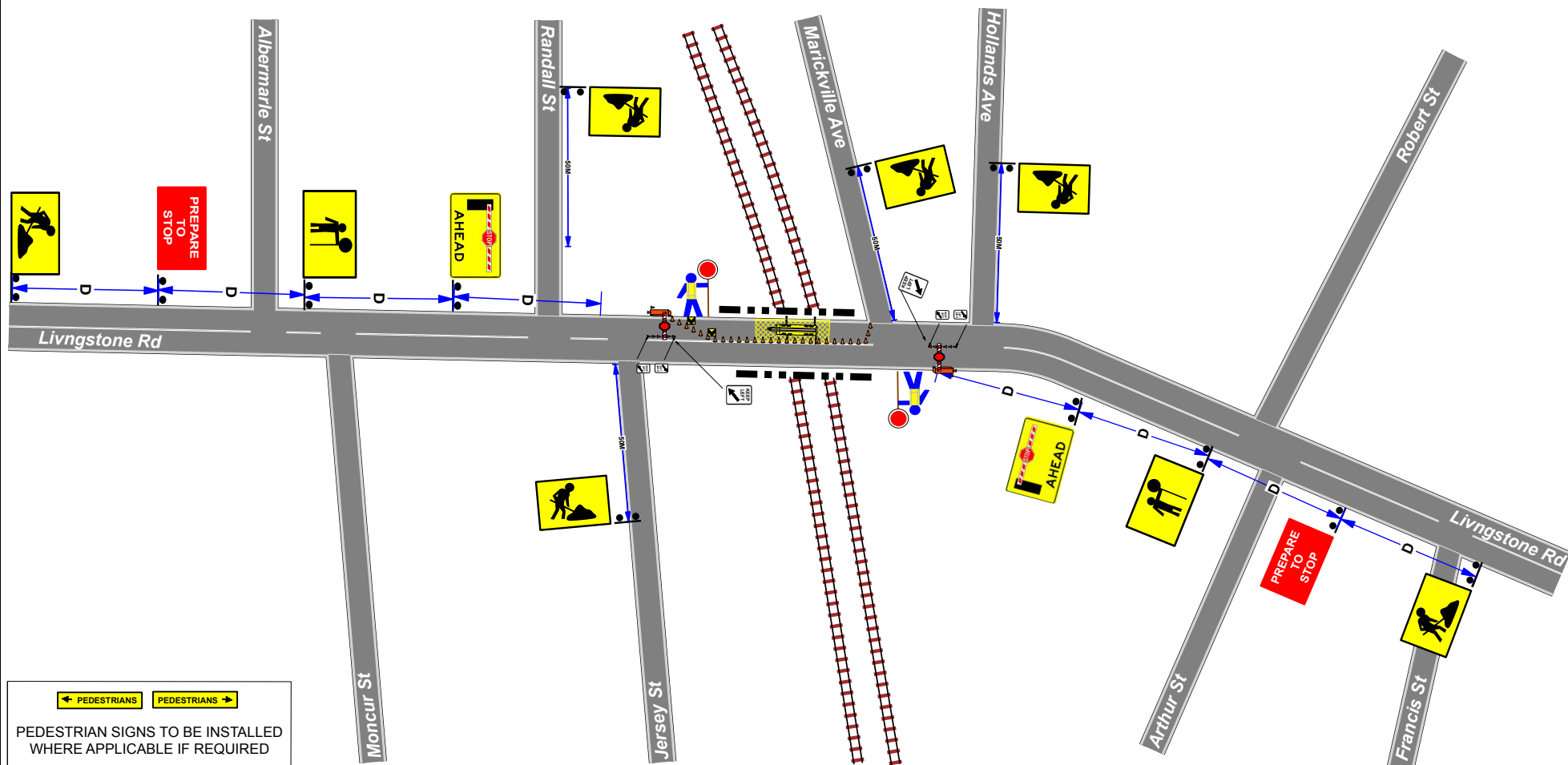
REVISIONS			
Issue	Revisions/Descriptions	Drawn	Date
001	INITIAL TCP	M.H	28/06/19

APPROVED
ALEX GIYAHI
PREPARE A WORK ZONE TRAFFIC MANAGEMENT PLAN
CARD NO. 0051873071
EXPIRY 30/11/2021

Project
SYDENHAM TO BANKSTOWN WORKS

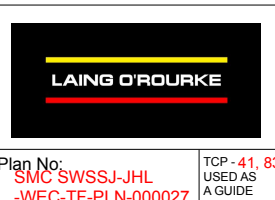
Title
SYDENHAM TO BANKSTOWN
BUS MANAGEMENT
TRAFFIC CONTROL PLAN
WAY STREET

Design M.H	Drawn M.H	Checked A.G
FOR CONSTRUCTION		
Date 28/06/19	Project Number P3519	Issue 001



← PEDESTRIANS PEDESTRIANS →
 PEDESTRIAN SIGNS TO BE INSTALLED WHERE APPLICABLE IF REQUIRED

Client: **Laing O'Rourke**
 Scope of Works: **Construction works**
 Job location: **Livingstone Rd, Marrickville**
 Author: **Sandeep kumar Kolimi**
 Cert. No: **0051756294**



Plan No: **SMC SWSSJ-JHL -WEC-TF-PLN-000027**
 TCP - 41, 83 USED AS A GUIDE

WORKERS ON FOOT
 NO GO ZONE = [Red bar]
 RESTRICTED ZONE = [Purple bar]
 SHARED ZONE = [Green bar]
 SITE EXIT = (X)
 SITE ENTRY = (E)
 EVACUATION POINT = (EP)

Implemented By
 Name -
 Cert No -
 Date -
 Signed -

Dimension 'D'
 AS 1742.3: A distance expressed in metres, determined in accordance with Clause 4.1.5 and used for positioning of advance signs and related purposes.

Speed of Traffic km/h	Dimension m
55 or less	15
56 to 65	45
Greater than 65	speed of traffic, in Km/h

WORK AREA = [Yellow hatched box]

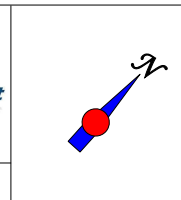
Taper Lengths

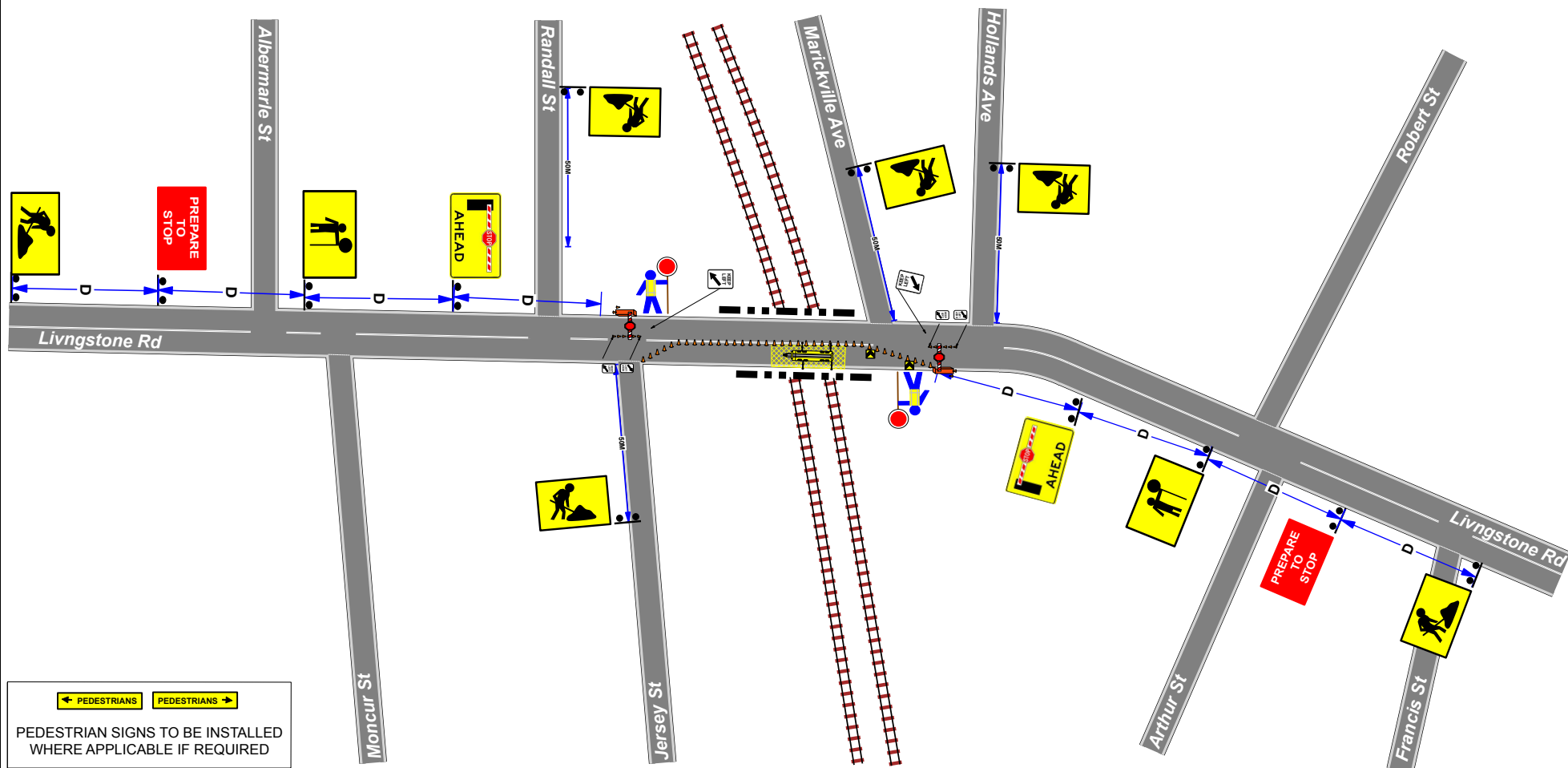
Approximate speed of traffic	Traffic control at beginning of taper	Lateral shift taper	Merge taper
45 or less	15	0	15
46 - 55	15	15	30
56 - 65	30	30	60
66 - 75	N/A	70	115
76 - 85	N/A	80	130
86 - 95	N/A	90	145
96 - 105	N/A	100	160
Greater than 106	N/A	110	180

PLAN NOT TO SCALE

Web: www.ddtraffic.com.au
 Email: sydney@dd-group.com.au
 Phone: 1300 597 622

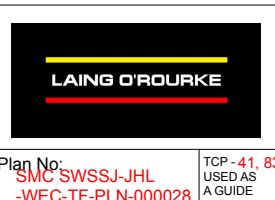
D&D Traffic Management does not accept liability for implementation of this tcp if not directly involved in its implementation





← PEDESTRIANS PEDESTRIANS →
 PEDESTRIAN SIGNS TO BE INSTALLED WHERE APPLICABLE IF REQUIRED

Client: **Laing O'Rourke**
 Scope of Works: **Construction works**
 Job location: **Livingstone Rd, Marrickville**
 Author: **Sandeep kumar Kolimi**
 Cert. No: **0051756294**



Plan No: **SMC SWSSJ-JHL -WEC-TF-PLN-000028**
 TCP - 41, 83 USED AS A GUIDE

WORKERS ON FOOT
 NO GO ZONE = [Red bar]
 RESTRICTED ZONE = [Purple bar]
 SHARED ZONE = [Green bar]
 SITE EXIT = (X)
 SITE ENTRY = (E)
 EVACUATION POINT = (EP)

Implemented By
 Name -
 Cert No -
 Date -
 Signed -

Dimension 'D'
 AS 1742.3: A distance expressed in metres, determined in accordance with Clause 4.1.5 and used for positioning of advance signs and related purposes.

Speed of Traffic km/h	Dimension m
55 or less	15
56 to 65	45
Greater than 65	speed of traffic, in Km/h

WORK AREA = [Yellow hatched box]

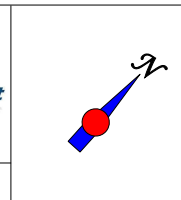
Taper Lengths

Approximate speed of traffic	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
Greater than 106	N/A	110	180

PLAN NOT TO SCALE

Web: www.ddtraffic.com.au
 Email: sydney@dd-group.com.au
 Phone: 1300 597 622


D&D Traffic Management does not accept liability for implementation of this tcp if not directly involved in its implementation





NOTES
 EXTRA SIGNS TO BE PLACED IF REQUIRED
 SIZE B SIGNS TO BE USED
 TRUCKS TO ACCESS AND EGRESS SITE IN FORWARD DIRECTION
 ALL LANES AND ROAD LAYOUTS MUST BE VERIFIED ON SITE PRIOR TO THE IMPLEMENTATION OF TRAFFIC CONTROL PLANS
 SIGNS TO BE POSITIONED WHERE THEY WILL NOT BE OBSCURED BY TREES, PARKED VEHICLES OR OTHER OBSTRUCTIONS
 SIGNS TO BE POSITIONED WHERE THEY WILL NOT OBSCURE OTHER SIGNS
 THE TRAFFIC MANAGER SHOULD:
 MAKE THE DECISION ON THE USE OF THIS TRAFFIC CONTROL PLAN DURING THE WORKS
 INSTALL/REMOVE TRAFFIC CONTROL SIGNS AND DEVICES AS REQUIRED
 PERIODICALLY REVIEW TRAFFIC CONDITIONS AND THE TCP
 ENSURE SIGNS ARE IN A GOOD CONDITION
 ENSURE SIGHT DISTANCES ARE MAINTAINED FOR PEDESTRIANS AT ALL TIMES

Legend

 Work Area

Project	SYDENHAM TO BANKSTOWN WORKS		Design	M.H	Drawn	M.H	Checked	A.G	
	Title		SYDENHAM TO BANKSTOWN TRAFFIC CONTROL PLAN		Melford Street Gate Access for Heavy Vehicles		Date	10/07/19	
Project Number		P3519		Sheet Number		SMCSWSS-LHL -WECTE-PLN		Issue	001

APPROVED
 ALEX GIYAH
 CARD NO. 0051873071
 EXPIRY 30/11/2021

PREPARE A WORK ZONE TRAFFIC MANAGEMENT PLAN

Issue	Revisions/Descriptions	Drawn	Date
001	INITIAL TCP	M.H	10/07/19

Gold Coast
 Suite 26, 58 Riverwalk, Avenue, Robina QLD 4226
 P: (07) 5562 6377
 W: www.bitziosconsulting.com.au

Brisbane
 Level 2, 428 Upper Edward Street, Spring Hill 4000.
 P: (07) 3831 4442
 E: admin@bitziosconsulting.com.au

Sydney
 Studio 203, 3 Gladstone Street, Newtown NSW 2042
 P: (02) 9557 6202

BITZIOS
 consulting
 traffic engineering ■ transport planning

Legend

 Cone

NOTES

EXTRA SIGNS TO BE PLACED IF REQUIRED

SIZE B SIGNS TO BE USED

TRUCKS TO ACCESS AND EGRESS SITE IN FORWARD DIRECTION

ALL LANES AND ROAD LAYOUTS MUST BE VERIFIED ON SITE PRIOR TO THE IMPLEMENTATION OF TRAFFIC CONTROL PLANS

SIGNS TO BE POSITIONED WHERE THEY WILL NOT BE OBSCURED BY TREES, PARKED VEHICLES OR OTHER OBSTRUCTIONS

SIGNS TO BE POSITIONED WHERE THEY WILL NOT OBSCURE OTHER SIGNS

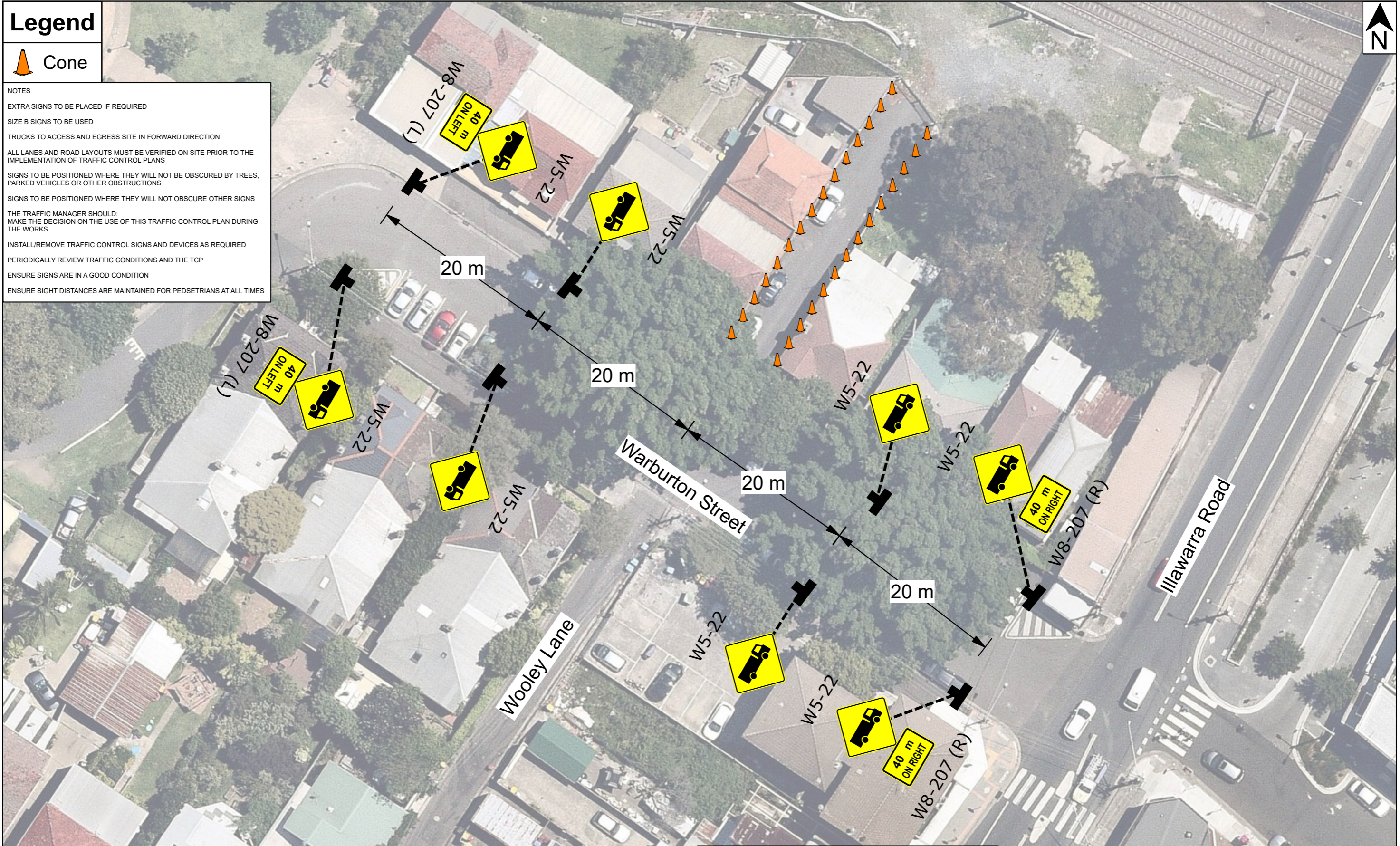
THE TRAFFIC MANAGER SHOULD:
MAKE THE DECISION ON THE USE OF THIS TRAFFIC CONTROL PLAN DURING THE WORKS

INSTALL/REMOVE TRAFFIC CONTROL SIGNS AND DEVICES AS REQUIRED

PERIODICALLY REVIEW TRAFFIC CONDITIONS AND THE TCP

ENSURE SIGNS ARE IN A GOOD CONDITION

ENSURE SIGHT DISTANCES ARE MAINTAINED FOR PEDESTRIANS AT ALL TIMES



BITZIOS
consulting

traffic engineering ■ transport planning

Gold Coast
Suite 26, 58 Rivenwalk Avenue, Robina QLD 4226.
P: (07) 5562-5377
W: www.bitziosconsulting.com.au

Brisbane
Level 2, 428 Upper Edward Street, Spring Hill 4000.
P: (07) 3831-4442
E: admin@bitziosconsulting.com.au

Sydney
Studio 203, 3 Gladstone Street, Newtown NSW 2042.
P: (02) 9557 6202

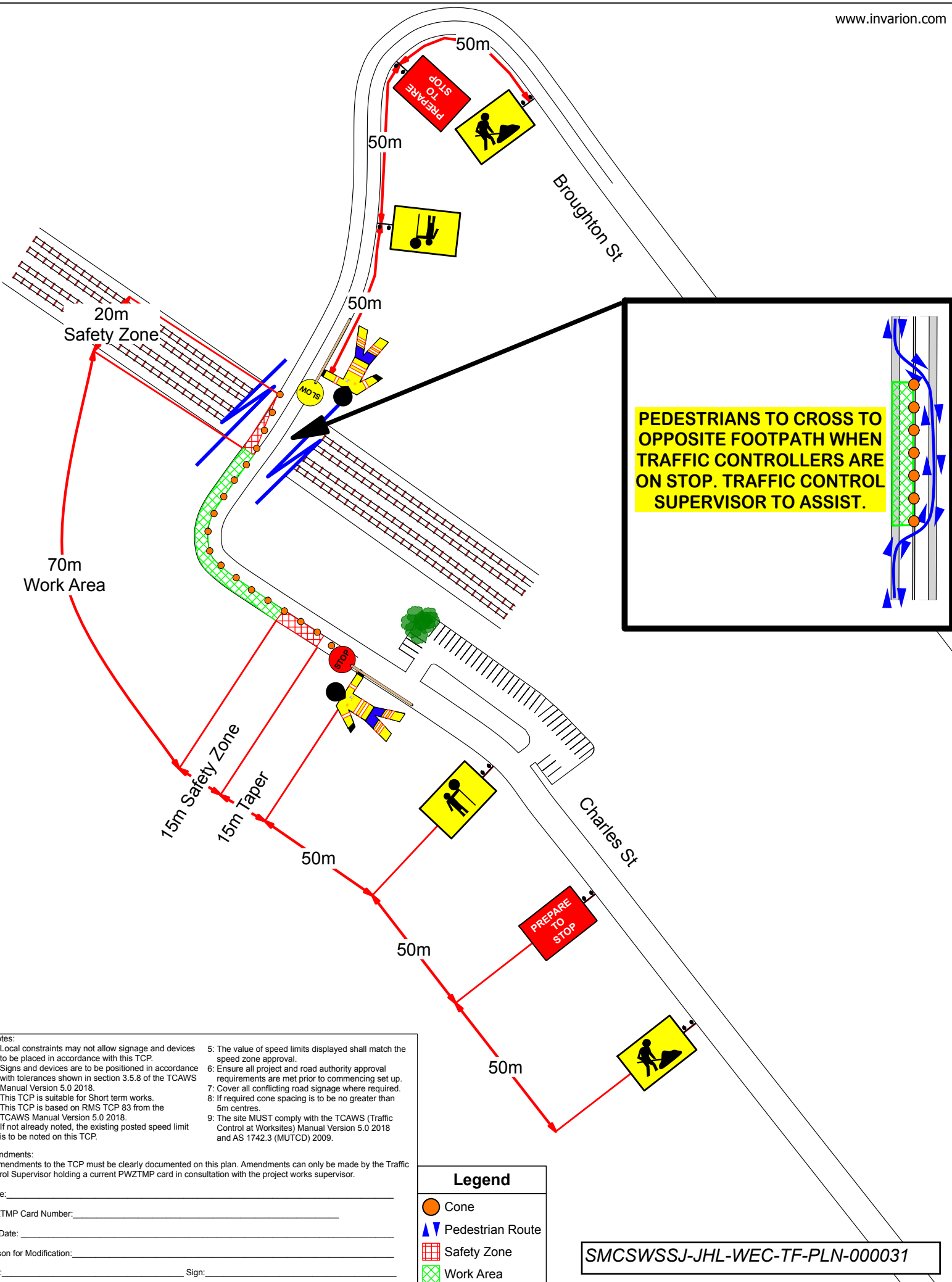
REVISIONS			
Issue	Revisions/Descriptions	Drawn	Date
001	INITIAL TCP	M.H	09/07/19

APPROVED
ALEX GIYAH
PREPARE A WORK ZONE TRAFFIC MANAGEMENT PLAN
CARD NO. 0051873071
EXPIRY 30/11/2021

Project
SYDENHAM TO BANKSTOWN WORKS

Title
SYDENHAM TO BANKSTOWN
TRAFFIC CONTROL PLAN
WARBURTON STREET LANEWAY
GATE ACCESS FOR HEAVY VEHICLES

Design M.H	Drawn M.H	Checked A.G
FOR CONSTRUCTION		
Project Number P3519	Sheet Number SMCSWSSJ-JHL -WEC-TF-PLN -000030	Date 09/07/19 Issue 001



- Notes:**
- 1: Local constraints may not allow signage and devices to be placed in accordance with this TCP. Signs and devices are to be positioned in accordance with tolerances shown in section 3.5.8 of the TCAWS Manual Version 5.0 2018.
 - 2: This TCP is suitable for Short term works.
 - 3: This TCP is based on RMS TCP 83 from the TCAWS Manual Version 5.0 2018.
 - 4: If not already noted, the existing posted speed limit is to be noted on this TCP.
 - 5: The value of speed limits displayed shall match the speed zone approval.
 - 6: Ensure all project and road authority approval requirements are met prior to commencing set up.
 - 7: Cover all conflicting road signage where required.
 - 8: If required cone spacing is to be no greater than 5m centres.
 - 9: The site MUST comply with the TCAWS (Traffic Control at Worksites) Manual Version 5.0 2018 and AS 1742.3 (MUTCD) 2009.

Amendments:
All amendments to the TCP must be clearly documented on this plan. Amendments can only be made by the Traffic Control Supervisor holding a current PWZTMP card in consultation with the project works supervisor.

Name: _____

PWZTMP Card Number: _____

Exp Date: _____

Reason for Modification: _____

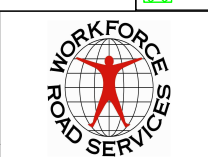
Date: _____ Sign: _____

Legend

- Cone
- Pedestrian Route
- Safety Zone
- Work Area

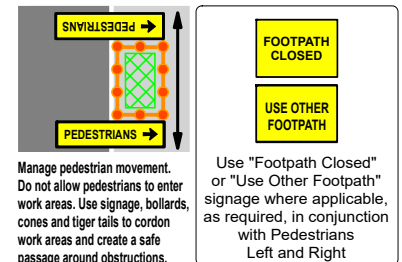
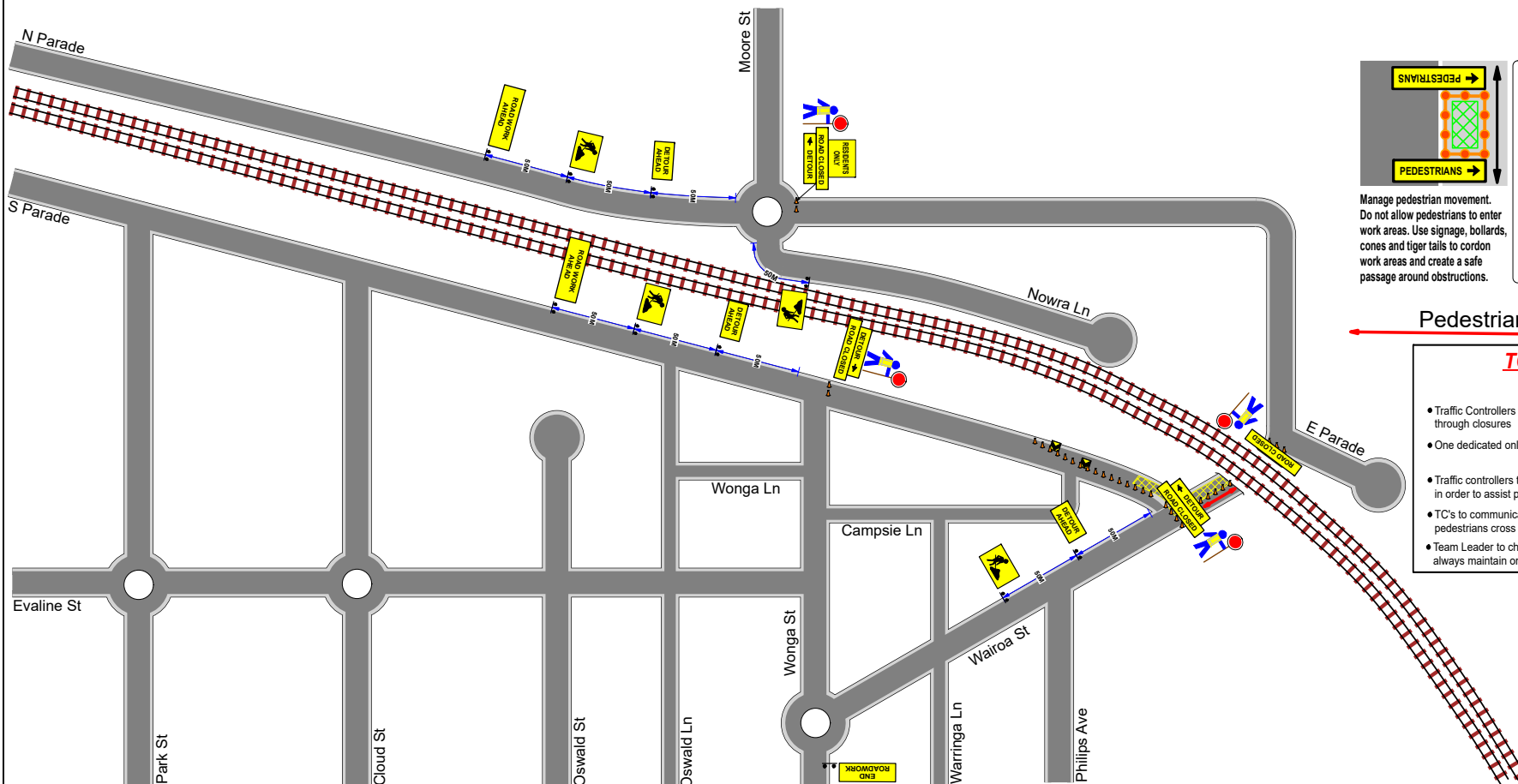
SMCSWSSJ-JHL-WEC-TF-PLN-000031

Revision	No.	By:	Date:	Description:	Appr:	Disclaim:
1	TP		26.06.19	Issued for Implementation	PI	This guidance scheme is for Traffic Management purposes only. Workforce Road Services disclaims all responsibility and all liability including without limitation, liability in negligence for all expenses, losses, damages and costs you might incur as a result of the information being inaccurate or incomplete in any way, and for any reason. This plan is drawn in accordance with the TCAWS manual. Client Contact: Matthew Barton Contact Number: 0428 945 979
2	SD		23.07.19	Amendments For Mathew Barton	PI	
3						
4						
5						
6						



Job Location: Charles St Canterbury		Work Activity: Rail Line works	
Client: JHLORJV		Drawing Number: WRS-TCP- 18139	
Drawn By: Timothy Plot	Prepare Work Zone Number : 0051895516	Exp Date: 8th Jan 2022	Signed:
Approved By: Peter Ingram	Prepare Work Zone Number : 0051721258	Exp Date: 29th June 2021	Signed:
Workforce Road Services Planning Division Ph: 02 4960 7570 After Hours Ph : 1300 936 723 Email : trafficplans@workforce.com.au			





- Pedestrian Access**
- TCP NOTE'S**
- Traffic Controllers to assist pedestrians & cyclists through closures
 - One dedicated only for pedestrian & cyclist access
 - Traffic controllers to use appropriate pedestrian signs in order to assist pedestrians and cyclists
 - TC's to communicate with working crew in order to help pedestrians cross the under bridge.
 - Team Leader to change the work zone accordingly and always maintain one lane open to pedestrians.

Client: **John Holland Laing O'Rourke Joint Venture**
 Scope of Works: **Construction works**
 Job location: **Wairoa St, Canterbury**
 Author: **Sandeep kumar Kolimi**
 Cert. No: **0051756294**

Plan No: **SMCSWSSJ-JHL -WEC-TF-PLN-000032**
 TCP - 54.61 USED AS A GUIDE

- WORKERS ON FOOT**
- NO GO ZONE = [Red bar]
 - RESTRICTED ZONE = [Green bar]
 - SHARED ZONE = [Blue bar]
 - SITE EXIT = [X]
 - SITE ENTRY = [E]
 - EVACUATION POINT = [EP]

Implemented By

Name -
 Cert No -
 Date -
 Signed -

Dimension 'D'
 AS 1742.3: A distance expressed in metres, determined in accordance with Clause 4.1.5 and used for positioning of advance signs and related purposes.

Speed of Traffic km/h	Dimension m
55 or less	15
56 to 65	45
Greater than 65	speed of traffic, in Km/h

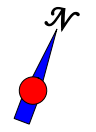
WORK AREA = [Yellow hatched box]

Taper Lengths

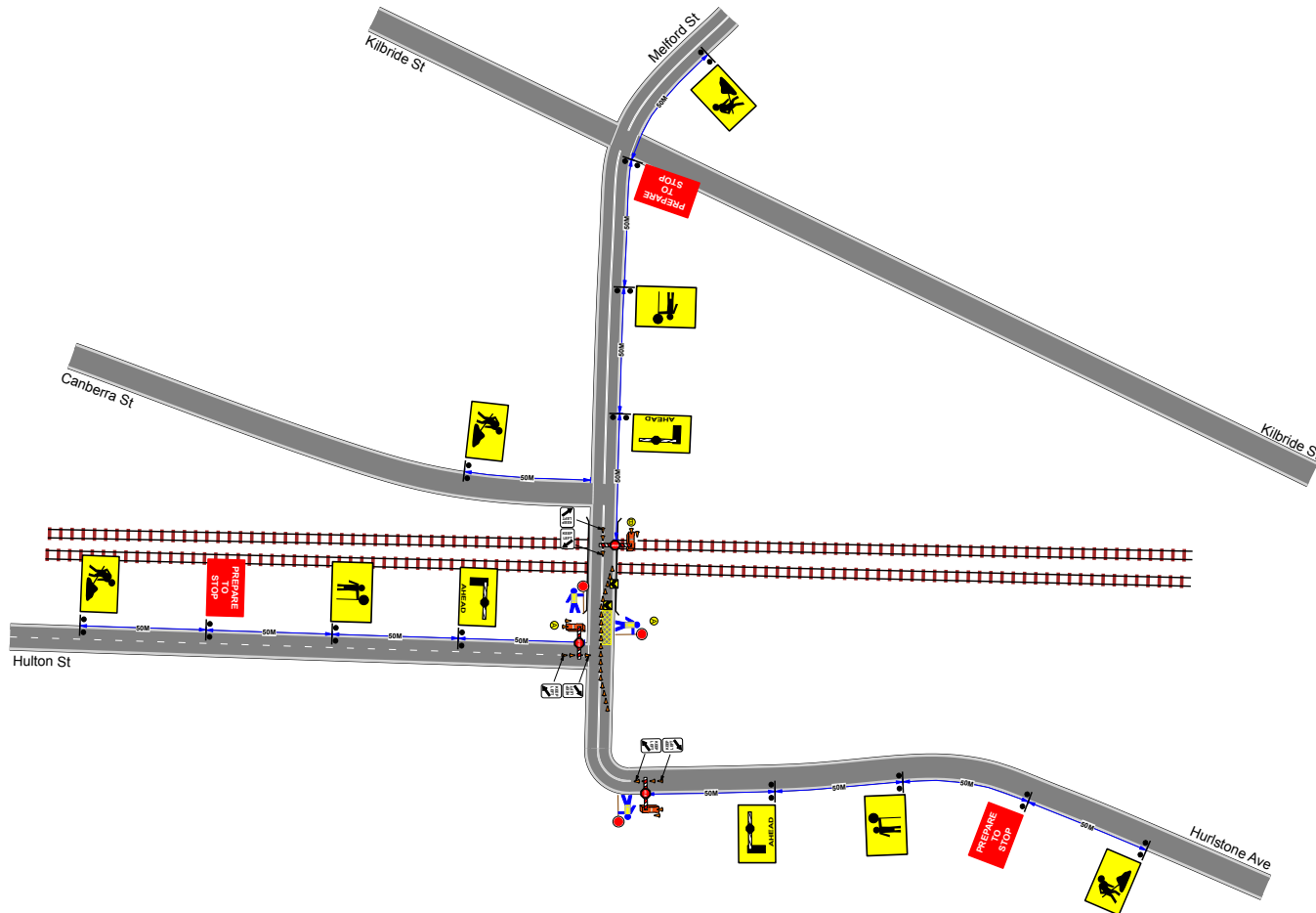
Approximate speed of traffic at beginning of taper	Traffic control taper	Lateral shift taper	Merge taper
45 or less	15	0	15
46 - 55	15	15	30
56 - 65	30	30	60
66 - 75	N/A	70	115
76 - 85	N/A	80	130
86 - 95	N/A	90	145
96 - 105	N/A	100	160
Greater than 106	N/A	110	180

Web: www.ddtraffic.com.au
 Email: sydney@dd-group.com.au
 Phone: 1300 597 622

D&D Traffic Management does not accept liability for implementation of this tcp if not directly involved in its implementation



PLAN NOT TO SCALE



Client:
 Scope of Works: **Construction Works**
 Job location: **Melford St, Canterbury**
 Author: **Sandeep kumar Kolimi**
 Cert. No: **0051756294**

SMCSWSSJ-JHL-WEC-TF
 -PLN-000033 REV 0
 Plan No: **JXXXXXX**
 PLAN NOT TO SCALE
 TCP - 83
 USED AS
 A GUIDE

WORKERS ON FOOT
 NO GO ZONE =
 RESTRICTED ZONE =
 SHARED ZONE =
 SITE EXIT =
 SITE ENTRY =
 EVACUATION POINT =

Implemented By
 Name -
 Cert No -
 Date -
 Signed -

Dimension 'D'
 AS 1742.3: A distance expressed in metres, determined in accordance with Clause 4.1.5 and used for positioning of advance signs and related purposes.

Speed of Traffic km/h	Dimension m
55 or less	15
56 to 65	45
Greater than 65	speed of traffic, in Km/h

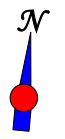
WORK AREA =

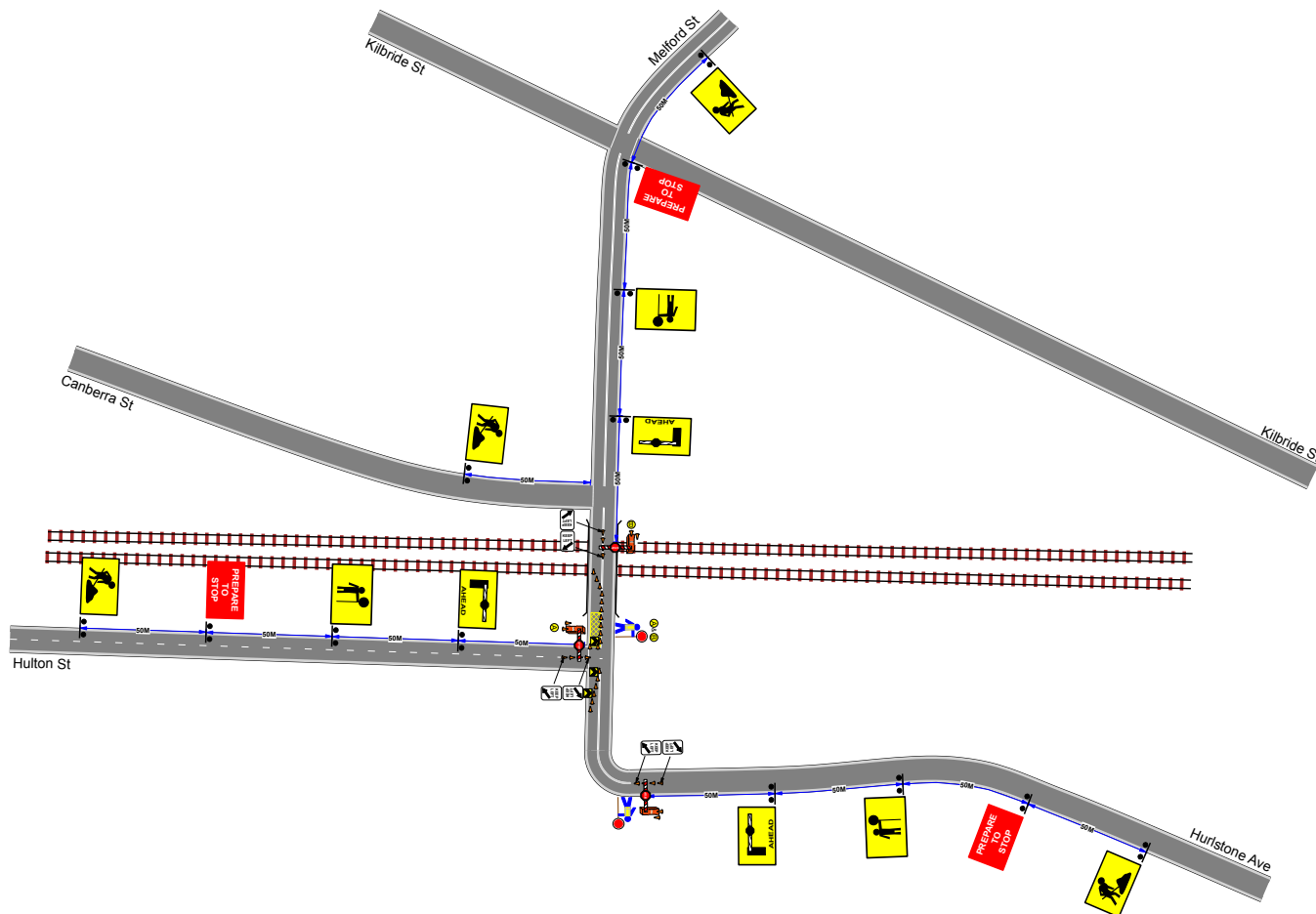
Taper Lengths

Approximate speed of traffic at beginning of taper	Traffic control 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
Greater than 106	N/A	110	180

Web: www.ddttraffic.com.au
 Email: sydney@dd-group.com.au
 Phone: 1300 597 622

D&D Traffic Management does not accept liability for implementation of this tcp if not directly involved in its implementation





<p>Client:</p> <p>Scope of Works: Construction Works</p> <p>Job location: Melford St, Canterbury Northbound Closure</p> <p>Author: Sandeep kumar Kolimi</p> <p>Cert. No: 0051756294</p>	<p>Plan No: SMCSWSSJ-JHL-WEC-TF-PLN-000034</p> <p>PLAN NOT TO SCALE</p> <p>TCP - 83 USED AS A GUIDE</p>	<p>WORKERS ON FOOT</p> <p>NO GO ZONE = </p> <p>RESTRICTED ZONE = </p> <p>SHARED ZONE = </p> <p>SITE EXIT = </p> <p>SITE ENTRY = </p> <p>EVACUATION POINT = </p>	<p>Implemented By</p> <p>Name -</p> <p>Cert No -</p> <p>Date -</p> <p>Signed -</p>	<p>Dimension 'D'</p> <p>AS 1742.3: A distance expressed in metres, determined in accordance with Clause 4.1.5 and used for positioning of advance signs and related purposes.</p> <table border="1"> <thead> <tr> <th>Speed of Traffic km/h</th> <th>Dimension m</th> </tr> </thead> <tbody> <tr> <td>55 or less</td> <td>15</td> </tr> <tr> <td>56 to 65</td> <td>45</td> </tr> <tr> <td>Greater than 65</td> <td>speed of traffic, in Km/h</td> </tr> </tbody> </table> <p>WORK AREA = </p>	Speed of Traffic km/h	Dimension m	55 or less	15	56 to 65	45	Greater than 65	speed of traffic, in Km/h	<p>Taper Lengths</p> <table border="1"> <thead> <tr> <th>Approximate speed of traffic at beginning of taper</th> <th>Traffic control taper</th> <th>Lateral shift taper</th> <th>Merge taper</th> </tr> </thead> <tbody> <tr> <td>45 or less</td> <td>15</td> <td>0</td> <td>15</td> </tr> <tr> <td>46 - 55</td> <td>15</td> <td>15</td> <td>30</td> </tr> <tr> <td>56 - 65</td> <td>30</td> <td>30</td> <td>60</td> </tr> <tr> <td>66 - 75</td> <td>N/A</td> <td>70</td> <td>115</td> </tr> <tr> <td>76 - 85</td> <td>N/A</td> <td>80</td> <td>130</td> </tr> <tr> <td>86 - 95</td> <td>N/A</td> <td>90</td> <td>145</td> </tr> <tr> <td>96 - 105</td> <td>N/A</td> <td>100</td> <td>160</td> </tr> <tr> <td>Greater than 106</td> <td>N/A</td> <td>110</td> <td>180</td> </tr> </tbody> </table>	Approximate speed of traffic at beginning of taper	Traffic control 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	Greater than 106	N/A	110	180	<p>D&D Traffic Management</p> <p>Web: www.ddttraffic.com.au</p> <p>Email: sydney@dd-group.com.au</p> <p>Phone: 1300 597 622</p>	
Speed of Traffic km/h	Dimension m																																																		
55 or less	15																																																		
56 to 65	45																																																		
Greater than 65	speed of traffic, in Km/h																																																		
Approximate speed of traffic at beginning of taper	Traffic control 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																																																
Greater than 106	N/A	110	180																																																
<p>D&D Traffic Management does not accept liability for implementation of this tcp if not directly involved in its implementation</p>																																																			









Client: **Laing O'Rourke**
 Scope of Works: **Construction works**
 Job location: **South Parade & Duke St, Campsie**
 Author: **Sandeep kumar Kolimi**
 Cert. No: **0051756294**



Plan No: **SMCSWSSJ-JHL**
WEC-IF-PLN000035
PLAN NOT TO SCALE


TCP - **83**
 USED AS
 A GUIDE

WORKERS ON FOOT
 NO GO ZONE - 
 RESTRICTED ZONE - 
 SHARED ZONE - 
 SITE EXIT - 
 SITE ENTRY - 
 EVACUATION POINT - 

Implemented By
 Name -
 Cert No -
 Date -
 Signed -

Dimension 'D'
 AS 1742.3: A distance expressed in metres, determined in accordance with Clause 4.1.5 and used for positioning of advance signs and related purposes.

Speed of Traffic km/h	Dimension in
55 or less	15
55 to 65	45
Greater than 65	speed of traffic, in Km/h

WORK AREA = 

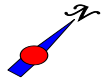
Taper Lengths

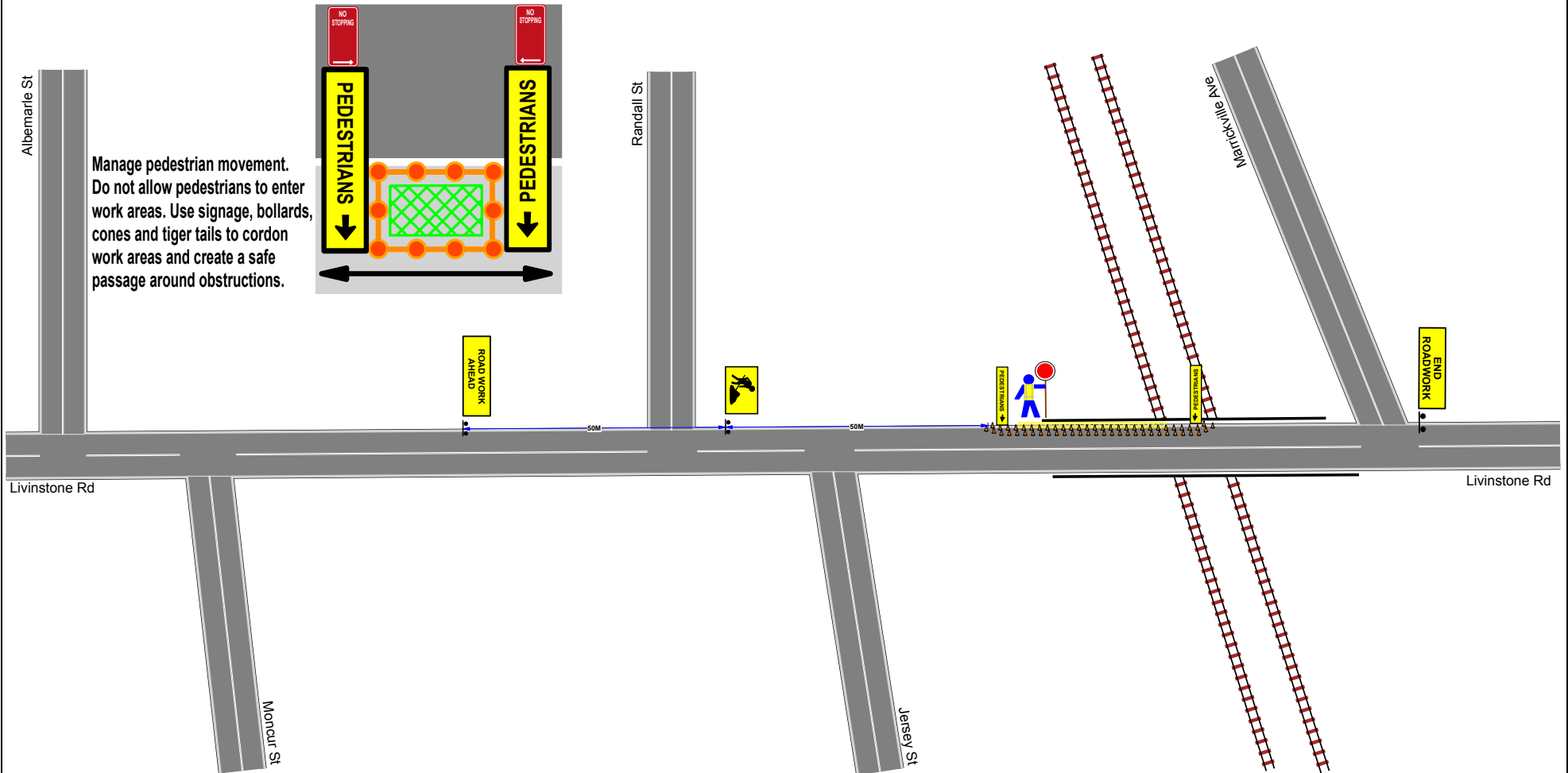
Approximate speed of traffic	Traffic control at beginning of taper	Lateral shift taper	Margin taper
<45 or less	15	0	15
45 - 55	15	15	30
55 - 65	30	30	60
65 - 75	N/A	70	115
75 - 85	N/A	80	130
85 - 95	N/A	90	145
95 - 105	N/A	100	160
Greater than 105	N/A	110	180












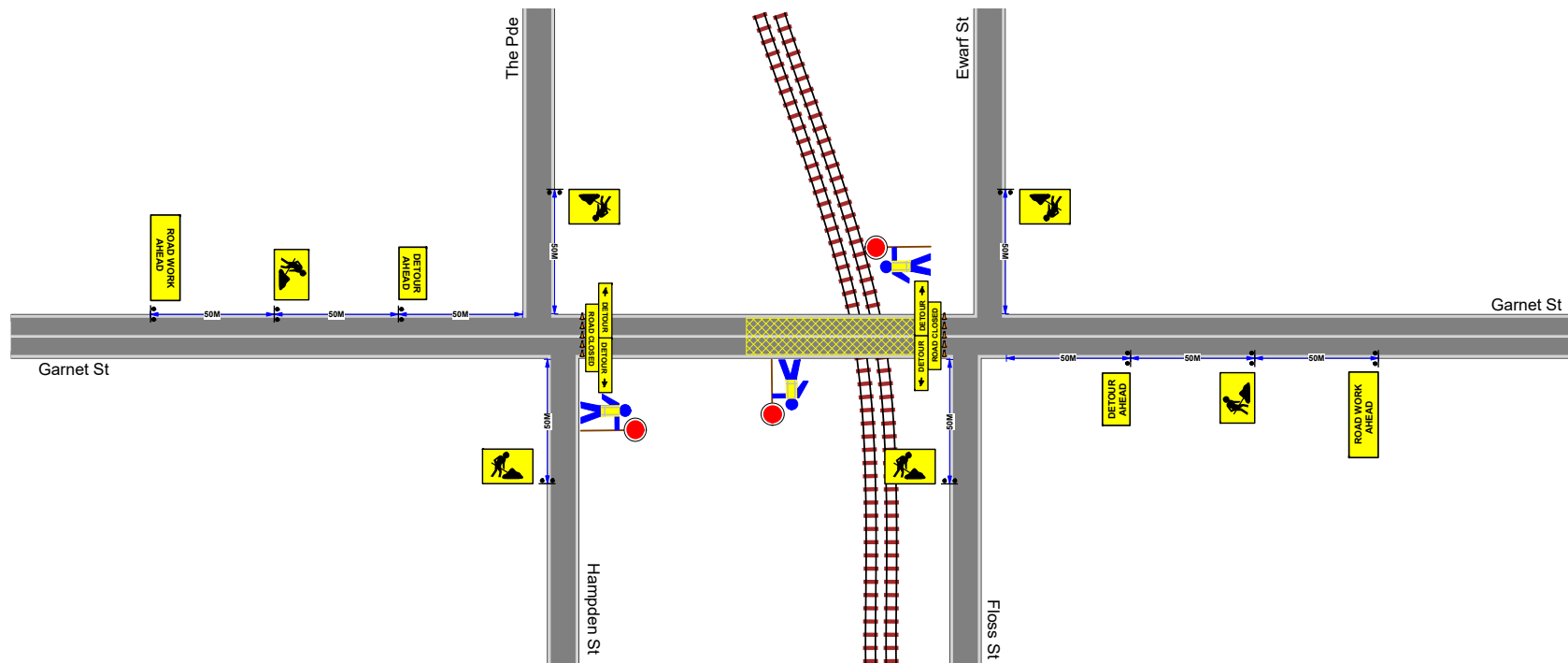
Web: www.ddttraffic.com.au
 Email: sydney@ddt-group.com.au
 Phone: 1300 597 622

D&D Traffic Management does not accept liability for implementation of this top if not directly involved in its implementation





Client: Laing O'Rourke Scope of Works: Construction works Job location: Livingstone Rd, Murrumbidgee Author: Sandeep kumar Kolimi Cert. No: 0051756294	 Plan No. <small>SMCSWSSJ-JHL-WEC-TF-PLN-000036</small> PLAN NOT TO SCALE	WORKERS ON FOOT NO GO ZONE =  RESTRICTED ZONE =  SHARED ZONE =  SITE EXIT =  SITE ENTRY =  EVACUATION POINT = 	Implemented By Name - Cert No - Date - Signed -		Dimension 'D' AS 1742.3: A distance expressed in metres, determined in accordance with Clause 4.1.5 and used for positioning of advance signs and related purposes.	Taper Lengths <table border="1"> <thead> <tr> <th>Approximate speed of traffic</th> <th>Traffic control at beginning of taper</th> <th>Lateral shift taper</th> <th>Merge taper</th> </tr> </thead> <tbody> <tr> <td>45 or less</td> <td>15</td> <td>0</td> <td>15</td> </tr> <tr> <td>46 - 55</td> <td>15</td> <td>15</td> <td>30</td> </tr> <tr> <td>56 - 65</td> <td>30</td> <td>30</td> <td>60</td> </tr> <tr> <td>66 - 75</td> <td>N/A</td> <td>70</td> <td>115</td> </tr> <tr> <td>76 - 85</td> <td>N/A</td> <td>80</td> <td>130</td> </tr> <tr> <td>86 - 95</td> <td>N/A</td> <td>90</td> <td>145</td> </tr> <tr> <td>96 - 105</td> <td>N/A</td> <td>100</td> <td>160</td> </tr> <tr> <td>Greater than 106</td> <td>N/A</td> <td>110</td> <td>180</td> </tr> </tbody> </table>	Approximate speed of traffic	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	Greater than 106	N/A	110	180	 Web: www.ddtraffic.com.au Email: sydney@dd-group.com.au Phone: 1300 597 622 D&D Traffic Management does not accept liability for implementation of this tcp if not directly involved in its implementation
			Approximate speed of traffic	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																																								
Greater than 106	N/A	110	180																																								
<table border="1"> <thead> <tr> <th>Speed of Traffic km/h</th> <th>Dimension m</th> </tr> </thead> <tbody> <tr> <td>55 or less</td> <td>15</td> </tr> <tr> <td>56 to 65</td> <td>45</td> </tr> <tr> <td>Greater than 65</td> <td>speed of traffic, in Km/h</td> </tr> </tbody> </table> WORK AREA = 	Speed of Traffic km/h	Dimension m	55 or less	15	56 to 65	45	Greater than 65	speed of traffic, in Km/h																																			
Speed of Traffic km/h	Dimension m																																										
55 or less	15																																										
56 to 65	45																																										
Greater than 65	speed of traffic, in Km/h																																										



← PEDESTRIANS PEDESTRIANS →

PEDESTRIAN SIGNS TO BE INSTALLED WHERE APPLICABLE IF REQUIRED

Client: John Holland Laing O'Rourke Joint Venture
 Scope of Works: Construction works
 Job location: Garnett St, Hurlstone Park
 Author: Sandeep kumar Kolimi
 Cert. No: 0051756294

Plan No:XXXXXXXX
 PLAN NOT TO SCALE
 TCP -54
 USED AS A GUIDE

WORKERS ON FOOT
 NO GO ZONE = [Red bar]
 RESTRICTED ZONE = [Green bar]
 SHARED ZONE = [Yellow bar]
 SITE EXIT = (X)
 SITE ENTRY = (E)
 EVACUATION POINT = (EP)

Implemented By
 Name -
 Cert No -
 Date -
 Signed -

Dimension 'D'
 AS 1742.3: A distance expressed in metres, determined in accordance with Clause 4.1.5 and used for positioning of advance signs and related purposes.

Speed of Traffic km/h	Dimension m
55 or less	15
56 to 65	45
Greater than 65	speed of traffic, in Km/h

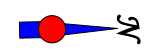
WORK AREA = [Yellow hatched box]

Taper Lengths

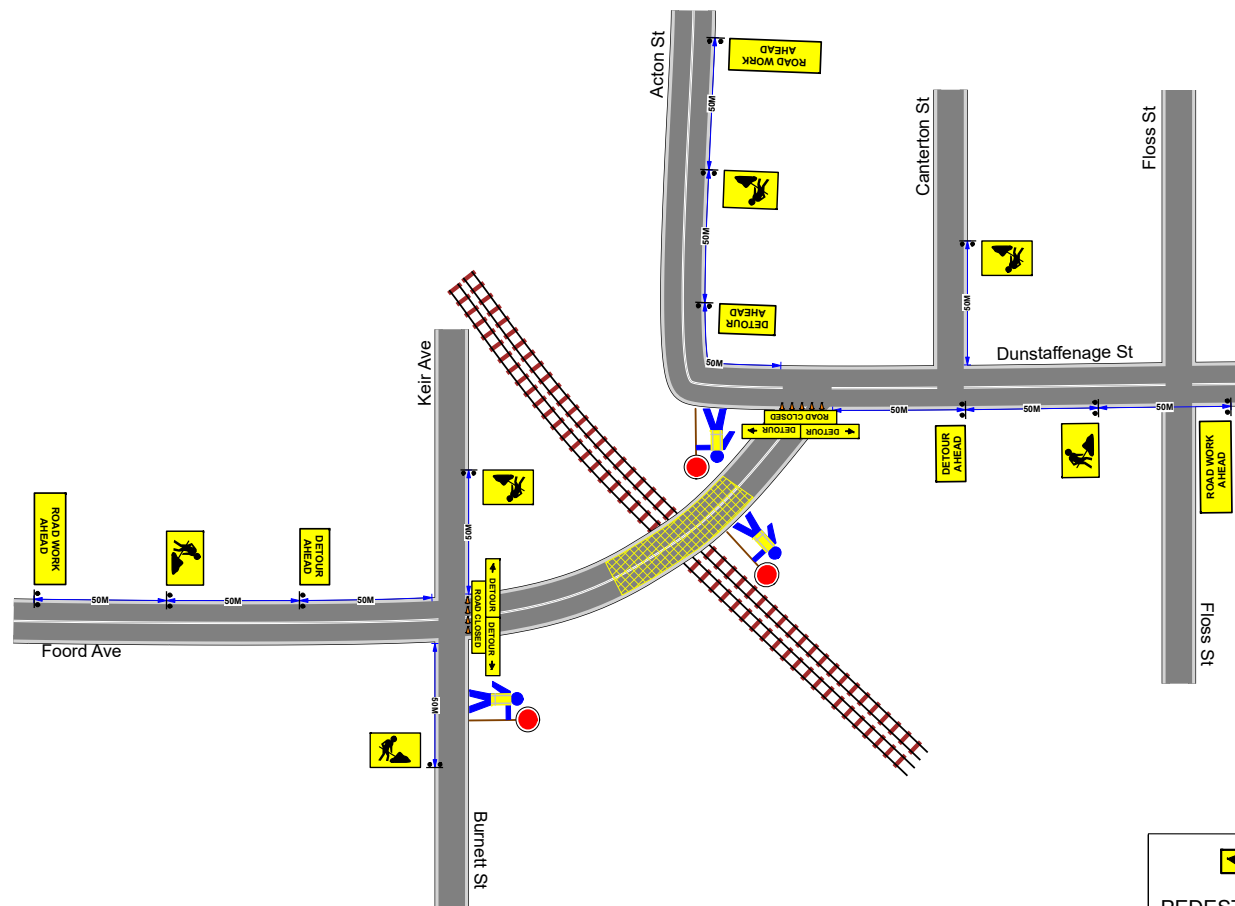
Approximate speed of traffic at beginning of taper	Traffic control taper	Lateral shift taper	Merge taper
45 or less	15	0	15
46 - 55	15	15	30
56 - 65	30	30	60
66 - 75	N/A	70	115
76 - 85	N/A	80	130
86 - 95	N/A	90	145
96 - 105	N/A	100	160
Greater than 106	N/A	110	180

Web: www.ddtraffic.com.au
 Email: sydney@dd-group.com.au
 Phone: 1300 597 622

D&D Traffic Management does not accept liability for implementation of this tcp if not directly involved in its implementation



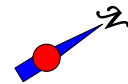


SMCSWSSJ-JHL-WEC-TF
 -PLN-000037 REV 0

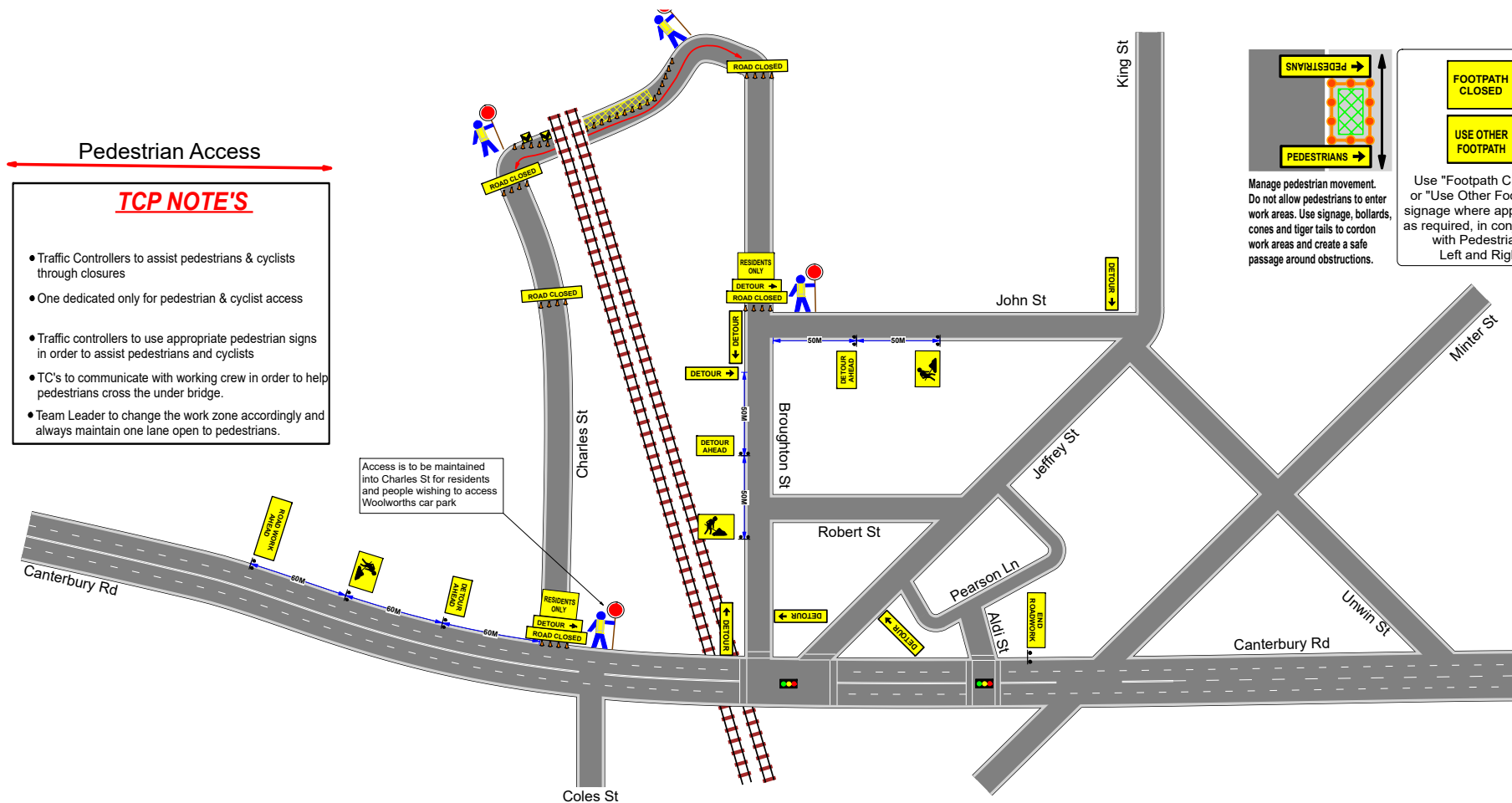


← PEDESTRIANS
PEDESTRIANS →

PEDESTRIAN SIGNS TO BE INSTALLED WHERE APPLICABLE IF REQUIRED

Client: John Holland Laing O'Rourke Joint Venture Scope of Works: Construction works Job location: Foord Ave, Hurlstone Park		WORKERS ON FOOT NO GO ZONE = █ RESTRICTED ZONE = █ SHARED ZONE = █ SITE EXIT = X SITE ENTRY = E EVACUATION POINT = EP	Implemented By Name - Cert No - Date - Signed -	Dimension 'D' AS 1742.3: A distance expressed in metres, determined in accordance with Clause 4.1.5 and used for positioning of advance signs and related purposes.	Taper Lengths <table border="1" style="font-size: 8px; border-collapse: collapse;"> <thead> <tr> <th>Approximate speed of traffic</th> <th>Traffic control at beginning of taper</th> <th>Lateral shift taper</th> <th>Merge taper</th> </tr> </thead> <tbody> <tr> <td>45 or less</td> <td>15</td> <td>0</td> <td>15</td> </tr> <tr> <td>46 - 55</td> <td>15</td> <td>15</td> <td>30</td> </tr> <tr> <td>56 - 65</td> <td>30</td> <td>30</td> <td>60</td> </tr> <tr> <td>66 - 75</td> <td>N/A</td> <td>70</td> <td>115</td> </tr> <tr> <td>76 - 85</td> <td>N/A</td> <td>80</td> <td>130</td> </tr> <tr> <td>86 - 95</td> <td>N/A</td> <td>90</td> <td>145</td> </tr> <tr> <td>96 - 105</td> <td>N/A</td> <td>100</td> <td>160</td> </tr> <tr> <td>Greater than 105</td> <td>N/A</td> <td>110</td> <td>180</td> </tr> </tbody> </table>	Approximate speed of traffic	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	Greater than 105	N/A	110	180	 <p style="font-size: 8px;"> Web: www.ddtraffic.com.au Email: sydney@dd-group.com.au Phone: 1300 597 622 </p> <p style="font-size: 8px;"> D&D Traffic Management does not accept liability for implementation of this tcp if not directly involved in its implementation </p>
Approximate speed of traffic	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																																							
Greater than 105	N/A	110	180																																							
Author: Sandeep kumar Kolimi Cert. No: 0051756294		Plan No: XXXXXXXXXX PLAN NOT TO SCALE		TCP -54 USED AS A GUIDE																																						

SMCSWSSJ-JHL-WEC-TF
-PLN-000038 REV 0



Manage pedestrian movement. Do not allow pedestrians to enter work areas. Use signage, bollards, cones and tiger tails to cordon work areas and create a safe passage around obstructions.

Use "Footpath Closed" or "Use Other Footpath" signage where applicable, as required, in conjunction with Pedestrians Left and Right

- TCP NOTE'S**
- Traffic Controllers to assist pedestrians & cyclists through closures
 - One dedicated only for pedestrian & cyclist access
 - Traffic controllers to use appropriate pedestrian signs in order to assist pedestrians and cyclists
 - TC's to communicate with working crew in order to help pedestrians cross the under bridge.
 - Team Leader to change the work zone accordingly and always maintain one lane open to pedestrians.

Access is to be maintained into Charles St for residents and people wishing to access Woolworths car park

Client: **John Holland Laing O'Rourke Joint Venture**
 Scope of Works: **Construction works**
 Job location: **Charles St, Canterbury**
 Author: **Sandeep kumar Kolimi**
 Cert. No: **0051756294**

Plan No: **SMCSWSSJ-JHL**
-WEC-TF-PLN-000039

TCP -54.61
 USED AS
 A GUIDE

WORKERS ON FOOT

NO GO ZONE = [Red bar]
 RESTRICTED ZONE = [Green bar]
 SHARED ZONE = [Blue bar]
 SITE EXIT = [X in circle]
 SITE ENTRY = [E in circle]
 EVACUATION POINT = [EP in circle]

Implemented By

Name -
 Cert No -
 Date -
 Signed -

Dimension 'D'

AS 1742.3: A distance expressed in metres, determined in accordance with Clause 4.1.5 and used for positioning of advance signs and related purposes.

Speed of Traffic km/h	Dimension m
55 or less	15
56 to 65	45
Greater than 65	speed of traffic, in Km/h

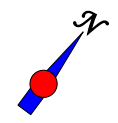
WORK AREA = [Yellow hatched box]

Taper Lengths

Approximate speed of traffic at beginning of taper	Traffic control 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
106 or more	N/A	110	180

Web: www.ddtraffic.com.au
 Email: sydney@dd-group.com.au
 Phone: 1300 597 622

D&D Traffic Management does not accept liability for implementation of this top if not directly involved in its implementation





Client: **LJHSSJ**

Scope of Works: **Truck Reverse for deliveries**

Job location: **South Parade, Campsie**

Author: **Ashley Hurley**

www.invarion.com

Plan No: **XXXXXX**

PLAN NOT TO SCALE

TCF - 83
USED AS
A GUIDE

WORKERS ON FOOT

- NO GO ZONE =
- RESTRICTED ZONE =
- SHARED ZONE =
- SITE EXIT =
- SITE ENTRY =
- EVAUATION POINT =

Implemented By

Name -
Cert No -
Date -
Signed -

Dimension 'D'
AS 1742.3: A distance expressed in metres, determined in accordance with Clause 4.1.5 and used for positioning of advance signs and related purposes.

Speed of Traffic km/h	Dimension m
55 or less	15
56 to 65	45
Greater than 65	speed of traffic, in Km/h

WORK AREA =

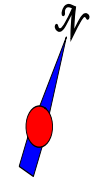
Taper Lengths

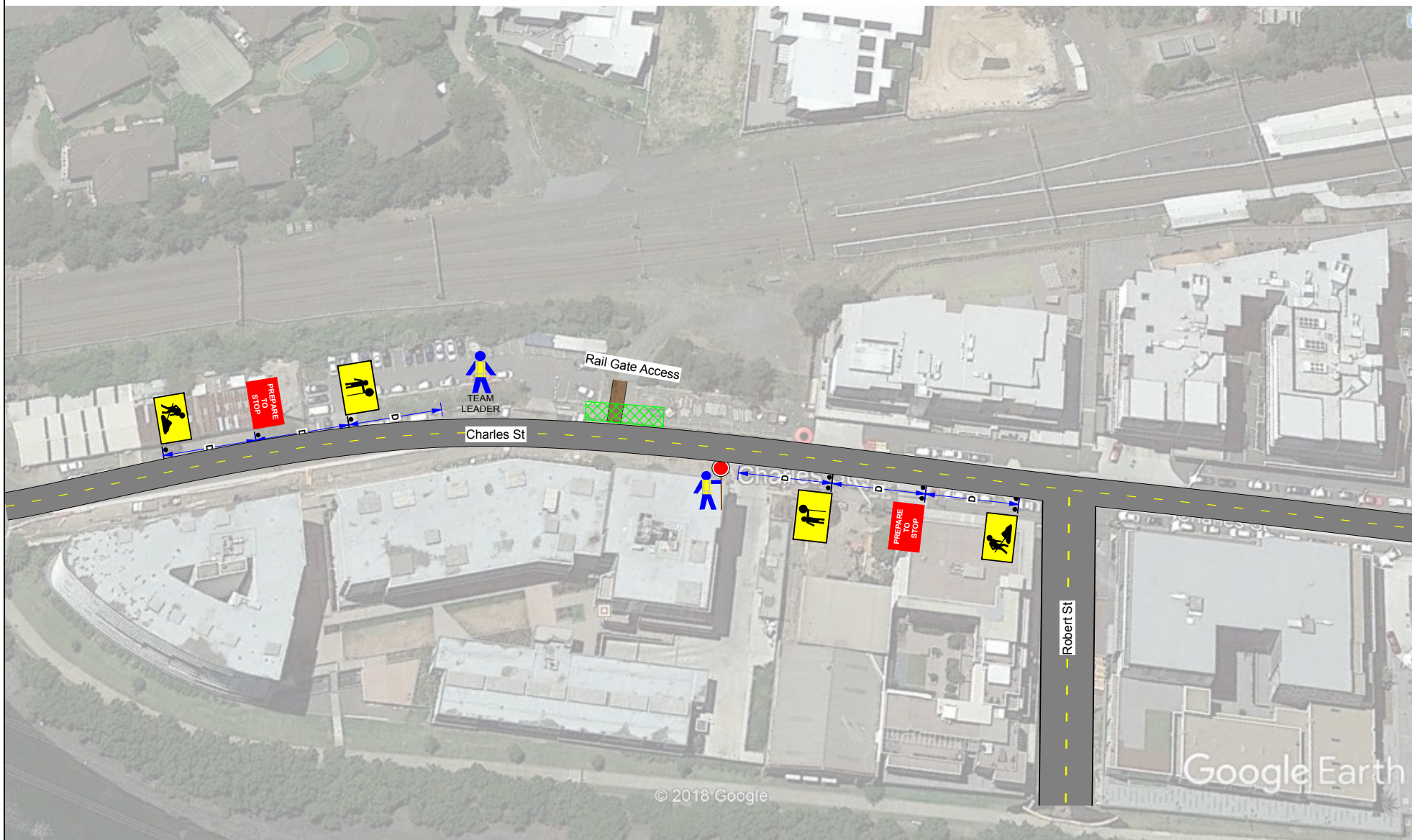
Approximate speed of traffic at beginning of taper	Traffic control taper	Lateral shift taper	Merge taper
45 or less	15	0	15
46 - 55	15	15	30
56 - 65	30	30	60
66 - 75	N/A	70	115
76 - 85	N/A	80	130
86 - 95	N/A	90	145
96 - 105	N/A	100	160
Greater than 105	N/A	110	180





Web: www.ddtraffic.com.au
Email: sydney@dd-group.com.au
Phone: 1300 597 622

D&D Traffic Management does not accept liability for implementation of this tcp if not directly involved in its implementation











Client: John Holland Laing O'Rourke Joint Venture
 Scope of Works: Construction works
 Job location: Charles St, Canterbury
 Author: Ashley Hurley
 Cert. No: 0052076003


Plan No: SMCSWSSJ-WEC-TF-PLN-000042
 PLAN NOT TO SCALE

WORKERS ON FOOT
 NO GO ZONE = 
 RESTRICTED ZONE = 
 SHARED ZONE = 
 SITE EXIT = 
 SITE ENTRY = 
 EVACUATION POINT = 

Implemented By
 Name -
 Cert No -
 Date -
 Signed -

Dimension 'D'
 AS 1742.3: A distance expressed in metres, determined in accordance with Clause 4.1.5 and used for positioning of advance signs and related purposes.

Speed of Traffic km/h	Dimension m
55 or less	15
56 to 65	45
Greater than 65	speed of traffic, in Km/h

WORK AREA = 

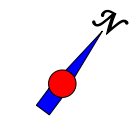
Taper Lengths

Approximate speed of traffic at beginning of taper	Traffic control 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
106 or more	N/A	110	180



Web: www.ddtraffic.com.au
 Email: sydney@dd-group.com.au
 Phone: 1300 597 622

D&D Traffic Management does not accept liability for implementation of this tcp if not directly involved in its implementation



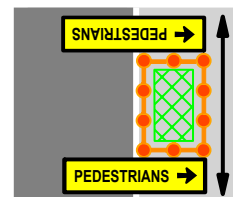
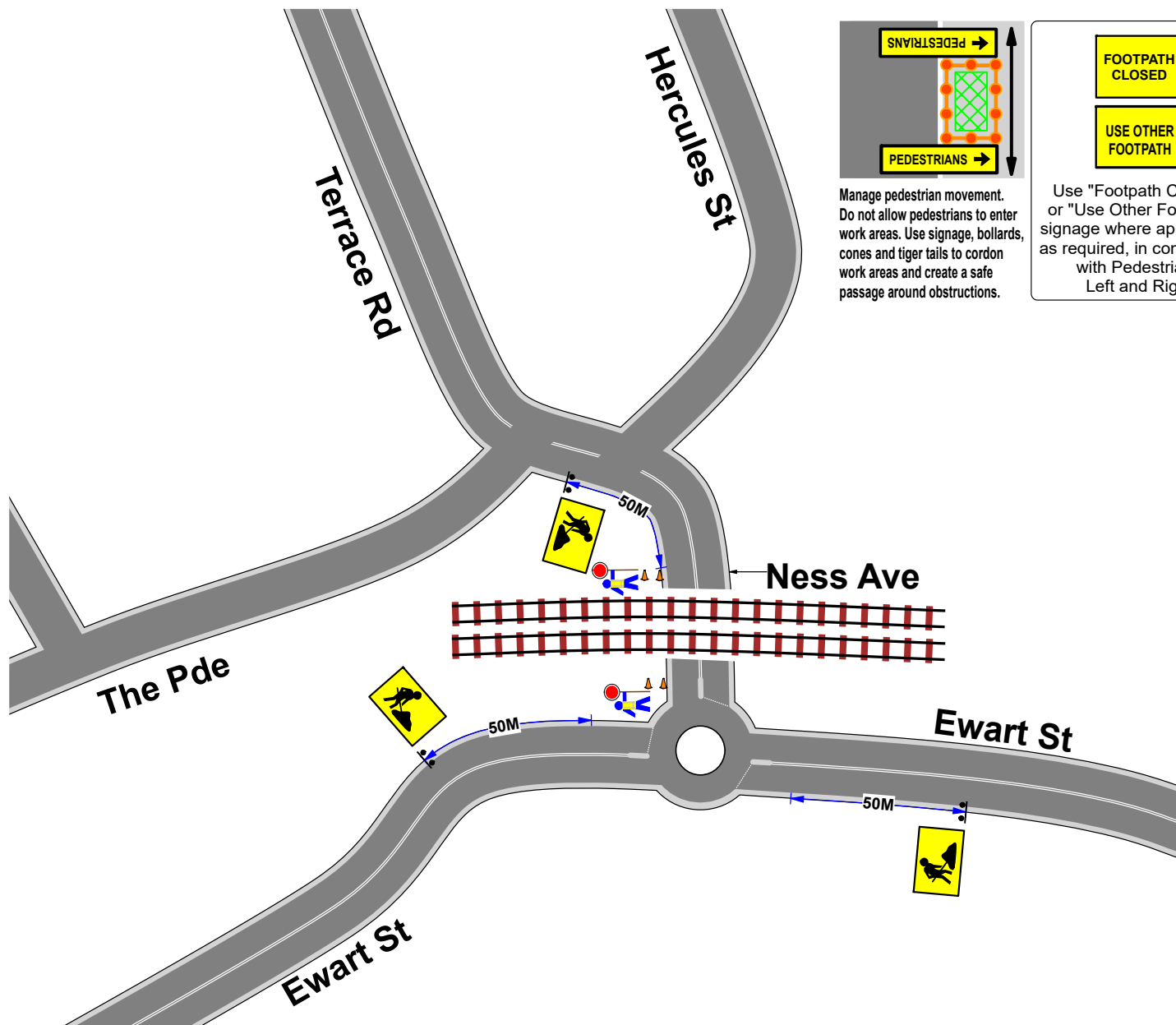
Laing O'Rourke Broughton Street, Canterbury



PEDESTRIANS PEDESTRIANS
PEDESTRIAN SIGNS TO BE INSTALLED WHERE APPLICABLE IF REQUIRED

<p>Client: LJHSSJ</p> <p>Scope of Works: Stop/Slow</p> <p>Job location: Broughton Street, Canterbury</p> <p>Author: Sandeep kumar Kolimi</p> <p>Cert. No: 0051756294</p>	<p>Plan No: XXXXXXXXXX</p> <p>TCP - 83 USED AS A GUIDE</p> <p>PLAN NOT TO SCALE</p>	<p>WORKERS ON FOOT</p> <p>NO GO ZONE = </p> <p>RESTRICTED ZONE = </p> <p>SHARED ZONE = </p> <p>SITE EXIT = </p> <p>SITE ENTRY = </p> <p>EVACUATION POINT = </p>	<p>Implemented By</p> <p>Name -</p> <p>Cert No -</p> <p>Date -</p> <p>Signed -</p>	<p>Dimension 'D'</p> <p>AS 1742.3: A distance expressed in metres, determined in accordance with Clause 4.1.5 and used for positioning of advance signs and related purposes.</p> <table border="1"> <thead> <tr> <th>Speed of Traffic km/h</th> <th>Dimension m</th> </tr> </thead> <tbody> <tr> <td>55 or less</td> <td>15</td> </tr> <tr> <td>56 to 65</td> <td>45</td> </tr> <tr> <td>Greater than 65</td> <td>speed of traffic, in Km/h</td> </tr> </tbody> </table> <p>WORK AREA = </p>	Speed of Traffic km/h	Dimension m	55 or less	15	56 to 65	45	Greater than 65	speed of traffic, in Km/h	<p>Taper Lengths</p> <table border="1"> <thead> <tr> <th>Approximate speed of traffic at beginning of taper</th> <th>Traffic control taper</th> <th>Lateral shift taper</th> <th>Merge taper</th> </tr> </thead> <tbody> <tr> <td>45 or less</td> <td>15</td> <td>0</td> <td>15</td> </tr> <tr> <td>46 - 55</td> <td>15</td> <td>15</td> <td>30</td> </tr> <tr> <td>56 - 65</td> <td>30</td> <td>30</td> <td>60</td> </tr> <tr> <td>66 - 75</td> <td>N/A</td> <td>70</td> <td>115</td> </tr> <tr> <td>76 - 85</td> <td>N/A</td> <td>80</td> <td>130</td> </tr> <tr> <td>86 - 95</td> <td>N/A</td> <td>90</td> <td>145</td> </tr> <tr> <td>96 - 105</td> <td>N/A</td> <td>100</td> <td>160</td> </tr> <tr> <td>Greater than 106</td> <td>N/A</td> <td>110</td> <td>180</td> </tr> </tbody> </table>	Approximate speed of traffic at beginning of taper	Traffic control 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	Greater than 106	N/A	110	180	<p>Web: www.ddtraffic.com.au</p> <p>Email: sydney@dd-group.com.au</p> <p>Phone: 1300 597 622</p>	
Speed of Traffic km/h	Dimension m																																																		
55 or less	15																																																		
56 to 65	45																																																		
Greater than 65	speed of traffic, in Km/h																																																		
Approximate speed of traffic at beginning of taper	Traffic control 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																																																
Greater than 106	N/A	110	180																																																

D&D Traffic Management does not accept liability for implementation of this tcp if not directly involved in its implementation



Manage pedestrian movement. Do not allow pedestrians to enter work areas. Use signage, bollards, cones and tiger tails to cordon work areas and create a safe passage around obstructions.

FOOTPATH CLOSED


USE OTHER FOOTPATH

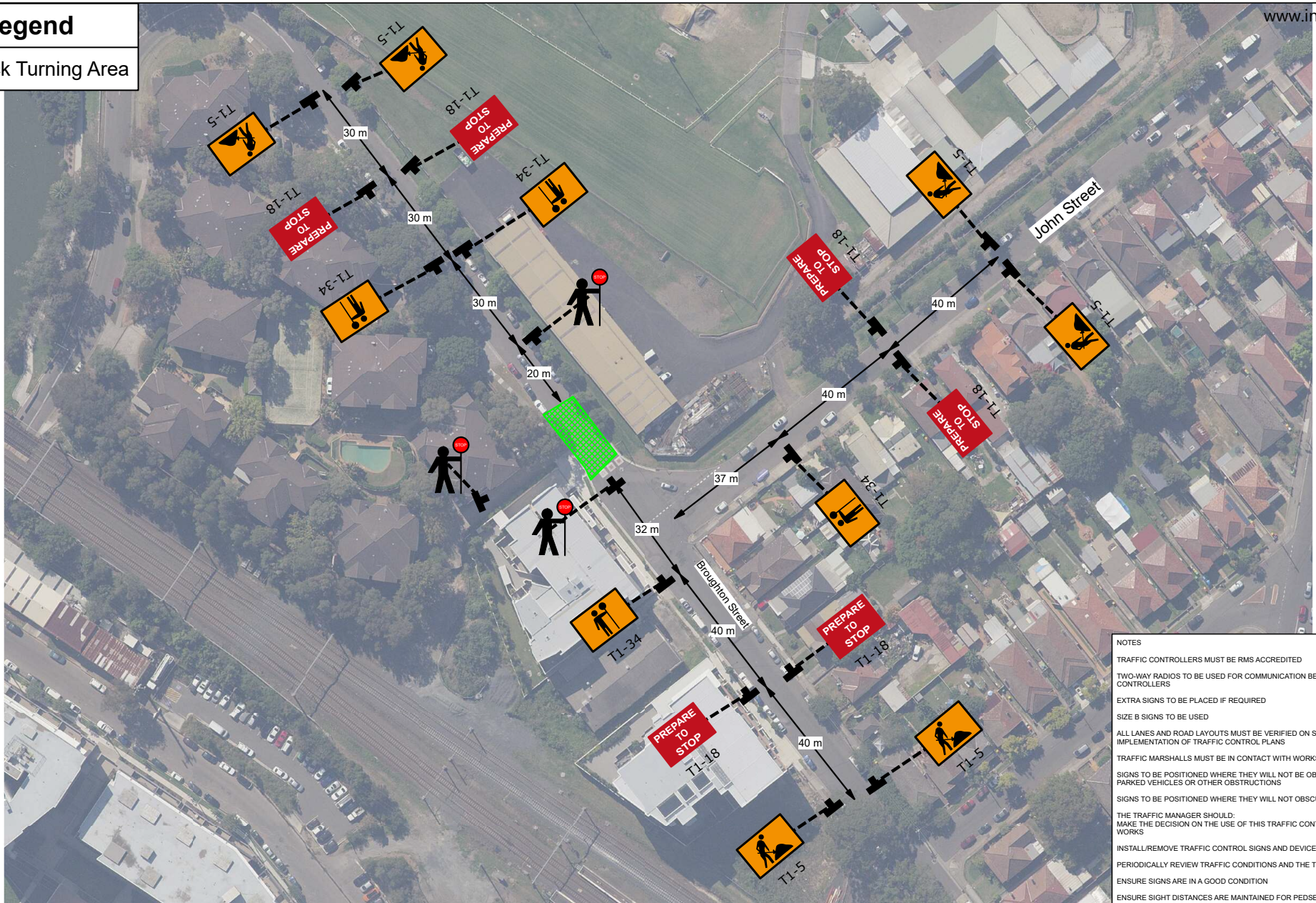
Use "Footpath Closed" or "Use Other Footpath" signage where applicable, as required, in conjunction with Pedestrians Left and Right

Client: Laing O'Rourke Scope of Works: Construction works Job location: Ness Avenue, Dulwich Hill Author: Sandeep Kumar Kolimi Cert. No: 0051756294		WORKERS ON FOOT NO GO ZONE = █ RESTRICTED ZONE = █ SHARED ZONE = █ SITE EXIT = ⊙ SITE ENTRY = ⊙ EVACUATION POINT = ⊙	Implemented By Name - Cert No - Date - Signed -	Dimension 'D' AS 1742.3: A distance expressed in metres, determined in accordance with Clause 4.1.5 and used for positioning of advance signs and related purposes. <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Speed of Traffic km/h</th> <th>Dimension m</th> </tr> </thead> <tbody> <tr> <td>55 or less</td> <td>15</td> </tr> <tr> <td>56 to 65</td> <td>45</td> </tr> <tr> <td>Greater than 65</td> <td>speed of traffic, in Km/h</td> </tr> </tbody> </table> WORK AREA = 	Speed of Traffic km/h	Dimension m	55 or less	15	56 to 65	45	Greater than 65	speed of traffic, in Km/h	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="4">Taper Lengths</th> </tr> <tr> <th>Approximate speed of traffic</th> <th>Traffic control taper</th> <th>Lateral shift taper</th> <th>Merge taper</th> </tr> </thead> <tbody> <tr> <td>45 or less</td> <td>15</td> <td>0</td> <td>15</td> </tr> <tr> <td>46-55</td> <td>15</td> <td>15</td> <td>30</td> </tr> <tr> <td>56-65</td> <td>30</td> <td>30</td> <td>60</td> </tr> <tr> <td>66-75</td> <td>NA</td> <td>70</td> <td>115</td> </tr> <tr> <td>76-85</td> <td>NA</td> <td>80</td> <td>135</td> </tr> <tr> <td>86-95</td> <td>NA</td> <td>90</td> <td>145</td> </tr> <tr> <td>96-105</td> <td>NA</td> <td>100</td> <td>160</td> </tr> <tr> <td>Greater than 105</td> <td>NA</td> <td>110</td> <td>180</td> </tr> </tbody> </table>	Taper Lengths				Approximate speed of traffic	Traffic control taper	Lateral shift taper	Merge taper	45 or less	15	0	15	46-55	15	15	30	56-65	30	30	60	66-75	NA	70	115	76-85	NA	80	135	86-95	NA	90	145	96-105	NA	100	160	Greater than 105	NA	110	180	<p>Web: www.dandtraffic.com.au Email: sydney@dand-group.com.au Phone: 1300 597 622</p> <p>D&D Traffic Management does not accept liability for implementation of this top if not directly involved in its implementation</p>
Speed of Traffic km/h	Dimension m																																																					
55 or less	15																																																					
56 to 65	45																																																					
Greater than 65	speed of traffic, in Km/h																																																					
Taper Lengths																																																						
Approximate speed of traffic	Traffic control taper	Lateral shift taper	Merge taper																																																			
45 or less	15	0	15																																																			
46-55	15	15	30																																																			
56-65	30	30	60																																																			
66-75	NA	70	115																																																			
76-85	NA	80	135																																																			
86-95	NA	90	145																																																			
96-105	NA	100	160																																																			
Greater than 105	NA	110	180																																																			



Legend

 Truck Turning Area



- NOTES**
- TRAFFIC CONTROLLERS MUST BE RMS ACCREDITED
 - TWO-WAY RADIOS TO BE USED FOR COMMUNICATION BETWEEN TRAFFIC CONTROLLERS
 - EXTRA SIGNS TO BE PLACED IF REQUIRED
 - SIZE B SIGNS TO BE USED
 - ALL LANES AND ROAD LAYOUTS MUST BE VERIFIED ON SITE PRIOR TO THE IMPLEMENTATION OF TRAFFIC CONTROL PLANS
 - TRAFFIC MARSHALLS MUST BE IN CONTACT WITH WORKSITE AT ALL TIMES
 - SIGNS TO BE POSITIONED WHERE THEY WILL NOT BE OBSCURED BY TREES, PARKED VEHICLES OR OTHER OBSTRUCTIONS
 - SIGNS TO BE POSITIONED WHERE THEY WILL NOT OBSCURE OTHER SIGNS
 - THE TRAFFIC MANAGER SHOULD:
MAKE THE DECISION ON THE USE OF THIS TRAFFIC CONTROL PLAN DURING THE WORKS
 - INSTALL/REMOVE TRAFFIC CONTROL SIGNS AND DEVICES AS REQUIRED
 - PERIODICALLY REVIEW TRAFFIC CONDITIONS AND THE TCP
 - ENSURE SIGNS ARE IN A GOOD CONDITION
 - ENSURE SIGHT DISTANCES ARE MAINTAINED FOR PEDESTRIANS AT ALL TIMES

BITZIOS
-consulting
traffic engineering ■ transport planning



Gold Coast
Suite 26, 58 Riverwalk Avenue, Robina QLD 4226
P: (07) 5562-5377
W: www.bitziosconsulting.com.au
Brisbane
Level 2, 428 Upper Edward Street, Spring Hill 4000
P: (07) 3831-4442
E: admin@bitziosconsulting.com.au
Sydney
Studio 203, 3 Gladstone Street, Newtown NSW 2042
P: (02) 9537-6202

REVISIONS				
Issue	Revisions/Descriptions	Drawn	Date	
001	INITIAL TCP	M.H	11/12/19	

APPROVED
ALEX GIYAH
PREPARE A WORK ZONE TRAFFIC MANAGEMENT PLAN
CARD NO. 0051873071
EXPIRY 30/11/2021
Alex Giyahi

Project	SYDNEY METRO CITY AND SOUTHWEST EARLY WORKS		
Design	M.H	Drawn	M.H
Checked	A.G		Date
Title			11/12/19
TRAFFIC CONTROL PLAN BROUGHTON STREET HRV REVERSE		Project Number	Issue
P3519	Sheet Number	SMCSWSSJ-JHL -WEC-TF-PLN -0000 TBC	001

Legend

-  Cone
-  Work Area



NOTES

- TRAFFIC CONTROLLERS MUST BE RMS ACCREDITED
- TWO-WAY RADIOS TO BE USED FOR COMMUNICATION BETWEEN TRAFFIC CONTROLLERS
- EXTRA SIGNS TO BE PLACED IF REQUIRED
- SIZE B SIGNS TO BE USED
- ALL LANES AND ROAD LAYOUTS MUST BE VERIFIED ON SITE PRIOR TO THE IMPLEMENTATION OF TRAFFIC CONTROL PLANS
- TRAFFIC MARSHALLS MUST BE IN CONTACT WITH WORKSITE AT ALL TIMES
- SIGNS TO BE POSITIONED WHERE THEY WILL NOT BE OBTURED BY TREES, PARKED VEHICLES OR OTHER OBSTRUCTIONS
- SIGNS TO BE POSITIONED WHERE THEY WILL NOT OBTURE OTHER SIGNS
- THE TRAFFIC MANAGER SHOULD: MAKE THE DECISION ON THE USE OF THIS TRAFFIC CONTROL PLAN DURING THE WORKS
- INSTALL/REMOVE TRAFFIC CONTROL SIGNS AND DEVICES AS REQUIRED
- PERIODICALLY REVIEW TRAFFIC CONDITIONS AND THE TCP
- ENSURE SIGNS ARE IN A GOOD CONDITION
- ENSURE SIGHT DISTANCES ARE MAINTAINED FOR PEDSETRIANS AT ALL TIMES

BITZIOS
-consulting
traffic engineering • transport planning

Gold Coast
Suite 26, 58 Riverwalk Avenue, Robina QLD 4226.
P: (07) 5562 5377
W: www.bitziosconsulting.com.au
Brisbane
Level 2, 428 Upper Edward Street, Spring Hill 4000.
P: (07) 3831 4442
E: admin@bitziosconsulting.com.au
Sydney
Studio 203, 3 Gladstone Street, Newtown NSW 2042.
P: (02) 9567 6202



Issue	Revisions/Descriptions	Drawn	Date
001	INITIAL TCP	M.H	21/12/18
002	SIGN AMENDMENTS	M.H	14/01/19
003	NO CHANGE	M.H	31/01/19
004	ISSUE FOR CONSTRUCTION	M.H	05/02/19
005	COMBINE SMEW TCPS AND AMEND SHEET NUMBER	M.H	11/04/19
006	AMENDMENT CTMP REV 1 COMMENTS	M.H	18/04/19
007	NO CHANGE	M.H	16/05/19

APPROVED
ALEX GIYAH
PREPARE A WORK ZONE TRAFFIC MANAGEMENT PLAN
CARD NO. 0051873071
EXPIRY 30/11/2021

Project	SYDENHAM TO BANKSTOWN WORKS
Title	SYDENHAM TO BANKSTOWN BRIDGE INSPECTION TRAFFIC CONTROL PLAN FOORD AVENUE UNDERPASS NORTHBOUND LANE CLOSURE

Design	M.H	Drawn	M.H	Checked	A.G
FOR CONSTRUCTION					
Project Number	P3519	Sheet Number	SMCSWSSJ-JHL -WEC-TF-PLN -000003	Date	16/05/19
Issue	007				

Legend

-  Cone
-  Work Area

NOTES

TRAFFIC CONTROLLERS MUST BE RMS ACCREDITED

TWO-WAY RADIOS TO BE USED FOR COMMUNICATION BETWEEN TRAFFIC CONTROLLERS

EXTRA SIGNS TO BE PLACED IF REQUIRED

SIZE B SIGNS TO BE USED

ALL LANES AND ROAD LAYOUTS MUST BE VERIFIED ON SITE PRIOR TO THE IMPLEMENTATION OF TRAFFIC CONTROL PLANS

TRAFFIC MARSHALLS MUST BE IN CONTACT WITH WORKSITE AT ALL TIMES

SIGNS TO BE POSITIONED WHERE THEY WILL NOT BE OBSCURED BY TREES, PARKED VEHICLES OR OTHER OBSTRUCTIONS

SIGNS TO BE POSITIONED WHERE THEY WILL NOT OBSCURE OTHER SIGNS

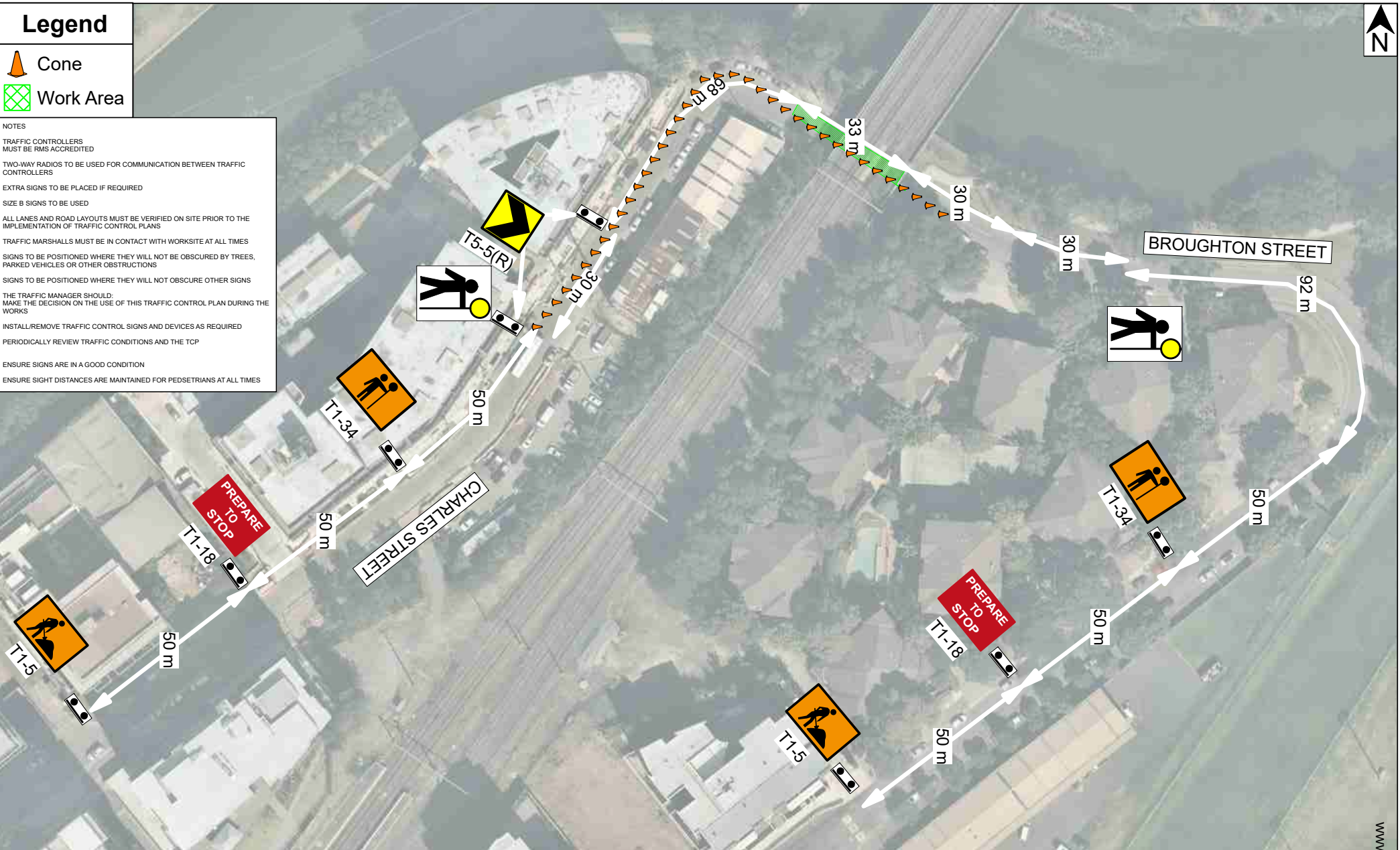
THE TRAFFIC MANAGER SHOULD: MAKE THE DECISION ON THE USE OF THIS TRAFFIC CONTROL PLAN DURING THE WORKS

INSTALL/REMOVE TRAFFIC CONTROL SIGNS AND DEVICES AS REQUIRED

PERIODICALLY REVIEW TRAFFIC CONDITIONS AND THE TCP

ENSURE SIGNS ARE IN A GOOD CONDITION

ENSURE SIGHT DISTANCES ARE MAINTAINED FOR PEDESTRIANS AT ALL TIMES



BITZIOS
consulting
traffic engineering • transport planning

Gold Coast
Suite 26, 58 Riverwalk Avenue, Robina QLD 4226.
P: (07) 5562 5377
W: www.bitziosconsulting.com.au

Brisbane
Level 2, 428 Upper Edward Street, Spring Hill 4000.
P: (07) 3831 4442
E: admin@bitziosconsulting.com.au

Sydney
Studio 203, 3 Gladstone Street, Newtown NSW 2042.
P: (02) 9567 6202

REVISIONS			
Issue	Revisions/Descriptions	Drawn	Date
001	INITIAL TCP	M.H	21/12/18
002	SIGN AMENDMENTS	M.H	14/01/19
003	NO CHANGE	M.H	31/01/19
004	ISSUE FOR CONSTRUCTION	M.H	05/02/19
005	COMBINE SMEW TCPS AND AMEND SHEET NUMBER	M.H	11/04/19
006	AMENDMENT CTMP REV 1 COMMENTS	M.H	18/04/19
007	NO CHANGE	M.H	16/05/19



APPROVED
ALEX GIYAH
PREPARE A WORK ZONE TRAFFIC MANAGEMENT PLAN
CARD NO. 0051873071
EXPIRY 30/11/2021

Project
SYDENHAM TO BANKSTOWN WORKS

Title
SYDENHAM TO BANKSTOWN
BRIDGE INSPECTION
TRAFFIC CONTROL PLAN
BROUGHTON STREET UNDERPASS
NORTHBOUND LANE CLOSURE

Design	M.H	Drawn	M.H	Checked	A.G
FOR CONSTRUCTION					
Project Number	P3519	Sheet Number	SMCSWSSJ-JHL -WEC-TF-PLN -000004	Date	16/05/19
				Issue	007

Legend

-  Cone
-  Work Area

NOTES

TRAFFIC CONTROLLERS MUST BE RMS ACCREDITED

TWO-WAY RADIOS TO BE USED FOR COMMUNICATION BETWEEN TRAFFIC CONTROLLERS

EXTRA SIGNS TO BE PLACED IF REQUIRED

SIZE B SIGNS TO BE USED

ALL LANES AND ROAD LAYOUTS MUST BE VERIFIED ON SITE PRIOR TO THE IMPLEMENTATION OF TRAFFIC CONTROL PLANS

TRAFFIC MARSHALLS MUST BE IN CONTACT WITH WORKSITE AT ALL TIMES

SIGNS TO BE POSITIONED WHERE THEY WILL NOT BE OBSCURED BY TREES, PARKED VEHICLES OR OTHER OBSTRUCTIONS

SIGNS TO BE POSITIONED WHERE THEY WILL NOT OBSCURE OTHER SIGNS

THE TRAFFIC MANAGER SHOULD: MAKE THE DECISION ON THE USE OF THIS TRAFFIC CONTROL PLAN DURING THE WORKS

INSTALL/REMOVE TRAFFIC CONTROL SIGNS AND DEVICES AS REQUIRED

PERIODICALLY REVIEW TRAFFIC CONDITIONS AND THE TCP



BITZIOS
-consulting
traffic engineering • transport planning

Gold Coast
Suite 26, 58 Riverwalk Avenue, Robina QLD 4226.
P: (07) 5562 5377
W: www.bitziosconsulting.com.au
Brisbane
Level 2, 428 Upper Edward Street, Spring Hill 4000.
P: (07) 3831 4442
E: admn@bitziosconsulting.com.au
Sydney
Studio 203, 3 Gladstone Street, Newtown NSW 2042.
P: (02) 9567 6202

REVISIONS			
Issue	Revisions/Descriptions	Drawn	Date
001	INITIAL TCP	M.H	21/12/18
002	SIGN ADJUSTMENTS	M.H	14/01/19
003	NO CHANGE	M.H	31/01/19
004	ISSUE FOR CONSTRUCTION	M.H	05/02/19
005	COMBINE SMEW TCPS AND AMEND SHEET NUMBER	M.H	11/04/19
006	AMENDMENT CTMP REV 1 COMMENTS	M.H	18/04/19
007	NO CHANGE	M.H	16/05/19

APPROVED
ALEX GIYAH
PREPARE A WORK ZONE TRAFFIC MANAGEMENT PLAN
CARD NO. 0051873071
EXPIRY 30/11/2021

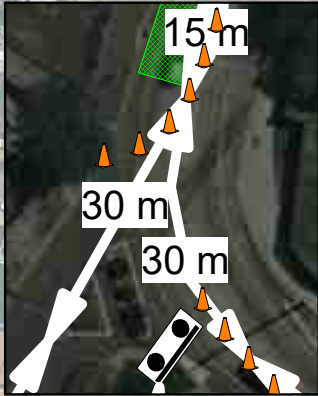
Project	SYDENHAM TO BANKSTOWN WORKS
Title	SYDENHAM TO BANKSTOWN BRIDGE INSPECTION TRAFFIC CONTROL PLAN WAIROA STREET UNDERPASS NORTHBOUND LANE CLOSURE

Design	M.H	Drawn	M.H	Checked	A.G
FOR CONSTRUCTION					
Project Number	P3519	Sheet Number	SMCSWSS-JHL -WEC-TF-PLN -000005	Date	16/05/19
Issue	007				



Legend

- Cone
- Work Area



- NOTES**
- TRAFFIC CONTROLLERS MUST BE RMS ACCREDITED
 - TWO-WAY RADIOS TO BE USED FOR COMMUNICATION BETWEEN TRAFFIC CONTROLLERS
 - TRAFFIC CONTROLLERS TO MANAGE PEDESTRIANS THROUGH WORKSITE
 - EXTRA SIGNS TO BE PLACED IF REQUIRED
 - SIZE B SIGNS TO BE USED
 - ALL LANES AND ROAD LAYOUTS MUST BE VERIFIED ON SITE PRIOR TO THE IMPLEMENTATION OF TRAFFIC CONTROL PLANS
 - TRAFFIC MARSHALLS MUST BE IN CONTACT WITH WORKSITE AT ALL TIMES
 - SIGNS TO BE POSITIONED WHERE THEY WILL NOT BE OBTSCURED BY TREES, PARKED VEHICLES OR OTHER OBSTRUCTIONS
 - SIGNS TO BE POSITIONED WHERE THEY WILL NOT OBTSCURE OTHER SIGNS
 - BARRIER BOARD POSITIONS AND NUMBER IS INDIACTIVE AND IT SHOULD BE ENSURED THAT THE BOARDS COMPLETELY CLOSE THE MARKED AREA
 - THE TRAFFIC MANAGER SHOULD:
MAKE THE DECISION ON THE USE OF THIS TRAFFIC CONTROL PLAN DURING THE WORKS
 - INSTALL/REMOVE TRAFFIC CONTROL SIGNS AND DEVICES AS REQUIRED
 - PERIODICALLY REVIEW TRAFFIC CONDITIONS AND THE TCP
 - ENSURE SIGNS ARE IN A GOOD CONDITION
 - ENSURE SIGHT DISTANCES ARE MAINTAINED FOR PEDSETRIANAS AT ALL TIMES

BITZIOS
-consulting
traffic engineering ■ transport planning

Gold Coast
Suite 26, 58 Riverwalk Avenue, Robina QLD 4226.
P: (07) 5562-5377
W: www.bitziosconsulting.com.au
Brisbane
Level 2, 428 Upper Edward Street, Spring Hill 4000.
P: (07) 3831-4442
E: admin@bitziosconsulting.com.au
Sydney
Studio 203, 3 Gladstone Street, Newtown NSW 2042.
P: (02) 9571-6202

REVISIONS				
Issue	Revisions/Descriptions	Drawn	Date	
001	INITIAL TCP	M.H	21/12/18	
002	AMENDED SIGN LOCATIONS	M.H	14/01/19	
003	NO CHANGE	M.H	31/01/19	
004	ISSUE FOR CONSTRUCTION	M.H	05/02/19	
005	COMBINE SMEW TCPS AND AMEND SHEET NUMBER	M.H	11/04/19	
006	AMENDMENT CTMP REV 1 COMMENTS	M.H	18/04/19	
007	NO CHANGE	M.H	18/05/19	

APPROVED
ALEX GYAH
PREPARE A WORK ZONE TRAFFIC MANAGEMENT PLAN
CARD NO. 0051873071
EXPIRY 30/11/2021

Project	SYDENHAM TO BANKSTOWN WORKS		
Design	M.H	Drawn	M.H
Checked	A.G		Date
Title		SYDENHAM TO BANKSTOWN BRIDGE INSPECTION TRAFFIC CONTROL PLAN VICTORIA STREET UNDERPASS NORTHBOUND LANE CLOSURE	
Project Number	P3519	Sheet Number	SMCSWSSJ-JHL -WEC-TF-PLN -000006
Issue	007		



Legend

- Barrier
- Cone
- Work Area



NOTES

- TRAFFIC CONTROLLERS MUST BE RMS ACCREDITED
- TWO-WAY RADIOS TO BE USED FOR COMMUNICATION BETWEEN TRAFFIC CONTROLLERS
- EXTRA SIGNS TO BE PLACED IF REQUIRED
- SIZE B SIGNS TO BE USED
- ALL LANES AND ROAD LAYOUTS MUST BE VERIFIED ON SITE PRIOR TO THE IMPLEMENTATION OF TRAFFIC CONTROL PLANS
- TRAFFIC MARSHALLS MUST BE IN CONTACT WITH WORKSITE AT ALL TIMES
- SIGNS TO BE POSITIONED WHERE THEY WILL NOT BE OBTSCURED BY TREES, PARKED VEHICLES OR OTHER OBSTRUCTIONS
- SIGNS TO BE POSITIONED WHERE THEY WILL NOT OBTSCURE OTHER SIGNS
- THE TRAFFIC MANAGER SHOULD: MAKE THE DECISION ON THE USE OF THIS TRAFFIC CONTROL PLAN DURING THE WORKS
- INSTALL/REMOVE TRAFFIC CONTROL SIGNS AND DEVICES AS REQUIRED
- PERIODICALLY REVIEW TRAFFIC CONDITIONS AND THE TCP
- ENSURE SIGNS ARE IN A GOOD CONDITION
- ENSURE SIGHT DISTANCES ARE MAINTAINED FOR PEDESTRIANS AT ALL TIMES

BITZIOS

consulting

traffic engineering ■ transport planning

Gold Coast
 Suite 26, 58 Riverwalk Avenue, Robina QLD 4226.
 P: (07) 5562-5377
 W: www.bitziosconsulting.com.au

Brisbane
 Level 2, 428 Upper Edward Street, Spring Hill 4000.
 P: (07) 3831-4442
 E: admin@bitziosconsulting.com.au




Sydney
 Studio 203, 3 Gladstone Street, Newtown NSW 2042.
 P: (02) 9557 6202

REVISIONS			
Issue	Revisions/Descriptions	Drawn	Date
001	NOT USED		
002	INITIAL TCP	M.H	14/01/19
003	NO CHANGE	M.H	31/1/19
004	ISSUE FOR CONSTRUCTION	M.H	05/02/19
005	COMBINE SMEW TCPs AND AMEND SHEET NUMBER	M.H	11/04/19
006	AMENDMENT CTMP REV 1 COMMENTS	M.H	18/04/19
007	NO CHANGE	M.H	16/05/19

APPROVED
 ALEX GYAH
 PREPARE A WORK ZONE TRAFFIC MANAGEMENT PLAN
 CARD NO. 0051873071
 EXPIRY 30/11/2021

Project	SYDENHAM TO BANKSTOWN WORKS		
Design	M.H	Drawn	M.H
Checked	A.G		Date
Title		SYDENHAM TO BANKSTOWN BRIDGE INSPECTION TRAFFIC CONTROL PLAN VICTORIA STREET UNDERPASS SOUTHBOUND LANE CLOSURE	Issue
Project Number	P3519	Sheet Number	SMCSWSSJ-JHL -WEC-TF-PLN -000007
Issue	007		

Legend

-  Barrier
-  Cone
-  Work Area



NOTES

- TRAFFIC CONTROLLERS MUST BE RMS ACCREDITED
- TWO-WAY RADIOS TO BE USED FOR COMMUNICATION BETWEEN TRAFFIC CONTROLLERS
- EXTRA SIGNS TO BE PLACED IF REQUIRED
- SIZE B SIGNS TO BE USED
- ALL LANES AND ROAD LAYOUTS MUST BE VERIFIED ON SITE PRIOR TO THE IMPLEMENTATION OF TRAFFIC CONTROL PLANS
- TRAFFIC MARSHALLS MUST BE IN CONTACT WITH WORKSITE AT ALL TIMES
- SIGNS TO BE POSITIONED WHERE THEY WILL NOT BE OBTSCURED BY TREES, PARKED VEHICLES OR OTHER OBSTRUCTIONS
- SIGNS TO BE POSITIONED WHERE THEY WILL NOT OBTSCURE OTHER SIGNS
- THE TRAFFIC MANAGER SHOULD: MAKE THE DECISION ON THE USE OF THIS TRAFFIC CONTROL PLAN DURING THE WORKS
- INSTALL/REMOVE TRAFFIC CONTROL SIGNS AND DEVICES AS REQUIRED
- PERIODICALLY REVIEW TRAFFIC CONDITIONS AND THE TCP
- ENSURE SIGNS ARE IN A GOOD CONDITION
- ENSURE SIGHT DISTANCES ARE MAINTAINED FOR PEDSETRIANS AT ALL TIMES

BITZIOS
-consulting
traffic engineering • transport planning

Gold Coast
Suite 26, 58 Riverwalk Avenue, Robina QLD 4226.
P: (07) 5562 5377
W: www.bitziosconsulting.com.au

Brisbane
Level 2, 428 Upper Edward Street, Spring Hill 4000.
P: (07) 3831 4442
E: admin@bitziosconsulting.com.au

Sydney
Studio 203, 3 Gladstone Street, Newtown NSW 2042.
P: (02) 9557 6202

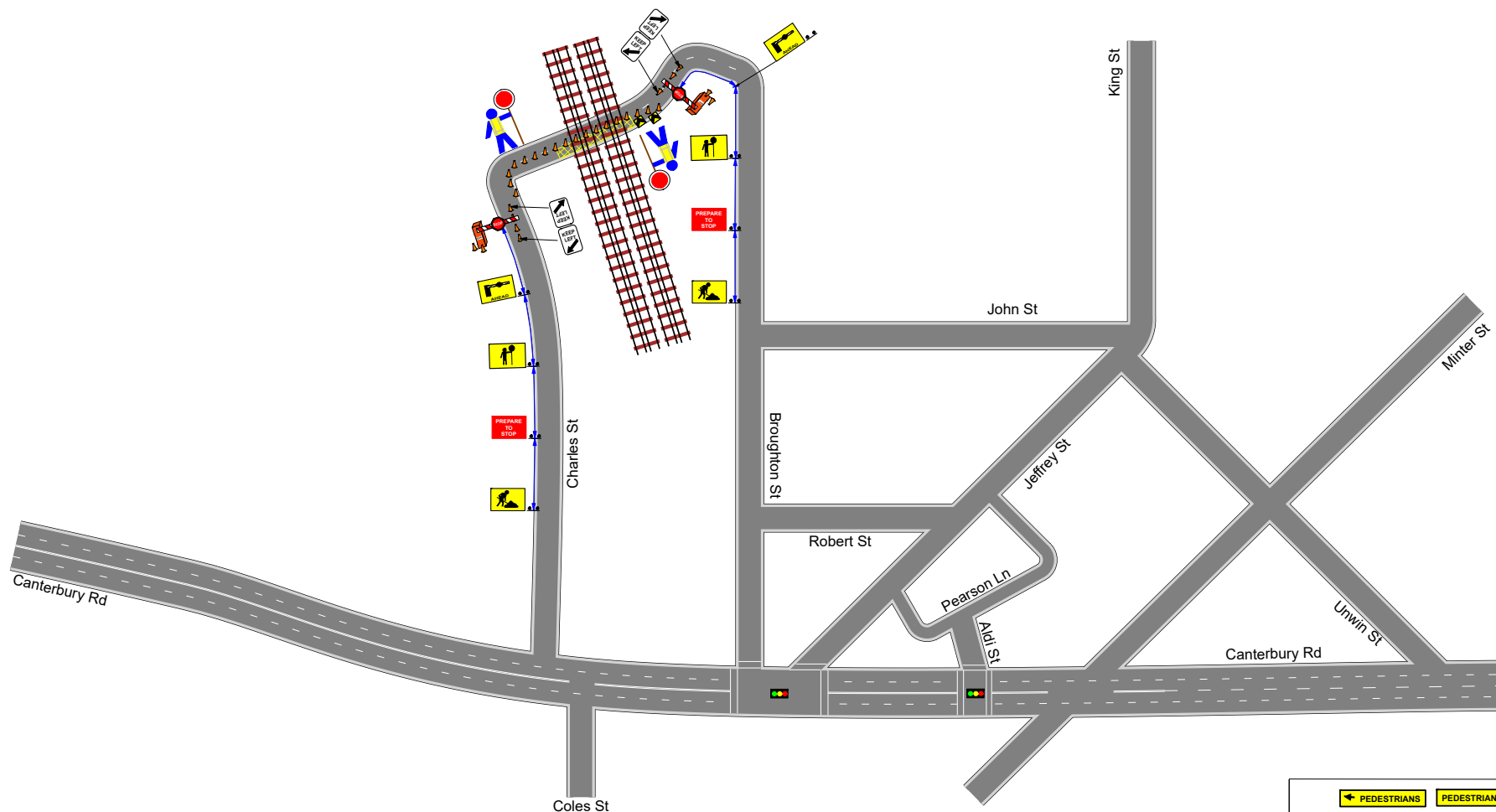
REVISIONS			
Issue	Revisions/Descriptions	Drawn	Date
001	NOT USED	-	-
002	INITIAL TCP	M.H	14/01/19
003	NO CHANGE	M.H	31/01/19
004	ISSUE FOR CONSTRUCTION	M.H	05/02/19
005	COMBINE SMEW Tcps AND AMEND SHEET NUMBER	M.H	11/04/19
006	AMENDMENT CTMP REV 1 COMMENTS	M.H	18/04/19
007	NO CHANGE	M.H	16/05/19

APPROVED
ALEX GIYAIH
PREPARE A WORK ZONE TRAFFIC MANAGEMENT PLAN
CARD NO. 0051873071
EXPIRY 30/11/2021

Project	SYDENHAM TO BANKSTOWN WORKS
Title	SYDENHAM TO BANKSTOWN BRIDGE INSPECTION TRAFFIC CONTROL PLAN FOORD AVENUE UNDERPASS SOUTHBOUND LANE CLOSURE

Design	M.H	Drawn	M.H	Checked	A.G
FOR CONSTRUCTION					
Project Number	P3519	Sheet Number	SMCSWSSJ-JHL -WEC-TF-PLN -000008	Date	16/05/19
Issue	007				

www.invarion.com



PEDESTRIANS PEDESTRIANS
 PEDESTRIAN SIGNS TO BE INSTALLED
 WHERE APPLICABLE IF REQUIRED

Client: John Holland Laing O'Rourke
 Joint Venture
 Scope of Works: Construction works
 Job location: Broughton St, Canterbury
 Author: Sandeep kumar Kolimi
 Cert. No: 0051756294

Plan No: XXXXXXXXX
 PLAN NOT TO SCALE

WORKERS ON FOOT
 NO GO ZONE = [Pink line]
 RESTRICTED ZONE = [Purple line]
 SHARED ZONE = [Green line]
 SITE EXIT = (X)
 SITE ENTRY = (E)
 EVACUATION POINT = (EP)

Implemented By
 Name -
 Cert No -
 Date -
 Signed -

Dimension 'D'
 AS 1742.3: A distance expressed in metres, determined in accordance with Clause 4.1.5 and used for positioning of advance signs and related purposes.

Speed of Traffic km/h	Dimension m
55 or less	15
56 to 65	45
Greater than 65	speed of traffic, in Km/h

WORK AREA = [Yellow and black grid]

Taper Lengths

Approximate speed of traffic	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
Greater than 106	N/A	110	180

Web: www.ddtraffic.com.au
 Email: sydney@dd-group.com.au
 Phone: 1300 597 622

D&D Traffic Management does not accept liability for implementation of this top if not directly involved in its implementation

Legend

- Barrier
- Cone

NOTES

TRAFFIC CONTROLLERS MUST BE RMS ACCREDITED

TWO-WAY RADIOS TO BE USED FOR COMMUNICATION BETWEEN TRAFFIC CONTROLLERS

EXTRA SIGNS TO BE PLACED IF REQUIRED

SIZE B SIGNS TO BE USED

ALL LANES AND ROAD LAYOUTS MUST BE VERIFIED ON SITE PRIOR TO THE IMPLEMENTATION OF TRAFFIC CONTROL PLANS

TRAFFIC MARSHALLS MUST BE IN CONTACT WITH WORKSITE AT ALL TIMES

SIGNS TO BE POSITIONED WHERE THEY WILL NOT BE OBSCURED BY TREES, PARKED VEHICLES OR OTHER OBSTRUCTIONS

SIGNS TO BE POSITIONED WHERE THEY WILL NOT OBSCURE OTHER SIGNS

THE TRAFFIC MANAGER SHOULD: MAKE THE DECISION ON THE USE OF THIS TRAFFIC CONTROL PLAN DURING THE WORKS

INSTALL/REMOVE TRAFFIC CONTROL SIGNS AND DEVICES AS REQUIRED

PERIODICALLY REVIEW TRAFFIC CONDITIONS AND THE TCP



BITZIOS
-consulting
traffic engineering • transport planning

Gold Coast
Suite 26, 58 Riverwalk Avenue, Robina QLD 4226.
P: (07) 5562 5377
W: www.bitziosconsulting.com.au
Brisbane
Level 2, 428 Upper Edward Street, Spring Hill 4000.
P: (07) 3831 4442
E: admn@bitziosconsulting.com.au
Sydney
Studio 203, 3 Gladstone Street, Newtown NSW 2042.
P: (02) 9567 6202

REVISIONS			
Issue	Revisions/Descriptions	Drawn	Date
001	NOT USED	-	-
002	INITIAL TCP	M.H	14/01/19
003	NO CHANGE	M.H	31/01/19
004	ISSUE FOR CONSTRUCTION	M.H	05/02/19
005	COMBINE SMEW TCPS AND AMEND SHEET NUMBER	M.H	11/04/19
006	AMENDMENT CTMP REV 1 COMMENTS	M.H	18/04/19
007	NO CHANGE	M.H	16/05/19




APPROVED
ALEX GIYAH
PREPARE A WORK ZONE TRAFFIC MANAGEMENT PLAN
CARD NO. 0051873071
EXPIRY 30/11/2021

Project	SYDENHAM TO BANKSTOWN WORKS
Title	SYDENHAM TO BANKSTOWN BRIDGE INSPECTION TRAFFIC CONTROL PLAN WAIROA STREET UNDERPASS SOUTHBOUND LANE CLOSURE

Design	M.H	Drawn	M.H	Checked	A.G
FOR CONSTRUCTION					
Project Number	P3519	Sheet Number	SMCSWSSJ-JHL -WEC-TF-PLN -00010	Date	16/05/19
				Issue	007



Legend

-  Barrier
-  Cone
-  Work Area



NOTES

- TRAFFIC CONTROLLERS MUST BE RMS ACCREDITED
- TWO-WAY RADIOS TO BE USED FOR COMMUNICATION BETWEEN TRAFFIC CONTROLLERS
- EXTRA SIGNS TO BE PLACED IF REQUIRED
- SIZE B SIGNS TO BE USED
- ALL LANES AND ROAD LAYOUTS MUST BE VERIFIED ON SITE PRIOR TO THE IMPLEMENTATION OF TRAFFIC CONTROL PLANS
- TRAFFIC MARSHALLS MUST BE IN CONTACT WITH WORKSITE AT ALL TIMES
- SIGNS TO BE POSITIONED WHERE THEY WILL NOT BE OBTSCURED BY TREES, PARKED VEHICLES OR OTHER OBSTRUCTIONS
- SIGNS TO BE POSITIONED WHERE THEY WILL NOT OBTSCURE OTHER SIGNS
- THE TRAFFIC MANAGER SHOULD:
MAKE THE DECISION ON THE USE OF THIS TRAFFIC CONTROL PLAN DURING THE WORKS
- INSTALL/REMOVE TRAFFIC CONTROL SIGNS AND DEVICES AS REQUIRED
- PERIODICALLY REVIEW TRAFFIC CONDITIONS AND THE TCP
- ENSURE SIGNS ARE IN A GOOD CONDITION
- ENSURE SIGHT DISTANCES ARE MAINTAINED FOR PEDSTRIANS AT ALL TIMES



Gold Coast
 Suite 26, 58 Riverwalk Avenue, Robina QLD 4226.
 P: (07) 5562-5377
 W: www.bitziosconsulting.com.au
Brisbane
 Level 2, 428 Upper Edward Street, Spring Hill 4000.
 P: (07) 3831-4442
 E: admin@bitziosconsulting.com.au
Sydney
 Studio 203, 3 Gladstone Street, Newtown NSW 2042.
 P: (02) 9537-6202

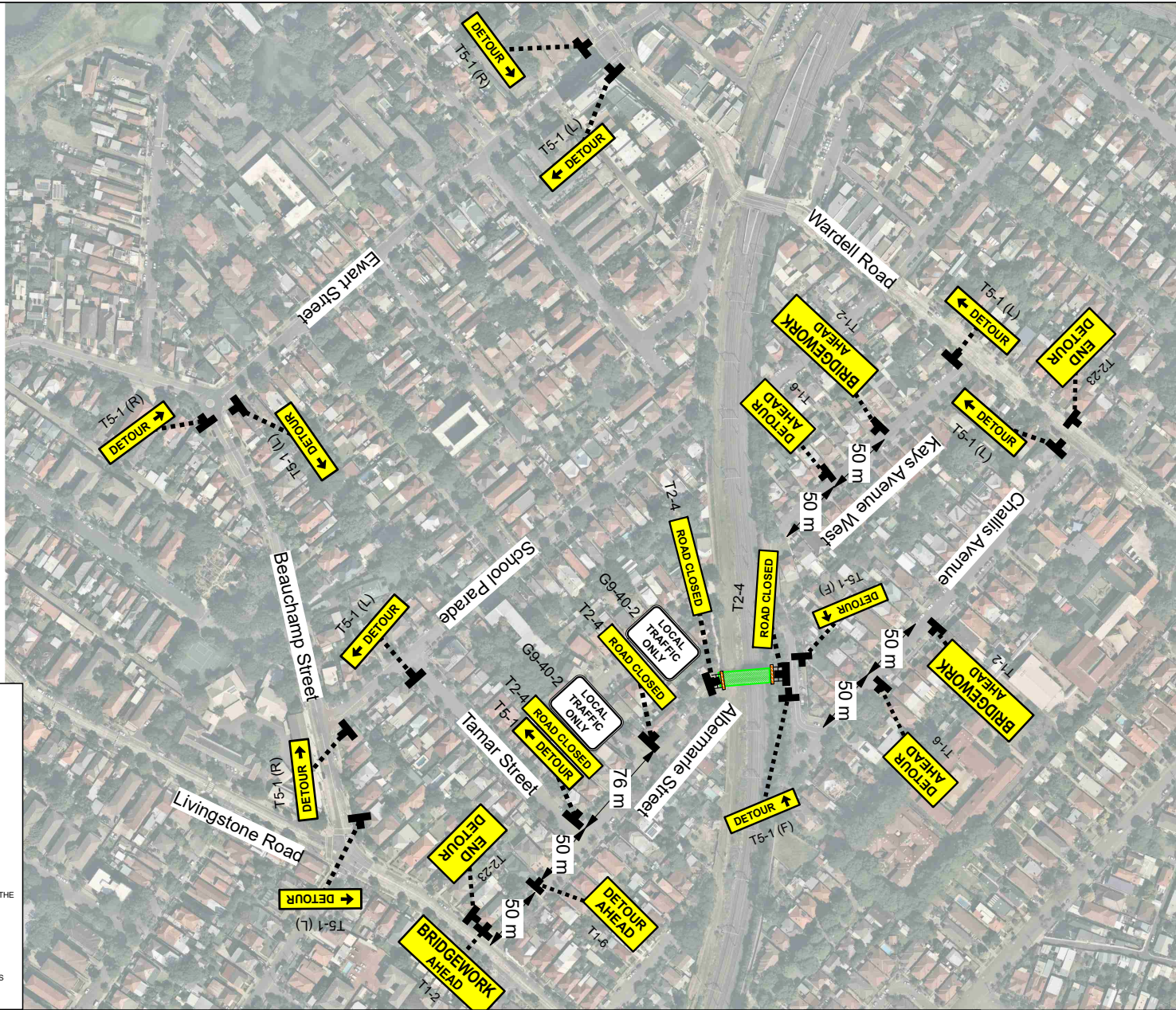
REVISIONS			
Issue	Revisions/Descriptions	Drawn	Date
001	NOT USED	-	-
002	INITIAL TCP	M.H	14/01/19
003	NO CHANGE	M.H	31/01/19
004	ISSUE FOR CONSTRUCTION	M.H	05/02/19
005	COMBINE SMEW TCPS AND AMEND SHEET NUMBER	M.H	11/04/19
006	AMENDMENT CTMP REV 1 COMMENTS	M.H	18/04/19
007	NO CHANGE	M.H	16/05/19

APPROVED
 ALEX GYAH
 PREPARE A WORK ZONE TRAFFIC MANAGEMENT PLAN
 CARD NO. 0051873071
 EXPIRY 30/11/2021

Project	SYDENHAM TO BANKSTOWN WORKS		
Design	M.H	Drawn	M.H
Checked	A.G		
FOR CONSTRUCTION		Date	16/05/19
Project Number	P3519	Sheet Number	SMCSWSSJ-JHL -WEC-TF-PLN -000011
Issue	007		

Legend

-  Barrier
-  Work Area



NOTES

- TRAFFIC CONTROLLERS MUST BE RMS ACCREDITED
- TWO-WAY RADIOS TO BE USED FOR COMMUNICATION BETWEEN TRAFFIC CONTROLLERS
- EXTRA SIGNS TO BE PLACED IF REQUIRED
- SIZE B SIGNS TO BE USED
- ALL LANES AND ROAD LAYOUTS MUST BE VERIFIED ON SITE PRIOR TO THE IMPLEMENTATION OF TRAFFIC CONTROL PLANS
- TRAFFIC MARSHALLS MUST BE IN CONTACT WITH WORKSITE AT ALL TIMES
- SIGNS TO BE POSITIONED WHERE THEY WILL NOT BE OBTURED BY TREES, PARKED VEHICLES OR OTHER OBSTRUCTIONS
- SIGNS TO BE POSITIONED WHERE THEY WILL NOT OBTURE OTHER SIGNS
- THE TRAFFIC MANAGER SHOULD: MAKE THE DECISION ON THE USE OF THIS TRAFFIC CONTROL PLAN DURING THE WORKS
- INSTALL/REMOVE TRAFFIC CONTROL SIGNS AND DEVICES AS REQUIRED
- PERIODICALLY REVIEW TRAFFIC CONDITIONS AND THE TCP
- ENSURE SIGNS ARE IN A GOOD CONDITION
- ENSURE SIGHT DISTANCES ARE MAINTAINED FOR PEDSETRIANS AT ALL TIMES



Gold Coast
 Suite 26, 58 Riverwalk Avenue, Robina QLD 4226.
 P: (07) 5562 5377
 W: www.bitziosconsulting.com.au

Brisbane
 Level 2, 428 Upper Edward Street, Spring Hill 4000.
 P: (07) 3831 4442
 E: scdm@bitziosconsulting.com.au

Sydney
 Studio 203, 3 Gladstone Street, Newtown NSW 2042.
 P: (02) 9557 6202

REVISIONS			
Issue	Revisions/Descriptions	Drawn	Date
001	NOT USED	-	-
002	NOT USED	-	-
003	NOT USED	-	-
004	NOT USED	-	-
005	NOT USED	-	-
006	AMENDMENT CTMP REV 1 COMMENTS	M.H	18/04/19
007	MINOR AMENDMENT	M.H	16/05/19

APPROVED
 ALEX GIYAH
 PREPARE A WORK ZONE TRAFFIC MANAGEMENT PLAN
 CARD NO. 0051873071
 EXPIRY 30/11/2021

Project	SYDENHAM TO BANKSTOWN WORKS
Title	SYDENHAM TO BANKSTOWN BRIDGE WORKS TRAFFIC CONTROL PLAN ALBERMARLE ROAD ENTIRE ROAD CLOSURE

Design	M.H	Drawn	M.H	Checked	A.G
FOR CONSTRUCTION					
Project Number	P3519	Sheet Number	SMCSWSSJ-JHL -WEC-TF-PLN -00012	Date	16/05/19
Issue	007				

www.invarion.com





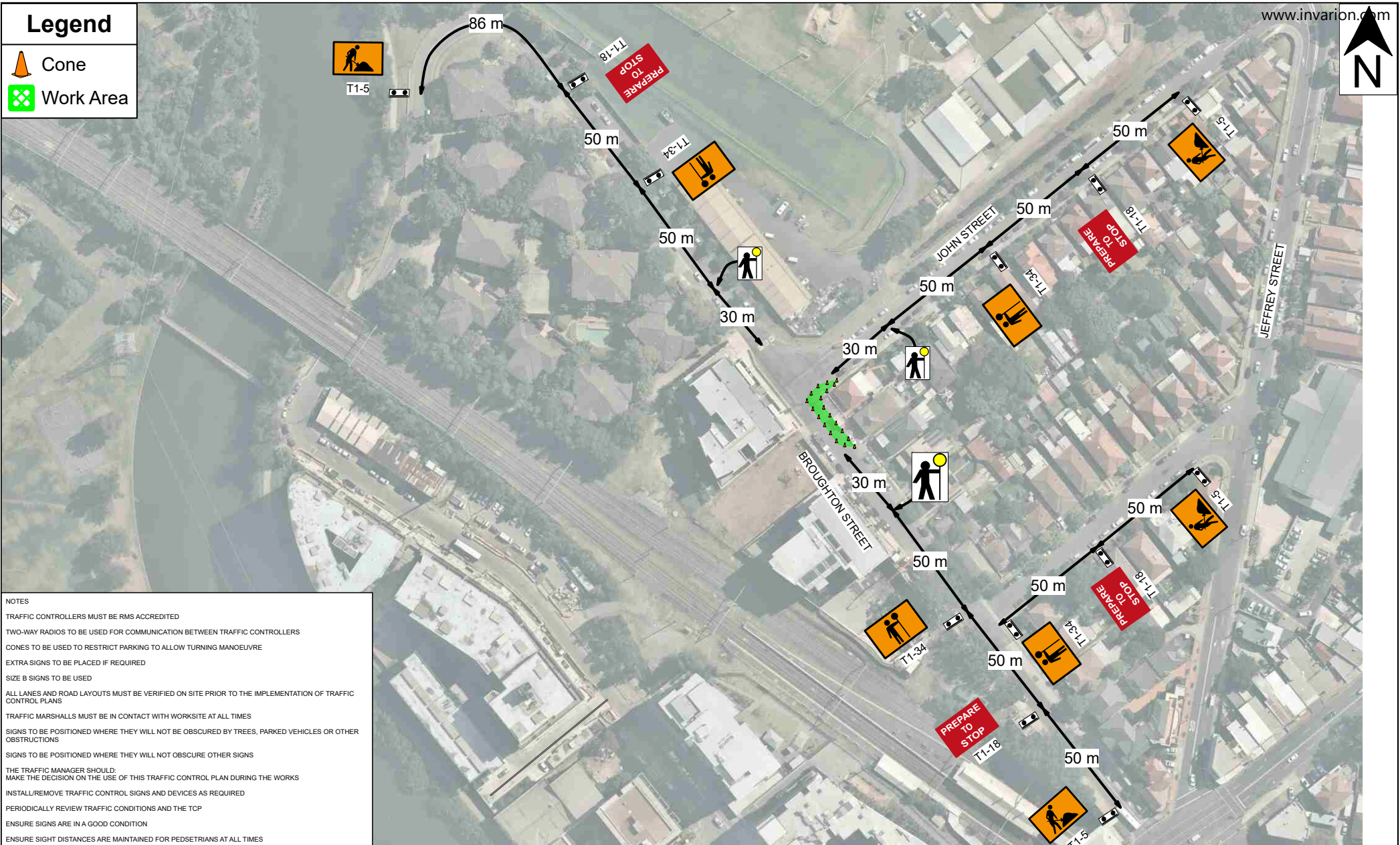
Project	SYDENHAM TO BANKSTOWN WORKS	Design	M.H	Drawn	M.H	Checked	A.G
Title	SYDENHAM TO BANKSTOWN BRIDGE INSPECTION TRAFFIC CONTROL PLAN Broughton Street Underpass Footpath Closure	Project Number	P3519	Sheet Number	SMCSWSSJ-JHL -WEC-TP-PLN -000013	Date	10/07/19
Issue	APPROVED ALEX GIYAHI CARD NO. 0051873071 EXPIRY 30/11/2021	Project	P3519	Issue	008		
Issue	001 NOT USED	Drawn	-	Date	-		
Issue	002 NOT USED	Drawn	-	Date	-		
Issue	003 INITIAL TCP	Drawn	M.H	Date	31/01/19		
Issue	004 ISSUE FOR CONSTRUCTION	Drawn	M.H	Date	05/02/19		
Issue	005 COMBINE SNEW TCPS AND AMEND SHEET NUMBER	Drawn	M.H	Date	11/04/19		
Issue	006 AMENDMENT CTMP REV 1 COMMENTS	Drawn	M.H	Date	18/04/19		
Issue	007 NO CHANGE	Drawn	M.H	Date	18/05/19		
Issue	008 ADDED WATER FILLED BARRIERS	Drawn	M.H	Date	10/07/19		
<p>Gold Coast Suite 26, 58 Riverview Avenue, Robina QLD 4226 P: (07) 5562 6377 W: www.bitziosconsulting.com.au</p> <p>Brisbane Level 2, 428 Upper Edward Street, Spring Hill 4000. P: (07) 3831 4442 E: admin@bitziosconsulting.com.au</p> <p>Sydney Studio 203, 3 Gladstone Street, Newtown NSW 2042. P: (02) 9557 6202</p>							

BITZIOS
 consulting
 traffic engineering ■ transport planning



Legend

-  Cone
-  Work Area



NOTES

- TRAFFIC CONTROLLERS MUST BE RMS ACCREDITED
- TWO-WAY RADIOS TO BE USED FOR COMMUNICATION BETWEEN TRAFFIC CONTROLLERS
- CONES TO BE USED TO RESTRICT PARKING TO ALLOW TURNING MANOEUVRE
- EXTRA SIGNS TO BE PLACED IF REQUIRED
- SIZE B SIGNS TO BE USED
- ALL LANES AND ROAD LAYOUTS MUST BE VERIFIED ON SITE PRIOR TO THE IMPLEMENTATION OF TRAFFIC CONTROL PLANS
- TRAFFIC MARSHALLS MUST BE IN CONTACT WITH WORKSITE AT ALL TIMES
- SIGNS TO BE POSITIONED WHERE THEY WILL NOT BE OBSCURED BY TREES, PARKED VEHICLES OR OTHER OBSTRUCTIONS
- SIGNS TO BE POSITIONED WHERE THEY WILL NOT OBSCURE OTHER SIGNS
- THE TRAFFIC MANAGER SHOULD:
MAKE THE DECISION ON THE USE OF THIS TRAFFIC CONTROL PLAN DURING THE WORKS
- INSTALL/REMOVE TRAFFIC CONTROL SIGNS AND DEVICES AS REQUIRED
- PERIODICALLY REVIEW TRAFFIC CONDITIONS AND THE TCP
- ENSURE SIGNS ARE IN A GOOD CONDITION
- ENSURE SIGHT DISTANCES ARE MAINTAINED FOR PEDESTRIANS AT ALL TIMES

BITZIOS
-consulting
traffic engineering ■ transport planning

Gold Coast
Suite 26, 58 Riverwalk Avenue, Robina QLD 4226.
P: (07) 5562-5377
W: www.bitziosconsulting.com.au
Brisbane
Level 2, 428 Upper Edward Street, Spring Hill 4000.
P: (07) 3831-4442
E: admin@bitziosconsulting.com.au
Sydney
Studio 203, 3 Gladstone Street, Newtown NSW 2042.
P: (02) 9537 6202


REVISIONS				
Issue	Revisions/Descriptions	Drawn	Date	
001	INITIAL TCP	M.H	19/02/19	
002	NOT USED	-	-	
003	NOT USED	-	-	
004	NOT USED	-	-	
005	COMBINE SMEW TCPs AND AMEND SHEET NUMBER	M.H	11/04/19	
006	AMENDMENT CTMP REV 1 COMMENTS	M.H	18/04/19	
007	NO CHANGE	M.H	16/05/19	

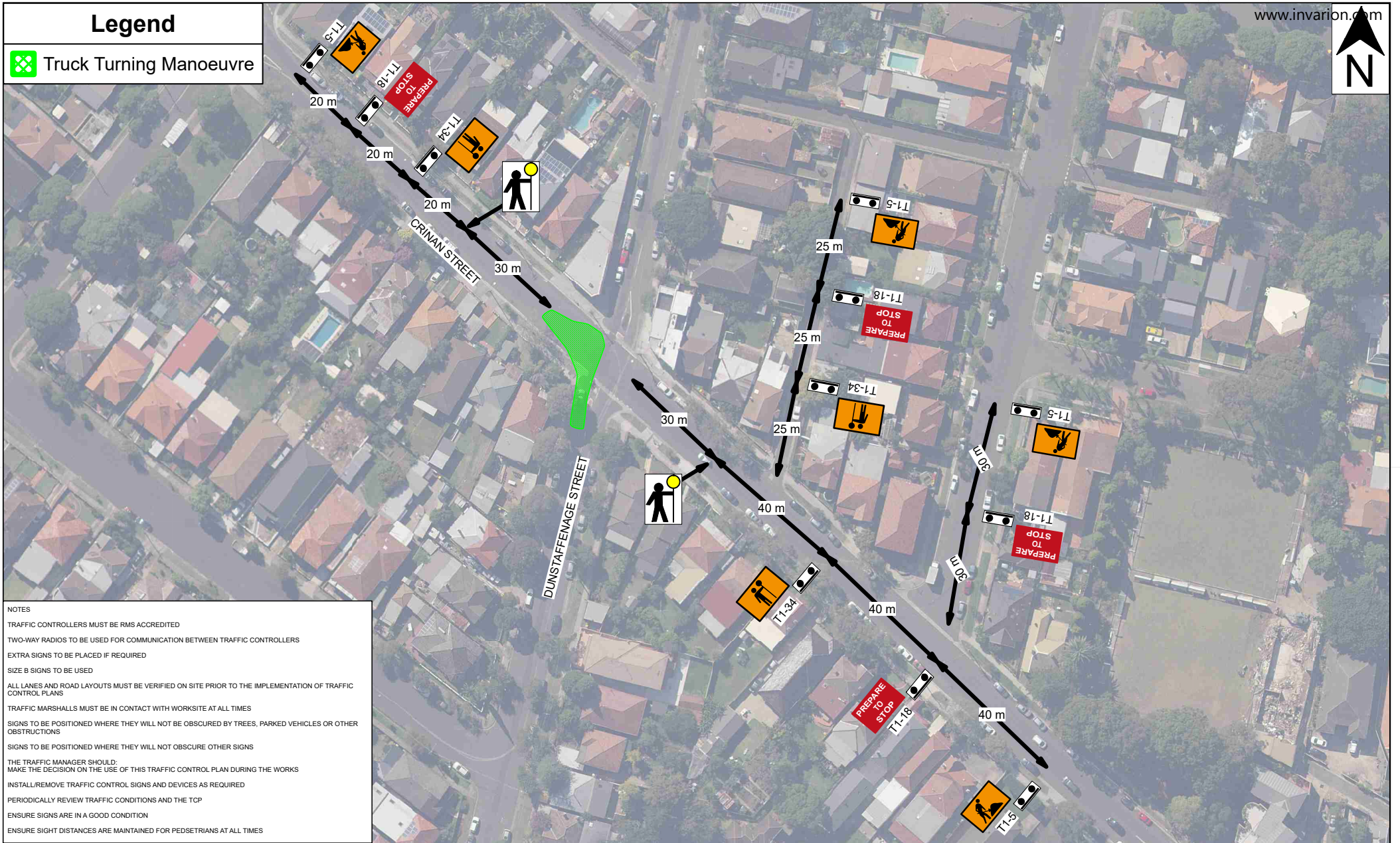
APPROVED
ALEX GYVAHI
PREPARE A WORK ZONE TRAFFIC MANAGEMENT PLAN
CARD NO. 0051873071
EXPIRY 30/11/2021

Project	SYDENHAM TO BANKSTOWN WORKS	Design	M.H	Drawn	M.H	Checked	A.G
Title	SYDENHAM TO BANKSTOWN BRIDGE INSPECTION TRAFFIC CONTROL PLAN EWP DELIVERY BROUGHTON STREET AND JOHN STREET	FOR CONSTRUCTION		Date	16/05/19		
Project Number	P3519	Sheet Number	SMCSWSSJ-JHL -WEC-TF-PLN -000014	Issue	007		



Legend

 Truck Turning Manoeuvre



NOTES

- TRAFFIC CONTROLLERS MUST BE RMS ACCREDITED
- TWO-WAY RADIOS TO BE USED FOR COMMUNICATION BETWEEN TRAFFIC CONTROLLERS
- EXTRA SIGNS TO BE PLACED IF REQUIRED
- SIZE B SIGNS TO BE USED
- ALL LANES AND ROAD LAYOUTS MUST BE VERIFIED ON SITE PRIOR TO THE IMPLEMENTATION OF TRAFFIC CONTROL PLANS
- TRAFFIC MARSHALLS MUST BE IN CONTACT WITH WORKSITE AT ALL TIMES
- SIGNS TO BE POSITIONED WHERE THEY WILL NOT BE OBTSCURED BY TREES, PARKED VEHICLES OR OTHER OBSTRUCTIONS
- SIGNS TO BE POSITIONED WHERE THEY WILL NOT OBTSCURE OTHER SIGNS
- THE TRAFFIC MANAGER SHOULD:
 - MAKE THE DECISION ON THE USE OF THIS TRAFFIC CONTROL PLAN DURING THE WORKS
 - INSTALL/REMOVE TRAFFIC CONTROL SIGNS AND DEVICES AS REQUIRED
 - PERIODICALLY REVIEW TRAFFIC CONDITIONS AND THE TCP
 - ENSURE SIGNS ARE IN A GOOD CONDITION
 - ENSURE SIGHT DISTANCES ARE MAINTAINED FOR PEDSETRIANS AT ALL TIMES

BITZIOS
-consulting
traffic engineering ■ transport planning

Gold Coast
Suite 26, 58 Riverwalk Avenue, Robina QLD 4226.
P: (07) 5562-5377
W: www.bitziosconsulting.com.au
Brisbane
Level 2, 428 Upper Edward Street, Spring Hill 4000.
P: (07) 3831-4442
E: admin@bitziosconsulting.com.au
Sydney
Studio 203, 3 Gladstone Street, Newtown NSW 2042.
P: (02) 957 6202



REVISIONS				
Issue	Revisions/Descriptions	Drawn	Date	
001	INITIAL TCP	M.H	19/02/19	
002	NOT USED	-	-	
003	NOT USED	-	-	
004	NOT USED	-	-	
005	COMBINE SMEW TCPs AND AMEND SHEET NUMBER	M.H	11/04/19	
006	AMENDMENT CTMP REV 1 COMMENTS	M.H	18/04/19	
007	NO CHANGE	M.H	16/05/19	

APPROVED
ALEX GYAH
PREPARE A WORK ZONE TRAFFIC MANAGEMENT PLAN
CARD NO. 0051873071
EXPIRY 30/11/2021

Project	SYDENHAM TO BANKSTOWN WORKS	Design	M.H	Drawn	M.H	Checked	A.G
Title	SYDENHAM TO BANKSTOWN BRIDGE INSPECTION TRAFFIC CONTROL PLAN EWP DELIVERY DUNSTAFFENE STREET AND CRINAN STREET	FOR CONSTRUCTION		Date	16/05/19		
Project Number	P3519	Sheet Number	SMCSWSSJ-JHL -WEC-TF-PLN -000015	Issue	007		



Legend

-  Cone
-  Truck Turning Manoeuvre



NOTES

- TRAFFIC CONTROLLERS MUST BE RMS ACCREDITED
- TWO-WAY RADIOS TO BE USED FOR COMMUNICATION BETWEEN TRAFFIC CONTROLLERS
- CONES TO BE USED TO RESTRICT PARKING TO ALLOW TURNING MANOEUVRE
- EXTRA SIGNS TO BE PLACED IF REQUIRED
- SIZE B SIGNS TO BE USED
- ALL LANES AND ROAD LAYOUTS MUST BE VERIFIED ON SITE PRIOR TO THE IMPLEMENTATION OF TRAFFIC CONTROL PLANS
- TRAFFIC MARSHALLS MUST BE IN CONTACT WITH WORKSITE AT ALL TIMES
- SIGNS TO BE POSITIONED WHERE THEY WILL NOT BE OBSCURED BY TREES, PARKED VEHICLES OR OTHER OBSTRUCTIONS
- SIGNS TO BE POSITIONED WHERE THEY WILL NOT OBSCURE OTHER SIGNS
- THE TRAFFIC MANAGER SHOULD: MAKE THE DECISION ON THE USE OF THIS TRAFFIC CONTROL PLAN DURING THE WORKS
- INSTALL/REMOVE TRAFFIC CONTROL SIGNS AND DEVICES AS REQUIRED
- PERIODICALLY REVIEW TRAFFIC CONDITIONS AND THE TCP
- ENSURE SIGNS ARE IN A GOOD CONDITION
- ENSURE SIGHT DISTANCES ARE MAINTAINED FOR PEDSTRIANS AT ALL TIMES

BITZIOS
-consulting
traffic engineering • transport planning

Gold Coast
Suite 26, 58 Riverwalk Avenue, Robina QLD 4226.
P: (07) 5562 5377
W: www.bitziosconsulting.com.au
Brisbane
Level 2, 428 Upper Edward Street, Spring Hill 4000.
P: (07) 3831 4442
E: scdm@bitziosconsulting.com.au
Sydney
Studio 203, 3 Gladstone Street, Newtown NSW 2042.
P: (02) 9567 6202

REVISIONS				
Issue	Revisions/Descriptions	Drawn	Date	
001	INITIAL TCP	M.H	19/02/19	
002	NOT USED	-	-	
003	NOT USED	-	-	
004	NOT USED	-	-	
005	COMBINE SMEW Tcps AND AMEND SHEET NUMBER	M.H	11/04/19	
006	AMENDMENT CTMP REV 1 COMMENTS	M.H	18/04/19	
007	NO CHANGE	M.H	16/05/19	







APPROVED
ALEX GIYAH
PREPARE A WORK ZONE TRAFFIC MANAGEMENT PLAN
CARD NO. 0051875071
EXPIRY 30/11/2021

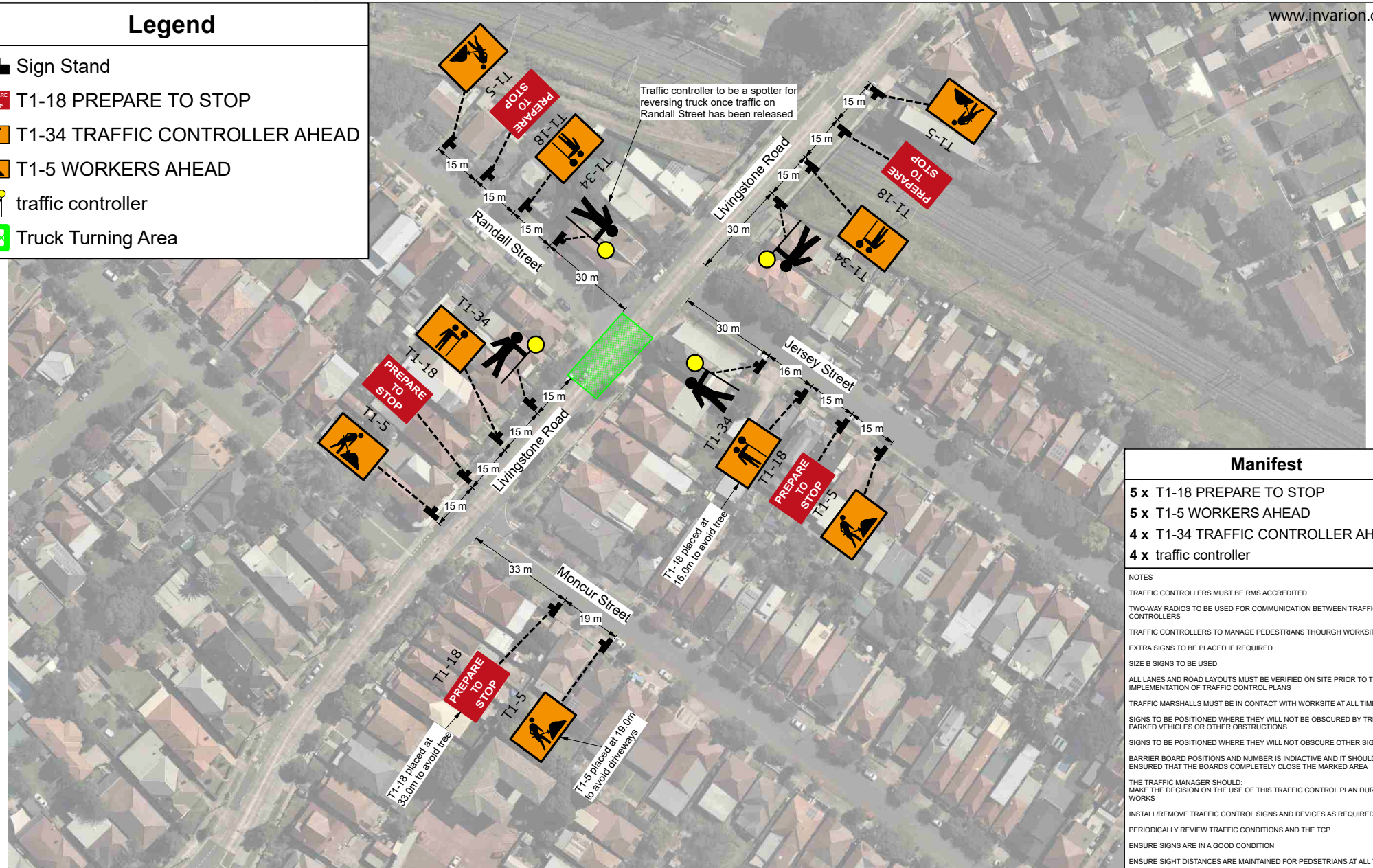
Project	SYDENHAM TO BANKSTOWN WORKS
Title	SYDENHAM TO BANKSTOWN BRIDGE INSPECTION TRAFFIC CONTROL PLAN EWP DELIVERY DUNSTAFFENAGE STREET AND FLOSS STREET

Design	M.H	Drawn	M.H	Checked	A.G
FOR CONSTRUCTION					
Project Number	P3519	Sheet Number	SMCSWSSLJHL -WEC-TF-PLN -000016	Date	16/05/19
Issue	007				



Legend

-  Sign Stand
-  T1-18 PREPARE TO STOP
-  T1-34 TRAFFIC CONTROLLER AHEAD
-  T1-5 WORKERS AHEAD
-  traffic controller
-  Truck Turning Area



Manifest

- 5 x T1-18 PREPARE TO STOP
- 5 x T1-5 WORKERS AHEAD
- 4 x T1-34 TRAFFIC CONTROLLER AHEAD
- 4 x traffic controller

NOTES

TRAFFIC CONTROLLERS MUST BE RMS ACCREDITED

TWO-WAY RADIOS TO BE USED FOR COMMUNICATION BETWEEN TRAFFIC CONTROLLERS

TRAFFIC CONTROLLERS TO MANAGE PEDESTRIANS THROUGH WORKSITE

EXTRA SIGNS TO BE PLACED IF REQUIRED

SIZE B SIGNS TO BE USED

ALL LANES AND ROAD LAYOUTS MUST BE VERIFIED ON SITE PRIOR TO THE IMPLEMENTATION OF TRAFFIC CONTROL PLANS

TRAFFIC MARSHALLS MUST BE IN CONTACT WITH WORKSITE AT ALL TIMES

SIGNS TO BE POSITIONED WHERE THEY WILL NOT BE OBTSCURED BY TREES, PARKED VEHICLES OR OTHER OBSTRUCTIONS

SIGNS TO BE POSITIONED WHERE THEY WILL NOT OBTSCURE OTHER SIGNS

BARRIER BOARD POSITIONS AND NUMBER IS INDIACATIVE AND IT SHOULD BE ENSURED THAT THE BOARD'S COMPLETELY CLOSE THE MARKED AREA

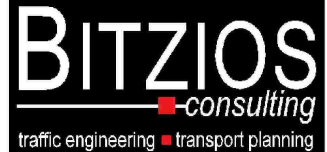
THE TRAFFIC MANAGER SHOULD:
MAKE THE DECISION ON THE USE OF THIS TRAFFIC CONTROL PLAN DURING THE WORKS

INSTALL/REMOVE TRAFFIC CONTROL SIGNS AND DEVICES AS REQUIRED

PERIODICALLY REVIEW TRAFFIC CONDITIONS AND THE TCP

ENSURE SIGNS ARE IN A GOOD CONDITION

ENSURE SIGHT DISTANCES ARE MAINTAINED FOR PEDSETRIANS AT ALL TIMES



Gold Coast
Suite 26, 58 Riverwalk Avenue, Robina QLD 4226.
P: (07) 5562-5377
W: www.bitziosconsulting.com.au

Brisbane
Level 2, 428 Upper Edward Street, Spring Hill 4000.
P: (07) 3831-4442
E: admin@bitziosconsulting.com.au

Sydney
Studio 203, 3 Gladstone Street, Newtown NSW 2042.
P: (02) 9557-6202


REVISIONS			
Issue	Revisions/Descriptions	Drawn	Date
001	INITIAL TCP	J.B	28/03/19
002	NOT USED	-	-
003	NOT USED	-	-
004	NOT USED	-	-
005	COMBINE SMEW TPCS AND AMEND SHEET NUMBER	M.H	11/04/19
006	AMENDMENT CTMP REV 1 COMMENTS	M.H	18/04/19
007	NO CHANGE	M.H	16/05/19

APPROVED
ALEX GYVAHI
PREPARE A WORK ZONE TRAFFIC MANAGEMENT PLAN
CARD NO. 0051873071
EXPIRY 30/11/2021

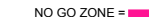
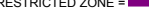



Project	SYDENHAM TO BANKSTOWN WORKS		
Design	J.B	Drawn	M.H
Checked	A.G		
Date	27/05/2019		
Title	TRAFFIC CONTROL PLAN GATE ACCESS RANDALL STREET		
	Project Number	Sheet Number	Issue
	P3519	SMCSWSSJ-JHL -WEC-TF-PLN -000018	007



Client: **Laing O'Rourke**
 Scope of Works: **Gate Access**
 Job location: **Wairoa St Bridge, Canterbury**
 Author: **Sandeep kumar Kolimi**
 Cert. No: **0051756294**
 www.invarion.com



Plan No: **SMCSWSSJ-JHL-WEC-TF-PLN-XXXXXX**
 PLAN NOT TO SCALE

WORKERS ON FOOT
 NO GO ZONE = 
 RESTRICTED ZONE = 
 SHARED ZONE = 
 SITE ENTRY = 
 EVACUATION POINT = 

Implemented By
 Name -
 Cert No -
 Date -
 Signed -

Dimension 'D'
 AS 1742.3: A distance expressed in metres, determined in accordance with Clause 4.1.5 and used for positioning of advance signs and related purposes.

Speed of Traffic km/h	Dimension m
55 or less	15
56 to 65	45
Greater than 65	speed of traffic, in Km/h

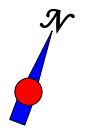
Taper Lengths

Approximate speed of traffic at beginning of taper	Traffic control 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
Greater than 106	N/A	110	180



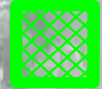
Web: www.dtraffic.com.au
 Email: sydney@dd-group.com.au
 Phone: 1300 597 622

D&D Traffic Management does not accept liability for implementation of this tcp if not directly involved in its implementation

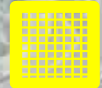


NOTES

- TRAFFIC CONTROLLERS MUST BE RMS ACCREDITED
- TWO-WAY RADIOS TO BE USED FOR COMMUNICATION BETWEEN TRAFFIC CONTROLLERS
- ON-STREET PARKING TO BE RESTRICTED WITH CONES DURING TCP OPERATION
- EXTRA SIGNS TO BE PLACED IF REQUIRED
- SIZE B SIGNS TO BE USED
- ALL LANES AND ROAD LAYOUTS MUST BE VERIFIED ON SITE PRIOR TO THE IMPLEMENTATION OF TRAFFIC CONTROL PLANS
- TRAFFIC MARSHALS MUST BE IN CONTACT WITH WORKSITE AT ALL TIMES
- SIGNS TO BE POSITIONED WHERE THEY WILL NOT BE OBSCURED BY TREES, PARKED VEHICLES OR OTHER OBSTRUCTIONS
- SIGNS TO BE POSITIONED WHERE THEY WILL NOT OBSCURE OTHER SIGNS
- THE TRAFFIC MANAGER SHOULD:
 - MAKE THE DECISION ON THE USE OF THIS TRAFFIC CONTROL PLAN DURING THE WORKS
 - INSTALL/REMOVE TRAFFIC CONTROL SIGNS AND DEVICES AS REQUIRED
 - PERIODICALLY REVIEW TRAFFIC CONDITIONS AND THE TCP
 - ENSURE SIGNS ARE IN A GOOD CONDITION
 - ENSURE SIGHT DISTANCES ARE MAINTAINED FOR PEDESTRIANS AT ALL TIMES



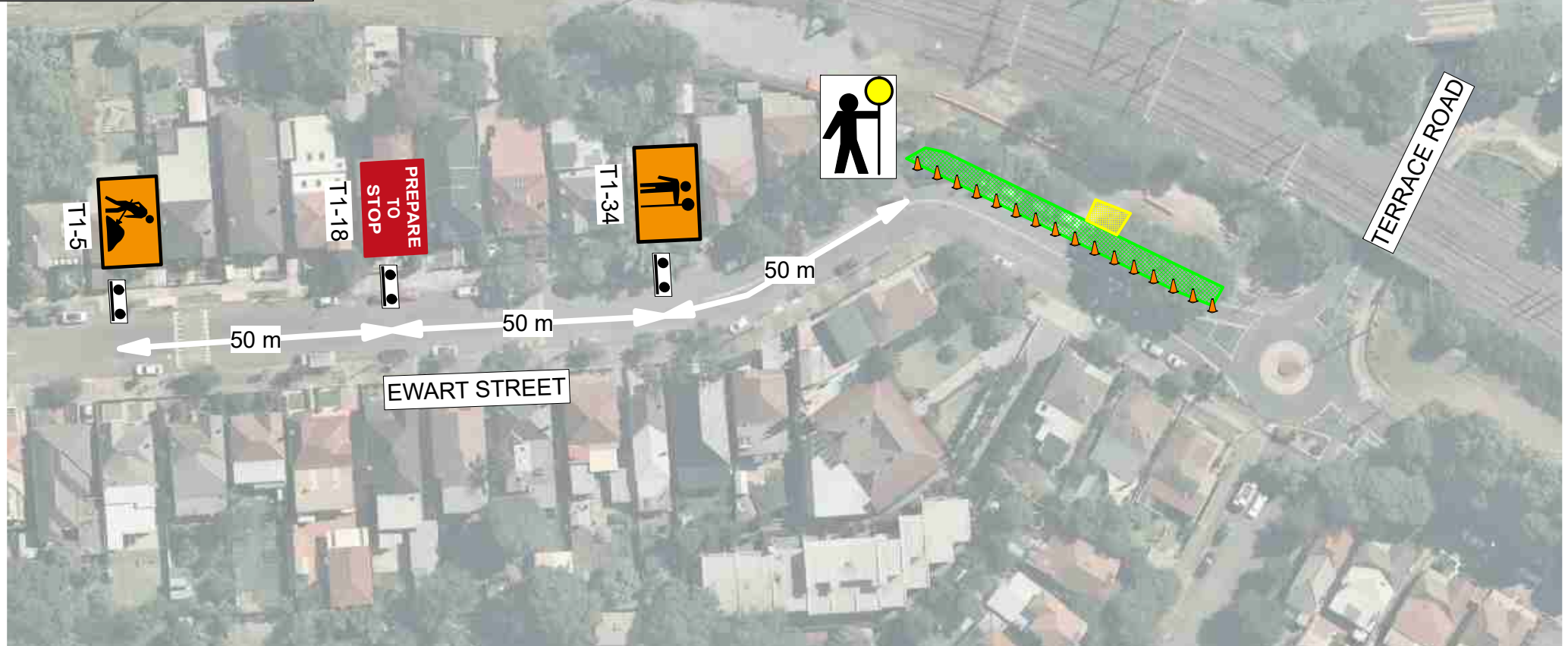
TRUCK WAITING AREA



GATE DRIVEWAY



CONE TO RESTRICT PARKING



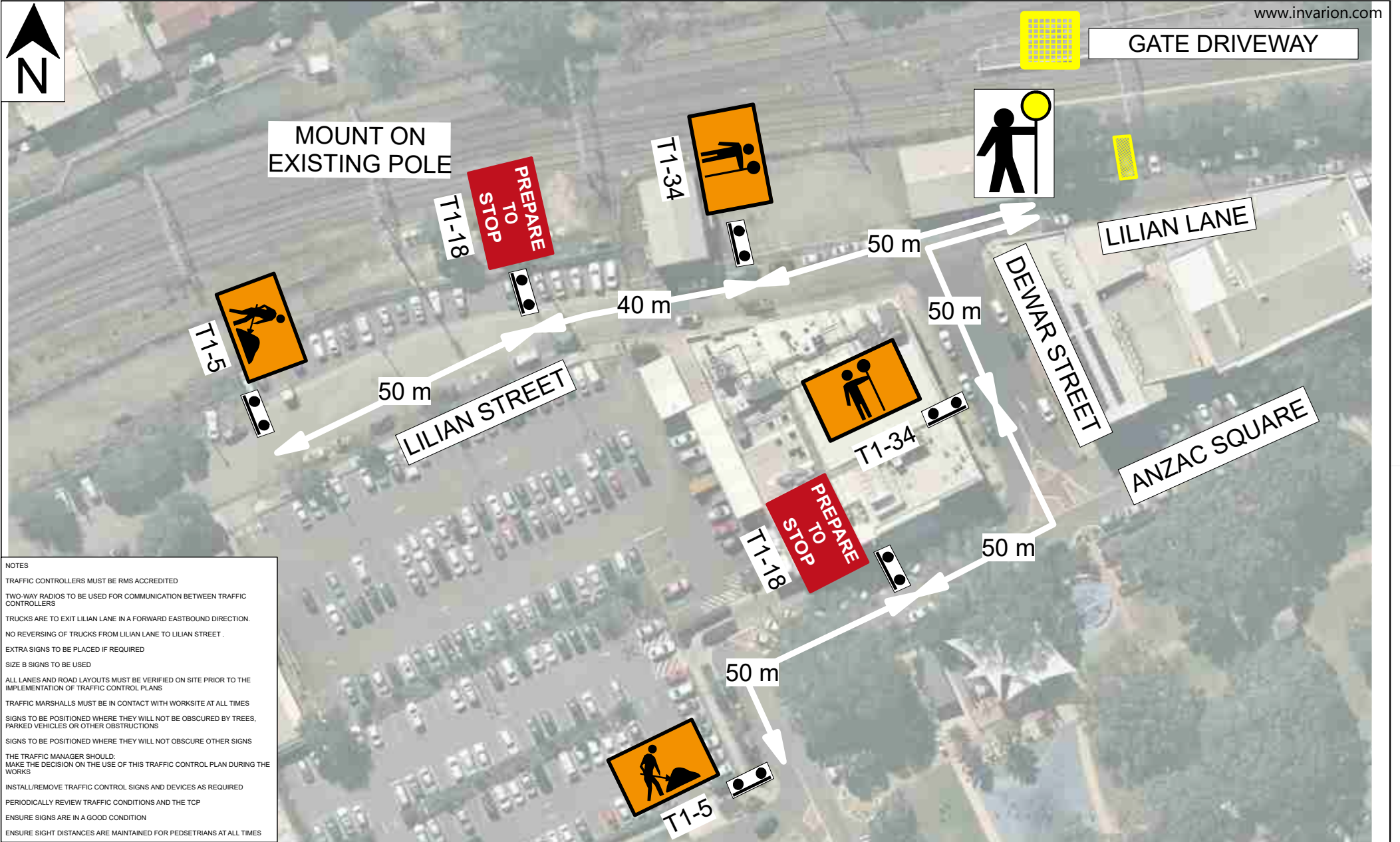
BITZIOS
-consulting
traffic engineering ■ transport planning

Gold Coast
Suite 26, 58 Riverwalk Avenue, Robina QLD 4226.
P: (07) 5562-5377
W: www.bitziosconsulting.com.au
Brisbane
Level 2, 428 Upper Edward Street, Spring Hill 4000.
P: (07) 3831-4442
E: admin@bitziosconsulting.com.au
Sydney
Studio 203, 3 Gladstone Street, Newtown NSW 2042.
P: (02) 9537 6202

REVISIONS				
Issue	Revisions/Descriptions	Drawn	Date	
001	INITIAL TCP	M.H	17/01/19	
002	FOR CONSTRUCTION ISSUE	M.H	23/01/19	
003	NO CHANGE	M.H	25/01/19	
004	NO CHANGE	M.H	29/01/19	
005	COMBINE SMEW TCPS AND AMEND SHEET NUMBER	M.H	11/04/19	
006	AMENDMENT CTMP REV 1 COMMENTS	M.H	18/04/19	
007	NO CHANGE	M.H	16/05/19	

APPROVED
ALEX GYVAH
PREPARE A WORK ZONE TRAFFIC MANAGEMENT PLAN
CARD NO. 0051873071
EXPIRY 30/11/2021

Project	SYDENHAM TO BANKSTOWN WORKS	Design	M.H	Drawn	M.H	Checked	A.G
Title	SYDENHAM TO BANKSTOWN GATE ACCESS TRAFFIC CONTROL PLAN EWART STREET GATE	FOR CONSTRUCTION		Date	16/05/19		
Project Number	P3519	Sheet Number	SMCSWSSJ-JHL -WEC-TF-PLN -000020	Issue	007		



NOTES

- TRAFFIC CONTROLLERS MUST BE RMS ACCREDITED
- TWO-WAY RADIOS TO BE USED FOR COMMUNICATION BETWEEN TRAFFIC CONTROLLERS
- TRUCKS ARE TO EXIT LILIAN LANE IN A FORWARD EASTBOUND DIRECTION.
- NO REVERSING OF TRUCKS FROM LILIAN LANE TO LILIAN STREET .
- EXTRA SIGNS TO BE PLACED IF REQUIRED
- SIZE B SIGNS TO BE USED
- ALL LANES AND ROAD LAYOUTS MUST BE VERIFIED ON SITE PRIOR TO THE IMPLEMENTATION OF TRAFFIC CONTROL PLANS
- TRAFFIC MARSHALLS MUST BE IN CONTACT WITH WORKSITE AT ALL TIMES
- SIGNS TO BE POSITIONED WHERE THEY WILL NOT BE OBSCURED BY TREES, PARKED VEHICLES OR OTHER OBSTRUCTIONS
- SIGNS TO BE POSITIONED WHERE THEY WILL NOT OBSCURE OTHER SIGNS
- THE TRAFFIC MANAGER SHOULD:
MAKE THE DECISION ON THE USE OF THIS TRAFFIC CONTROL PLAN DURING THE WORKS
- INSTALL/REMOVE TRAFFIC CONTROL SIGNS AND DEVICES AS REQUIRED
- PERIODICALLY REVIEW TRAFFIC CONDITIONS AND THE TCP
- ENSURE SIGNS ARE IN A GOOD CONDITION
- ENSURE SIGHT DISTANCES ARE MAINTAINED FOR PEDESTRIANS AT ALL TIMES

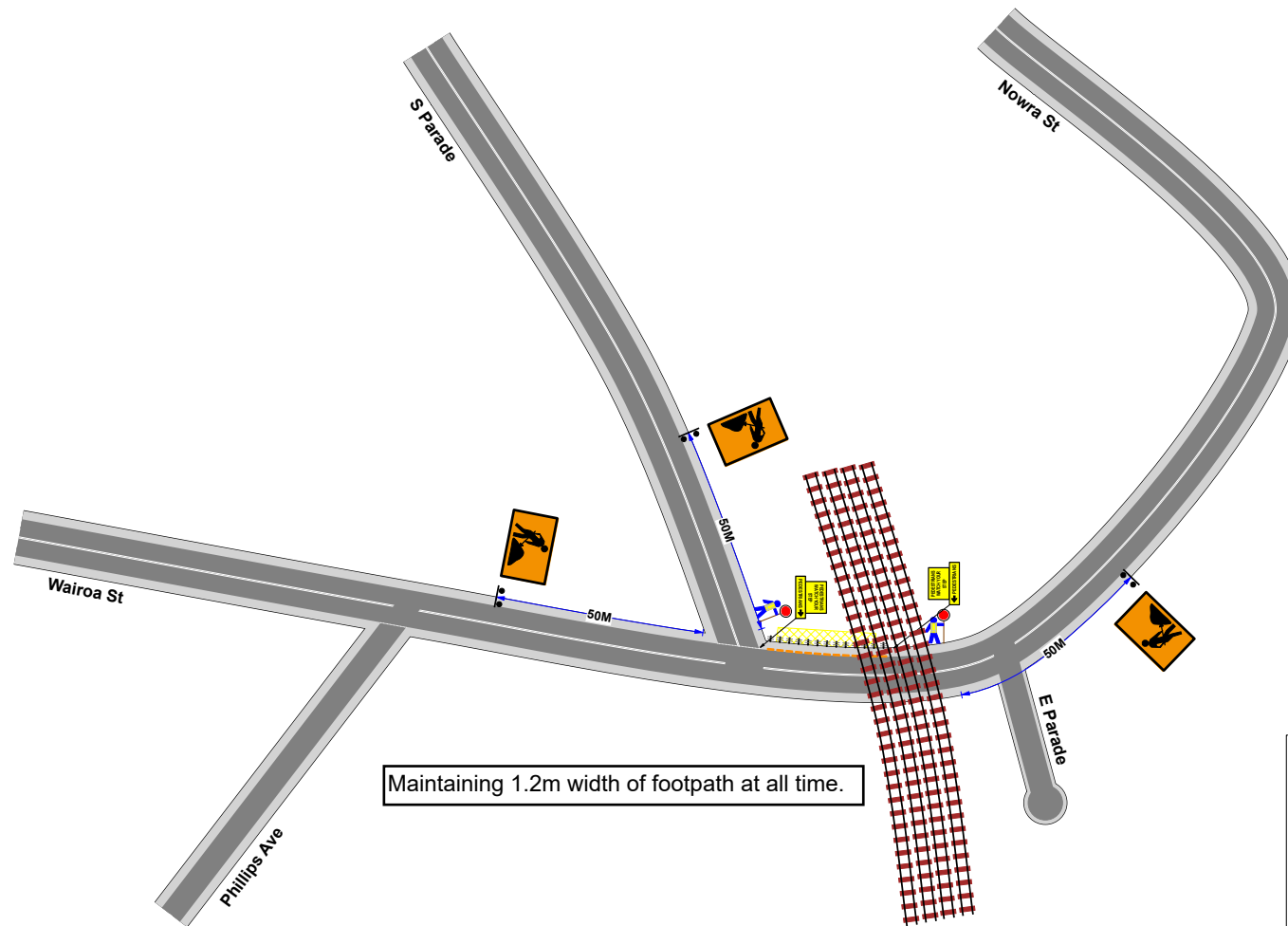
BITZIOS
-consulting
traffic engineering ■ transport planning

Gold Coast
Suite 26, 58 Riverwalk Avenue, Robina QLD 4226.
P: (07) 5562-5377
W: www.bitziosconsulting.com.au
Brisbane
Level 2, 428 Upper Edward Street, Spring Hill 4000.
P: (07) 3831-4442
E: admin@bitziosconsulting.com.au
Sydney
Studio 203, 3 Gladstone Street, Newtown NSW 2042.
P: (02) 9537 6202

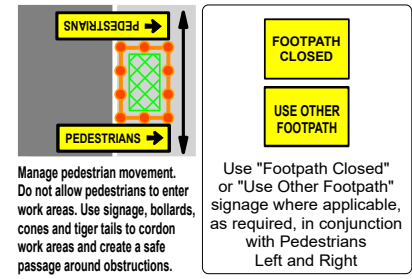
REVISIONS				
Issue	Revisions/Descriptions	Drawn	Date	
001	INITIAL TCP	M.H	17/01/19	
002	FOR CONSTRUCTION ISSUE	M.H	23/01/19	
003	NO CHANGE	M.H	25/01/19	
004	NO CHANGE	M.H	29/01/19	
005	COMBINE SMEW TCPS AND AMEND SHEET NUMBER	M.H	11/04/19	
006	AMENDMENT CTMP REV 1 COMMENTS	M.H	18/04/19	
007	NO CHANGE	M.H	16/05/19	

APPROVED
ALEX GIVAH
PREPARE A WORK ZONE TRAFFIC MANAGEMENT PLAN
CARD NO. 0051873071
EXPIRY 30/11/2021

Project	SYDENHAM TO BANKSTOWN WORKS		Design	M.H	Drawn	M.H	Checked	A.G
Title	SYDENHAM TO BANKSTOWN GATE ACCESS TRAFFIC CONTROL PLAN LILIAN AVENUE TEMPORARY ACCESS		FOR CONSTRUCTION		Date	16/05/19		
Project Number	P3519	Sheet Number	SMCSWSSJ-JHL -WEC-TF-PLN -000021	Issue	007			



Maintaining 1.2m width of footpath at all time.



LEGEND

- TEMPORARY FENCE**
- PARAWEBBING**
- WORK ZONE**

Client: **Laing O'Rourke**
 Scope of Works: **Construction works**
 Job location: **Wairoa St, Canterbury**
 Author: **Sandeep kumar Kolimi**
 Cert. No: **0051756294**

Plan No: SMCSWSSJ-JHL-WE
 C-TF-PLN-000048
 PLAN NOT TO SCALE

TCP - 61
 USED AS
 A GUIDE

- WORKERS ON FOOT**
- NO GO ZONE =
 - RESTRICTED ZONE =
 - SHARED ZONE =
 - SITE EXIT =
 - SITE ENTRY =
 - EVACUATION POINT =

Implemented By	
Name -	
Cert No -	
Date -	
Signed -	

Dimension 'D'
 AS 1742.3: A distance expressed in metres, determined in accordance with Clause 4.1.5 and used for positioning of advance signs and related purposes.

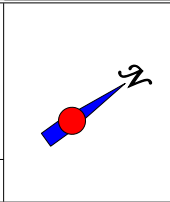
Speed of Traffic km/h	Dimension m
55 or less	15
56 to 65	45
Greater than 65	speed of traffic, in Km/h

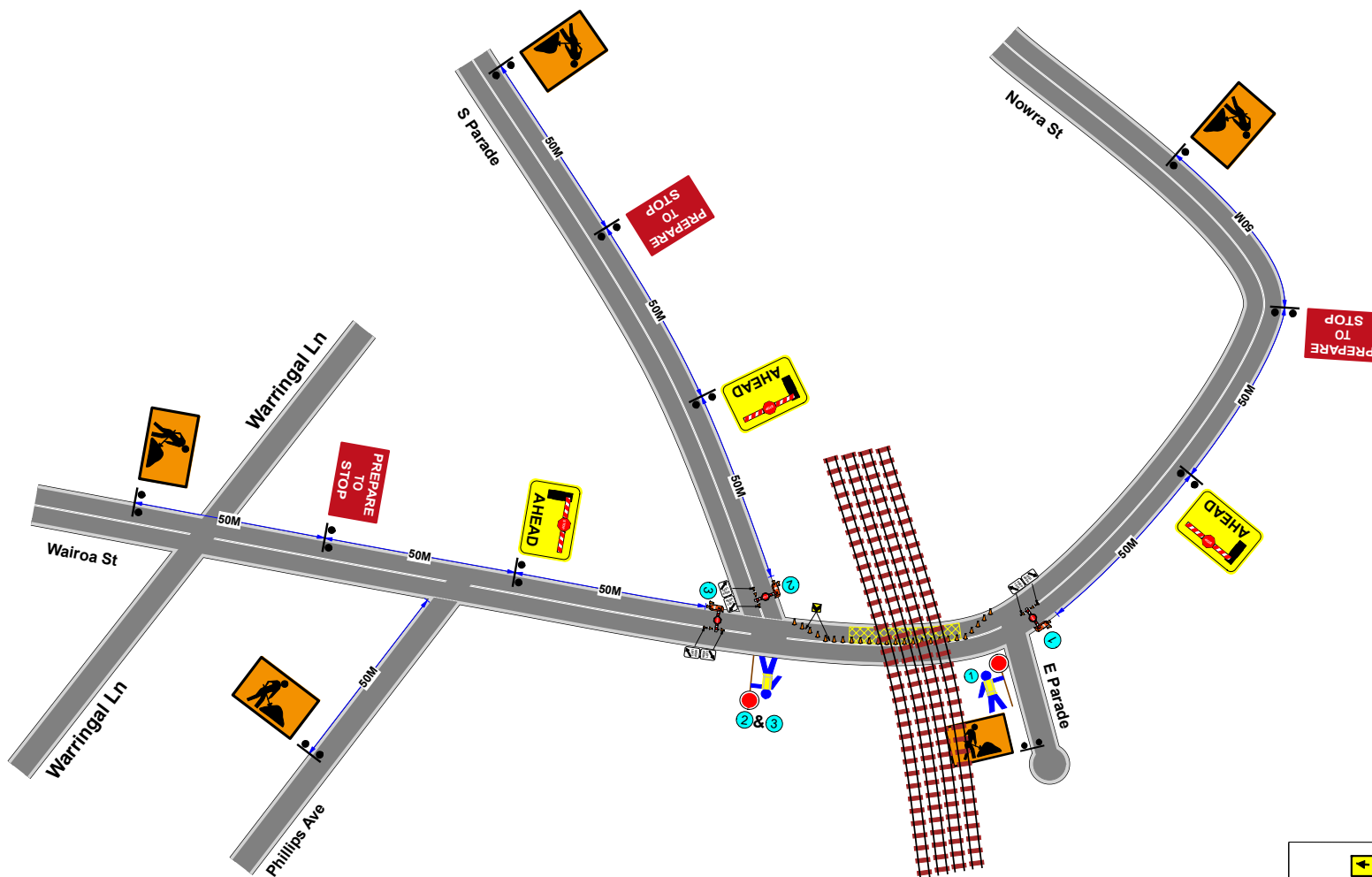
WORK AREA =

Taper Lengths			
Approximate speed of traffic at beginning of taper	Traffic control 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
Greater than 106	N/A	110	180

Web: www.ddtraffic.com.au
 Email: sydney@dd-group.com.au
 Phone: 1300 597 622

D&D Traffic Management does not accept liability for implementation of this tcp if not directly involved in its implementation





← PEDESTRIANS
PEDESTRIANS →

PEDESTRIAN SIGNS TO BE INSTALLED WHERE APPLICABLE IF REQUIRED

Client: **Laing O'Rourke**
 Scope of Works: **Construction works**
 Job location: **Wairoa St, Canterbury**
 Author: **Sandeep kumar Kolimi**
 Cert. No: **0051756294**

LAING O'ROURKE

Plan No: **TCP - Stop Slow**

WORKERS ON FOOT
 NO GO ZONE = █
 RESTRICTED ZONE = █
 SHARED ZONE = █
 SITE EXIT = X
 SITE ENTRY = E
 EVACUATION POINT = EP

Implemented By

Name - _____
 Cert No - _____
 Date - _____
 Signed - _____

Dimension 'D'
 AS 1742.3: A distance expressed in metres, determined in accordance with Clause 4.1.5 and used for positioning of advance signs and related purposes.

Speed of Traffic km/h	Dimension m
55 or less	15
56 to 65	45
Greater than 65	speed of traffic, in Km/h

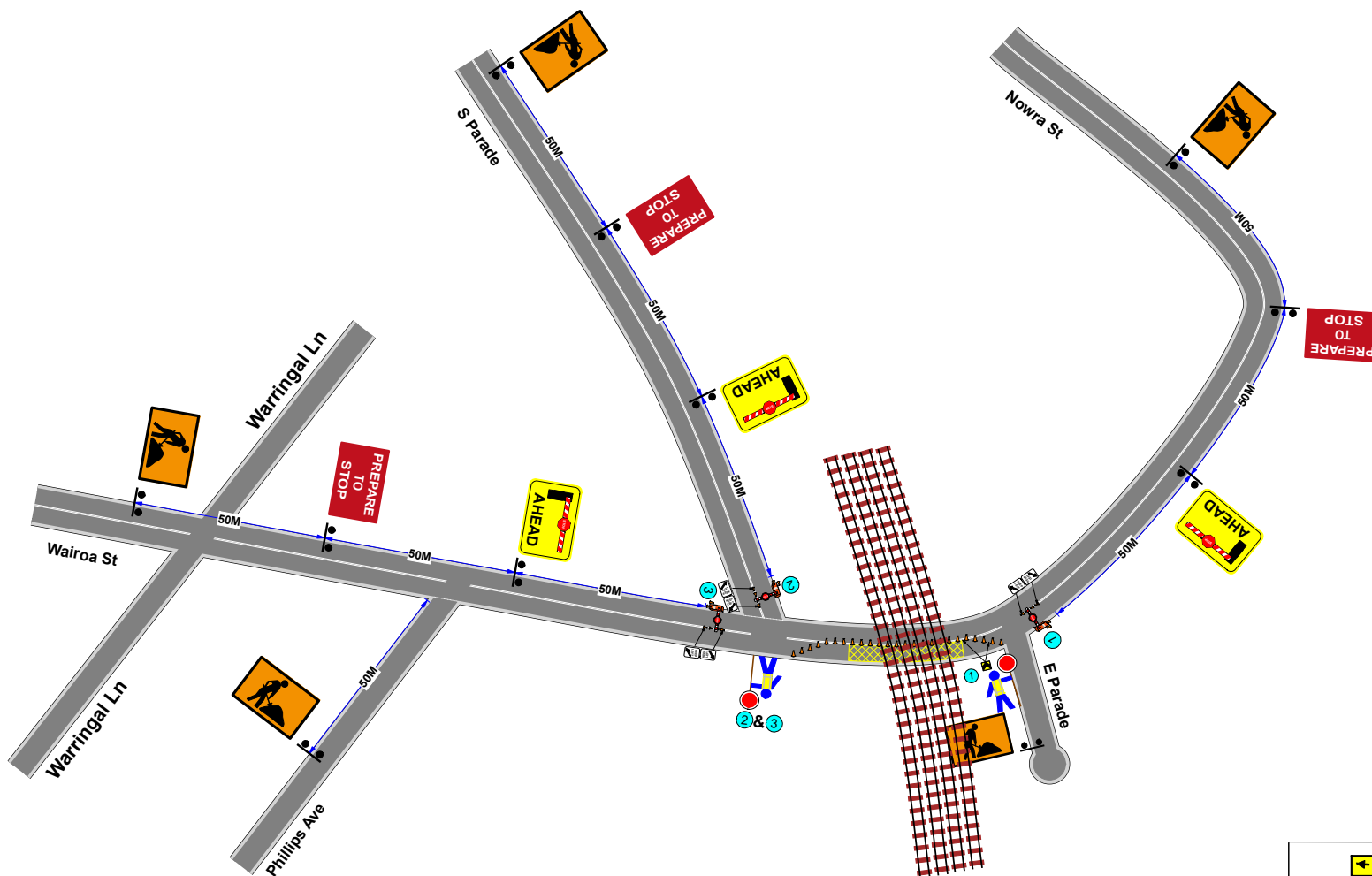
WORK AREA =

Taper Lengths				
Approximate speed of traffic	Traffic control beginning of taper	Lateral shift taper	Merge taper	Length
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	
Greater than 106	N/A	110	180	

D&D Traffic Management

Web: www.ddtraffic.com.au
 Email: sydney@dd-group.com.au
 Phone: 1300 597 622

D&D Traffic Management does not accept liability for implementation of this top if not directly involved in its implementation



← PEDESTRIANS
PEDESTRIANS →

PEDESTRIAN SIGNS TO BE INSTALLED WHERE APPLICABLE IF REQUIRED

Client: **Laing O'Rourke**
 Scope of Works: **Construction works**
 Job location: **Wairoa St, Canterbury**
 Author: **Sandeep kumar Kolimi**
 Cert. No: **0051756294**

LAING O'ROURKE

Plan No: **TCP - Stop Slow**

WORKERS ON FOOT

NO GO ZONE =

RESTRICTED ZONE =

SHARED ZONE =

SITE EXIT = X

SITE ENTRY = E

EVACUATION POINT = EP

Implemented By

Name - _____

Cert No - _____

Date - _____

Signed - _____

Dimension 'D'

AS 1742.3: A distance expressed in metres, determined in accordance with Clause 4.1.5 and used for positioning of advance signs and related purposes.

Speed of Traffic km/h	Dimension m
55 or less	15
56 to 65	45
Greater than 65	speed of traffic, in Km/h

WORK AREA =

Taper Lengths		Approximate speed of traffic	Traffic control 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		
Greater than 106	N/A	110	180		

D&D Traffic Management

Web: www.ddtraffic.com.au
 Email: sydney@dd-group.com.au
 Phone: 1300 597 622

D&D Traffic Management does not accept liability for implementation of this top if not directly involved in its implementation

11.3 Appendix C – Vehicle Management Plans, Pedestrian Movement Plans, and Worker Walking Routes

PMP	Location
SMCSWSSJ-JHL-WEC-TF-PLN-000003	Church St Footbridge TMP
SMCSWSSJ-JHL-WEC-TF-PLN-000004	Duke St Footbridge TMP
SMCSWSSJ-JHL-WEC-TF-PLN-000000	Garnet St Footbridge TMP

11.4 Appendix D – Traffic Staging, Site Boundaries and Hoardings

The following images of public land requirements are indicative of the area required. For the extent of temporary fencing/hoarding, refer to separate fencing/hoarding plans.

This plan aims only to identify the access arrangement in so far as they relate to construction and traffic management. It is noted that endorsement of this plan does not constitute approval for access through these areas, including any areas designated as 'Community Land'. Requests for access through these areas, including any areas designated as 'Community Land' will be formally requested through the appropriate mechanisms with the relevant Local Council.

Area 11A; 1 Sugar House Road – Public land required, with footpath interface



Area 11B; 4 Sugar House Road – Public land required, with footpath interface



Area 13A; Charles Street – Public carpark spaces required



Area 13B; Cooks River Path – Public land required, with footpath interface shown in green





Area 13D; 36 South Parade – Public land required, with footpath interface




Area 13E; 42 South Parade – Public land required, with footpath interface




11.5 Appendix E – Road Safety Audits

A road safety audit was undertaken by an independent auditing team. Responses to the audit findings are provided in the table below.

Table 11.61: Road Safety Audit Findings


Item	Issue	Risk	Site Illustration	Response
1	An articulated vehicle would take up the entire width of the two-way underpass to Fraser Park, where visibility is already poor. This would pose a danger to oncoming vehicles as well as pedestrians	H		A Traffic Control Plan for the Sydenham Station and Junction project was used for this manoeuvre. It is still applicable to the SMEW project and will be included in the SMEW CTMP.

Item	Issue	Risk	Site Illustration	Response
2	It is unclear from the CTMP what size trucks would be using the Riverdale Avenue access gate. Pedestrians and oncoming vehicles in the east-west section could be at risk unless further parking restrictions are applied.	M		Heavy Rigid Vehicles (12.5m) would be used for this gate. This was used only in preliminary works. It is not used in the SMEW CTMP.

Item	Issue	Risk	Site Illustration	Response
3	Wooley Lane is too narrow to cater for heavy vehicles unless parking restrictions are applied. Pedestrians and light vehicles would be at risk of collision.	H	 An aerial photograph of a residential area with a road labeled 'WOOLEY LANE'. A blue and yellow highlighted path is overlaid on the road, indicating a proposed traffic management plan. The path starts at the top of the image, curves to the right, and then curves back to the left. The surrounding area includes houses, trees, and a railway track in the background.	A TCP has been created to remove parking and to include truck turning signs. This has been added to the SMEW CTMP.


Item	Issue	Risk	Site Illustration	Response
				


Item	Issue	Risk	Site Illustration	Response
4	Construction vehicles turning right from Warburton Street to Illawarra Road might encroach on the footpath due to kerb blister about to be constructed on NW corner	M		Swept path shows that the vehicle does not drive over the proposed kerb arrangement.



Item	Issue	Risk	Site Illustration	Response
5	<p>All of the swept path diagrams for the Albermarle Street bridge show vehicles commencing the northbound right turn from the incorrect side of the roadway. This would present an unexpected danger to southbound vehicles, whose sight distance is limited.</p>	H		<p>There would be a low number of truck movements from the work site while Albermarle Street Bridge is closed.</p> <p>Since it is closed, traffic from the north would not be able to turn into Albermarle Street. Construction vehicles exiting the site can therefore wait on the incorrect side for a safe gap in traffic.</p>

Item	Issue	Risk	Site Illustration	Response
6	Heavy vehicles would not be able to turn into the rail corridor access gate east of Ness Parade roundabout due to large tree trunks adjacent to the roadway. This could lead to reversing manoeuvres that would be dangerous for other road users.	H		Vehicle used for this movement amended to MRV without a trailer.

Item	Issue	Risk	Site Illustration	Response
			 <p>The top photograph shows a road with a metal fence and trees in the background. A silver car is parked on the right side of the road. The bottom photograph shows a similar scene from a different angle, with a silver car in the foreground and a white car further down the road.</p>	

Item	Issue	Risk	Site Illustration	Response
7	<p>An articulated vehicle would not be able to turn into the rail corridor access gate west of Ness Avenue roundabout due to the width of the gate. This could lead to reversing manoeuvres that would be dangerous for other road users. Further, there is no exit swept path diagram provided.</p>	H	 <p>The site illustration consists of two images. The top image is an aerial photograph of a roundabout at the intersection of Ewart Street and Terrace Street. A large, multi-colored swept path diagram (blue, yellow, and red) is overlaid on the road, showing the path of a vehicle turning into a narrow access gate. The bottom image is a ground-level photograph of a closed metal gate leading to a rail corridor area, with a concrete path leading to it.</p>	<p>CTMP states that AV does not use this gate. MRV + Trailer is largest acceptable vehicle. The swept path diagram is provided for information only.</p>

Item	Issue	Risk	Site Illustration	Response
8	<p>The TCP for Ewart Street at the Ness Avenue roundabout has no control of the eastern approach. Thus could lead to dangerous situations for pedestrians and other road users.</p>	M	 <p>The site illustration consists of two parts. The top part is an aerial photograph of the Ness Avenue roundabout area. It shows Ewart Street running horizontally across the middle. To the right, Ness Avenue curves around a central island. Various traffic management icons are overlaid on the map: a yellow truck icon with 'T-1-S' on the left, a red sign with 'PRIORITY' and 'STOP' on Ewart Street, another yellow truck icon with 'T-1-S' on the right, a pedestrian icon, and a green dashed line with a yellow dot indicating a truck's path. Distances of 50m are marked along Ewart Street. The bottom part is a ground-level photograph of the roundabout, showing a silver car, a red sign, and a pedestrian crossing sign.</p>	<p>The purpose of this TCP is to enable trucks to perform a right turn into the gate.</p> <p>A TC for the eastern approach is not needed because traffic following the truck is required to wait for the truck and doesn't need a TC for this. The traffic controller on the western approach reduces the time the truck would otherwise spend waiting to turn into the gate. Given the short distances involved, the traffic controller will manage pedestrian movements around the gate.</p> <p>The TCP is not needed for trucks to exit the gate.</p>

Item	Issue	Risk	Site Illustration	Response
9	The swept paths for the northbound bridge inspection show trucks driving over existing planter islands at the Ness Avenue roundabout. This would pose a danger to other road users.	M	 	This was a test swept path for information only and is not a truck route used in the CTMP.

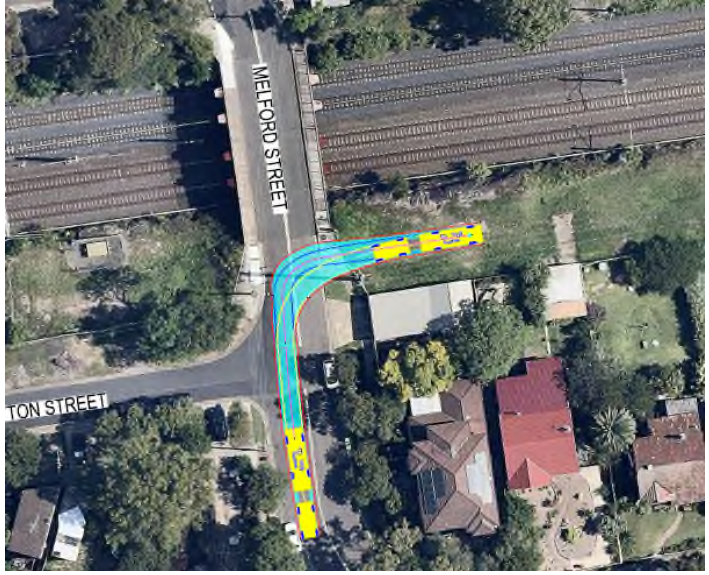

Item	Issue	Risk	Site Illustration	Response
10	Without extra parking restrictions in Floss Street, heavy vehicles might be forced to mount the footpath or traffic islands at the intersection of Ewart, Floss and Garnet Streets, posing a danger to other road users.	M		Added parking removal image to CTMP Section 2.11
13	The swept path for an articulated vehicle indicates that it would occupy the entire road width at the intersection of Burnett and Hopetoun Streets, posing a danger to other road users.	M		The CTMP does not use an articulated vehicle for any access gates that are accessed by this road. This was a test swept path provided for information only.

14 The "Prepare to Stop" signs in Burnett Street at Railway Street give misleading advice to though drivers, possibly leading to rear end crashes. They would be better located in Railway Street, with "on Side Road" plates used on the T1-5 signs in Burnett Street.

M



TCP amended to add new signs and adjust sign location.

Item	Issue	Risk	Site Illustration	Response
15	There is inadequate sight distance for southbound drivers in Melford Street if northbound trucks turn right to the railway corridor access gate. This could lead to collisions. (The same issue applies for trucks exiting the rail corridor and turning to the north,)	M		TCP created for this movement.
16	It is unclear from the TCP exactly how pedestrians would be protected from passing traffic when diverted from the footpath of the Broughton Street underpass. This could lead to vehicle/pedestrian collisions.	H		Water-filled barriers added to the TCP.

11.6 Appendix F – Stakeholder Consultation

11.7 Appendix G – Schedule of Possessions

WE	Date of Possession
WE51	22 and 23 June 2019
WE06	10 and 11 August 2019
WE13	28 and 29 September 2019
WE19	9 and 10 November 2019
Shutdown T2	2-5 January 2020
WE36	7 and 8 March 2020
WE 44	2 and 3 May 2020
WE 47	23 RD and 24 th May 2020
WE 6	8 th and 9 th August 2020
WE 17	24 ^h and 25 th October 2020

11.8 Appendix H – Conditions of Approval: Written Incident Notification and Reporting Requirements