

Construction Traffic Management Plan

Northside Clinic - Frederick Street, St Leonards

COMMERCIAL DEVELOPMENT

Prepared for: RICHARD CROOKES CONSTRUCTIONS PTY LTD

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RMS Design & Inspect Traffic Control Plans
Certificate #: 2243017058 Exp: 06/02/18

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Appendix A - Traffic Control Plans

1 Project Details

1.1 Project Summary

Project: Residential Development

Location: Northside Clinic - Frederick Street, St Leonards NSW

Hours of Operation: As per DA approved construction hours (Commonly 7am to 5pm Monday to Saturday).

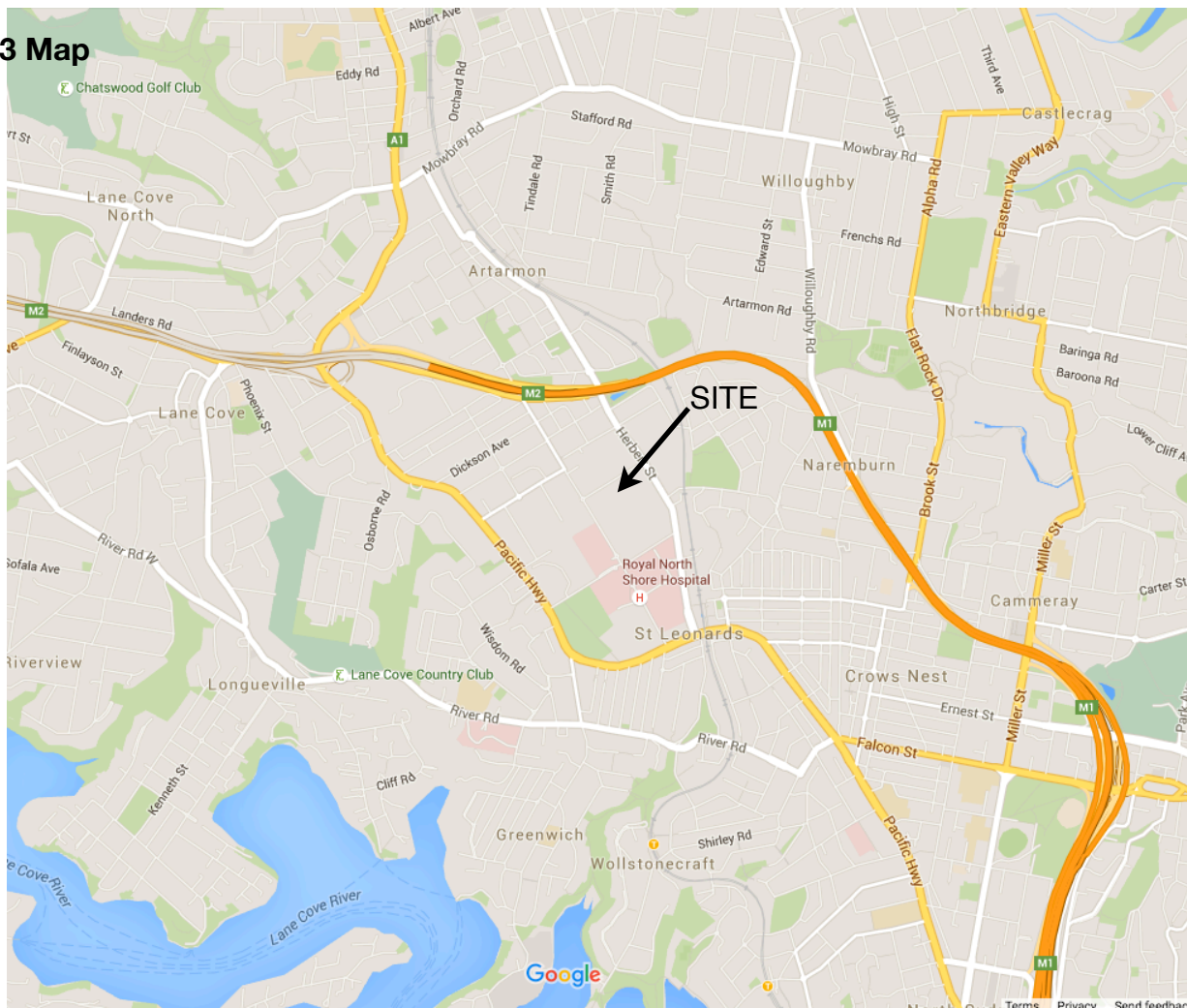
Scope of Works: Demolition of existing structures and construction of a new commercial development with off-street parking area.

This Traffic Management Plan has been prepared to satisfy standard conditions within the development consent.

1.2 Revisions

Rev	Date	Description
0	03/04/16	Initial Submission
1	07/09/16	Response to Transport to NSW Conditions
2		

1.3 Map



1.4 Introduction

"The Builder will ensure that the following management processes are put in place and conveyed to all relevant site personnel and suppliers involved in the delivery of materials and goods to the site:-

1. All contracted suppliers, concreting, demolition and earthmoving companies must be in receipt of a copy of this approved Construction Traffic Management Plan. A copy of which will be available to the PCA or Council upon request.
2. All contractors must be made aware of the CTMP during the induction phase for new employees/ contractors and the main contractor is to keep a copy of all signed induction documents on site for reference.
3. No building materials, work sheds, vehicles, machines, concrete pumps or the like are allowed to occupy the road reserve without a permit.

1.5 Development Process

This traffic management plan covers the stage(s) listed below, subsequent stages may require amendments and additional plans to be prepared.

Included Stages / Phases:

Stage / Phase	Duration (Approx)
Demolition	TBC
Excavation	TBC
Construction	Completion by Dec 2017

1.6 Demolition Phase

Largest Truck Size: Truck and Dog combination up to 15 tonne tare
Expected Daily Vehicle Movements: 10-20 on peak days

Site establishment and demolition will be the initial phase of the project, the site boundary fencing and hoarding to be installed as required. The existing driveways off Frederick Street to be used for vehicular entry and exit

1.7 Excavation Phase

Largest Truck Size: Truck and Dog combination up to 19m in length
Expected Daily Vehicle Movements: Up to 10-20 on peak days

The access point for the site will remain as the existing driveway as this is the ramp location for basement level access during construction.

1.8 Construction Phase

Largest Truck Size: Semi Trailer (up to 19m in length)
Expected Daily Vehicle Movements: Up to 40-60 for general deliveries and on concrete pour days (deliveries scheduled to avoid pour days to ensure maximum combined movements of 60 per day).

2 Existing Traffic Environment

2.1 Roads

a) Frederick Street

- 4 lane 2 way undivided street with varied kerb posted restrictions on both sides.
- Site located within a large industrial/commercial/retail precinct.
- Steady traffic flows of various vehicle types from passenger vehicles to heavy vehicles delivering to businesses within the local area.

2.2 Pedestrians

- Concrete footpaths along both sides of Frederick Street.
- Moderate level of pedestrian activity due to the retail / commercial properties surrounding the site.

2.3 Cyclists Route

- No marked lanes or paths, cycle route along roadway.

2.4 Public Transport

- Bus routes and marked bus stops along Reserve Road.
- St Leonards Railway Station is approximately 1km south from the site.

3 Proposed Traffic Management

3.1 General

- a) Site Vehicles
 - Site vehicles enter and exit in a forward facing direction only.
 - All drivers will be made aware of the approved routes prior to commencing work at the site as part of the site induction.
 - Vehicles will be scheduled in such a manner as to not require queuing on the road network surrounding the site.
- b) Road Occupancy
 - Approval from council and/or RMS when required will be sought prior to any works requiring road occupancy.
 - All Traffic Control Plans (TCPs) associated with this CTMP will comply with relevant Australian Standards and RMS Traffic Control at Worksites Manual.
- c) Parking for Site Workers
 - Throughout the project site workers will park within site boundaries whenever possible or use existing on-street parking on surrounding streets, however they will be encouraged to use the nearby public transport infrastructure.
- d) Public Transport
 - Surrounding public transport access maintained during this project, including the bus routes and train station adjacent to the site.
- e) Surrounding Roads
 - Site vehicles accessing the site are to use approved approach and departure routes only.
 - Construction traffic to be scheduled where possible outside of peak times such as school zone hours to minimise impact to existing traffic increases.
 - Truck queuing on surrounding streets will be minimised where possible during this project.
- f) Public Notification Process
 - Surrounding properties will be notified in writing prior to any access changes due to the development works.

3.2 Demolition

- a) Approach and Departure Routes
 - Approach Route - Traveling along the Pacific Hwy turn onto Herbert Street, turn left onto Frederick Street and then turn left into site in a forward facing direction.
 - Departure Route - In a forward facing direction turn left onto Frederick Street, turn right onto Reserve Road, turn left onto Campbell Street and then turn onto the Pacific Hwy.
- b) Vehicle Movements Within Site During Demolition & Excavation.
 - Initially vehicles to use the existing hardstand area at the north west corner to move within the site. This area will grow as the existing structures are demolished.
- c) Loading / Unloading Vehicles
 - Vehicles to be loaded from within site boundaries.
- d) Road Occupancy
 - i. Standing Plant - Demolition plant and equipment to be located within the site boundaries.
 - ii. Works Zone - None proposed during this phase, all works are within the site boundaries.
 - iii. Parking for Site Workers - All site workers will park within the site boundaries or using existing on-street parking on surrounding streets abiding by existing restrictions, however they will be encouraged to use the nearby public transport infrastructure.
- e) Storage for Equipment, Materials and Waste.
 - All located within site boundaries only.
- f) Removal of Materials from Site
 - Vehicles are to be loaded within site boundaries and then exit using the existing driveway access. This is where they are checked and cleaned as required to ensure surrounding roadways are not contaminated with spoil.

Note: Where water is used for cleaning vehicles, appropriate sediment control measures will be taken to ensure untreated water is not allowed to directly enter the storm water system.

- g) Pedestrian Management
 - Pedestrian access maintained using the existing concrete footpaths.

- Hoarding proposed as required along the Frederick Street site frontage (hoarding subject to separate application and approval from Council).
- Traffic controller located at the site access point when operating to manage pedestrian activity when site vehicles are crossing the footpath.

3.3 Excavation

- a) Approach and Departure Routes - As per demolition phase.
- b) Vehicle Movements Within Site - Restricted by the excavation area with adequate space for truck turn around within site boundaries.
- c) Loading / Unloading Vehicles - All vehicles to be loaded / unloaded from within the site boundaries.
- d) Road Occupancy
 - i. Standing Plant - All plant to be located within site boundaries.
 - ii. Works Zone - None proposed during this phase, all works are within the site boundaries.
 - iii. Parking for Site Workers - As per previous phase.
- e) Storage for Equipment, Materials and Waste - Within site boundaries only.
- f) Removal of Materials from Site
 - Vehicles are to be loaded within site boundaries and prior to exit they must be checked and cleaned as required to ensure surrounding roadways are not contaminated with spoil. Crushed aggregate and/or shaker grids will be installed prior to exit point within the site boundaries.

Note: Where water is used for cleaning vehicles, appropriate sediment control measures will be taken to ensure untreated water is not allowed to directly enter the storm water system.

- g) Pedestrian Management - Pedestrian access maintained using the existing concrete footpaths. Hoarding proposed as required along the Frederick Street site frontage (hoarding subject to separate application and approval from Council). Traffic controller located at the site access point when operating to manage pedestrian activity when site vehicles are crossing the footpath.

3.4 Construction

- a) Approach and Departure Routes - As per previous phases with an additional site access point at the location for the future access point to the off-street parking area.
- b) Vehicle Movements Within Site - Area for vehicles to turn around maintained during construction works in the proposed location for the future off-street parking area.
- c) Loading / Unloading Vehicles - Vehicles to be loaded / unloaded from within site boundaries only.
- d) Road Occupancy
 - i. Standing Plant - The plant to stand within the site boundaries only.
 - ii. Works Zones - None proposed, trucks to stand within the site only.
 - iii. Parking for Site Workers - As per previous phases, workers to park within site boundaries only.
 - iv. Concrete Pour - Concrete pump and trucks to stand within the site boundaries only.
 - v. Driveway Works - Traffic Management to be installed as per TCPs SBMG01359-06 & SBMG01359-07 during these works.
- e) Storage for Equipment, Materials and Waste - Within site boundaries only
- f) Pedestrian Management - Pedestrian access maintained via the existing concrete footpath with hoarding proposed as required along the Frederick Street site frontage (hoarding subject to separate application and approval from Council). Traffic controller located at the site access point when operating to manage pedestrian activity when site vehicles are crossing the footpath.

4 Project Impact

4.1 Residents / Surrounding Property Owners

Existing properties driveways and access points along Frederick Street to be maintained throughout the project. Surrounding property owners will therefore have limited to no impact due to this project as all existing vehicular and pedestrian access are to be maintained throughout the project.

4.2 Pedestrians & Cyclists

Cyclist routes will be as per existing conditions along the roadway. As pedestrian access maintained via existing footpaths with B-Class hoarding installed during construction phase to increase safety. The development will therefore have limited impact on existing pedestrian activity.

4.3 Emergency Services

Access along Frederick Street to be maintained throughout the project. Priority access is given to emergency vehicles as per normal procedure.

4.4 Local Traffic

Site works are contained within the site boundaries, maintaining traffic lanes as per existing conditions. The development should therefore have limited impact on existing traffic flows.

Site vehicles will be scheduled outside of peak times such as school zone hours whenever possible to limit impact to existing traffic flows and / or conditions.

4.5 Public Transport

No public transport facilities such as Bus Stops or Bus Zones are to be altered by works relating to this project. Whilst this project does increase the number of vehicles traveling along public transport routes namely Herbert Street, Frederick Street, Reserve Road and Campbell Street. The proposed peak 6 movements per hour associated with the development, all traveling in a forward direction is not anticipated to cause buses to have to wait for construction vehicles to maneuver around corners or whilst entering the site.

4.6 Impact on Community & Businesses

Impact to the community will be limited as vehicular and pedestrian access past the site is maintained. The disruption to the local area will be also minimised due to the easy access to the Pacific Hwy and then the M2 Motorway reducing the need for vehicles to travel along local roads.

5 Transport for NSW Conditions

5.1 Cumulative impact of site activity with other construction sites.

- All works associated with the site (except driveway works) are proposed to be contained within the site boundaries, which includes all vehicle queuing. Therefore the impact to the local area will be predominately due to the increase in traffic flow from site vehicles. The measures implemented to minimise these impact are; All trucks to enter and exit the site in a forward direction only, Vehicles are to give way to existing traffic flows along Frederick Street, vehicles are not to stand or queue on any surrounding roadway and all vehicles associated with the site must use the approved approach and departure routes
- The project manager will liaise with concurrent construction sites along Herbert St, Frederick St Reserve Rd & Campbell Street (approach and departure route - to access the state road network). The site will coordinate their peak vehicle movement days such as concrete pours to limit crossover with other sites to assist in reducing the impact on traffic flows along the local roads.

5.2 Road safety at key intersections.

- Turn from Pacific Hwy onto Herbert Street. Access from the Pacific Hwy is either a single dedicated left turn lane (eastbound) or 2 dedicated right turn lanes (westbound) with 2 northbound lane for sufficient space for swept path without using the kerb or crossing into opposing traffic lanes. Traffic signals at intersection with red turn arrow used when pedestrians are crossing for increased safety.
- Right turn from Herbert Street onto Frederick Street. Single dedicated left turn lane into Herbert street with 2 westbound lane for sufficient space for swept path without using the kerb or crossing into opposing traffic lanes. Traffic signals at intersection with red turn arrow used when pedestrians are crossing for increased safety.
- Right turn from Frederick Street onto Reserve Road. Frederick Street approach to mountable roundabout is single lane, however the departure area on Reserve Road is approx. 6.3m wide (kerb to centre line marking) and therefore has sufficient space for swept path without using the kerb or crossing into opposing traffic lanes. No existing pram ramps or pedestrian crossing points at the roundabout, however drivers will use caution and be at a slow speed when maneuvering.
- Left turn from Reserve Road onto Campbell Street. 2 lane approach to intersection on Reserve Road and 2 lane departure area on Campbell Street with sufficient space for swept path without using the kerb or crossing into opposing traffic lanes. Traffic signals at intersection with red turn arrow used when pedestrians are crossing for increased safety.
- Turn onto the Pacific Hwy from Campbell Street. Two right turn lanes and one left turn lane from Campbell Street onto the Pacific Hwy which has 3 lanes in each direction. traffic signals at intersection with signaled pedestrian crossing on the southern side of the intersection.

5.3 Details of anticipated peak hour and daily truck movements to and from the site.

- Approach and departure routes as per plan SBMG01359-01 for access to and from the state road network.
- Vehicle operating hours are as per the approved hours (7am - 5pm Monday to Saturday) with vehicle movements to peak at 60 per shift. These will be spread across the operating hours i.e approx. 6 movement per hour to limit the impact on existing traffic flows.

5.4 Details of temporary cycling and pedestrian access during construction.

- All construction works contained within the site boundaries maintaining access as per existing conditions. Pedestrians to use the concrete footpath and cyclists to use the roadway as there are no existing dedicated facilities.
- During driveway works traffic control will utilise the existing parking lane as a temporary pedestrian side track when site is operating. The pedestrian access after hours will revert back to the footpath with ramps / plates used to restore pedestrian access as required. These works are only anticipated to take up to 1-2 weeks at most limiting the impact on traffic flows.

5.5 Details of proposed construction vehicles access arrangements at all stages of construction and impact mitigation measures.

- Throughout the project site vehicles will enter and exit the site in a forward facing direction using either the existing driveways and laybacks or a new vehicular crossing point at the east of the Frederick Street site frontage (this location will become a permanent vehicular access point the the off-street parking are once construction is complete).
- Pedestrians will be managed by a authorised traffic controller at vehicle site access points when operating. These controllers will stop pedestrians in both directions when site vehicles are entering or existing the site. Stoppages will occur at intermittent times for short periods with pedestrian not halted in anticipation of a vehicle crossing. These measures will minimise the impact to pedestrians as access will be maintained along the existing footpath with the stoppages to occur approx. 6 times per hour (up to 30 seconds per instance).
- There are no existing dedicated cyclists paths or access ways they will therefore be impacted similar to vehicular traffic with the site vehicles to give way to all existing traffic flows.
- Public Transport Operations will continue as per existing conditions with the site works not proposed to make any changes to bus stop or bus zones along the approach and departure routes.

5.6 Details of proposed construction impact.

- Approach and departure routes as per plan SBMG01359-01
- Traffic management for Demolition, excavation and construction phases of the project as per TCPs SBMG01359-02, SBMG01359-03 or SBMG01359-04B.
- In regards to the projects impact on the future public transport works planned for the 2018 calendar year. As this project is scheduled for completion by the end of 2017, this project will not be operating during these works.

Appendix A - Traffic Control Plans

SBMG01359-01 - Approach & Departure Routes - All Phases

SBMG01359-02 - Site Overview - Demolition Phase

SBMG01359-03 - Site Overview - Excavation Phase

SBMG01359-04B - Site Overview - Construction Phase

SBMG01359-06 - Traffic Control Plan - Driveway Works

SBMG01359-07 - Traffic Control Plan - Driveway Works

VEHICLE APPROACH & DEPARTURE ROUTES

ALL PHASES

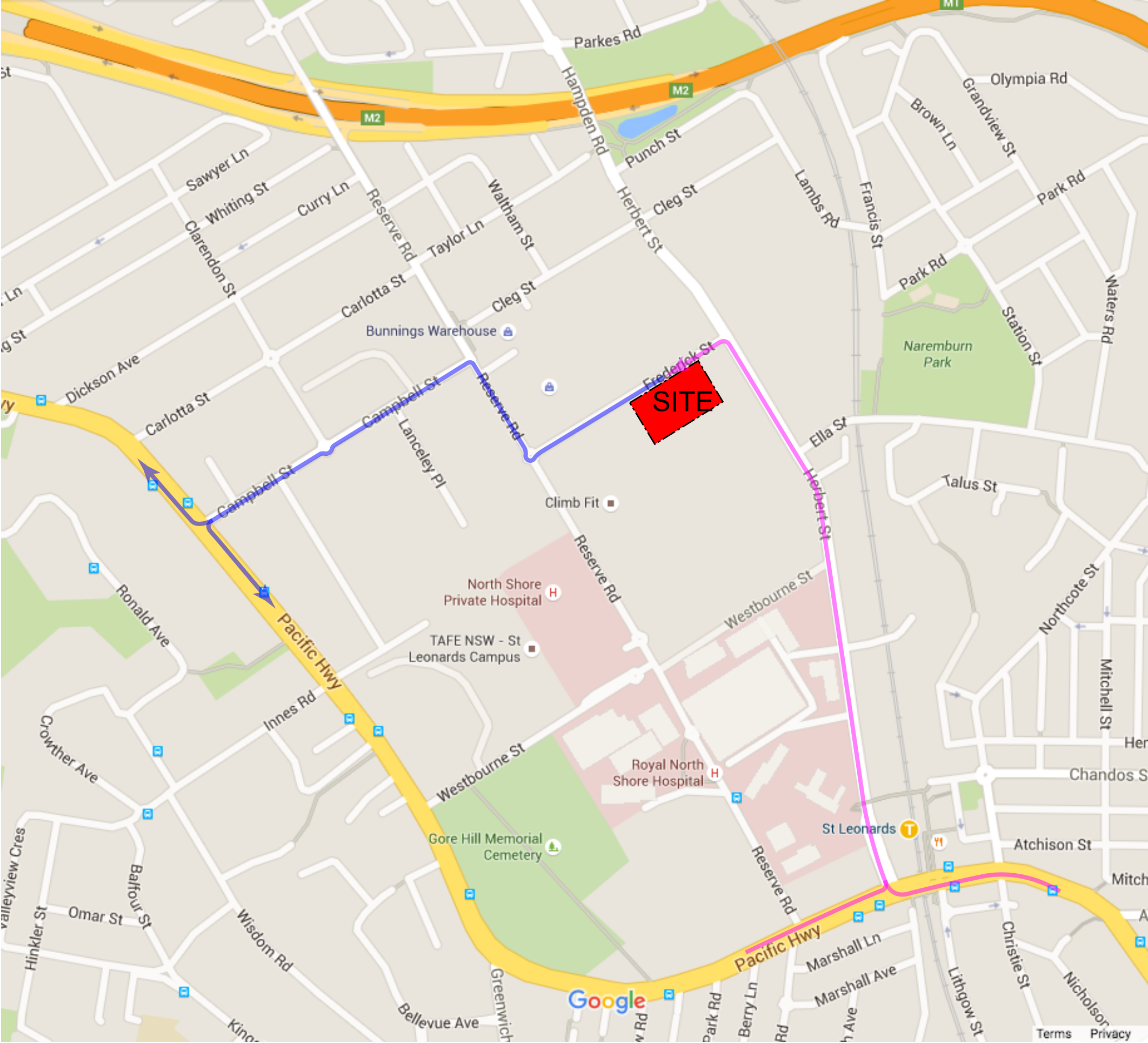
NOTES:

1.
- ALL SIGNAGE TO BE INSTALLED IN ACCORDANCE WITH RMS "TRAFFIC CONTROL AT WORKSITES" MANUAL AND AS1742.3.
2.
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3.
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4.
- VEHICLES ARE TO ENTER AND EXIT THE SITE IN A FORWARD FACING DIRECTION ONLY.
5.
- SITE VEHICLE TO GIVE WAY TO EXISTING TRAFFIC WHEN EXITING THE SITE.
6.
- TRAFFIC CONTROLLER USED ON SITE TO MANAGE PEDESTRIAN ACTIVITY ONLY, VEHICLES WILL NOT BE STOPPED ON FREDERICK STREET TO ALLOW FOR SITE VEHICLE MOVEMENTS

LEGEND:

- SITE BOUNDARY
- SITE APPROACH ROUTE
- SITE DEPARTURE ROUTE
- DELINEATION
- PEDESTRIAN BARRIER
- WORK AREA / VEHICLE STANDING
- PEDESTRIAN ROUTE
- HOARDING
- EXISTING ON-STREET PARKING AREA
- WORKS ZONE

RECOMMENDED MAXIMUM SPACING OF CONES AND BOLLARDS			RECOMMENDED TAPER LENGTHS				
Purpose an usage	Approach Speed (km/h)	Max Spacing (m)	Approach speed (km/h)	Traffic control at start	Lateral shift taper	Merge taper	
All purposes on residential or commercial streets	<=50	4	< 45	15	0	15	
Center-line on approach to Traffic Controller position	All Cases	4					
Outer edge of traffic lane - i.e. working on shoulder	51-70 / >70	18 / 24					
Separating opposing traffic on 2 lane 2 way road	51-70 / >70	12 / 18					
separating opposing traffic on a multilane undivided road	51-70 / >70	12 / 18					
adjacent to a closed lane on a multilane road	51-70 / >70	18 / 24					
Merge tapers	51-70 / >70	9 / 12					
Lateral shift tapers	51-70 / >70	12 / 18					
Protecting freshly painted lines	51-70 / >70	24 / 60					
FIGURES EXTRACTED FROM RTA TCWS MANUAL v4.0 (TABLES 5.1 & 5.2). REFER TO MANUAL FOR FURTHER INFO							
			> 105	N/A	110	180	



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	Location:	NORTHSIDE CLINIC - FREDERICK STREET, ST LEONARDS NSW				
	Client :	RICHARD CROOKES CONSTRUCTIONS PTY LTD				
	Plan No.	SBMG01359-01	A	Date:	4TH APRIL 2016	
	SCALE: NOT TO SCALE					

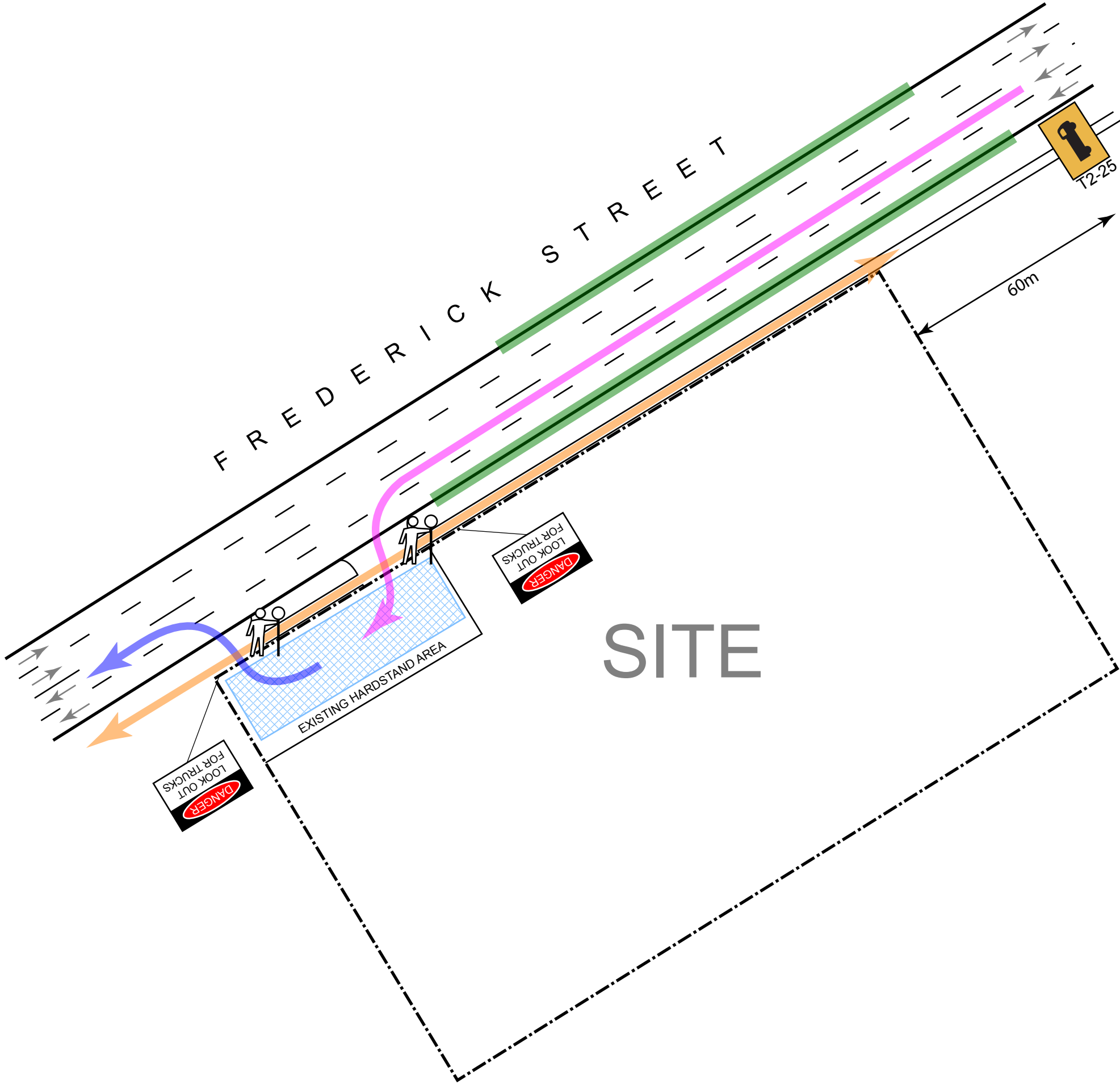
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CERTIFICATE No. 2243017058
Expiry: 06/02/2018

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SITE OVEVIEW
DEMOLITION PHASE



NOTES:

1. ALL SIGNAGE TO BE INSTALLED IN ACCORDANCE WITH RMS "TRAFFIC CONTROL AT WORKSITES" MANUAL AND AS1742.3.
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LEGEND:

- SITE BOUNDARY
- SITE APPROACH ROUTE
- SITE DEPARTURE ROUTE
- ... DELINEATION
- XXXXXXXXXXXXXXXXX PEDESTRIAN BARRIER
- XXXXXX WORK AREA / VEHICLE STANDING
- PEDESTRIAN ROUTE
- HOARDING

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Traffic Management Plans

Project/Event:	COMMERCIAL DEVELOPMENT				
Location:	NORTHSIDE CLINIC - FREDERICK STREET, ST LEONARDS NSW				
Client :	RICHARD CROOKES CONSTRUCTIONS PTY LTD				
Plan No.	SBMG01359-02	A	Date:	4TH APRIL 2016	
SCALE: NOT TO SCALE					



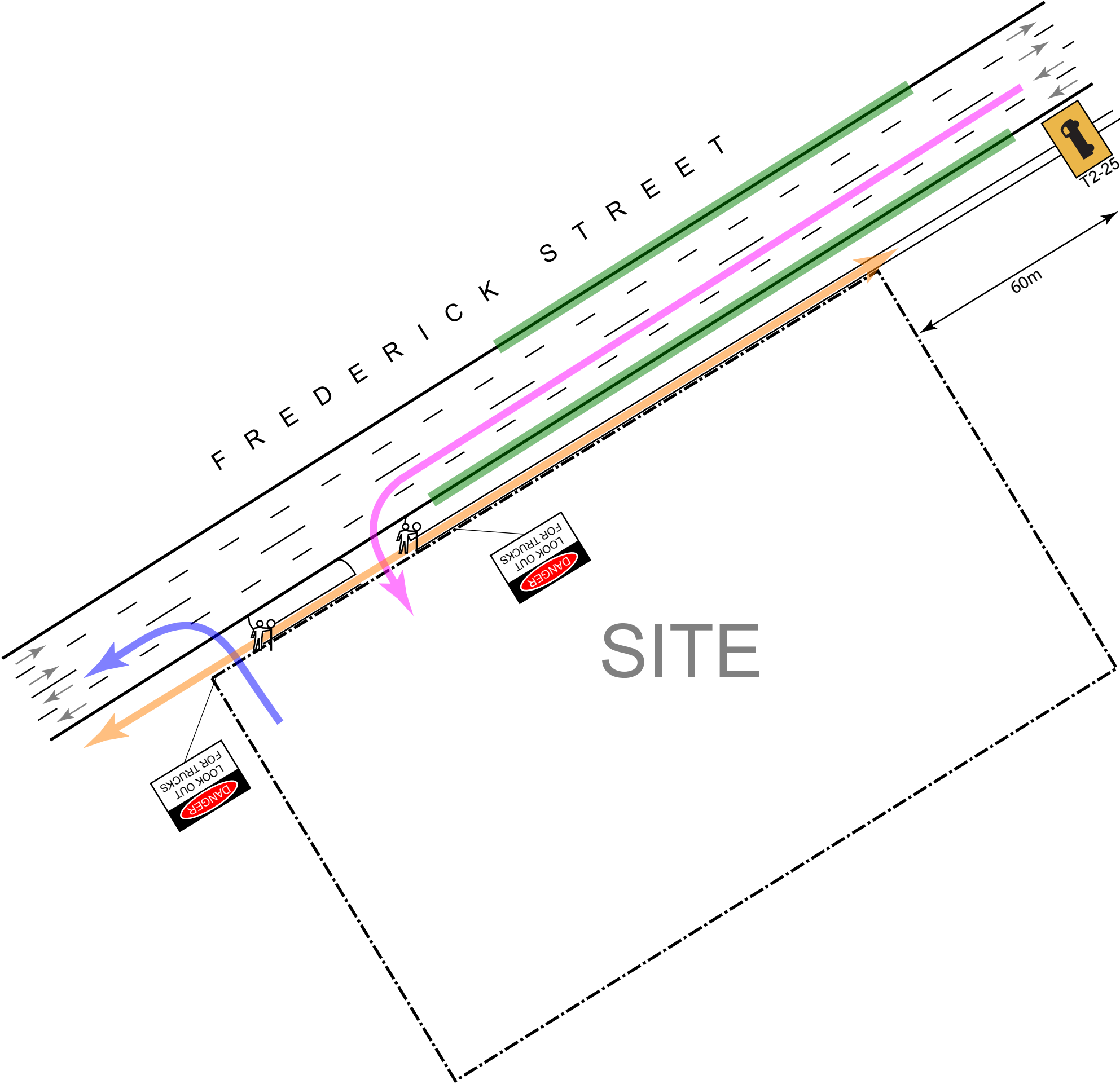
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RECOMMENDED MAXIMUM SPACING OF CONES AND BOLLARDS			RECOMMENDED TAPER LENGTHS				
Purpose an usage	Approach Speed (km/h)	Max Spacing (m)	Approach speed (km/h)	Traffic control at start	Lateral shift taper	Merge taper	
All purposes on residential or commercial streets	<=50	4					
Center-line on approach to Traffic Controller position	All Cases	4					
Outer edge of traffic lane - i.e. working on shoulder	51-70 / >70	18 / 24	< 45	15	0	15	
Separating opposing traffic on 2 lane 2 way road	51-70 / >70	12 / 18	46-55	15	15	30	
separating opposing traffic on a multilane undivided road	51-70 / >70	12 / 18	56-65	30	30	60	
adjacent to a closed lane on a multilane road	51-70 / >70	18 / 24	66-75	N/A	70	115	
Merge tapers	51-70 / >70	9 / 12	76-85	N/A	80	130	
Lateral shift tapers	51-70 / >70	12 / 18	86-95	N/A	90	145	
Protecting freshly painted lines	51-70 / >70	24 / 60	96-105	N/A	100	160	
FIGURES EXTRACTED FROM RTA TCWS MANUAL v4.0 (TABLES 5.1 & 5.2). REFER TO MANUAL FOR FURTHER INFO			> 105	N/A	110	180	

SITE OVEVIEW
EXCAVATION PHASE



NOTES:

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- ... DELINEATION
- PEDESTRIAN BARRIER
- Work Area / Vehicle Standing
- PEDESTRIAN ROUTE
- HOARDING

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Traffic Management Plans

Project/Event:	COMMERCIAL DEVELOPMENT				
Location:	NORTHSIDE CLINIC - FREDERICK STREET, ST LEONARDS NSW				
Client :	RICHARD CROOKES CONSTRUCTIONS PTY LTD				
Plan No.	SBMG01359-03	A	Date:	4TH APRIL 2016	
SCALE: NOT TO SCALE					



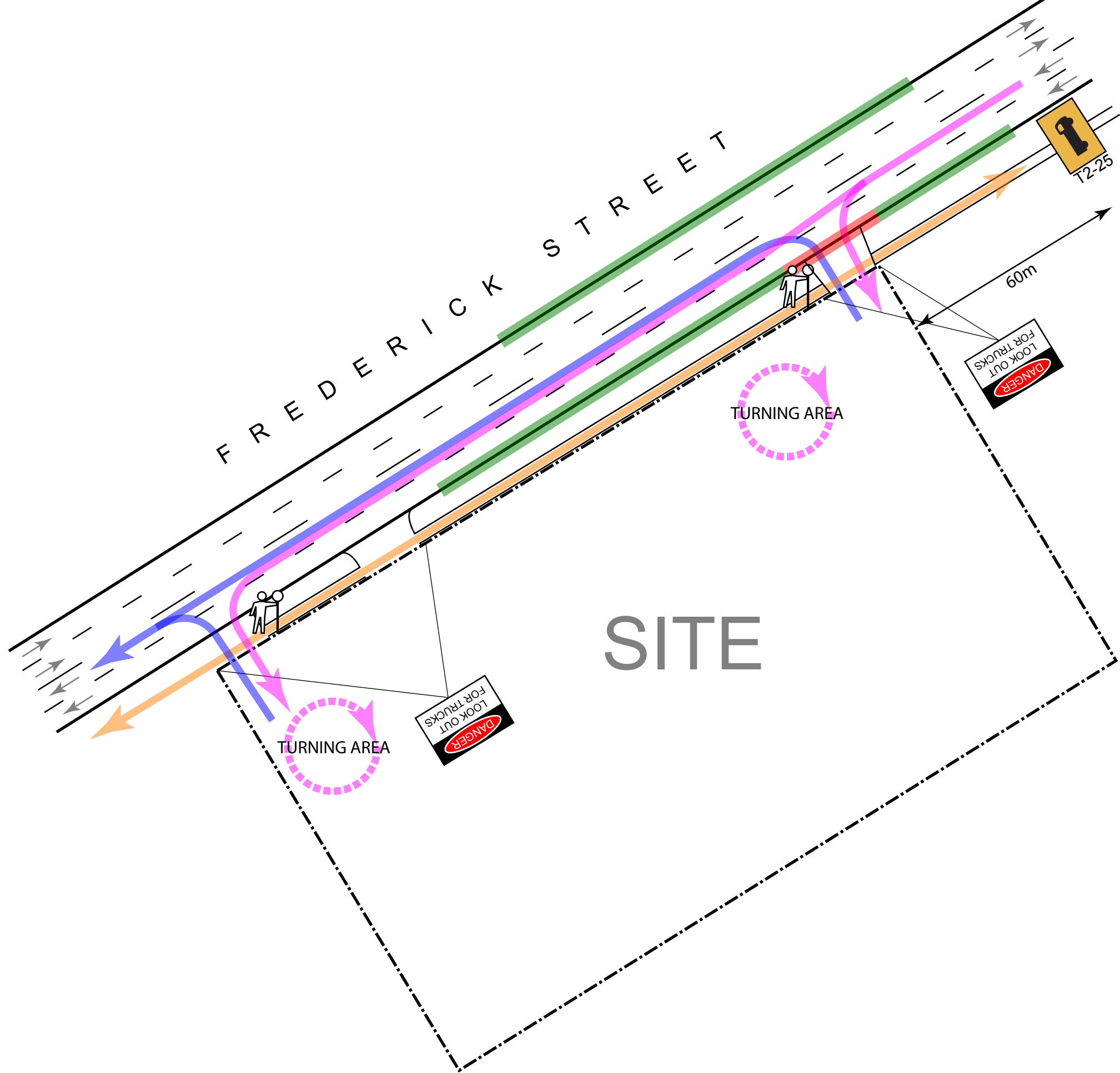
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adjacent to a closed lane on a multilane road	51-70 / >70	18 / 24	66-75	N/A	70	115	
Merge tapers	51-70 / >70	9 / 12	76-85	N/A	80	130	
Lateral shift tapers	51-70 / >70	12 / 18	86-95	N/A	90	145	
Protecting freshly painted lines	51-70 / >70	24 / 60	96-105	N/A	100	160	
FIGURES EXTRACTED FROM RTA TCWS MANUAL v4.0 (TABLES 5.1 & 5.2). REFER TO MANUAL FOR FURTHER INFO			> 105	N/A	110	180	

SITE OVEVIEW
CONSTRUCTION PHASE



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 - TRAFFIC CONTROLLER USED ON SITE TO MANAGE PEDESTRIAN ACTIVITY ONLY, VEHICLES WILL NOT BE STOPPED ON FREDERICK STREET TO ALLOW FOR SITE VEHICLE MOVEMENTS.
 - NO STOPPING ZONE INSTALLED ACROSS THE SITE ACCESS POINT TO ALLOW VEHICLE TURNING IN AND OUT OF THE SITE (SUBJECT TO COUNCIL APPROVAL).

- LEGEND:
- SITE BOUNDARY
 - SITE APPROACH ROUTE
 - SITE DEPARTURE ROUTE
 - DELINEATION
 - PEDESTRIAN BARRIER
 - WORK AREA / VEHICLE STANDING
 - PEDESTRIAN ROUTE
 - HOARDING
 - EXISTING ON-STREET PARKING AREA
 - PROPOSED NO STOPPING ZONE

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Sbmg Pty Ltd
 ABN: 34 167 185 560
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Traffic Management Plans

Project/Event:	COMMERCIAL DEVELOPMENT				
Location:	NORTHSIDE CLINIC - FREDERICK STREET, ST LEONARDS NSW				
Client :	RICHARD CROOKES CONSTRUCTIONS PTY LTD				
Plan No.	SBMG01359-04	B	Date:	7TH SEPTEMBER 2016	
SCALE: NOT TO SCALE					



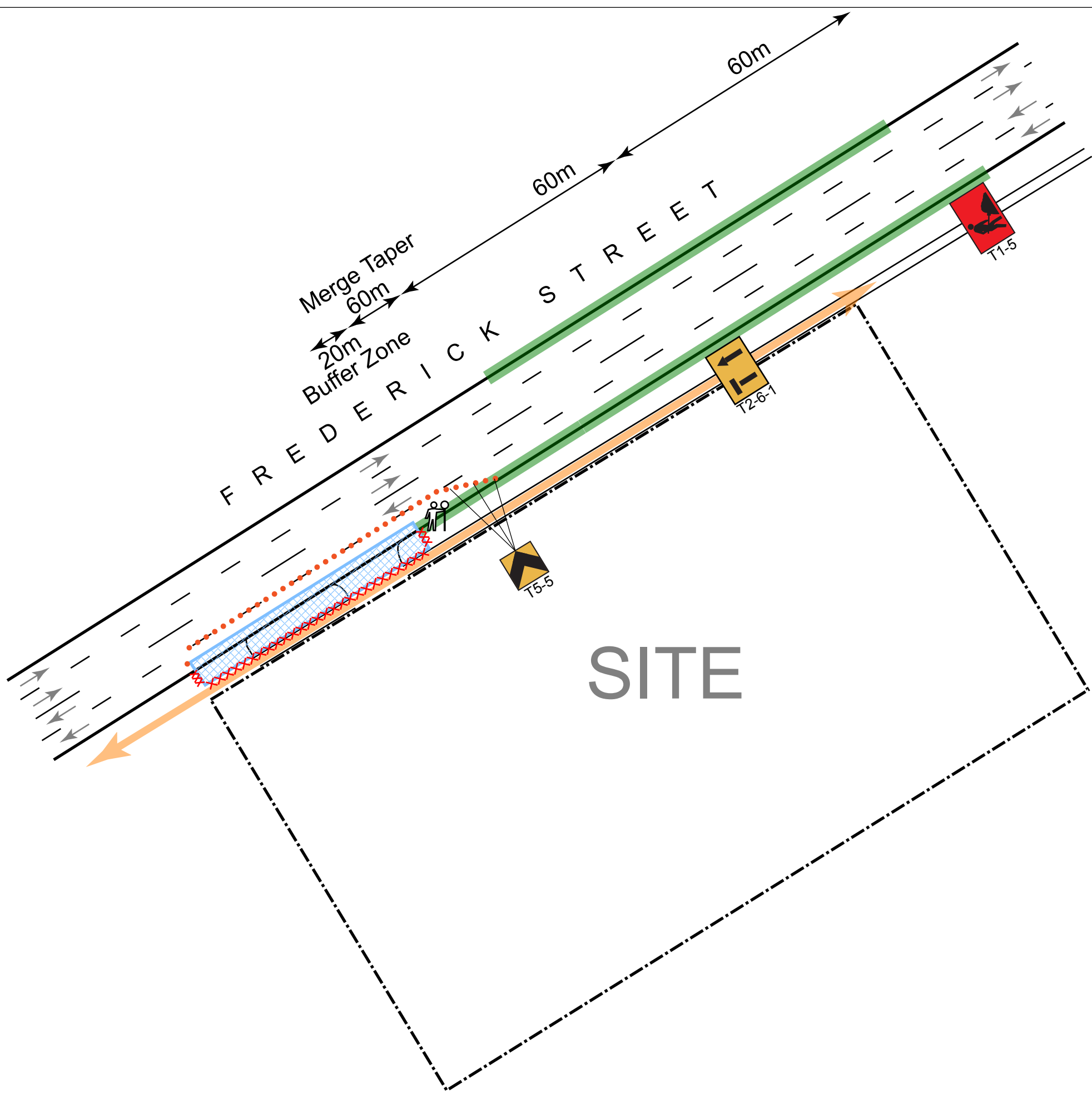
PREPARED BY: MATTHEW YOUNG
 RMS DESIGN & INSPECT TRAFFIC
 CONTROL PLANS
 CERTIFICATE No. 2243017058
 Expiry: 06/02/2018

SIGNED: *[Signature]*

DATE		DESCRIPTION
	E	
	D	
	C	
07/09/16	B	REMOVED WORKS ZONE
04/04/16	A	INITIAL SUBMISSION

RECOMMENDED MAXIMUM SPACING OF CONES AND BOLLARDS			RECOMMENDED TAPER LENGTHS				
Purpose an usage	Approach Speed (km/h)	Max Spacing (m)	Approach speed (km/h)	Traffic control at start	Lateral shift taper	Merge taper	
All purposes on residential or commercial streets	<=50	4					
Center-line on approach to Traffic Controller position	All Cases	4					
Outer edge of traffic lane - i.e. working on shoulder	51-70 / >70	18 / 24	< 45	15	0	15	
Separating opposing traffic on 2 lane 2 way road	51-70 / >70	12 / 18	46-55	15	15	30	
Separating opposing traffic on a multilane undivided road	51-70 / >70	12 / 18	56-65	30	30	60	
adjacent to a closed lane on a multilane road	51-70 / >70	18 / 24	66-75	N/A	70	115	
Merge tapers	51-70 / >70	9 / 12	76-85	N/A	80	130	
Lateral shift tapers	51-70 / >70	12 / 18	86-95	N/A	90	145	
Protecting freshly painted lines	51-70 / >70	24 / 60	96-105	N/A	100	160	
FIGURES EXTRACTED FROM RTA TOWS MANUAL v4.0 (TABLES 5.1 & 5.2). REFER TO MANUAL FOR FURTHER INFO			> 105	N/A	110	180	

TRAFFIC CONTROL
DRIVEWAY WORKS



NOTES:

1. ALL SIGNAGE TO BE INSTALLED IN ACCORDANCE WITH RMS "TRAFFIC CONTROL AT WORKSITES" MANUAL AND AS1742.3.
2. ALL SIGNAGE AND DELINEATION MUST BE INSTALLED BY RMS CERTIFIED TRAFFIC CONTROLLER(S) ONLY.
3. TRAFFIC LANES MAINTAINED AS PER NORMAL CONDITIONS WITH ON-STREET PARKING MAINTAINED.
4. PEDESTRIAN ACCESS MAINTAINED ALONG THE EXISTING FOOTPATH.

LEGEND:

- SITE BOUNDARY
- SITE APPROACH ROUTE
- SITE DEPARTURE ROUTE
- DELINEATION
- PEDESTRIAN BARRIER
- WORK AREA
- PEDESTRIAN ROUTE
- HOARDING
- EXISTING ON-STREET PARKING AREA
- WORKS ZONE

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Traffic Management Plans

Project/Event:	COMMERCIAL DEVELOPMENT				
Location:	NORTHSIDE CLINIC - FREDERICK STREET, ST LEONARDS NSW				
Client :	RICHARD CROOKES CONSTRUCTIONS PTY LTD				
Plan No.	SBMG01359-06	A	Date:	4TH APRIL 2016	
SCALE: NOT TO SCALE					



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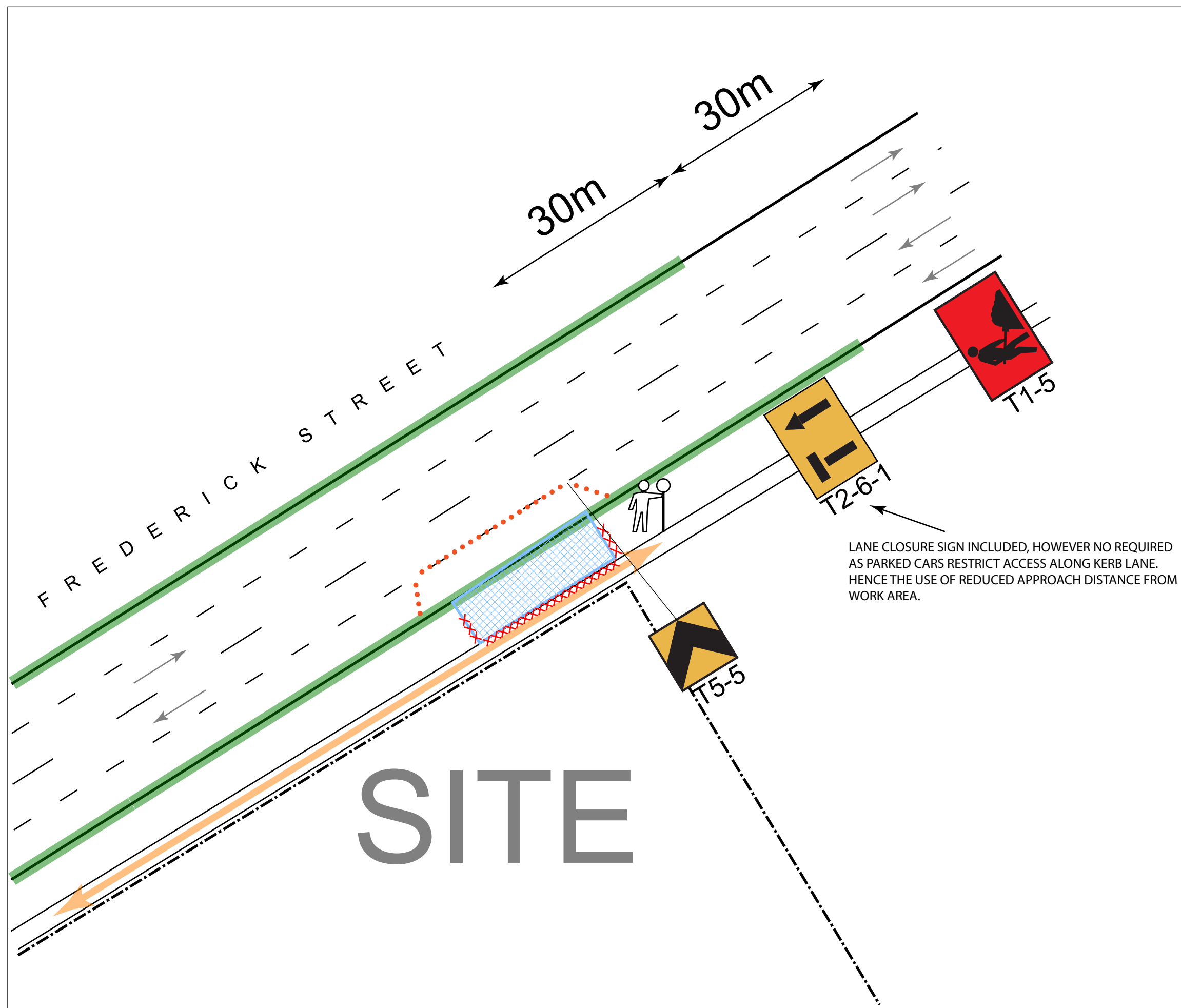
PREPARED BY: MATTHEW YOUNG
RMS DESIGN & INSPECT TRAFFIC
CONTROL PLANS
CERTIFICATE No. 2243017058
Expiry: 06/02/2018

SIGNED:

DATE	DESCRIPTION
E	
D	
C	
B	
04/04/16	A INITIAL SUBMISSION

RECOMMENDED MAXIMUM SPACING OF CONES AND BOLLARDS			RECOMMENDED TAPER LENGTHS				
Purpose an usage	Approach Speed (km/h)	Max Spacing (m)	Approach speed (km/h)	Traffic control at start	Lateral shift taper	Merge taper	
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Merge tapers	51-70 / >70	9 / 12	76-85	N/A	80	130	
Lateral shift tapers	51-70 / >70	12 / 18	86-95	N/A	90	145	
Protecting freshly painted lines	51-70 / >70	24 / 60	96-105	N/A	100	160	
FIGURES EXTRACTED FROM RTA TCWS MANUAL v4.0 (TABLES 5.1 & 5.2). REFER TO MANUAL FOR FURTHER INFO			> 105	N/A	110	180	

TRAFFIC CONTROL
DRIVEWAY WORKS



NOTES:

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LEGEND:

- SITE BOUNDARY
- SITE APPROACH ROUTE
- SITE DEPARTURE ROUTE
- ... DELINEATION
- XXXXXXXXXXXXXXXXXX PEDESTRIAN BARRIER
- XXXXXX WORK AREA
- PEDESTRIAN ROUTE
- HOARDING
- EXISTING ON-STREET PARKING AREA
- WORKS ZONE

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Traffic Management Plans

Project/Event:	COMMERCIAL DEVELOPMENT				
Location:	NORTHSIDE CLINIC - FREDERICK STREET, ST LEONARDS NSW				
Client :	RICHARD CROOKES CONSTRUCTIONS PTY LTD				
Plan No.	SBMG01359-07	A	Date:	9TH SEPTEMBER 2016	
SCALE: NOT TO SCALE					



PREPARED BY: MATTHEW YOUNG
RMS DESIGN & INSPECT TRAFFIC
CONTROL PLANS
CERTIFICATE No. 2243017058
Expiry: 06/02/2018

SIGNED:

DATE	DESCRIPTION
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	C
	B
07/09/16	A INITIAL SUBMISSION

RECOMMENDED MAXIMUM SPACING OF CONES AND BOLLARDS			RECOMMENDED TAPER LENGTHS				
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