CONSTRUCTION MANAGEMENT PLAN

PYRAMID CONSTRUCTIONS (WA) PTY LTD.

PROJECT NAME: **18A Tweeddale Apartments**

PROJECT ADDRESS: **18A Tweeddale Rd, Applecross**

LOCAL GOVERNMENT: **City of Melville**

DATE: **28/11/2023**

COUNCIL DEVELOPMENT APPROVAL NUMBER: **DAP-2017-1238/E**

Contents

1 General

1.1 Purpose of the Construction Management Plan

To outline the Project, Scope and the Impact of activities related to the construction of 18B Tweeddale Apartments by Pyramid Constructions (WA) Pty Ltd (Pyramid).

1.2 Project Description

Located at 18A Tweeddale Road, Applecross, the buildings will comprise of 5 x Apartments. The development consists of Undercroft Carparking and apartments to 5 x Floors above.

1.3 Project Site Plan

Site Plan showing

- Building outline
- Site fences
- Amenities
- Driveway locations
- Use of road verge

1.4 Project duration

Project Commencement date approximately: 14/12/2023
Project Completion date approximately: 14/03/2025

2 Project Team

2.1 Company Details

Pyramid Constructions (WA) Pty Ltd
PO Box 368 Applecross WA 6953
ABN: 71 094 963 318
Email: enquiries@pyramid.net.au
Builders Licence: BC10905
Phone: 08 9340 9888

2.2 Pyramid Project Management Team

Project Manager	TBA	08 9340 9888
Site Manager	TBA	08 9340 9888
Contracts Administrator	TBA	08 9340 9888
Compliance Manager	TBA	08 9340 9888

3 Construction Management

Pyramid's Construction Management Plan (CMP) describes the activities that potentially impact State and Local Authorities, Neighbouring Properties, Traffic and the Public, relating to this Project.

3.1 Work Health Safety Management

3.1.1 Subcontractor Coordination

Pyramid Subcontractors abide by the requirements of this CMP. This includes parking, working hours, noise, traffic and any interaction with the Public.

3.1.2 WHS and Workforce Behaviour

Pyramid's Management ensure all works are carried out in a safe, planned, systematic manner and in accordance with the relevant WA WHS Acts and Regs.

3.1.3 Site Inductions

The Pyramid online site induction and site introduction, outlines to all staff, visitors and contractors the CMP requirements and other safety matters whilst on site, to which noncompliance will not be tolerated and may result in removal from site.

3.1.4 Hazardous Materials

No hazardous substances are to be introduced to the site unless the MSDS has been uploaded and approved by the Site Manager.

All hazardous materials and dangerous goods that are brought to site by Pyramid, the Client or Subcontractors for that day's work and/or stored in an approved secure location, are to be handled in accordance with the manufacturers MSDS, such as isolation or special storage areas/containers/ventilation, as applicable.

All exposure risks shall be identified and assessed for substances to be used by Subcontractors in accordance with the WA WHS Act and Regulations and in consultation with their Employees and Pyramid.

Delivery of hazardous substances, as a minimum, will be inspected on arrival to site, checked for correct type and quantity, safe packaging, correct labelling, correct documentation, provision of safety and environmental information and that no transit damage has occurred.

3.1.5 Housekeeping and Cleanliness

Housekeeping is an extension of every activity on the project. Good housekeeping practices contribute to the prevention of injuries and have a positive impact on overall project health safety environment outcomes. Personnel undertaking works shall be responsible for ensuring that work areas within their control are maintained in a tidy and safe manner and that materials and equipment not in use are neatly stored and clear of access ways. Skip bins for waste removal are provided in work areas.

3.1.6 Evacuation and Muster Point

The Pyramid Project Management Plan will be developed by the Project Team and will include details for the management of the following:

- Evacuation procedures;
- Muster Point;
- Roles and Responsibilities;
- Contact Details;
- Potential Fire Hazards and Fire Prevention measures; and
- Fire Fighting Equipment.

3.1.7 Access and Egress

Site access routes, fence locations, project offices and amenities are detailed on the Site Establishment Plan. First aid, security, administration and induction facilities will also be located within the site office.

3.2 Environmental Management

3.2.1 Waste Management and Rubbish removal

Pyramid will ensure rubbish is regularly picked up from site. There will be one or more skip bins strategically located around the site.

Pyramid understand the importance of keeping the construction area free of debris and will ensure no loose materials/rubbish is blown off site and into surrounding properties by tying down materials or covering bins as required. Pyramid's company policy has a documented process to achieve a minimum 95% recycling rate for all debris and rubbish removed from site.

3.2.2 Paint and Concrete washout

Washout stations are set up on site for paint and tile glue equipment clean-up to minimise the effect on the environment and reduce water use.

Concrete washout is dumped on plastic sheets with bunded edges or metal trays and once the waste is hard enough, put in the skip bin for recycling.

3.2.3 Dewatering

Dewatering is not required on this project.

3.2.4 Sediment and Stormwater

Pyramid, as necessary will be installing the stormwater management system early in the project to be utilised with temporary connections before the final systems are put in place.

3.2.5 Contaminated Soil

Where existing contaminated soil is known to be on site, a specific management plan is to be developed to meet Council and the EPA guidelines. This includes Acid Sulphate Soils.

3.2.6 Habitat (fauna and flora)

Where identified, areas of environmental sensitivity shall be identified and shall be protected from potential environmental impacts associated with construction activities. These may include:

- Areas of flora or single trees to be preserved;
- Weed control;
- Dieback;
- Tree Protection;
- Protected and endangered fauna habitats or species and

- Waterways or other wetlands.

3.2.7 Operating hours

7.00am to 7.00pm Monday to Friday
7.00am to 5.00pm Saturday
Outside those hours by special arrangement with Council and Neighbours.
Closed Public holidays

3.2.8 Air and Dust Management

The civil works to the site may require dust management procedures to be employed, these will include:

- Monitoring of dust;
- Continual application of water during excavation works with sprinklers and hoses; and
- Shadecloth installed to perimeter fencing

Pyramid will make certain dust levels are kept to a minimum during Construction so as not to adversely impact the site, residents and visitors to neighbouring properties.

3.2.9 Security and Lighting

After hours the site is monitored by a comprehensive security system of cameras, lighting and sirens to minimise theft and maximise site safety overnight. Flood/security lights will be positioned/oriented to so there is minimal light overspill onto neighbouring properties. Alarm sirens will be monitored, and duration of alarm sirens limited. Where there are false alarms, the alarms will be disabled to prevent ongoing disturbance to neighbouring properties.

3.2.10 Vehicle Wash Down

Vehicle wash down will not be on site or will be done with washout bags in the verge area to ensure that no washout materials are deposited on the road or into the stormwater system.

3.2.11 Stormwater Management

Not Required.

3.2.12 Waste Management and Material Recovery

Not Required

3.2.13 Hazardous Materials

No hazardous substances are to be introduced to the site unless the MSDS has been uploaded and approved by the Site Manager.

All hazardous materials and dangerous goods that are brought to site by Pyramid, the Client or Subcontractors for that day's work and/or stored in an approved secure location, are to be handled in accordance with the manufacturers MSDS, such as isolation or special storage areas/containers/ventilation, as applicable.

All exposure risks shall be identified and assessed for substances to be used by Subcontractors in accordance with the WA WHS Act and Regulations and in consultation with their Employees and Pyramid.

Delivery of hazardous substances, as a minimum, will be inspected on arrival to site, checked for correct type and quantity, safe packaging, correct labelling, correct documentation, provision of safety and environmental information and that no transit damage has occurred.

3.3 Complaint Management

Pyramid take any external complaints seriously and use a formal system form 213 (Public Complaint Action Form) to register, manage and close-out complaints and feedback from the public, neighbours and authorities.
Complaints or Feedback can be made to the Site Manager or the Pyramid Enquiries email address in the first instance. The contact details for the Site Manager, will be made available on the site signage.
If a complaint cannot be closed out on site or by the Project Manager, it will be elevated to Pyramid's Compliance Manager.
Once complaints are closed out and the cause has been identified, work practices will be modified if required to reduce the risk of future events.
Complaints will be responded to within 24 hours of receipt.
The emergency contact for complaints are as per the below:
Email: enquiries@pyramid.au
Ph: (08) 9340 9888

3.4 Public Safety

The safety of the general public is maintained at all times, especially when the project is unattended. Other aspects of this CMP, also outline processes to maintain public safety.

3.4.1 Security and Lighting

After hours the site is monitored by a comprehensive security system of cameras, lighting and sirens to minimise theft and maximise site safety overnight. Flood/security lights will be positioned/oriented to so there is minimal light overspill onto neighbouring properties. Alarm sirens will be monitored, and duration of alarm sirens limited. Where there are false alarms, the alarms will be disabled to prevent ongoing disturbance to neighbouring properties.

3.5 Traffic and Access Management

3.5.1 Site Access Routes

Access to site will be managed in accordance with the approved Traffic Management Plan. Once established, the access routes will require minimal ongoing modification. Pyramid will be mindful that Tweeddale Road and Carron Road is a shared access route and will work with the neighbouring properties to ensure traffic and deliveries are co-ordinated safely at all times to ensure access is available for all parties involved to use.

3.5.2 Parking

All parking will initially be offsite. Pyramid expect approximately 30 personnel on site at the busiest time of construction.

Pyramid will direct subcontractors to use areas of public parking where possible or to catch public transport to and from the site or carpool with fellow workers.

Once basement construction is complete trades will be able to utilise this area for parking.

Off site public parking is indicated on attached Parking Plan:

1. Moreau Mews Carpark and Street Parking
2. Forbes Road Street Parking
3. Canning Bridge Carpark
4. The Raffles Underground Carpark
5. First Avenue Street Parking

Subcontractors will be issued with a permit to display on their dashboard to allow City of Melville Rangers to identify them. All Subcontractors will be subject to the relevant parking fees and requirements of the City of Melville as found on the City's website:

https://www.melvillecity.com.au/our-city/about-our-city/parking-and-getting-around/parking-areas-and-fees

This information will be relayed to all Subcontractors and Permits issues as part of the onboarding and prestart process.

Parking Plan will be given to all subcontractors before they attend site.

3.5.3 Site Deliveries

Pyramid will utilise an 'as required' delivery methodology across the site, to ensure deliveries are managed to cause as little disruption as possible. The traffic flow diagram in the TMP and tower crane booking arrangements will be issued to all Subcontractors and Suppliers at purchase order stage.

This also includes details of the loading and unload of waste skip bins.

Site deliveries will be scheduled to occur outside of peak hour traffic when possible but, during site opening hours only.

Note that the site setup is planned to have deliveries pulling on to the verge to avoid traffic disruption and road closures.

Key roads to be used for deliveries are Canning Highway, Canning Beach Road, Killilan Road, Carron Road, Tweeddale Road and Forbes Road.

3.5.4 Site Storage

Pyramid propose to use the verge area to 18A and 18B Tweeddale Road as the construction zone for site laydown and storage of materials.

Once the basement carpark construction is complete it will also be feasible to utilise the available area for materials storage.

Verge area for storing construction material and deliveries/ concrete pump activities to be as per Verge Sketch.

3.5.5 Road Closures

Pyramid hope to be able to carry out the majority of this project without the need for road closures, however, we anticipate that there are several major activities which may require the closure of Carron Road.

These activities include:

- Mobilisation and Demobilisation of tower cranes
- Large concrete pours
- Lifting of Structural Steel, Roof sheeting and Reinforcement

The Traffic Management Plan will include information to be used wherever these road closures occur. All relevant and required permits will be submitted before any road closures occur and these events will be co-ordinated with Site Managers from surrounding worksites.

3.5.6 Protection of Road and Verge Surfaces

Pyramid appreciate the need to keep the roads and site verge around the construction area in a trafficable condition and acknowledge that wherever roads and paving are subjected to stresses and damage during construction, they will be repaired/replaced and made good before handover.

The current state of the verge and kerbing is very bad.
During construction, we propose to lay some roadbase to the workzone along Carron Road. The kerb has already been removed by others in that section.
We will lay roadbase to the storage area also to flatten it out and provide a lay down area.
Towards the end of the project, the landscaping will be completed as per the approved Building Permit drawings and the kerbs reinstated to the City's requirements.

3.5.7 Pedestrian Routes

Pedestrian routes will be managed in accordance with the Traffic Management Plan.
Pyramid will ensure public safety at all times.
Note that verge area will be kept open for public walking paths – refer site fence setup plan issued by City of Melville.

3.6 Site Cranage

Pyramid propose to use a Tower crane for this apartment project, to be installed on in the lift shaft footing. The crane will be erected to a suitable freestanding height with jib length to allow complete coverage of the site.
Crane loads will be manoeuvred round the site whilst not slewing loads over adjacent sites. Limiters will also be used on the tower crane to prevent oversailing when required to ensure loads are kept within the site boundary.
Crane Plan Attached.

3.7 Air and Dust Management

The civil works to the site may require dust management procedures to be employed, these will include:

- Monitoring of dust;
- Continual application of water during excavation works with sprinklers and hoses; and
- Shadecloth installed to perimeter fencing

Pyramid will make certain dust levels are kept to a minimum during Construction so as not to adversely impact the site, residents and visitors to neighbouring properties.

3.8 Vibration Control

The construction works will require some vibrating machinery, however the impact it causes can be kept to a minimum and may use the following:

- Implementation of effective vibration monitoring to keep levels of vibration within acceptable limits
- Building design to be managed so as to reduce the need to operate percussive and vibrating machinery
- Ensure all staff are correctly trained and aware of current vibration levels to be adhered to

3.9 Noise Management

Whilst normal building work noise is unavoidable, Pyramid will endeavour to keep all such noises to a minimum during construction. The potential impact of noisy works on the nearby area may be mitigated by using measures such as;

- Strict adherence to any hours of operation imposed by local government or other conditions including deliveries and commencement of daily work routines
- Procurement of plant and equipment, which does not adversely impact on noise levels.
- The identification of noisy work areas with warning signage
- Scheduling deliveries within working hours

3.10 Heritage

Aboriginal and some European heritage not applicable to this site

3.11 Neighbouring Properties

3.11.1 Dilapidation Reporting

Dilapidation surveys to the nearby surrounding buildings are being carried out by a 3rd party professional.

3.11.2 Adjoining Residents and Businesses

Pyramid is highly experienced in the construction of projects within well-established residential areas. Careful consideration of the local residents and businesses is essential and some of the following control measures assists in the management of this;

- Letter drops informing of large concrete pours/ extensive deliveries/road closures/early working hours – please see picture below for coverage area and refer to attachment 7 for a template letter used in these circumstances
- Limiting deliveries to outside of peak hours
- Dilapidation surveys to the nearby buildings prior to commencement of works
- Deliveries/traffic management, consider the traffic movements of the residents and other traffic
- Keeping the surrounding street scape clean, this includes daily monitoring of cleaning requirements as necessary, street sweeping of the street frontage/spills etc
- Statutory advertising in the form of notices will be required as an additional means to inform the public of disruptions relating to construction

3.12 Use of Drones

Where Pyramid uses Drone technologies, it aims to comply at all times with all applicable laws and safety regulations and at the same time as ensuring Pyramid meets its social and ethical responsibilities.

3.13 Demolition and Asbestos Removal

Not applicable

3.14 Services and Utilities

Prior to the commencement of any work at the project, a services search will be carried out to identify all underground and overhead services that may be affected by the works.

3.14.1 Underground Services

Not applicable

3.14.2 Overhead Wires

Distance of plant operations from overhead wires (OHW) on the project shall be in accordance with the distances specified by the service/utility owner, State or regional legislative requirements or the Local Authority.

Note: Tiger tails DO NOT provide protection from electrical hazards against contact by cranes, mobile plant, tools or materials. They SHOULD NOT be regarded as providing protection from electrical hazards and they DO NOT protect people from the risk of electrocution or electric shock.

3.14.3 Protection of Council Assets

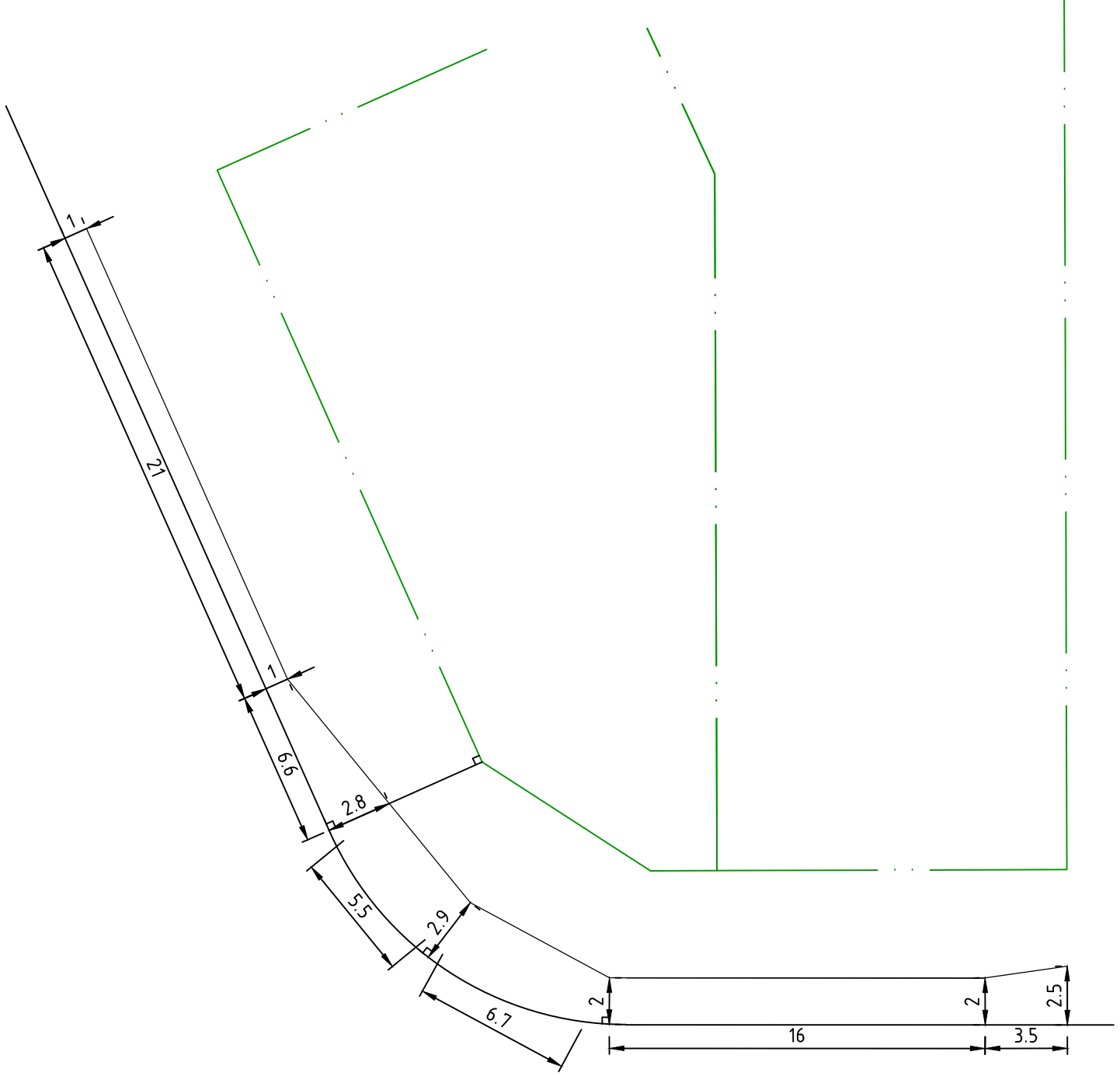
Pyramid will, as noted throughout the CMP, protect Council Assets outside the site boundary and make good as necessary items such as;

- Kerb and gutter
- Street trees
- Stormwater and other underground services
- Road surface
- Street signage

3.15 Appendices

- Approved COM Verge setbacks
- Site Layout Plan
- Parking Plan for Workers
- Cranage Plans
- Traffic Management Plan
- Public Complaint Action Form
- Road Closure Notice Letter

[redacted]


1
21
1
6.6
2.8
5.5
2.9
6.7
2
2
2.5
16
3.5

Site Fence

Verge Use - Note verge permit has been submitted

Driveway Locations

Site Office

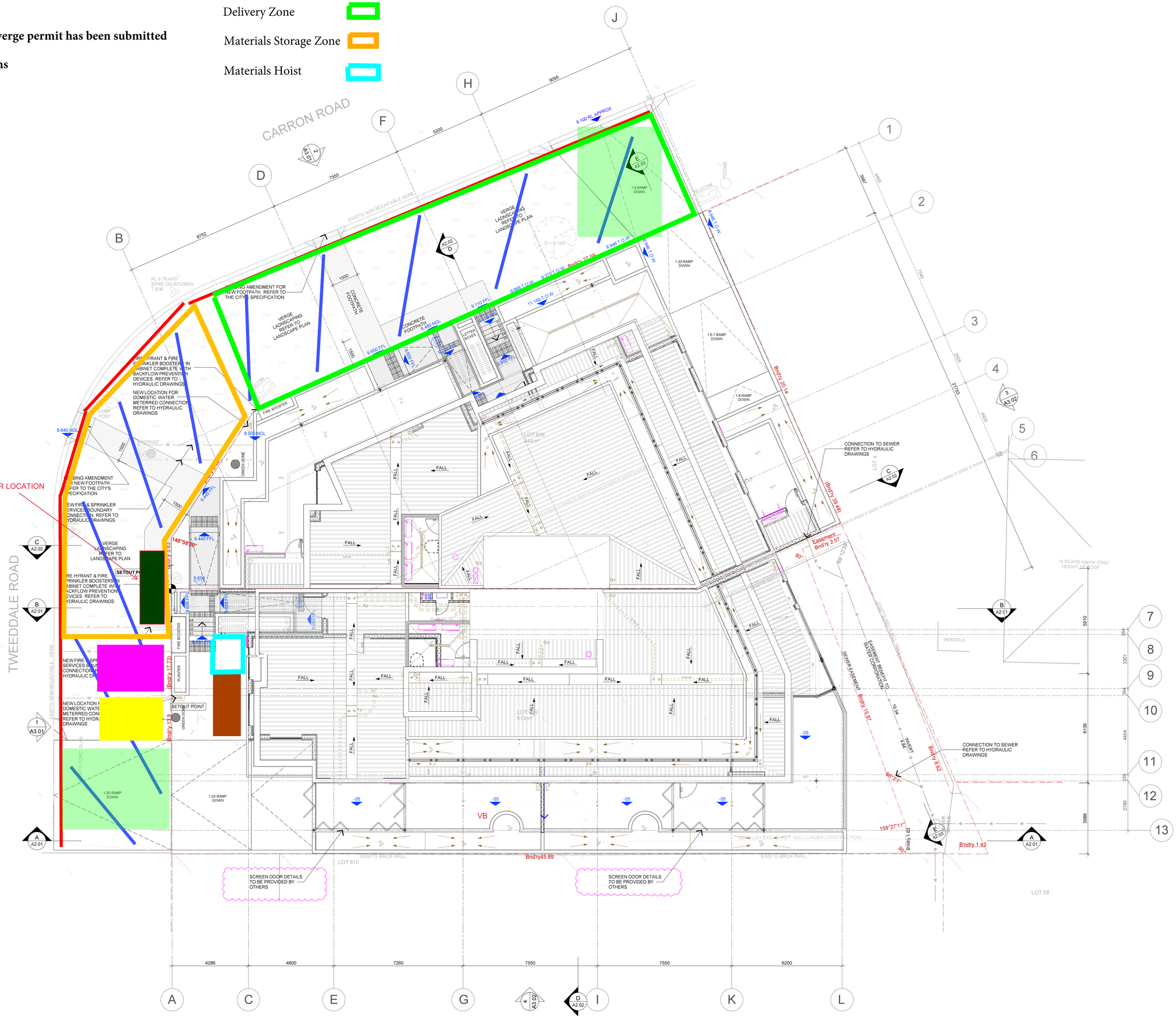
Crib/Lunchroom

Toilet

Delivery Zone

Materials Storage Zone

Materials Hoist



NOTES

GENERAL

ALL LEVELS AND DIMENSIONS ON THESE DRAWINGS ARE TO BE CHECKED ON-SITE BY BUILDERS/CONTRACTORS PRIOR TO CONSTRUCTION.

THESE DRAWINGS ARE NOT TO BE SCALED; ONLY THE FIGURED DIMENSIONS ARE TO BE USED. ANY DISCREPANCIES ARE TO BE REPORTED TO THE ARCHITECT.

ALL WORK SHALL BE CARRIED OUT IN STRICT ACCORDANCE TO THE LOCAL BUILDING CODES AND AUTHORITY REGULATIONS.

THE ARCHITECT WILL NOT BE HELD LIABLE FOR ANY FAULTY WORKMANSHIP DUE TO MISINTERPRETATION. ALL UNCERTAINTIES ARE TO BE CLARIFIED BEFORE WORK COMMENCES.
ALL STRUCTURAL DETAILS TO BE ACCORDING TO THE ENGINEERS DRAWINGS WITH THE ARCHITECTS APPROVAL.

REFER TO FINISHES & COLOUR SCHEDULE FOR ALL FOR ALL FINISHES.

DATUM (MANHOLE) = AD 8166

DEFINITIONS:
COS = CONFIRM ON SITE
TBC = TO BE CONFIRMED
USOS = UNDERSIDE OF SOFFIT
FFL = FINISHED FLOOR LEVEL
TOW = TOP OF WALL
ALL LEVELS INDICATED ARE THE FINISHED FLOOR LEVELS.

WALL SYSTEM LEGEND

EXTERNAL & RETAINING WALLS

WS-01		RETAINING / BASEMENT WALL / STORE (13 RENDER OR UNFINISHED / 150 VERSALOC / UNFINISHED) (REFER TO STRUCT. ENG'S DWGS)
WS-02		RETAINING / BASEMENT WALL (13 RENDER OR UNFINISHED / 190 VERSALOC / UNFINISHED) (REFER TO STRUCT. ENG'S DWGS)
WS-03		RETAINING / PLANTER WALL (13 RENDER / 150 VERSALOC / 13 RENDER) (REFER TO STRUCT. ENG'S DWGS)
WS-04		EXTERNAL WALL - RENDERED (13 RENDER OR UNFINISHED / 190 VERSALOC / WP / 55TH / 13PB OR 13WPB + TILED)
WS-05		EXTERNAL WALL - STONE WALL CLAD (STONE / 19 MORTAR / 190 VERSALOC / 150 FOR STORE) / WP+55TH + 13PB OR UNFINISHED)
WS-06		EXTERNAL WALL - METAL SHEET CLADD (ALUMINUM SHEET / 55TH / WP / 190 VERSALOC / WP+55TH+13 PB OR UNFINISHED)
WS-07		EXTERNAL SERVICE RISER (WITH INSULATION) (9FC / 76 SS) STUD TO BE CONFIRMED AFTER WIND CALCULATIONS TAKEN.

INTERNAL WALLS

WS-08		INSITU REINFORCED CONCRETE – CLASS 2 (SIZE/THICKNESS AS INDICATED ON PLAN)
WS-09		INTERNAL STRUCTURAL WALL - LOBBY (13PB / 190 VERSALOC / 13PB OR UNFINISHED)
WS-10		INTERNAL STRUCTURAL WALL - PARTY (13PB / 150 VERSALOC / 13PB OR UNFINISHED)
WS-11		INTERNAL STRUCTURAL WALL - CORE. (UNFINISHED / 150 VERSALOC / PAINTED OR UNFINISHED)
WS-12		INTERNAL PARTITION WALL (WITH INSULATION) (13PB / 76SS / 13PB OR EXPOSED TO RISER)
WS-13		INTERNAL PARTITION WALL WITH SLIDING DOOR (WITH INSULATION) (13PB / 90SS / 13PB)
WS-14		INTERNAL PARTITION WALL - WET AREA SINGLE SIDE (WITH INSULATION) (10TILE+6 BED OR PAINTED/ 13WPB / 76SS / 13PB or EXPOSED TO RISER)
WS-15		INTERNAL PARTITION WALL - WET AREA BOTH SIDES (WITH INSULATION) (10TILE / 6 BED / 13WPB / 76SS / 13WPB / 6BED / 10TILE)
WS-16		INTERNAL PARTITION WALL - WET AREA SINGLE SIDE WITH SLIDING DOOR (WITH INSULATION) (10TILE / 6 BED / 13WPB / 90SS / 13PB)
WS-17		DISCONTINOUS CONST. WALL (WITH INSULATION) (20 CAVITY/ 76SS / 13PB)
WS-18		DISCONTINOUS CONST. WALL - WET AREA (WITH INSULATION) (20 CAVITY/ 76SS / 13WPB/ 6 BED / 10 TILE)
WS-19		INTERNAL SERVICE RISER - FIRE RATED (WITH INSULATION) (13 FRPB / 76 SS)
WS-20		INTERNAL ACOUSTIC PARTY WALL (13 PB / 64SS)

#	DATE	DESCRIPTION
1	16/01/23	ADDITIONAL ANNOTATION

RUBIE CONSULTANTS PTY LTD

PROJECT NAME
TWEEDDALE APARTMENTS
18A & 18B (LOTS 891 & 890)
TWEEDDALE ROAD, APPLECROSS

DRAWING TITLE
SITE PLAN & SURVEY

JOB NO 1907	SCALE AS SHOWN
DRAWN JJ & HW	STAGE TDR
DATE 16/01/2023	REV NO 1

DRAWING NO
A1.01

PYRAMID

PARKING PLAN FOR WORKERS

6

1

2

3

4

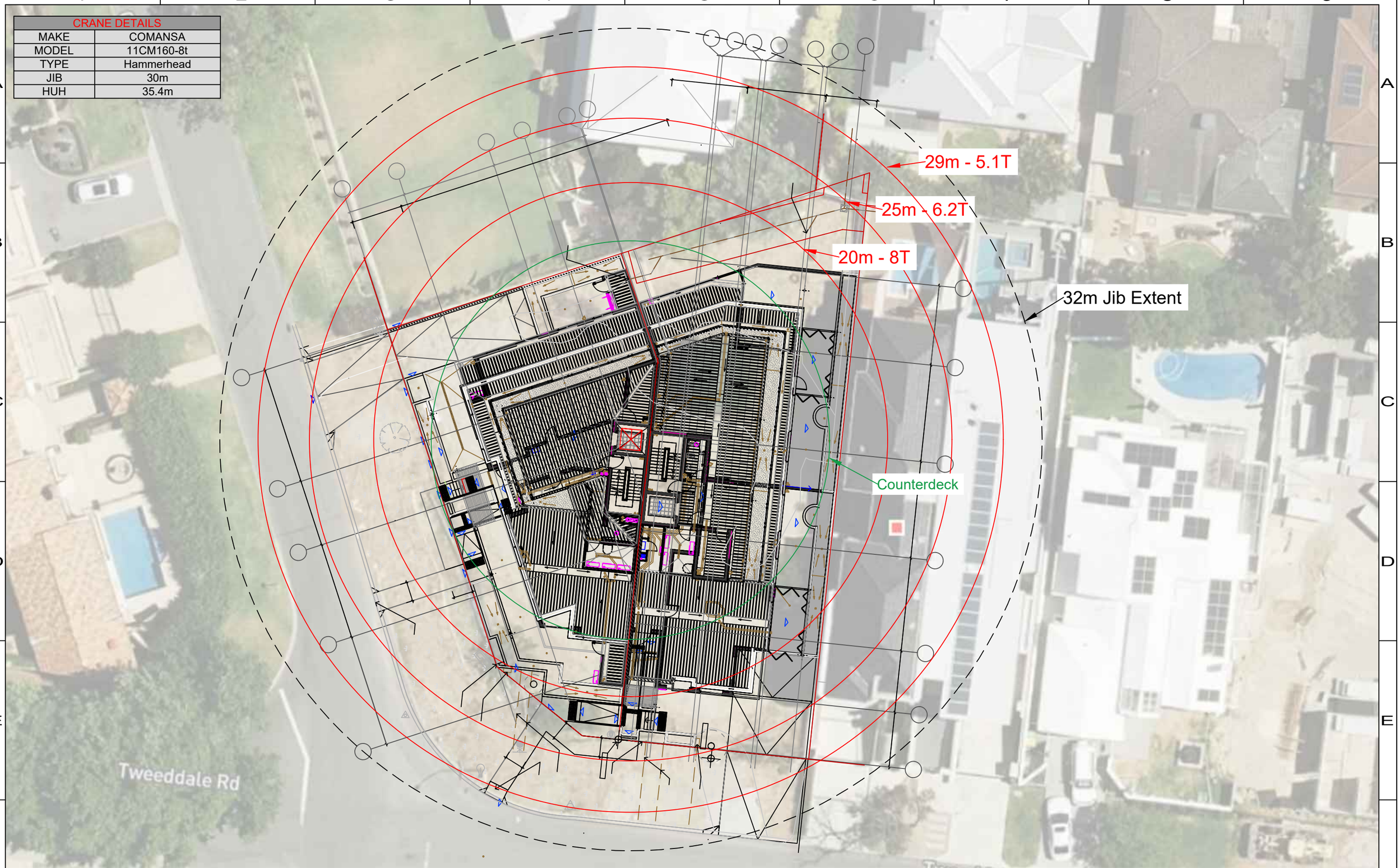
5

Nisbet Rd
Killilan Rd
Stronie Rd
Riverway
Tweeddale Rd
Gatford Rd
Canning Beach Rd
Kintail Rd
Forbes Rd
Moreau Mews
Armstrong Rd
Fourth Av
Third Av
First Av
Canning Hwy
Kishorn Rd
Ullapool Rd
Macnae Rd
Sleat Rd
Jane Rd
Tide Esplanade

1:2383@A3 50 m

Created by Anthony Chillino (Client)
7th December 2023 at 10:11am (GMT+8) by MNG.

CRANE DETAILS	
MAKE	COMANSA
MODEL	11CM160-8t
TYPE	Hammerhead
JIB	30m
HUH	35.4m



CLIENT			DATE	BY	DESCRIPTION
	DRAWN		7.2.23	AH	TC RADIUS CHART
TWEEDALE APARTMENTS	REVISION	B			
		C			
		D			
		E			

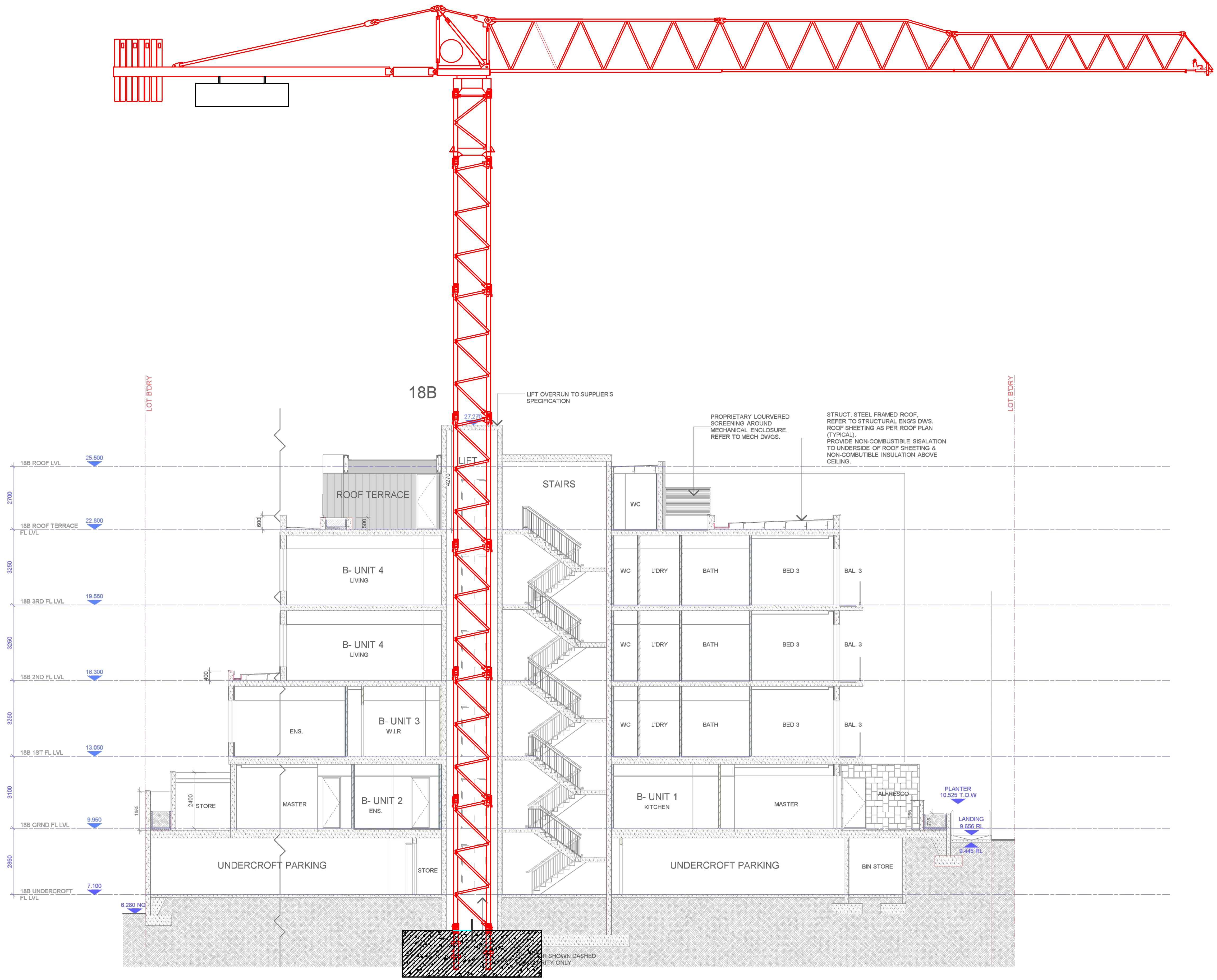
SCALE NOT TO SCALE @ A3

Job No. TWEEDALE

Dwg No. TWEE-TC-01

REV No. A

CRANE DETAILS	
MAKE	COMANSA
MODEL	11CM160-8t
TYPE	Hammerhead
JIB	30m
HUH	35.4m



CLIENT		DATE	BY	DESCRIPTION
	DRAWN	7.2.23	AH	TC ELEVATION
TWEEDALE APARTMENTS	REVISION B			
	C			
	D			
	E			

SCALE NOT TO SCALE @ A3

Job No. TWEEDALE

Dwg No. TWEE–TC–02

REV No. A

Address

PO Box 97
Maddington WA 6109

31 McCook Street
Forrestdale WA 6112

Works on Roads
Traffic Management Plan

APARTMENT CONSTRUCTION
18 Tweeddale Road, Applecross

Client Pyramid Construction
Date December 2023

Declaration

I Michael Downs (KTS AWTM 23 46566 03) declare that I have designed this Traffic Management Plan following a site inspection on 04/12/2023. The Traffic Management Plan prepared is in accordance with the Main Roads Code of Practice, AGTTM and AS 1742.3.

Signature: ..... Date: 15/12/2023

	Name / Company	Accreditation Details	Date	Signed
TMP designed by:	Michael Downs / QTM	KTS AWTM 23 46566 03	15/12/2023	
TMP reviewed by:	Alan Stewart / QTM	KTS AWTM 22 43771 05	15/12/2023	
RTM reviewed and endorsed by:				
Compliance Audit to be undertaken by:				
Road Authority Review by:				
Road Authority Authorisation	Road authority authorisation of the implementation of traffic signs and devices is given for Traffic Management Plan No. 2311-TMP33552-001-01. Signed Authorised Officer Date (Print Name) Position			

REVISION REGISTER

Revision Number	Revision Date	Comments	Section / Page Number	Revised By
00	-	-	-	-
01	15/12/2023	Amendments to TGS to include; ○ Public notice (VMB TGS) ○ References to scope of works ○ Inset for line of sight clearances Various sections updated within the TMP to include the above treatments	Cover page Section 3.2 Section 4.6.2 Section 7.1 Appendix A Appendix F	M.D

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31 McCook Street Forrestdale WA 6112 / PO Box 97 Maddington WA 6109

CONTENTS

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31 McCook Street Forrestdale WA 6112 / PO Box 97 Maddington WA 6109

1.1 Purpose and Scope

This Traffic Management Plan (TMP) outlines the traffic control and traffic management procedures to be implemented by the Project Manager and Project Contractors to manage potential hazards associated with the traffic environment during the project.

The project involves the construction of a residential apartment building at #18 Tweeddale Road. The works will be completed over 3 stages, earth works, material deliveries and crane lifts or concrete works. Activities will involve the use of site access, works off road, road closure and pedestrian management schemes.

The purpose of this traffic management plan is to maintain traffic flows through, past and around the worksite.

1.2 Objectives and Strategies

The objectives of the Traffic Management Plan are to ensure:

- The safety of the road workers.
- All road users, including vulnerable road users, are safely guided around, through or past the work site.
- The performance of the road network is not unduly impacted and the disruption and inconvenience to all road users are minimised for the duration of the works.
- Impacts on users of the road reserve and adjacent properties and facilities are minimised.

In an effort to meet these objectives the Traffic Management Plan will incorporate the following strategies:

- Providing a sufficient number of traffic lanes to accommodate vehicle volumes.
- Ensuring delays are minimised.
- Ensuring all road users are managed including motorists, pedestrians, cyclists, people with disabilities and people using public transport.
- Ensuring work activities are carried out sequentially to minimise adverse impacts.
- Provision will be made for works personnel to enter the work area in a safe manner in accordance with safety procedures.
- All entry and exit movements to and from traffic streams shall be in accordance with the requirements of safe working practices.

P (08) 6244 1650 E info@qtm.net.au
31 McCook Street Forrestdale WA 6112 / PO Box 97 Maddington WA 6109

2.1 Location

The works are located at #18 Tweeddale Road in Applecross. The affected area is indicated in figure 1.0 below.

Figure 1.0 Site Location

P (08) 6244 1650 E info@qtm.net.au
31 McCook Street Forrestdale WA 6112 / PO Box 97 Maddington WA 6109

2.2 Project Details, Site Assessment and Site Constraints/Impacts

Item	Description	
Project	Apartment Construction	
Location	18 Tweeddale Road, Applecross	
Road Classification, Existing Speed Limit	Tweeddale & Carron Road - Access Roads – 50kph	
Road Authority Local Government	City of Melville	
Client	Megafest Pty Ltd (Owner of 18A)	John Farac (Owner of 18B)
Prime Contractor	Pyramid Constructions	
Sub-Contractor/s	TBD	
Scope of Works	Construction of residential apartment.	
Staging of Work / Temporary Traffic Management	Stage 1 – Earthworks Heavy vehicles entering / exiting the site (in forward gear). Workers operating within the site and on the verge under the implementation of site access or works off road scheme. Stage 2 – Material Deliveries Minor deliveries to access the site in forward gear. For major deliveries trucks may need to parked on the westbound lane. Site access or shuttle flow scheme shall be applied. Stage 3 – Crane lifts & Concrete Pours Construction vehicles obstructing the lanes adjacent to the worksite under the implementation of a shuttle flow scheme. Should such vehicles require more on the road due to the footprint of the vehicle, the road closure scheme shall be applied. Where it is required, a minimum 1-week notice shall be given to the road authority.	
Project Date	10/01/2024 to 30/06/2025	
Hours / Days of Work	0700-1700, Monday to Saturday.	
Duration of Work	Approx 72 weeks	
Other Constraints	- Concurrent worksite. - Property access / egress needing to be maintained. - Footpaths.	
Concurrent/adjacent Works or Projects	Onsite site inspection noted of an existing construction site at #59 Canning Beach Road. At the time of the inspection, temporary traffic management was observed with having a works off road scheme with provision to stop traffic as required to assist heavy vehicles into site. Although the work areas are located 240m apart, signs associated with the two sites will conflict with one another. Therefore, prior to the implementation of any one scheme notification shall be given. City of Melville shall be responsible for reviewing both of the work areas, identifying such conflicts and providing details for the two sites to liaise and coordinate works.	

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2.3 Existing Traffic and Road Environment

Item	Description
Traffic Volume and Composition	No traffic data available. Onsite observations conclude Tweedale Road and Carron Road provides minimal traffic volumes.
Existing road configuration	Undivided carriageways with a single lane in each direction.
Existing Pedestrian / Cyclist Facilities	Footpath provided on the southern verge of Tweeddale Road.

2.4 Overview of Proposed Temporary Traffic Management

Item	Description
Temporary Traffic Management Descriptions	Non complex treatments consisting of; - Site access scheme. - Works off road scheme. - Shuttle flow scheme. - Road closure scheme.
Speed Zones – Dates and Times	40kph speed restriction to be applied when workers are operating within 1.2m of a live traffic lane (i.e. works off road or shuttle flow) between the hours of 0700-1700, Monday to Saturday.
Lane Closures – Dates and Times	Lanes closed under the implementation of shuttle flow or road closure schemes.
Road Closures – Dates and Times	Road closure treatment shall only be provided if absolutely necessary. Where required, notification shall be given to the City of Melville 1 week prior advising the date and time of its implementation.
Signal Modifications Description	Not applicable.
Proposed Lane Widths	A minimum 3.2m lane width shall be maintained.
Road Safety Barrier	Not applicable.

2.5 Project Representatives

Position	Name	Contact Details
Road Authority Representative	City of Melville	P: 9364 0666 E: melinfo@melville.wa.gov.au
Local Government		
Project Manager / Prime Contractor	Pyramid Constructions Brad Sringer	M: 0427 192 827 E: b.stringer@pyramid.au
Site Supervisor / Manager	Pyramid Constructions Adam Fiore	M: 0448 735 946
TMP Design	QTM Engineering Michael Downs	P: (08) 6244 1650 E: design@qtm.net.au
TMP Implementation	QTM Traffic Management QTM Operations	P: (08) 6244 1650 E: tmops@qtm.net.au

Pyramid Constructions have engaged QTM Pty Ltd to prepare this Traffic Management Plan and associated controls for the works.

The TMP will be implemented by QTM Pty Ltd (MRWA Registration Number #0002).

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The following details the preliminary assessment of site hazards likely to be encountered, the level of risk associated with each and the control proposed. Note that the risk level is the level of assessed risk without the controls in place. The controls listed have been determined as being appropriate in reducing the risk to a level that is acceptable.

The hierarchy of control has been utilised to ensure that the highest practicable level of protection and safety is selected:

- Elimination
- Substitution
- Isolation
- Engineering
- Administration
- Personal Protection Equipment

In evaluating the options, a key consideration is whether the option takes traffic around, through or past the worksite.

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3.1 Risk Classification Tables

Qualitative measures of consequence or impact

Level	Descriptor	Example Descriptions
1	Insignificant	Midblock hourly traffic flow per lane is equal to or less than the allowable lane capacity detailed in AGTTM. No impact to the performance of the network. Affected intersection leg operates at a Level of Service (LoS) of A or B. No property damage.
2	Minor	Midblock hourly traffic flow per lane is greater than the allowable road capacity and less than 110% of the allowable road capacity as detailed in AGTTM. Minor impact to the performance of the network. Intersection performance operates at a Level of Service (LoS) of C. Minor property damage.
3	Moderate	Midblock hourly traffic flow per lane is equal to and greater than 110% and less than 135% of allowable road capacity as detailed in AGTTM. Moderate impact to the performance of the network. Intersection performance operates at a Level of Service (LoS) of D. Moderate property damage.
4	Major	Midblock hourly traffic flow per lane is equal to and greater than 135% and less than 170% of allowable road capacity as detailed in AGTTM. Major impact to the performance of the network. Intersection performance operates at a Level of Service (LoS) of E. Major property damage.
5	Catastrophic	Midblock hourly traffic flow per lane is equal to and greater than 170% of allowable road capacity as detailed in AGTTM. Unacceptable impact to the performance of the network. Intersection performance operates at a Level of Service (LoS) of F. Total property damage.

WHS qualitative measures of consequence or impact

Level	Descriptor	Example Descriptions
1	Insignificant	No treatment required
2	Minor	First aid treatment required.
3	Moderate	Medical treatment required or Lost Time Injury
4	Major	Single fatality or major injuries or severe permanent disablement
5	Catastrophic	Multiple fatalities.

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31 McCook Street Forrestdale WA 6112 / PO Box 97 Maddington WA 6109

Qualitative measures of likelihood

Level	Descriptor	Description
A	Almost Certain	The event or hazard: • is expected to occur in most circumstances, • will probably occur with a frequency in excess of 10 times per year.
B	Likely	The event or hazard: Will probably occur in most circumstances, will probably occur with a frequency of between 1 and 10 times per year.
C	Possible	The event or hazard: • might occur at some time, • will probably occur with a frequency of 0.1 to 1 times per year (i.e. once in 1 to 10 years).
D	Unlikely	The event or hazard: • could occur at some time, • will probably occur with a frequency of 0.02 to 0.1 times per year (i.e. once in 10 to 50 years).
E	Rare	The event or hazard: • may occur only in exceptional circumstances, • will probably occur with a frequency of less than 0.02 times per year (i.e. less than once in 50 years).

IMPORTANT NOTE: The likelihood of an event or hazard occurring shall first be assessed over the duration of the activity (i.e. "period of exposure"). For risk assessment purposes the assessed likelihood shall then be proportioned for a "period of exposure" of one year.

Example: An activity has a duration of 6 weeks (i.e. "period of exposure" = 6 weeks). The event or hazard being considered is assessed as likely to occur once every 20 times the activity occurs (i.e. likelihood or frequency = 1 event/20 times activity occurs = 0.05 times per activity). Assessed annual likelihood or frequency = 0.05 times per activity x 52 weeks/6 weeks = 0.4 times per year. Assessed likelihood = Possible.

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Qualitative Risk Analysis Matrix – Risk Rating

	Consequences				
Likelihood	**Insignificant 1**	**Minor 2**	**Moderate 3**	**Major 4**	**Catastrophic 5**
Almost Certain (A)	Low 5	High 10	High 15	Very High 20	Very High 25
Likely (B)	Low 4	Medium 8	High 12	Very High 16	Very High 20
Possible (C)	Low 3	Low 6	Medium 9	High 12	High 15
Unlikely (D)	Low 2	Low 4	Low 6	Medium 8	High 10
Rare (E)	Low 1	Low 2	Low 3	Low 4	Medium 7

Management approach for residual risk

Residual Risk Rating	Required Treatment
Very High	Unacceptable risk. **HOLD POINT.** Work cannot proceed until risk has been reduced.
High	High priority, WHS MR and Roadworks Traffic Manager (RTM) must review the risk assessment and approve the treatment and endorse the TGS prior to its implementation.
Medium	Medium Risk, standard traffic control and work practices subject to review by accredited AWTM personnel prior to implementation.
Low	Managed in accordance with the approved management procedures and traffic control practices.

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31 McCook Street Forrestdale WA 6112 / PO Box 97 Maddington WA 6109

3.2 Risk Register

Risk ID	Risk Event	Consequence	Pre-treatment Risk			Treatment	Residual Risk			TMP / TGS Reference
			Likelihood	Consequence	Risk Rating		Likelihood	Consequence	Residual	
Generic - Health & Safety										
1.	Personnel may be struck by a vehicle while attempting to install and/or remove signs and devices.	Injury to workers.	C	4	H12	Ensure works personnel are protected by vehicle, have appropriate accreditation and are aware of correct procedures. Ensure all management personnel have been sufficiently trained, assessed and are wearing appropriate PPE. Crossing the road to implement/remove signs or devices is not permitted.	D	4	M8	TMP 6.2.2.3 TMP 7.2 TGS 001 to 007
2.	Vehicle(s) enter the work zone.	Injury to workers or road users.	C	4	H12	TMP details separation of traffic from work site and protection of workers. Speed restriction imposed through work site when workers are operating within 1.2m of a live traffic lane (i.e. works off road or shuttle flow) Ensure all traffic management personnel have been sufficiently trained, assessed and are wearing appropriate PPE. Traffic management personnel are to identify their escape route prior to commencement of works.	D	4	M8	TGS 001 to 007
3.	Construction machinery conflicting with traffic management personnel.	Injury to workers.	C	3	M9	Ensure that sufficient clearance between traffic management personnel positions and the edge of work activities is provided at all times. Ensure all traffic management personnel have been sufficiently trained, assessed and are wearing appropriate PPE. Traffic management personnel are to identify their escape route prior to commencement of works.	D	3	L6	TMP 6.2.2.3
4.	Traffic Controllers become fatigued.	Lapse in concentration or judgement results in a traffic collision and/or injury.	C	4	H12	For works involving controlling traffic for more than 2 hours, a 'relief' Traffic Controller is to be provided to substitute with the Traffic Controllers every 15 minutes. Prior to depot departure, traffic controllers must ensure they hold sufficient water to last the day's work. If this cannot be achieved, they are expected to notify their supervisor who shall then arrange for on-site delivery of water. Where the effects of heat has already set-in, traffic controllers must be relieved from their duty, supplied plenty of water and rested in a cool place.	D	4	M8	TMP 6.2.2.4

P (08) 6244 1650 E info@qtm.net.au

31 McCook Street Forrestdale WA 6112 / PO Box 97 Maddington WA 6109

Risk ID	Risk Event	Consequence	Pre-treatment Risk			Treatment	Residual Risk			TMP / TGS Reference
			Likelihood	Consequence	Risk Rating		Likelihood	Consequence	Residual	
5.	Traffic controller is struck by a vehicle during traffic control operation.	Injury to workers.	C	4	H12	Ensure all traffic controllers have been sufficiently trained, assessed and are wearing appropriate PPE. Traffic Controllers are to identify their escape route prior to commencement of works. Prepare to Stop signage to be installed on each approach to the traffic control point. Approaches to traffic control points have been designed with traffic controller 'gates' where practical, with delineation and 'Stop Here When Directed' signage located prior to traffic controller locations. Traffic controllers shall remain off the road carriageway when controlling traffic. Portable Traffic Control Device (PTCD) not practical to be utilised at this location due to the low volume & low speed of traffic.	D	4	M8	TMP 6.2.2.4 TGS 003
6.	Unexpected worksite or event located within extent of temporary traffic management covered in this TMP.	Confusion to traffic, rise in complaints to local government, possible traffic collision or congestion.	C	4	H12	A site visit has been undertaken in accordance with the MRWA Code of Practice to review current site conditions & approval shall be obtained from the Road Infrastructure Manager (RIM) prior to implementation. Should an unexpected worksite or event area arise resulting in a conflict, the RIM shall be notified.	D	4	M8	TMP 4.2.9
Generic - Vulnerable Road & Path Users										
7.	Pedestrians or cyclists are struck by plant/equipment.	Injury to pedestrians.	C	4	H12	TMP details warning to pedestrians and safeguards in the form of pedestrian warning signage and/or traffic management personnel at strategic locations to ensure safe passage through the site.	D	4	M8	TMP 4.2.1 TMP 4.2.2 TGS 006
8.	Pedestrians or cyclists trip/fall over or slip on hazards on the footpath.	Injury to pedestrians.	C	3	M9	TMP details warning to pedestrians and safeguards in the form of advance warning signage and/or traffic management personnel at strategic locations to ensure safe passage through the site. If required, footpath shall be regularly swept and cleared of debris. Where signs are placed on footpaths, they shall provide sufficient room for a wheelchair/pram access past the sign. Traffic cones should be placed at the bottom of any bipods placed on a footpath.	D	3	L6	TMP 4.2.1 TMP 4.2.2 TMP 6.5 TGS 006

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31 McCook Street Forrestdale WA 6112 / PO Box 97 Maddington WA 6109

Risk ID	Risk Event	Consequence	Pre-treatment Risk			Treatment	Residual Risk			TMP / TGS Reference
			Likelihood	Consequence	Risk Rating		Likelihood	Consequence	Residual	
Generic - Stakeholder Considerations										
9.	Emergency services being delayed as a result of traffic management arrangements.	Delays to emergency services.	D	5	H10	Work has been scheduled outside of peak traffic periods. The TMP details consultation and reporting requirements with emergency services. Traffic management personnel on site shall assist emergency services through or past the worksite as quickly as possible without sacrificing the safety of workers or other traffic.	E	5	M7	TMP 8.2
Generic - Traffic Impacts										
10.	Construction traffic entering and leaving the site may conflict with vehicles.	Traffic incident resulting in damage to vehicle(s) and/or injury to drivers.	C	3	M9	TMP Clause 7.4 details procedures for dealing with access and egress from the work area. Truck symbolic signs to be erected during truck movements. Trucks to enter/exit site in forward gear at all times.	D	3	L6	TMP 7.4
11.	Working activities with road/carriageway closure arrangements resulting in detoured volumes on immediate and surrounding roads. Detoured volumes combined with existing carriageway volumes exceeding allowable capacities on affected roads.	Delays and congestion to the road network. Adverse public reaction to implementation.	C	3	M9	The TMP identifies appropriate work times relative to traffic volume peaks. The TMP identifies appropriate advance warning of the closure to reduce the impact of road closure arrangements. It is anticipated that traffic volumes approaching the affected area will be reduced by 10% as a result of the communications strategy. Traffic management personnel shall monitor traffic flows at the immediate intersections and the detour route. Where unexpected queuing and delays occur, detours may be modified to redistribute traffic and reduce delays. In the event of unacceptable delays, works shall cease and all obstructions to the carriageway removed before re-opening the road.	D	3	L6	TMP 4.1.2

P (08) 6244 1650 E info@qtm.net.au

31 McCook Street Forrestdale WA 6112 / PO Box 97 Maddington WA 6109

Risk ID	Risk Event	Consequence	Pre-treatment Risk			Treatment	Residual Risk			TMP / TGS Reference
			Likelihood	Consequence	Risk Rating		Likelihood	Consequence	Residual	
Generic - Specifications, Standards, Rules & Policies										
12.	Incorrectly designed or implemented Traffic Management Plan may result in inadequate protection of the worksite.	Injury to workers.	C	4	H12	Traffic Management Plan must be designed & implemented by suitably accredited personnel in accordance with AS1742.3, the Main Roads WA Code of Practice & Austroads Guide to Temporary Traffic Management (AGTTM). The crew leader shall inspect the site to ensure that the temporary traffic management signs and devices have been erected and maintained on-site and comply with the endorsed TMP.	D	4	M8	TMP Cover TMP 6.2.2.3
13.	Signs spaced beyond the tolerances provided (10% less or 25% more than distances given).	Reduced compliance of the traffic management signs.	A	1	L5	Where possible, signs & devices shall be placed within the tolerances provided. Where signs are located outside of these tolerances it is to reduce the risk of signs/devices obstructing driveways and/or side roads or provide a greater visibility to traffic. Generally, signs shall be placed at a greater distance apart rather than closer together to ensure visibility.	D	1	L2	TMP 5.1 TMP 7.3.2 TGS 001 to 007
14.	List & quantity of signs & devices not included on TGS.	Site not setup as per TGS due to missing sign/devices.	C	3	M9	This TMP shall be implemented by QTM who employ a stock controller to review & supply the signs & devices required for each crew. Upon arrival at the QTM yard, the crew leader shall double check the signs & devices provided in conjunction with the TGS before departing to site.	D	3	L6	TGS 001 to 007
15.	Road environment changes since the latest available online imagery was taken.	TGS designed is no longer suitable for implementation resulting in delays in works or under protected worksite.	C	4	M8	A site visit has been undertaken in accordance with the MRWA Code of Practice to review current site conditions and identify any potential risks associated with the works to be completed.	D	4	L4	TMP Cover
Generic - Environmental & Roadside Obstructions										
16.	Temporary traffic management signs and devices become illegible.	Rise in complaints to local government. Reduced compliance of the traffic management signs.	C	3	M9	A drive through inspection of the site shall occur immediately after installation, regularly while installed, and after any change is implemented.	D	3	L6	TMP 5.1 TMP 9.1
17.	Temporary traffic management signs or devices obstruct footpaths, driveway access or side roads.	Rise in complaints to local government. Damage to vehicles and/or traffic management signs/devices.	A	3	H15	Signs shall be placed only where it is safe to do so, on verges and medians where they do not obstruct driveways or side roads. Where signs are placed on footpaths, they shall provide sufficient room for a wheelchair/pram access past the sign. Traffic cones should be placed at the bottom of any bipods placed on a footpath.	D	3	L6	TMP 7.3.2 TMP 6.5

P (08) 6244 1650 E info@qtm.net.au

31 McCook Street Forrestdale WA 6112 / PO Box 97 Maddington WA 6109

Risk ID	Risk Event	Consequence	Pre-treatment Risk			Treatment	Residual Risk			TMP / TGS Reference
			Likelihood	Consequence	Risk Rating		Likelihood	Consequence	Residual	
18.	Poor environmental conditions including rain, flooding, strong winds, fog/dust/smoke etc.	Impact to the visibility of traffic control devices. Change in condition of road surfaces.	C	4	H12	Provision to address these conditions is detailed in section 5.1 of the TMP. If safety of workers or traffic becomes a significant concern, works are to be aborted or postponed until the weather conditions improve.	D	4	M8	TMP 5.1

P (08) 6244 1650 E info@qtm.net.au

31 McCook Street Forrestdale WA 6112 / PO Box 97 Maddington WA 6109

Risk ID	Risk Event	Consequence	Pre-treatment Risk			Treatment	Residual Risk			TMP / TGS Reference
			Likelihood	Consequence	Risk Rating		Likelihood	Consequence	Residual	
Site Specific Considerations										
19.	Residents unable to access/egress local properties due to shuttle flow or road closure scheme.	Rise in complaints to local government, risk of local traffic entering work area.	C	4	H12	Provisions for local traffic to access/egress properties must be maintained at all times. Traffic management personnel on site to monitor driveways & closure points to provide assistance for local traffic. Letter drop to be undertaken to provide warning & guidance for affected residents.	D	4	M8	TMP 4.2.6 TGS 001 to 007
20.	Rubbish/delivery trucks unable to access properties due to shuttle flow or road closure scheme.	Rise in complaints to local government, risk of trucks entering work area.	C	4	H12	Where possible, works shall be scheduled outside of the rubbish pickup day. Delivery trucks shall be assisted through/past the worksite as quickly as possible without sacrificing the safety of other traffic or workers.	D	4	M8	TMP 4.2.6
21.	Existing worksite located near the work extents.	Conflicting setups result in confusion to traffic, rise in complaints to local government, possible traffic collision or congestion.	B	4	VH16	Prior to the implementation of any one scheme notification shall be given to each of worksites. City of Melville shall be responsible for reviewing both of the work areas, identifying such conflicts and providing details for the two sites to liaise and coordinate works.	D	4	M8	TMP 4.2.9
22.	Drivers are unaware of trucks entering / exiting the construction site.	Drivers are not cautious and rear end into the back of trucks that are turning into the construction site. Trucks egressing the site do not give way and strike passing vehicles resulting in severe traffic accidents.	C	4	H12	Truck symbolic signs to be erected on the approach to the construction site advising traffic of the changed conditions. Trucks accessing / egressing the site shall give way to on coming traffic. Nearby residents will be notified of the works via a letter drop.	D	4	M8	TMP 7.4 TGS 001
23.	Roadside parking obstructed by the temporary traffic management arrangements.	Rise in complaints to local government.	A	1	L5	City of Melville and affected residents will be notified of the affected parking bays and will be discouraged to use them. Traffic management personnel on site to monitor parking bays and assist or direct traffic as required.	D	1	L2	TMP 4.2.5 TGS 003 to 006

P (08) 6244 1650 E info@qtm.net.au
31 McCook Street Forrestdale WA 6112 / PO Box 97 Maddington WA 6109

Risk ID	Risk Event	Consequence	Pre-treatment Risk			Treatment	Residual Risk			TMP / TGS Reference
			Likelihood	Consequence	Risk Rating		Likelihood	Consequence	Residual	
24.	Laydown area obstructing provided on the verge obstructs line of sight for drivers using Carron Road or Tweeddale Road.	Traffic accidents resulting in severe injury or single fatality.	C	4	H12	Where a laydown area is provided on the verge that has potential to obstruct line of sight, clearances noted on TGS 001 & 002 shall be provided ensuring line of sight can be maintained. Traffic controllers provided to assist traffic around the worksite as required (i.e. TGS 003 – Shuttle flow).	D	4	M8	TGS 001 & 002

P (08) 6244 1650 E info@qtm.net.au

31 McCook Street Forrestdale WA 6112 / PO Box 97 Maddington WA 6109

4.1 Traffic Assessment and Analysis

4.1.1 Traffic and Speed Data

Traffic and speed data for Tweeddale Road and Corron Road is not available. Onsite observations suggest very low daily volumes with general compliance to, and often lower than the posted 50KPH speed limit. This is consistent with the typical characteristics of access roads.

4.1.2 Traffic Flow Analysis

Tweeddale Road and Corron Road are classed as access roads that carry low traffic volume typically consisting of local residential traffic and City service vehicles.

Due to the minimal volumes observed onsite, the implementation of the site access, works off road, shuttle flow and road closure schemes are expected to cause minimal impact to the road network with traffic experiencing minor delays during the implementation of shuttle flow and road closure treatment.

Although the implementation of the road closure scheme will have minimal impact, it shall only be implemented if absolutely necessary should work activities are not able to be completed safely within the other treatments. Where the road closure scheme is required, the City of Melville and residents shall be notified 1 week prior to each time it needs to be implemented.

4.1.3 Temporary Speed Zones

A temporary worksite speed limit of 40kph will be imposed when workers are operating within 1.2m of a live traffic lane (i.e. during shuttle flow or works off road). After work hours the posted speed will be reinstated, and the road will be left clean and free of debris.

4.1.4 Existing Traffic Signals

There are no nearby existing traffic signals.

4.1.5 Impact to Adjoining Network

An assessment of the traffic conditions determine that minimal impact on the existing road network is expected as a result of implementation of this TMP.

Local residents will be notified of the work via the methods outlined in section 4.6.2 and will be advised of the minimal disturbance to the existing road network.

4.1.6 End-of-Queue Treatment

Not applicable.

4.1.7 Portable Traffic Control Devices

Not applicable.

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31 McCook Street Forrestdale WA 6112 / PO Box 97 Maddington WA 6109

4.1.8 Speed Management

Traffic management personnel on site shall monitor the behaviour of traffic throughout duration of the temporary traffic management implementation. If non-compliance of the temporary speed limit is resulting in increased risks for workers or other traffic, narrowed traffic lanes (minimum lane widths must still adhere to MRWA Code of Practice 6.7) or close spacing of delineation devices should be considered and any changes noted in the daily diary. Police presence may also be requested by calling 131 444.

4.1.9 Excavations or Above Ground Hazards

There are no deep excavations associated with the works. Above grounds hazards shall be contained within the designated work area and protected by the temporary traffic management in place.

4.2 Road Users

4.2.1 Pedestrians

Footpaths are located adjacent to site and will remain unaffected by the works. To ensure pedestrians proceed with caution past the works Pedestrian Watch Your Step signs will be erected either side to the works/laydown area.

Traffic controllers onsite are to monitor pedestrians and provide assistance where required.

4.2.2 Cyclists

Cyclists on the road shall be required to follow the temporary traffic management arrangements in place and to obey any instructions given by the traffic controllers.

4.2.3 Public Transport

The works are expected to have no immediate impact to public transport or other bus services.

4.2.4 Heavy and Oversized Vehicles

This road is not a RAV route and therefore the works shall have no impact on such vehicles.

4.2.5 Existing Parking Facilities

Roadside parking will be impacted by the works and therefore, notification shall be given to the City of Melville and affected residents. Efforts will be made to ensure that parking is to be maintained where possible.

Traffic controllers onsite are to monitor parking bays and assist or direct traffic as required.

4.2.6 Access to Adjoining Properties / Business

Access to nearby properties will be restricted during the implementation of the shuttle flow and road closure schemes. Traffic controllers present onsite will direct and assist residents in / out of their properties as required.

In addition, all affected residents will be notified of the works via a letter drop.

P (08) 6244 1650 E info@qtm.net.au
31 McCook Street Forrestdale WA 6112 / PO Box 97 Maddington WA 6109

4.2.7 Rail Crossings

There are no nearby existing rail crossings.

4.2.8 School Crossings

There are no nearby existing school crossings.

4.2.9 Special Events and Other Works

Onsite site inspection noted of an existing construction site at #59 Canning Beach Road. At the time of the inspection, temporary traffic management was observed with having a works off road scheme with provision to stop traffic as required to assist heavy vehicles into site.

Although the work areas are located 240m apart, signs associated with the two sites will conflict with one another. Therefore, prior to the implementation of any one scheme notification shall be given. City of Melville shall be responsible for reviewing both of the work areas, identifying such conflicts and providing details for the two sites to liaise and coordinate works.

4.2.10 Emergency Vehicle Access

Emergency services will have continual access to all properties and the worksite; hence no specific facilities are required. A Traffic Controller shall assist emergency vehicles requiring to enter and/or travel through the worksite. Emergency services shall be notified via DFES (using the Notification of Roadworks form from Appendix 3 of the MRWA Code of Practice) of the proposed works nature, location, date and times as well as contact details for the site supervisor.

4.3 Night Work Provisions

Works are scheduled to be undertaken during daylight hours and therefore will not be subject to any night requirements.

4.4 Road Safety Barriers

Not applicable.

4.5 Shadow Vehicles

Not required.

4.6 Consultation and Communication / Notification

4.6.1 Other Agencies

In accordance with the CoP all relevant agencies shall be notified using the 'Notification of Roadworks' form attached in Appendix "A". A distribution list is provided on the bottom of the form. Other agencies shall be notified as required.

4.6.2 Public

Public notification will be undertaken in the form of a letter drop to all residents and businesses within the traffic control zone one week ahead of the scheduled works and VMBs onsite 1 week prior to closure.

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31 McCook Street Forrestdale WA 6112 / PO Box 97 Maddington WA 6109

5.1 Provision to Address Environmental Conditions

5.1.1 Adverse Weather

Weather is not expected to adversely impact on the effectiveness of the traffic control detailed on the attached TGS's. Notwithstanding this, should adverse weather conditions be encountered during the works, the following contingency plans should be activated. Note: any adjustments to the plan shall be risk assessed and approved by someone holding a WTM or AWTM accreditation.

5.1.1.1 Rain

In the event of rain, an on-site assessment shall be made and sign spacing, and tapers may be extended by 25% to account for increased stopping distances. "Slippery When Wet" signs may be placed as required and all changes shall be recorded in the daily diary.

Where rain occurs, Traffic Management Personnel shall audit the site and where signage and / or devices are not clearly visible, signage may need to be adjusted to improve visibility or if necessary provide additional signage and delineation. Where stopping distances are adversely affected by wet surfaces, spacing between signs may need to be adjusted to provide increased reaction time for drivers. In cases where it is determined that the rain is so heavy that the risk is considered unacceptable, all work shall cease until rain has cleared. All changes shall be noted in the daily diary.

5.1.1.2 Floods

Should works be affected by flooding to the extent that the worksite becomes impassable or risk is considered unacceptable, all work shall cease immediately and Traffic Controllers (and other personnel if necessary) shall be deployed immediately to close the site and direct traffic around the flooded area (under the direction of the project manager or traffic manager). Emergency services and the Road Authority shall be notified immediately, and Traffic Controllers shall remain onsite until emergency services and the Road Authority personnel arrive and take control of the site.

5.1.1.3 Other Adverse Weather (strong winds, thunderstorms, etc.)

There is currently no other adverse weather expected to impact on the effectiveness of the traffic control detailed on the attached TGS's. Should unexpected sever weather arise while traffic management is implemented on site, additional equipment shall be sent to site as required to mitigate any hazards that arise. If the works are deemed too dangerous to continue, they shall be rescheduled until a later date.

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5.1.2 Sun Glare

Where sun glare is identified as adversely affecting a driver's ability to sight signage and / or traffic control devices, sign locations may need to be adjusted and additional delineation and/or traffic control devices provided to address the risk from glare. Additionally, in the event that traffic control is adversely affected by glare at sunset and sunrise, traffic controllers may need to assist in maintaining low traffic speeds.

5.1.3 Fog, Dust and Smoke

Where fog, dust or smoke is identified as adversely affecting a driver's ability to sight signage and / or traffic control devices, sign locations may need to be adjusted and additional delineation and/or traffic control devices provided to address the risk. All changes are to be noted in the daily diary.

Should works be affected by fog, dust or smoke to the extent that risk is considered unacceptable, all work shall cease immediately and Traffic Controllers (and other personnel if necessary) shall be deployed immediately to close the site.

5.1.4 Road Geometry, Terrain, Vegetation and Structures

There are no identified impacts associated with road geometry, terrain, vegetation or structures. Notwithstanding this, should the initial setup inspection indicate adverse impacts associated with the geometry, terrain, vegetation or structures, traffic control devices may be extended by 25% or reduced by 10% in order to address identified issues.

5.2 Existing Traffic and Advertising Signage

There are no identified impacts associated with existing traffic or advertising signage. Notwithstanding this, should the initial setup inspection indicate adverse impacts associated with existing signage, traffic control devices may be extended by 25% or reduced by 10% in order to address identified issues.

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31 McCook Street Forrestdale WA 6112 / PO Box 97 Maddington WA 6109

6.1 Work Health and Safety

All persons and organisations undertaking these works or using the roadwork site have a duty of care under statute and common law to themselves, their employees, and all site users, lawfully using the site, to take all reasonable measures to prevent accident or injury.

This TMP forms part of the overall project Safety Management Plan and provides details on how all road users considered likely to pass through, past, or around the worksite will be safely and efficiently managed for the full duration of the site occupancy and works.

6.2 Roles and Responsibilities

6.2.1 Responsibilities

The Project Manager has the ultimate responsibility to ensure the TMP is implemented for the prevention of injury and property damage to employees, contractors, sub-contractors, road users and all members of the public.

The Project manager will ensure all site personnel are fully aware of their responsibilities, and that Traffic Controllers are appropriately trained and accredited and that sufficient controllers are available to ensure appropriate breaks are taken.

All personnel engaged in the field activities will follow the correct work practices as required by the CoP, AGTTM and AS1742.3.

All personnel will not commence or continue work until all signs, devices and barricades are in place and operational in accordance with the requirements of the TMP.

All personnel responsible for temporary traffic management shall ensure that the number, type and location of signs, devices and barricades are to a standard not less than Appendix F of this plan, CoP, AGTTM and AS1742.3. Should a situation arise that is not covered by this TMP, CoP, AGTTM or AS1742.3, the Road Authority Representative shall be notified.

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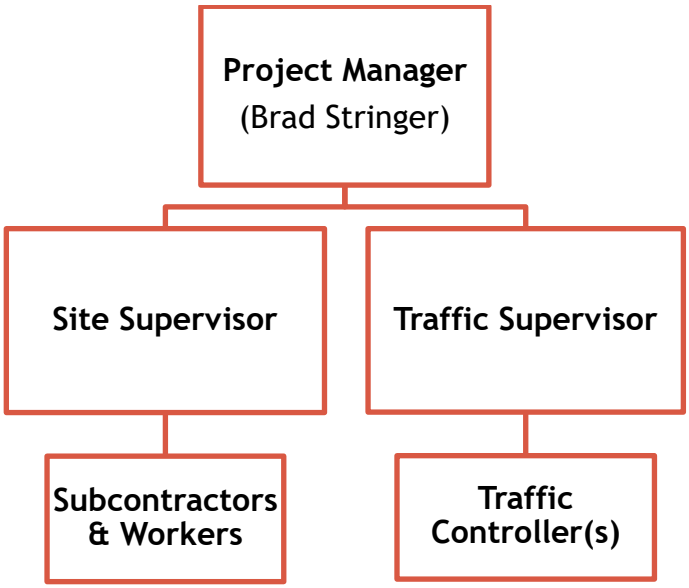
6.2.2 Roles

The following diagram outlines the responsibility hierarchy of this contact.



6.2.2.1 Project Manager

The project manager shall:

- Ensure all traffic control measures of this TMP are placed and maintained in accordance with this plan and the relevant Acts, Codes, Standards and Guidelines
- Ensure suitable communication and consultation with the affected stakeholders is maintained at all times
- Ensure inspections of the temporary traffic management are undertaken in accordance with the TMP, and results recorded. Any variations shall be detailed together with reasons
- Review feedback from field inspections, worksite personnel and members of the public, and take action to amend the traffic control measures as appropriate following approval from the Road Authority's Representative
- Arrange and/or undertake any necessary audits and incident investigations

6.2.2.2 Site Supervisor

The site supervisor is responsible for overseeing the day-to-day activities, and is therefore responsible for the practical application of the TMP, and shall:

- Instruct workers on the relevant safety standards, including the correct wearing of high visibility safety vests
- Ensure traffic control measures are implemented and maintained in accordance with the TMP
- Undertake and submit the required inspection and evaluation reports to management
- Render assistance to road users and stakeholders when incidences arising out of the works affect the network performance or the safety of road users and workers

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31 McCook Street Forrestdale WA 6112 / PO Box 97 Maddington WA 6109

- Take appropriate action to correct unsafe conditions, including any necessary modifications to the TMP.

6.2.2.3 *Traffic management personnel*

- At least one person on site shall be accredited in Basic Worksite Traffic Management, and shall have the responsibility of ensuring the traffic management devices are set out in accordance with the TMP.

- At least one person accredited in Advanced Worksite Traffic Management shall be available to attend the site at short notice at all times to manage variations, contingencies and emergencies, and to take overall responsibility for traffic management.

6.2.2.4 *Traffic Controllers*

Traffic Controllers shall be used to control road users to avoid conflict with plant, workers, traffic and pedestrians, and to stop and direct traffic in emergency situations.

Traffic Controllers shall:

- Operate in accordance with AGTTM Part 7: Traffic Controllers

- Be accredited in Basic Worksite Traffic Management

- Hold a current Traffic Controller's accreditation

- Be relieved from their duty after not more than 2 hours for a period of rest or "other duties" of at least 15 minutes as required by AGTTM and/or OS&H Regulations.

6.2.2.5 *Workers and subcontractors*

Workers and Subcontractors shall:

- Correctly wear high visibility vests, in addition to other protective equipment required (e.g. footwear, eye protection, helmet sun protection etc.), at all times whilst on the worksite.

- Comply with the requirements of the TMP and ensure no activity is undertaken that will endanger the safety of other workers or the general public.

- Enter and leave the site by approved routes and in accordance with safe work practices.

6.3 Personal Protective Equipment (PPE)

All personnel entering the work site shall correctly wear high visibility vests to AS/NZS 4602, in addition to other protective equipment required on a site-by-site basis (e.g. protective footwear, eye protection, helmet, sun protection, respiratory devices etc.) at all times whilst on the worksite.

6.4 Plant and equipment

All plant and equipment at the workplace shall meet statutory requirements and have the required registration, licences or certification where required. All mobile equipment shall be fitted with suitable reversing alarms. All mobile plant and vehicles shall be fitted with a pair of rotating flashing yellow lamps in accordance with AS1742.3 clause 4.14.1. All workers will be made aware of the safe work practice at the time of the site induction.

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6.5 Trip Hazards

The worksite and its immediate surroundings shall be suitably protected and free of hazards, which could result in tripping by cyclists or pedestrians. Hazards, which cannot be removed, shall be suitably protected to prevent injury to road users, including those with sight impairment. Where level differences are significant, suitable barriers, which preclude pedestrian access shall be used.

Temporary traffic management signs placed on footpath shall be positioned to minimise disruption to footpath users. Any sign legs located on the footpath shall be highlighted by placing traffic cones at the base of the sign leg(s) to provide clear visibility and minimise tripping risks.

Where works extend beyond daylight hours and adjacent lighting is insufficient to illuminate hazards to cyclists or pedestrians, appropriate temporary lighting shall be installed.

The worksite shall be kept tidy to reduce the risk to workers.

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7.1 Traffic Guidance Schemes

The Traffic Guidance Scheme (TGS) outlined in Appendix "F" and listed below have been provided for the following stages to demonstrate the type of controls that will be implemented throughout the term of the contract. All sign and device requirements are shown on each TGS. Should the use of additional (not shown on the TGS or listing of devices) or reduced number of devices be required due to unforeseen needs, they shall be recorded within the Daily Diary as a variation to the TMP, following prior approval.

Construction Stages	Traffic Management Stages	TGS Number and Version	Details
Stage 1	Site access	2311-TGS33552-001-01	Earthworks Heavy vehicles entering / exiting the site (in forward gear). Workers operating within the site and on the verge under the implementation of site access or works off road scheme.
	Works off road	2311-TGS33552-002-01	
Stage 2	Site access	2311-TGS33552-001-01	Material Deliveries Minor deliveries to access the site in forward gear. For major deliveries trucks may need to parked on the westbound lane. Site access or shuttle flow scheme shall be applied.
	Shuttle flow	2311-TGS33552-003-01	
Stage 3	Shuttle flow	2311-TGS33552-003-01	Crane lifts & Concrete Pours Construction vehicles obstructing the lanes adjacent to the worksite under the implementation of a shuttle flow scheme. Should such vehicles require more on the road due to the footprint of the vehicle, the road closure scheme shall be applied. Where it is required, a minimum 1-week notice shall be given to the road authority
	Detour overview	2311-TGS33552-004-01	
	Road closure treatment	2311-TGS33552-005-01	
	Detour overview	2311-TGS33552-006-01	
	Road closure treatment	2311-TGS33552-007-01	

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7.2 Sequence and Staging

The sequence of temporary traffic management installation, work activities and temporary traffic management removal are shown in the table below. Further detail of TGS installation & removal sequences and staging can be found in AGTTM Part 6, sections 6 & 8.

Step	Details
01	Installation of signage on side roads
02	Installation of advance warning signs
03	Installation of all intermediate advance warning and regulatory signs and devices required in advance of the taper or start of the work area
04	Installation of all delineating devices required to form a taper including flashing arrow signs or temporary hazard markers where required
05	Installation of delineation past the work area
06	Completion of works
07	Site checked & cleaned up
08	Removal of traffic control signs and devices in the reverse order of installation

7.3 Traffic Control Devices

7.3.1 Sign Requirements

All signs used shall conform to the designs and dimensions as shown in Australian Standard AS 1742.3, AGTTM and the CoP.

Prior to installation, all signs and devices shall be checked by the Site Supervisor or a suitably qualified person to ensure that they are in good condition and meet the following requirements:

- Mechanical condition - Items that are bent, broken or have surface damage shall not be used.
- Cleanliness - Items should be free from accumulated dirt, road grime or other contamination.
- Colour of fluorescent signs - Fluorescent signs whose colour has faded to a point where they have lost their daylight impact shall be replaced.
- Retroreflectivity. - Signs for night-time use whose retroreflectivity is degraded either from long use or surface damage and does not meet the requirements of AS 1906 shall be replaced.
- Battery operated devices - shall be checked for lamp operation and battery condition.

Where signs do not conform either to the requirements of AS 1742.3 or would fail to pass any of the above checks, they shall be replaced on notice.

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Signs and devices shall be positioned and erected in accordance with the locations and spacing's shown on the drawings. All signs shall be positioned and erected such that:

- They are properly displayed and securely mounted;
- They are within the driver's line of sight;
- They cannot be obscured from view;
- They do not obscure other devices from the driver's line of sight;
- They do not become a possible hazard to workers or vehicles; and
- They do not deflect traffic into an undesirable path.

Signs and devices that are erected before they are required shall be covered by a suitable opaque material. The cover shall be removed immediately prior to the commencement of work.

Where there is a potential for conflict of information between existing signage and temporary signage erected for the purpose of traffic control, the existing signs shall be covered. The material covering the sign shall ensure that the sign cannot be seen under all conditions i.e. day, night and wet weather. Care will be taken to ensure existing signs are not damaged by the covering material or by adhesive tape.

7.3.1.1 Securing Signs and Devices

Signs and devices shall be positioned and erected so that they are properly displayed and securely mounted. The mountings should also be stable in windy conditions and from the effects of moving traffic. Signs shall have additional sign support and be located with adequate lateral clearance from the travelled way.

Mitigation of the risk of signs falling over and/or not being properly displayed shall be managed by:

- Regular monitoring and maintenance in place to rectify fallen signs.
- Semi-permanent mounting of permanent posts (in accordance with manufacturers specifications)
- Sandbags (or similar) weighing 10-15 kg on all 4 legs.

The Project Manager should ensure appropriate resources and personnel are provided for the required method of installation and monitoring.

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7.3.2 Tolerances on Positioning of Signs and Devices

Where a specific distance for the longitudinal positioning of signs or devices with respect to other items or features is stated, for the spacing of delineating devices or for the length of tapers or markings, the following tolerances may be applied:

a) Positioning of signs, length of tapers or markings:

   i) Minimum, 10% less than the distances or lengths given.

   ii) Maximum, 25% more than the distances or lengths given.

b) Spacing of delineating devices:

   i) Maximum, 10% more than the spacing shown.

   ii) No minimum.

These tolerances shall not apply where a distance, length or spacing is already stated as a maximum, a minimum or a range.

7.3.3 Flashing Arrow Signs

Where flashing arrow signs are required to better delineate lane tapers, these signs will comprise a matrix of lamps or light emitting elements in the form of an arrow that is flashed in a cyclical manner to provide advance warning. The sign shall adhere to the requirements of the Code of Practice section 6.10 and AS1742.3. The Project Site Supervisor shall ensure that all equipment used meets the Australian Standard.

7.3.4 Delineation and Edge Clearance

Cones shall be used for delineation unless other treatment is specified in the Traffic Management Plan or on the Traffic Guidance Schemes. All cones shall be at least 700 millimetres in height and constructed from fluorescent orange or red material that is resilient to impact and will not damage vehicles when hit at low speed. Cones will be fitted with suitable white retro-reflective tape placed in accordance with AS 1742.3.

Cones shall be designed to be stable under reasonably expected wind conditions and air turbulence from passing traffic.

The base of the cones will be secured so that they are not dislodged by traffic. Cones will be inspected at intervals necessary to ensure any misalignment or displacement is identified and corrected prior to this causing disruption to traffic.

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7.4 Site Access for Work Vehicles

Construction and/or traffic management vehicles entering and exiting the traffic stream shall be mindful of the conditions that may affect the safety of these movements.

Access points shall be noted on the TGS and traffic management personnel, work personnel and suppliers notified. Traffic Controllers may assist work vehicles enter and exit the work area. All entry and exit movements will be in accordance with the Road Traffic Code and shall be undertaken in the following manner:

Vehicles shall:

- Decelerate slowly and signal their intention by indicator to leave the traffic stream;
- Activate the vehicle's rotating yellow lamp, where fitted, once a speed of 20 km/h. has been reached and at least 50m prior to the exit location.
- Switch on the vehicle hazard lights once the vehicle is stationary.
- Where risks associated with unassisted exit or entry to or from the traffic stream are high, Traffic Controllers should be used to assist entry and exit movements.

Vehicles fitted with rotating amber lamps shall have the vehicle's rotating lamp activated prior to entering the traffic stream and shall undertake the following:

- Switch off the vehicle hazard lights;
- Indicate intention to enter the traffic stream using direction indicators;
- Ensure there is a suitable gap from oncoming traffic to allow for a safe entry manoeuvre; and,
- Turn off the rotating yellow lamp(s) once a speed of 40 km/h is reached.

Entry and exit manoeuvres shall be avoided in close proximity to intersections. Work personnel shall not cross traffic streams on foot unless absolutely necessary.Construction or traffic management vehicles shall only be parked where indicated on the Traffic Guidance Scheme. Vehicles shall not obstruct paths and be parked an adequate distance from intersections or driveways to ensure clear sight lines remain for all road users.

7.5 Communicating TMP Requirements

Prior to commencement of works on site, the traffic controller crew leader shall directly liaise with the Project Manager to discuss procedures and practices associated with the works & TMP. All traffic controllers shall complete any applicable site inductions prior to commencement of works. Visitors to the site must also receive suitable instruction and wear the required personal protection equipment.

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31 McCook Street Forrestdale WA 6112 / PO Box 97 Maddington WA 6109

8.1 Traffic Incident Procedures

In the event of an incident or accident, whether or not involving traffic or road users, all work shall cease and traffic shall be stopped as necessary to avoid further deterioration of the situation. First Aid shall be administered as necessary, and medical assistance shall be called for if required.

Road plant within the work area that may impact on any services requiring access to a crash site will be cleared from the area quickly as necessary.

8.1.1 Serious Injury or Fatality

In the case of serious injury or fatality occurring within the traffic management site all work shall cease immediately, machinery and vehicles turned off and the area cleared of personnel as soon as possible. Traffic Controllers (and other personnel if necessary) shall be deployed immediately to ensure no traffic or other road users approach the area.

An Ambulance and Police shall be called on telephone number 000 where life threatening injuries are apparent.

All road workers and traffic management personnel shall preserve the scene leaving everything in situ, until direction is given by Police or WorkSafe.

A site-specific detour route and/or road closure point will be determined, signed and controlled by traffic management personnel and advised to Police, who will take charge of the site upon arrival. Detour routes will be determined so as to cater for all types of vehicles required to use them. An example of how to manage an emergency can be found in Section 5 of AGTTM Part 10.

All site personnel shall be briefed on control procedures covering incidents and crashes that result in serious injury or fatalities.

Should a serious incident occur onsite necessitating the need to close the road (from the extent of the works) traffic shall be detoured via Kintail Road, Moreau Mews, Canning Beach Road, Killilan Road and Strome Road.

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31 McCook Street Forrestdale WA 6112 / PO Box 97 Maddington WA 6109

8.1.2 Minor Incident or Vehicle Breakdown within Site

Broken down vehicles and vehicles involved in minor non-injury crashes shall be temporarily moved to the verge as soon as possible after details of the crash locations have been gathered and noted. Where necessary to maintain traffic flow, vehicles shall be temporarily moved into the closed section of the work area behind the cones, providing there is no risk to vehicles and their occupants or workers. Suitable recovery systems shall be used to facilitate prompt removal of broken down or crashed vehicles. Assistance shall be rendered to ensure the impact of the incident on the network is minimised.

Any traffic crash resulting in non-life-threatening injury shall be reported to the WA Police Service on 131 444.

Details of all incidents and accidents shall be reported to the Site Supervisor and Project Manager using the incident report form at Appendix "C" (or similar).

8.2 Emergency Services

Emergency services shall be notified of the proposed works nature, location, date and times as well as contact details for the site supervisor.

On-site traffic controllers will be equipped with mobile communications to advise and/or liaise with emergency services to ensure a prompt response should the need arise.

8.3 Dangerous Goods

Should any incident arise involving vehicles transporting dangerous goods, all work shall cease immediately, machinery and vehicles turned off and the area cleared of personnel as soon as possible. Traffic Controllers (and other personnel if necessary) shall be deployed immediately to ensure no traffic or other road users approach the area.

Emergency services shall be notified of the proposed works nature, location, date and times as well as contact details for the site supervisor. All site personnel shall be briefed on evacuation and control procedures.

8.4 Damage to Services

In the event that gas services are damaged, all work shall cease immediately, machinery and vehicles turned off and the area cleared of personnel as soon as possible. Traffic Controllers (and other personnel if necessary) shall be deployed immediately to ensure no traffic or other road users approach the area. The Police Service and relevant supply authority shall be called *immediately*. Damage to any other services shall be treated in a similar manner except machinery may remain operational and access may be maintained where it is safe to do so.

All site personnel shall be briefed on evacuation and control procedures.

P (08) 6244 1650 E info@qtm.net.au
31 McCook Street Forrestdale WA 6112 / PO Box 97 Maddington WA 6109

8.5 Failure of Services

8.5.1 Failure of Traffic Signals

In the event that traffic signal infrastructure near the worksite is damaged or fails to operate correctly, all work shall cease immediately and Main Roads WA Road Network Operation Centre (RNOC) shall be notified immediately (phone 138 111).

8.5.2 Failure of Street Lighting

In the event that street lighting is damaged and fails to operate or operates incorrectly, Traffic Controllers (and other personnel if necessary with appropriate temporary lighting) shall be deployed immediately if the lighting failure adversely affects road user safety to control traffic movements as required. Western Power shall be notified immediately.

8.5.3 Failure of Power

In the event that power infrastructure is damaged and poses a risk through live current, Traffic Controllers (and other personnel if necessary) shall be deployed immediately to secure the site and prevent entry to the area affected by live power. Western Power shall be notified immediately (phone 13 13 51).

8.6 Emergency Contacts

In the event of an emergency the following relevant authorities must be contacted and advised of the nature of works, location, type of emergency and contact details for the site supervisor.

Emergency Service	E-mail/Website	Phone (Emergency)
WA Police Service	State.Traffic.Intelligence.Planning.&.Co-ordination.Unit@police.wa.gov.au	000
St. John Ambulance	operations_soc@stjohnwa.com.au	000
DFES	www.dfes.wa.gov.au/contactus/pages/dfesoffices.aspx	000
Power	http://www.westernpower.com.au/customerservice/contactus/	13 13 51
Gas	enquiries@atcogas.com.au	13 13 52
Main Roads WA	enquiries@mainroads.wa.gov.au	138 111

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31 McCook Street Forrestdale WA 6112 / PO Box 97 Maddington WA 6109

9.1 Daily Inspections

Prior to works commencing the Site Supervisor shall undertake to communicate the Traffic Management Plan to all key stakeholders and affected parties.

On completion of setting out the traffic control measures, the site is to be monitored for a suitable period of time. If traffic speeds on the approaches to the work site are assessed as being above the temporary posted speed zone for the work site, the Site Supervisor is to initiate action to modify the approach signage and tapers in accordance with the requirements of AGTTM/CoP. All such actions are to be recorded in the Daily Diary. Should road users be observed to continue to travel in excess of the temporary posted speed limit, the police may be requested to attend the site to enforce the temporary posted speed limit.

The Advanced Worksite Traffic Management accredited supervisory person at the worksite may conditionally approve changes made to a complex traffic management plan subject to review and endorsement of the change by an RTM as soon as practicably possible.

The Traffic Management Contractor shall ensure that all temporary signs, devices and controls are maintained at all times. To achieve this, procedures in line with the requirements outlined in AGTTM Part 6 will be instituted. The monitoring program shall incorporate inspections:

- Before the start of work activities on site,
- During the hours of work, and
- Closing down at the end of the shift period.

A daily record of the inspections shall be kept indicating:

- When traffic controls where erected,
- When changes to controls occurred and why the changes were undertaken,
- Any significant incidents or observations associated with the traffic controls and their impacts on road users or adjacent properties.

The Traffic Management Contractor shall ensure that personnel are assigned to monitor the traffic control scheme. Inspections shall at least satisfy the following requirements.

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9.1.1 Before work starts

- Confirm TMP and TGS are suitable for the day's activities;
- Inspect all signs and devices to ensure they are undamaged, clean and comply with the requirements depicted on the TGS;
- All lamps should be checked and cleaned as necessary;
- After any adjustments have been made to the signs and devices, conduct a drive through inspection to confirm effectiveness.

9.1.2 During work hours

- Designate and ensure that appropriate work personnel drive through the site periodically to inspect all signs and devices and ensure they are undamaged and comply with the requirements depicted on the Traffic Guidance Schemes;
- Attend to minor problems as they occur;
- Conduct on the spot maintenance/repairs as required;
- When traffic controllers are on the job, ensure they remain in place at all times. Relieve controllers as necessary to ensure attentiveness is retained;
- During breaks or changes in work activities remove or cover any signs that do not apply (e.g. Prepare to Stop, Workers symbolic);
- Re-position signs and devices as required by work processes throughout the day and keep records of any changes.

9.1.3 Closing Down Each Day

- Conduct a pre-close down inspection, allowing time for any appropriate maintenance works;
- Remove any unnecessary signage (e.g. Prepare to Stop, Symbolic Workers);
- Replace any unnecessary signage with appropriate aftercare signage & delineation where required;
- Install barriers and lights where required;
- Drive through site and confirm all signs and devices are operating correctly with no misleading visual cues;
- Record details of inspection and any changes made to layout.

9.1.4 After Hours

After hours inspections are not required.

9.2 TMP Audits and Inspections

One compliance audit (using the 'Compliance Audit Checklist for Traffic Management for Works on Roads' – found on the MRWA website) may be conducted by a Roadworks Traffic Manager following setting up of the traffic management and prior to commencement of the works.

Audit findings, recommendations and actions taken shall be documented and copies forwarded to the Project Manager and the Road Authority's Representative.

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9.3 Records

A daily diary recording all inspections including variations to the approved TMP shall be kept using the Daily Diary.

The Traffic Supervisor is to record all inspections made on a daily basis and at those times prescribed by the Traffic Management Implementation Standards. Upon completion of each day the Traffic Supervisor shall provide copies of the daily diary record to the Project Manager.

The Traffic Supervisor is to record all variations made to the approved Traffic Management Plan on a daily basis and indicate clearly the nature of the variations and the reason for the variations. Upon completion of each day the Traffic Supervisor shall provide copies of the variation record to the Project Manager.

9.4 Public Feedback

Any feedback received from the public shall be reviewed by the project manager & field supervisor. The project manager shall take action to amend the traffic control measures as appropriate following consultation with Advance Worksite Traffic Management accredited personnel.

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10.1 TMP Review and Improvement

A review of the effectiveness of the TMP will be undertaken by the Project Manager and Traffic Management Contractor as part of the close-out procedure.

10.2 Variations

Where the TMP needs amending, e.g. due to a change in the scope of works or safety concerns, an adjusted TMP will be submitted for approval to the Road Authority.

Minor on-site variations, if required, shall generally only be made following approval and recorded in the daily diary. In emergency situations, on-site variations shall be made and recorded in the daily diary, and the Project Manager notified as soon as practicable.

There are no departures from the requirements of the Traffic Management for Works on Roads Code of Practice in this Traffic Management Plan.

10.3 Approvals, Authorisations and Permits

Before work commence it is necessary to seek approval from the following:

- City of Melville.

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The below notification of roadworks form shall be filled out and submitted 1 week prior to the implementation of each road closure scheme.

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NOTIFICATION OF ROADWORKS

Notifications are to be distributed at least one (1) week in advance of works. Where the traffic management is to interfere with traffic signal operation, prior approval is required 3wks in advance via enquiries@mainroads.wa.gov.au. Where the works will place restrictions on Oversize and/or Restricted Access Vehicles Main Roads HVS requires at least 2 weeks' notice.

TMP reference:	2311-TMP33552-001-01	Communication plan sent to Main Roads	Yes ☐	No ☐	N/A ☒
Anticipated start date:		Anticipated finish date:			
Daily work hours:	0700-1700	Is weekend work applicable?:	Yes ☒ (Sat)	No ☐	
Location of works (Road/Street, Suburb):	18 Tweeddale Road, Applecross				
Description of works:	Apartment Construction				
Description of traffic management arrangements:					
Posted Speed Limit:	50kph	Worksite speed limit:	N/A	After hours speed limit:	Existing

What is the anticipated effect on traffic flows?:	Minimal			Will there be restricted width for oversize escorted vehicles?:		Yes ☐	No ☒
Are lanes closed at signals?:	Yes ☐	No ☐	N/A ☒	Are signal loops or hardware affected?:	Yes ☐	No ☐	N/A ☒
Will signal phases need time changes?	Yes ☐	No ☐	N/A ☒	Will signals need to revert automatically?:	Yes ☐	No ☐	N/A ☒
Date of signal 'black out':				Times of signal 'black out':			
Will Police attendance be required?:	Yes ☐	No ☒		Dates for Police attendance:			
Are bridges located in area of works, (inc detours)?:	Yes ☐	No ☒		Will changes to traffic flows/composition occur on bridges?:		Yes ☐	No ☒
Are the works located within a School Zone?:	Yes ☐	No ☒		Is there a children's crossing near the works?:		Yes ☐	No ☒

Oversize and/or Restricted Access Vehicle Roadwork Restrictions

Location of works (include – road name, nearest intersection or marked location and SLKs)					
Road Name(s) Bridge number if applicable	Not applicable.				
Nearest Intersection / marked location / SLKs					
Additional information					
Will there be a width restriction for oversize vehicles exceeding 2.5m in width?	Yes ☐	No ☐	Will there be a height restriction for oversize vehicles exceeding 4.3m in height?	Yes ☐	No ☐
If yes, what width limit is to be imposed on oversize vehicles travelling through the site?			If yes, what is the minimum height of the structure causing the restriction?		
Will the width restrictions be in place outside the daily work hours?	Yes ☐	No ☐			
Can the width restrictions be removed if operators provide prior notice?	Yes ☐	No ☐	If the width restrictions are fixed in place, are operators able to have a wider oversize combination if a 1.2m ground clearance can be achieved? Do not complete if width restrictions can be removed.	Yes ☐	No ☐
If yes, how much notice will be required? (i.e. 24/48 hours' notice).			If yes, how much notice will be required? (i.e. 24/48 hours' notice).		

Please provide the name and phone number of the best contact for further details in relation to these works.	Name: Contact number (mobile):					
Please provide the name and phone number of the contact for prior notification of movements.	Name: Contact number (mobile):					
Will the work result in a road closure that will impact on Restricted Access Vehicles?	Yes ☐	No ☐	If yes, have discussions been held with Main Roads Heavy Vehicle Services (HVS) in regards to a suitably approved RAV network detour. If no, please contact HVS Route Assessments on 138 486 for assistance. Note: an assessment request for a proposed detour may take up to a week to be processed.	Yes ☐	No ☐	

Road Authority:	City of Melville				
Postal Address:	City of Melville, Locked Bag 1, Booragoon WA 6954				
Telephone:	9364 0666	Email:	melinfo@melville.wa.gov.au	Facsimile:	

Construction Contractor:	Pyramid Constructions				
Postal Address:	PO Box 368 Applecross WA 6953				
Telephone:	9340 9888	Email:	enquiries@pyramid.au	Facsimile:	
Contact:	Brad Stringer				
Telephone:	9340 9888	Email:		Mobile:	0427 192 827
After hours contact:	Same as above	Telephone:		Mobile:	

Traffic Management Contractor:	QTM Pty Ltd				
Postal Address:	PO Box 97 Maddington WA 6109				
Telephone:	(08) 6244 1650	Email:	info@qtm.net.au	Facsimile:	Nil
Contact:					
Telephone:	(08) 6244 1650	Email:	design@qtm.net.au	Mobile:	N/A
After hours contact:	QTM Field Supervisor	Telephone:	(08) 6244 1650	Mobile:	N/A

Distribution List	Email/Website
Main Roads Customer Information Centre	enquiries@mainroads.wa.gov.au
WA Police State Traffic Coordination	State.Traffic.Intelligence.Planning.&.Co-ordination.Unit.SMAIL@police.wa.gov.au
Fire & Emergency Services	dfes@dfes.wa.gov.au
Local Government	melinfo@melville.wa.gov.au

Not required.

P (08) 6244 1650 E info@qtm.net.au
31 McCook Street Forrestdale WA 6112 / PO Box 97 Maddington WA 6109

P (08) 6244 1650 E info@qtm.net.au
31 McCook Street Forrestdale WA 6112 / PO Box 97 Maddington WA 6109

Traffic Management Daily Diary

Location: _____ **Client:** _____ **Date:** _____

TMP No: _____ **TGS No:** _____ **Weather Conditions:** _____ **Diary Sheet:** _____ **of** _____

Start Time at Depot: _____ **Time Arrive Onsite:** _____ **Commencement of Site Setup:** _____ **Site Setup and Operational:** _____

Site Pulled Down at: _____ **Time Aftercare signs setup:** _____ **TGS No:** _____ **Time left site:** _____ **Finish time at Depot:** _____

☐ **Day Works** ☐ **Night Works** ☐ **Emergency Response** **Site Setup as per TGS** ☐ **Yes** ☐ **No (if not comment on next page)**

☐ **Attendance at Pre-Start Meeting** **Did an incident occur (if yes complete incident report form)** ☐ **Yes** ☐ **No**

I confirm that the above times of 'setup' and 'pulldown' of traffic management signs and devices are a true and correct record

Name (Site Supervisor): _____ Signed: _____

Drive Through Checks (Checks must be conducted at least every hour)

Time of check entered. Rule off and leave blank if the check does not apply to the site. Make a note of any issues on the next page.

Traffic Management Site Checks	1	2	3	4	5	6	7	8	9	10
Time										
Are signs upright, clean, visible, level & stable										
Are taper lengths correct										
Are speed limit signs correct and doubled up										
Are sign spacings correct										
Are cone/bollard alignments straight & spaced correctly										
Are devices operating correctly										
Are pedestrians, cyclists and other vulnerable road users catered for										
Are lane widths adequate										

Are vehicle queue lengths acceptable										
Is road surface condition adequate										
Is the work area clearly defined?										
Are the travel paths for both directions of traffic clearly defined? Is the work area appropriately separated from passing traffic? Check the transition at the interface of the modified alignment.										
Are centre lines/lane lines/edge lines clear and unambiguous?										
Are sight and stopping distances adequate at works, at intersections and driveways?										
Are traffic lanes clearly delineated?										
Are lighting for night-time controls operating correcting?										
Have other risks associated with traffic management at night been catered for, e.g. placement of lighting towers										

No. of TTM Vehicles Onsite: _____ **No. of TTM Personnel Onsite:** _____

TTM Personnel Names & Accreditations:

	Accreditation Details (tick)					**Time of Break from Stop/Slow** (Traffic controllers must have a 15 minute break every two hours of constant stop/slow operation)							
Name	TC	**BWTM**	**WTM**	**AWTM**	**OTMA**	On	Off	On	Off	On	Off	On	Off
						:	:	:	:	:	:	:	:
						:	:	:	:	:	:	:	:
						:	:	:	:	:	:	:	:
						:	:	:	:	:	:	:	:
						:	:	:	:	:	:	:	:
						:	:	:	:	:	:	:	:

Additional Comments _____

_____

_____

_____

_____

_____

_____

_____

_____

_____

I confirm that the details contained herein are true and correct

Name: (TTM Leader): _____ Signed: _____

Incident Notification Form

Date:		**Job No:**	
Client:		**Time:**	am pm
Location:			

Details of incident		
Reported to:		
Type	**Weather conditions**	**Light conditions**
Injury ☐ Property damage ☐ Motor vehicle accident ☐ Near miss ☐ **Police Attended** Yes / No	Clear ☐ Overcast ☐ Raining ☐ Fog/ smoke/dust ☐	Day light ☐ Night time ☐ Dawn ☐ Dusk ☐
Road surface Sealed ☐ unsealed ☐	**Road conditions** Wet ☐ Dry ☐	**Street lighting** On ☐ Off ☐

Incident description **(What did you see or hear?)**
Describe all relevant background information (if not mentioned above), sequence of events leading to the accident, what occurred that could have caused the accident, and detailed description of damage/injury.

All incidents must be reported to your Supervisor within 30 minutes of the incident occurring or becoming apparent.

Hazard Report Form

Date: _____ Job Number: _____

Reported By:

Name: _____ Position: _____

Reported To:

Name: _____ Position: _____

Site location: _____

☐ Workplace Hazard ☐ Unsafe Condition

Description of Hazard:

What needs to be done?

Signature: _____ Date: _____

Copy given to:

Supervisor: _____ (Signature)

QHSE Advisor: _____ (Signature)

Not available.

P (08) 6244 1650 E info@qtm.net.au

31 McCook Street Forrestdale WA 6112 / PO Box 97 Maddington WA 6109

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P (08) 6244 1650 E info@qtm.net.au

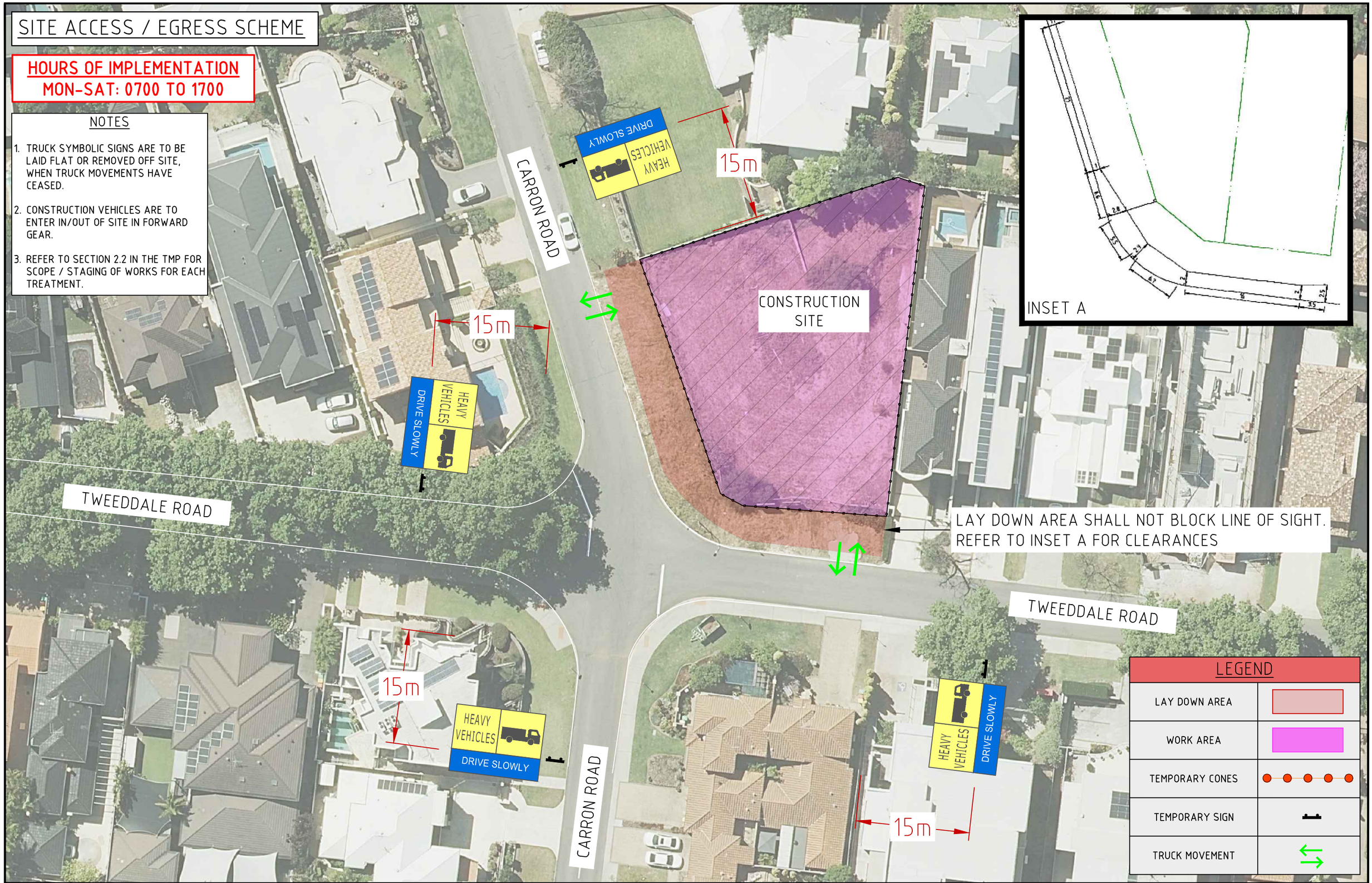
31 McCook Street Forrestdale WA 6112 / PO Box 97 Maddington WA 6109

SITE ACCESS / EGRESS SCHEME

HOURS OF IMPLEMENTATION
MON-SAT: 0700 TO 1700

NOTES

1. TRUCK SYMBOLIC SIGNS ARE TO BE LAID FLAT OR REMOVED OFF SITE, WHEN TRUCK MOVEMENTS HAVE CEASED.
2. CONSTRUCTION VEHICLES ARE TO ENTER IN/OUT OF SITE IN FORWARD GEAR.
3. REFER TO SECTION 2.2 IN THE TMP FOR SCOPE / STAGING OF WORKS FOR EACH TREATMENT.



LEGEND

LAY DOWN AREA	
WORK AREA	
TEMPORARY CONES	
TEMPORARY SIGN	
TRUCK MOVEMENT	

31 McCOOK STREET, FORRESTDALE
WESTERN AUSTRALIA 6112

ABN 27 631 848 578
PH: (08) 6244 1650 WEB: www.qtm.net.au

POSTAL ADDRESS: PO BOX 97 MADDINGTON 6109

	NAME	ACCREDITATION	DATE	SIGNATURES
DESIGNED	Michael Downs	KTS AWTM 23 46566 03	02/12/2023	
REVIEWED	Alan Stewart	KTS AWTM 22 43771 05	04/12/2023	
RTM	N/A			

TGS #	2311-TGS33552-001
REV. #	01
LOCATION	18 Tweedale Road, Applecross
ROAD AUTHORITY	City of Melville
SCALE	NOT TO SCALE

TRAFFIC MANAGEMENT PLAN PREPARED FOR:

DESC.	Apartment Construction
CLIENT	Pyramid Construction
AGENT	Brad Stringer
CONTACT #	0427 192 827

SIGN SPACING TOLERANCE CHART (m)

+25%	18	37	56	87	100	112	125
-	15	30	45	70	80	90	100
-10%	14	27	41	63	72	81	90
+25%	137	175	200	225	250	275	375
-	110	140	160	180	200	220	300
-10%	99	126	144	162	180	198	270

WORKS OFF ROAD SCHEME

HOURS OF IMPLEMENTATION
MON-SAT: 0700 TO 1700

NOTES

1. WORKERS ON FOOT MORE THAN 1.2m OF TRAFFIC.
2. TRAFFIC LANES TO REMAIN UNAFFECTED.
3. MAXIMUM DELINEATION SPACING IS 4m.
4. WHERE SIGN LEGS ARE POSITIONED ON OR ADJACENT FOOTPATHS TRAFFIC CONES SHALL PLACED AT THE BASE OF EACH LEG.
5. REFER TO SECTION 2.2 IN THE TMP FOR SCOPE / STAGING OF WORKS FOR EACH TREATMENT.

CARRON ROAD

TWEEDDALE ROAD

CONSTRUCTION SITE

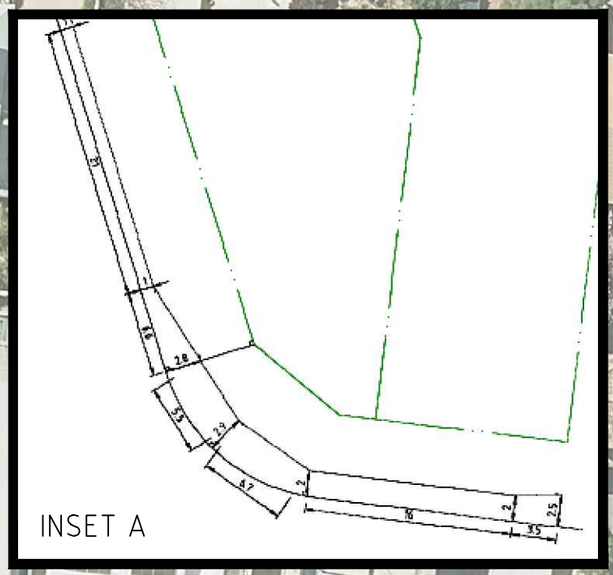
20m

15m

25m

LAY DOWN AREA SHALL NOT BLOCK LINE OF SIGHT.
REFER TO INSET A FOR CLEARANCES

INSET A



LEGEND

LAY DOWN AREA	
WORK AREA	
TEMPORARY CONES	
TEMPORARY SIGN	

31 McCOOK STREET, FORRESTDALE
WESTERN AUSTRALIA 6112

ABN 27 631 848 578
PH: (08) 6244 1650 WEB: www.qtm.net.au

POSTAL ADDRESS: PO BOX 97 MADDINGTON 6109

	NAME	ACCREDITATION	DATE	SIGNATURES
DESIGNED	Michael Downs	KTS AWTM 23 46566 03	02/12/2023	
REVIEWED	Alan Stewart	KTS AWTM 22 43771 05	04/12/2023	
RTM	N/A			

TGS #	2311-TGS33552-002
REV. #	01
LOCATION	18 Tweedale Road, Applecross
ROAD AUTHORITY	City of Melville
SCALE	NOT TO SCALE

TRAFFIC MANAGEMENT PLAN PREPARED FOR:

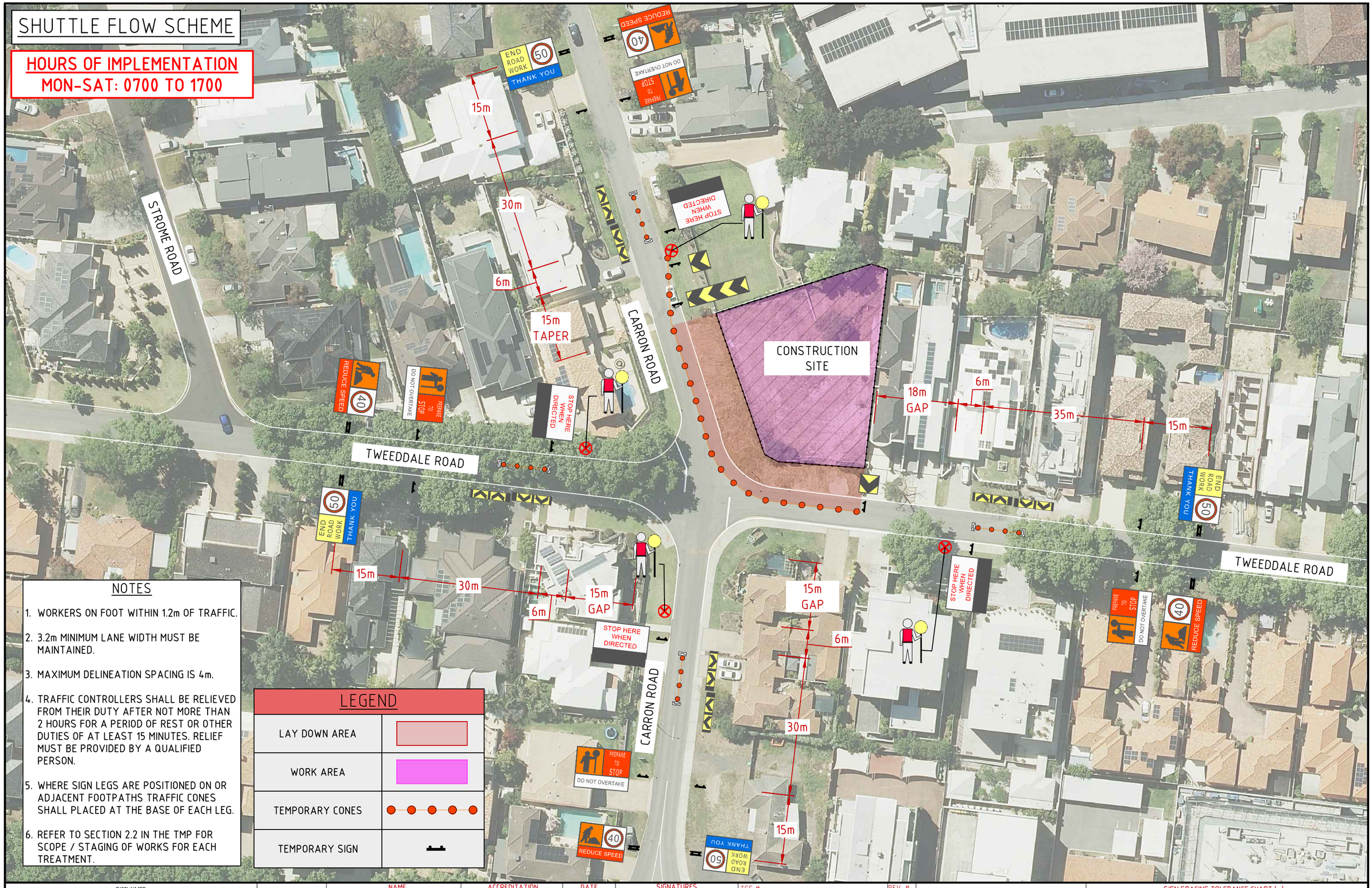
DESC.	Apartment Construction
CLIENT	Pyramid Construction
AGENT	Brad Stringer
CONTACT #	0427 192 827

SIGN SPACING TOLERANCE CHART (m)

+25%	18	37	56	87	100	112	125
-	15	30	45	70	80	90	100
-10%	14	27	41	63	72	81	90
+25%	137	175	200	225	250	275	375
-	110	140	160	180	200	220	300
-10%	99	126	144	162	180	198	270

SHUTTLE FLOW SCHEME

HOURS OF IMPLEMENTATION
MON-SAT: 0700 TO 1700



NOTES

1. WORKERS ON FOOT WITHIN 1.2m OF TRAFFIC.
2. 3.2m MINIMUM LANE WIDTH MUST BE MAINTAINED.
3. MAXIMUM DELINEATION SPACING IS 4m.
4. TRAFFIC CONTROLLERS SHALL BE RELIEVED FROM THEIR DUTY AFTER NOT MORE THAN 2 HOURS FOR A PERIOD OF REST OR OTHER DUTIES OF AT LEAST 15 MINUTES. RELIEF MUST BE PROVIDED BY A QUALIFIED PERSON.
5. WHERE SIGN LEGS ARE POSITIONED ON OR ADJACENT FOOTPATHS TRAFFIC CONES SHALL PLACED AT THE BASE OF EACH LEG.
6. REFER TO SECTION 2.2 IN THE TMP FOR SCOPE / STAGING OF WORKS FOR EACH TREATMENT.

LEGEND

LAY DOWN AREA	
WORK AREA	
TEMPORARY CONES	
TEMPORARY SIGN	

31 McCOOK STREET, FORRESTDALE
WESTERN AUSTRALIA 6112

ABN 27 631 848 578
PH: (08) 6244 1650 WEB: www.qtm.net.au

POSTAL ADDRESS: PO BOX 97 MADDINGTON 6109

N

	NAME	ACCREDITATION	DATE	SIGNATURES
DESIGNED	Michael Downs	KTS AWTM 23 46566 03	02/12/2023	
REVIEWED	Alan Stewart	KTS AWTM 22 43771 05	04/12/2023	
RTM	N/A			

TGS #	2311-TGS33552-003
REV. #	01
LOCATION	18 Tweedale Road, Applecross
ROAD AUTHORITY	City of Melville
SCALE	NOT TO SCALE

TRAFFIC MANAGEMENT PLAN PREPARED FOR:

DESC.	Apartment Construction
CLIENT	Pyramid Construction
AGENT	Brad Stringer
CONTACT #	0427 192 827

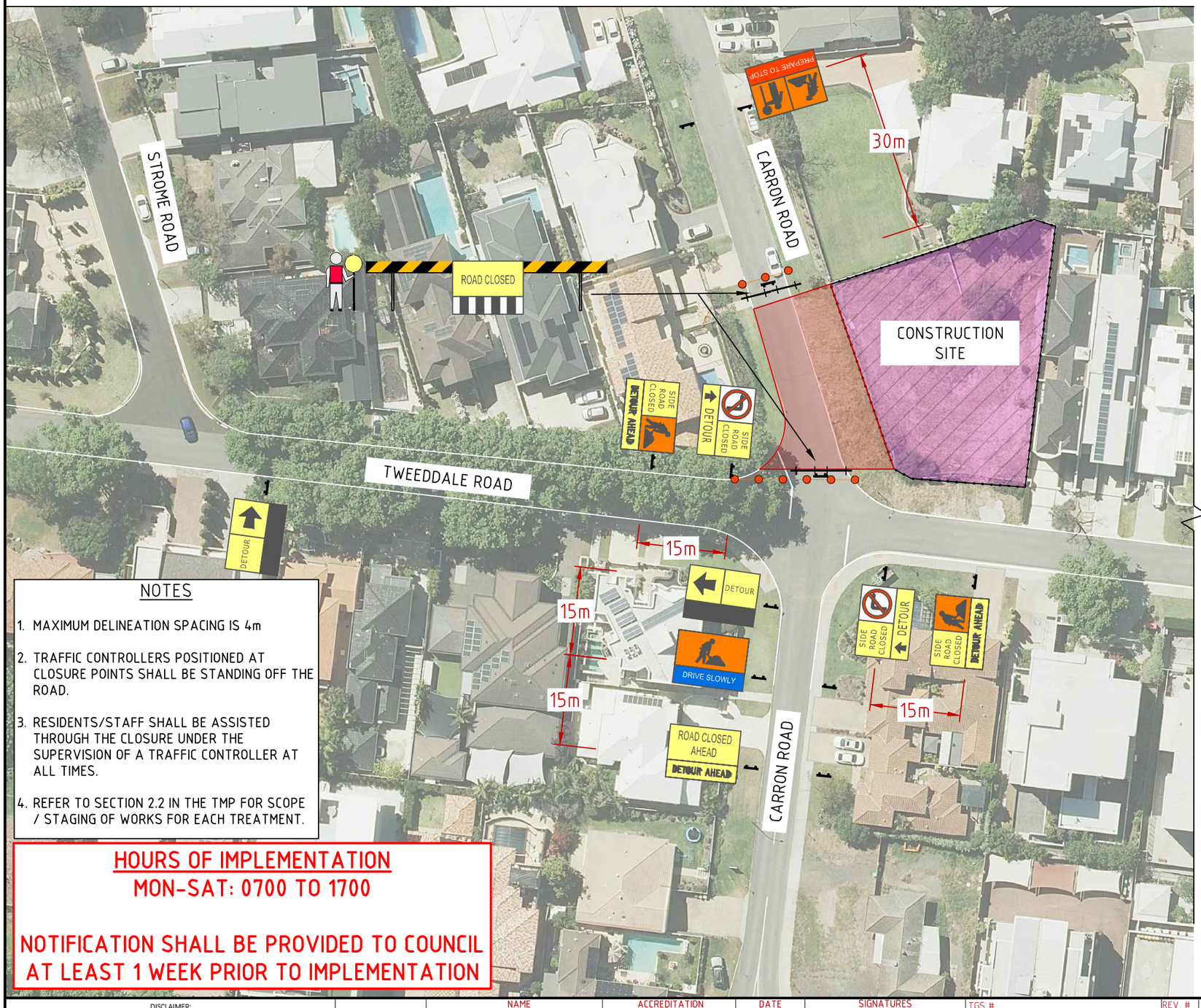
SIGN SPACING TOLERANCE CHART (m)

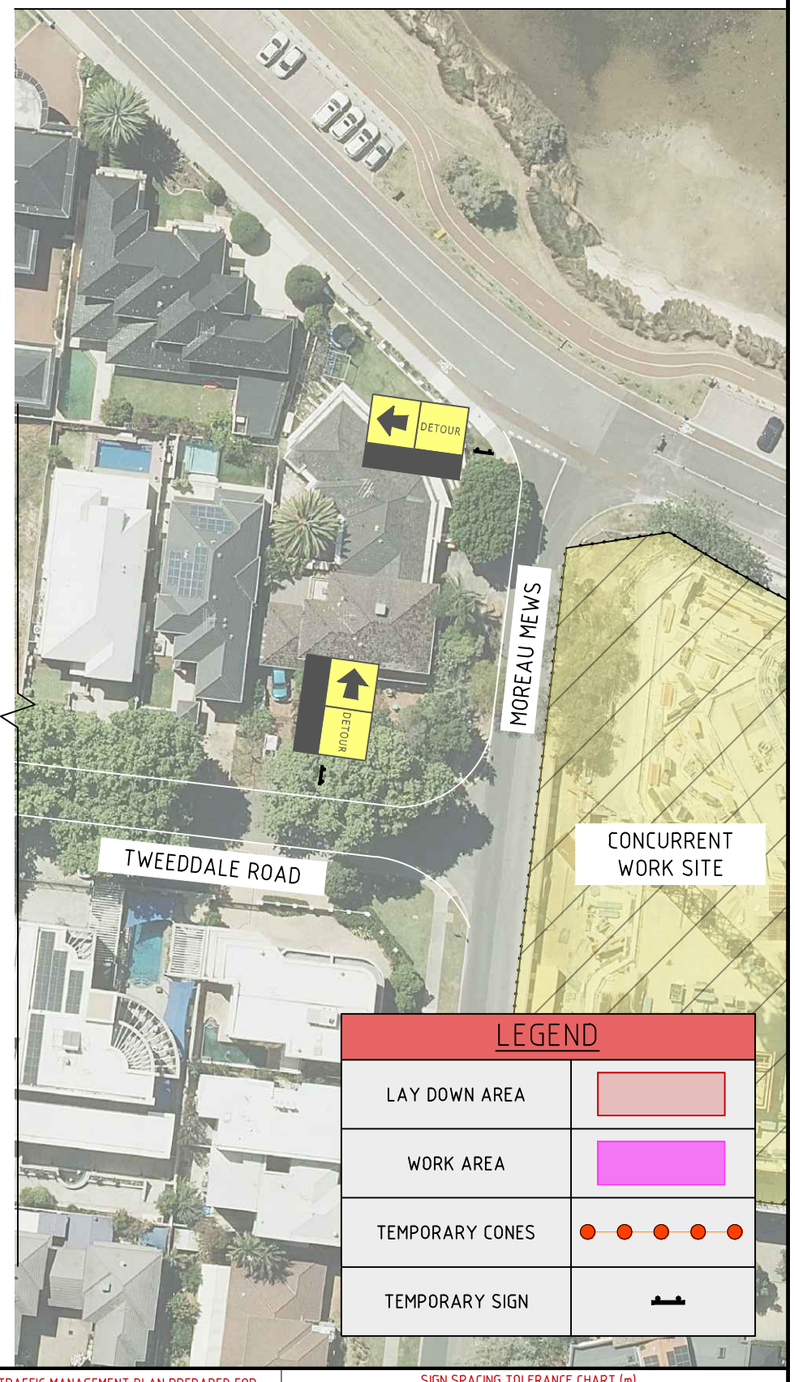
+25%	18	37	56	87	100	112	125
-	15	30	45	70	80	90	100
-10%	14	27	41	63	72	81	90
+25%	137	175	200	225	250	275	375
-	110	140	160	180	200	220	300
-10%	99	126	144	162	180	198	270

CARRON ROAD - ROAD CLOSURE

MATCH LINE A - TGS 005

MATCH LINE B - TGS 005





NOTES

1. MAXIMUM DELINEATION SPACING IS 4m
2. TRAFFIC CONTROLLERS POSITIONED AT CLOSURE POINTS SHALL BE STANDING OFF THE ROAD.
3. RESIDENTS/STAFF SHALL BE ASSISTED THROUGH THE CLOSURE UNDER THE SUPERVISION OF A TRAFFIC CONTROLLER AT ALL TIMES.
4. REFER TO SECTION 2.2 IN THE TMP FOR SCOPE / STAGING OF WORKS FOR EACH TREATMENT.

HOURS OF IMPLEMENTATION

MON-SAT: 0700 TO 1700

NOTIFICATION SHALL BE PROVIDED TO COUNCIL AT LEAST 1 WEEK PRIOR TO IMPLEMENTATION

LEGEND

LAY DOWN AREA	
WORK AREA	
TEMPORARY CONES	
TEMPORARY SIGN	

31 McCOOK STREET, FORRESTDALE
WESTERN AUSTRALIA 6112

ABN 27 631 848 578
PH: (08) 6244 1650 WEB: www.qtm.net.au
POSTAL ADDRESS: PO BOX 97 MADDINGTON 6109

N

	NAME	ACCREDITATION	DATE	SIGNATURES
DESIGNED	Michael Downs	KTS AWTM 23 46566 03	02/12/2023	
REVIEWED	Alan Stewart	KTS AWTM 22 43771 05	04/12/2023	
RTM	N/A			

TGS #	2311-TGS33552-004
REV. #	01
LOCATION	18 Tweedale Road, Applecross
ROAD AUTHORITY	City of Melville
SCALE	NOT TO SCALE

TRAFFIC MANAGEMENT PLAN PREPARED FOR:

DESC.	Apartment Construction
CLIENT	Pyramid Construction
AGENT	Brad Stringer
CONTACT #	0427 192 827

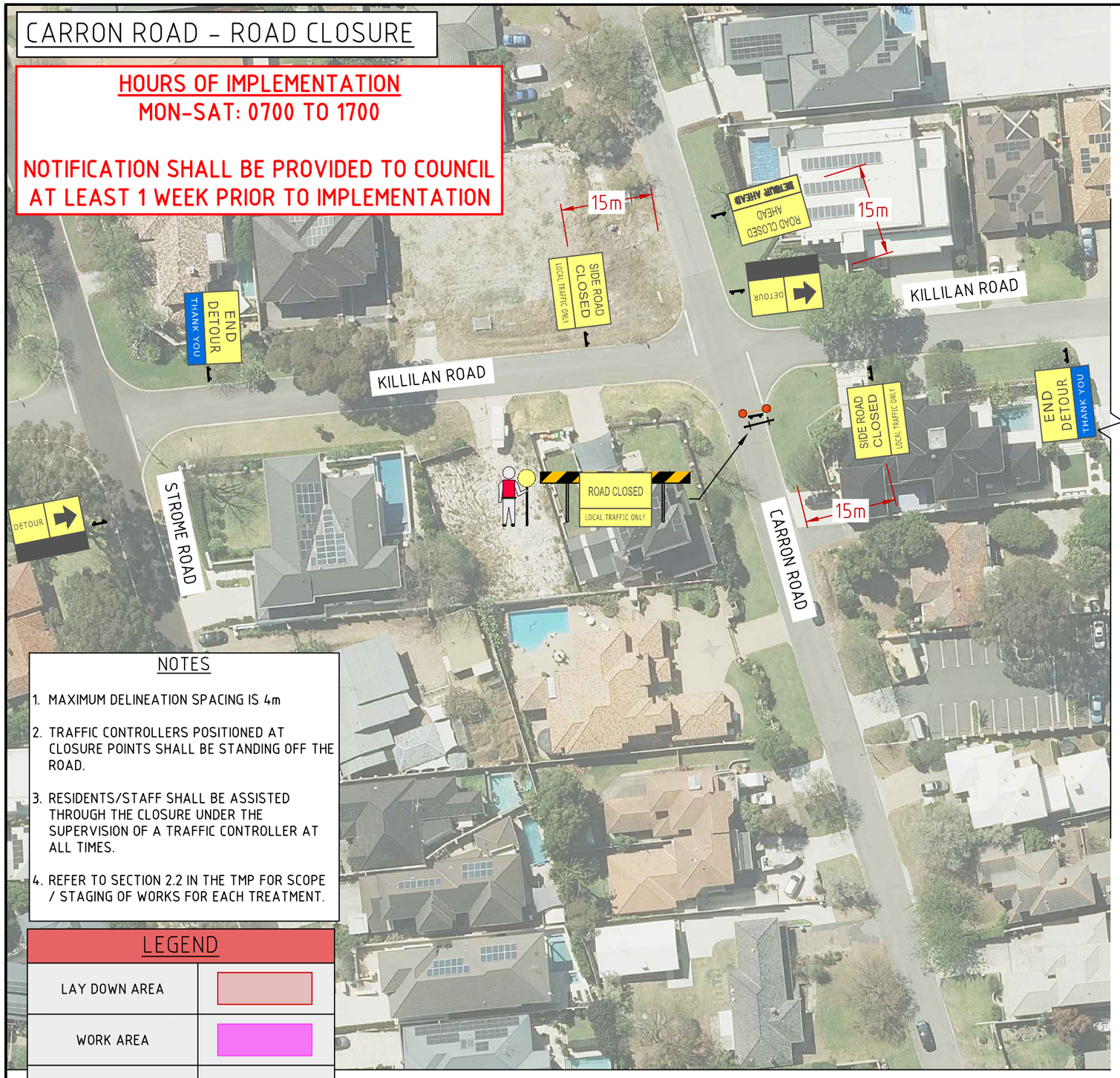
SIGN SPACING TOLERANCE CHART (m)

+25%	18	37	56	87	100	112	125
-	15	30	45	70	80	90	100
-10%	14	27	41	63	72	81	90
+25%	137	175	200	225	250	275	375
-	110	140	160	180	200	220	300
-10%	99	126	144	162	180	198	270

CARRON ROAD – ROAD CLOSURE

HOURS OF IMPLEMENTATION
MON-SAT: 0700 TO 1700

NOTIFICATION SHALL BE PROVIDED TO COUNCIL AT LEAST 1 WEEK PRIOR TO IMPLEMENTATION



MATCH LINE A – TGS 004

MATCH LINE B – TGS 004

NOTES

1. MAXIMUM DELINEATION SPACING IS 4m
2. TRAFFIC CONTROLLERS POSITIONED AT CLOSURE POINTS SHALL BE STANDING OFF THE ROAD.
3. RESIDENTS/STAFF SHALL BE ASSISTED THROUGH THE CLOSURE UNDER THE SUPERVISION OF A TRAFFIC CONTROLLER AT ALL TIMES.
4. REFER TO SECTION 2.2 IN THE TMP FOR SCOPE / STAGING OF WORKS FOR EACH TREATMENT.

LEGEND

LAY DOWN AREA	
WORK AREA	
TEMPORARY CONES	
TEMPORARY SIGN	

31 McCOOK STREET, FORRESTDALE
WESTERN AUSTRALIA 6112
ABN 27 631 848 578
PH: (08) 6244 1650 WEB: www.qtm.net.au
POSTAL ADDRESS: PO BOX 97 MADDINGTON 6109

	NAME	ACCREDITATION	DATE	SIGNATURES
DESIGNED	Michael Downs	KTS AWTM 23 46566 03	02/12/2023	
REVIEWED	Alan Stewart	KTS AWTM 22 43771 05	04/12/2023	
RTM	N/A			

TGS #	2311-TGS33552-005
REV. #	01
LOCATION	18 Tweedale Road, Applecross
ROAD AUTHORITY	City of Melville
SCALE	NOT TO SCALE

TRAFFIC MANAGEMENT PLAN PREPARED FOR:

DESC.	Apartment Construction
CLIENT	Pyramid Construction
AGENT	Brad Stringer
CONTACT #	0427 192 827

SIGN SPACING TOLERANCE CHART (m)

+25%	18	37	56	87	100	112	125
-	15	30	45	70	80	90	100
-10%	14	27	41	63	72	81	90
+25%	137	175	200	225	250	275	375
-	110	140	160	180	200	220	300
-10%	99	126	144	162	180	198	270

MATCH LINE C - TGS 007

MATCH LINE C - TGS 007

TWEEDDALE ROAD - ROAD CLOSURE

HOURS OF IMPLEMENTATION
MON-SAT: 0700 TO 1700

NOTIFICATION SHALL BE PROVIDED TO COUNCIL AT LEAST 1 WEEK PRIOR TO IMPLEMENTATION

NOTES

1. MAXIMUM DELINEATION SPACING IS 4m
2. TRAFFIC CONTROLLERS POSITIONED AT CLOSURE POINTS SHALL BE STANDING OFF THE ROAD.
3. RESIDENTS/STAFF SHALL BE ASSISTED THROUGH THE CLOSURE UNDER THE SUPERVISION OF A TRAFFIC CONTROLLER AT ALL TIMES.
4. REFER TO SECTION 2.2 IN THE TMP FOR SCOPE / STAGING OF WORKS FOR EACH TREATMENT.

LEGEND

LAY DOWN AREA	
WORK AREA	
TEMPORARY CONES	
TEMPORARY SIGN	

TWEEDDALE ROAD
CARRON ROAD
KINTAIL ROAD
MOREAU MEWS
CONSTRUCTION SITE
CONCURRENT WORK SITE
EXISTING SITE FENCING OBSTRUCTING SIGN PLACEMENT
15m
30m
DETOUR AHEAD
ROAD CLOSED AHEAD
DRIVE SLOWLY
DETOUR
SIDE ROAD CLOSED
PEDESTRIANS WATCH YOUR STEP
ROAD CLOSED
LOCAL TRAFFIC ONLY
PREPARE TO STOP
END DETOUR
THANK YOU

31 McCOOK STREET, FORRESTDALE
WESTERN AUSTRALIA 6112
ABN 27 631 848 578
PH: (08) 6244 1650 WEB: www.qtm.net.au
POSTAL ADDRESS: PO BOX 97 MADDINGTON 6109

	NAME	ACCREDITATION	DATE	SIGNATURES
DESIGNED	Michael Downs	KTS AWTM 23 46566 03	02/12/2023	
REVIEWED	Alan Stewart	KTS AWTM 22 43771 05	04/12/2023	
RTM	N/A			

TGS #	2311-TGS33552-006
REV. #	01
LOCATION	18 Tweedale Road, Applecross
ROAD AUTHORITY	City of Melville
SCALE	NOT TO SCALE

TRAFFIC MANAGEMENT PLAN PREPARED FOR:

DESC.	Apartment Construction
CLIENT	Pyramid Construction
AGENT	Brad Stringer
CONTACT #	0427 192 827

SIGN SPACING TOLERANCE CHART (m)

+25%	18	37	56	87	100	112	125
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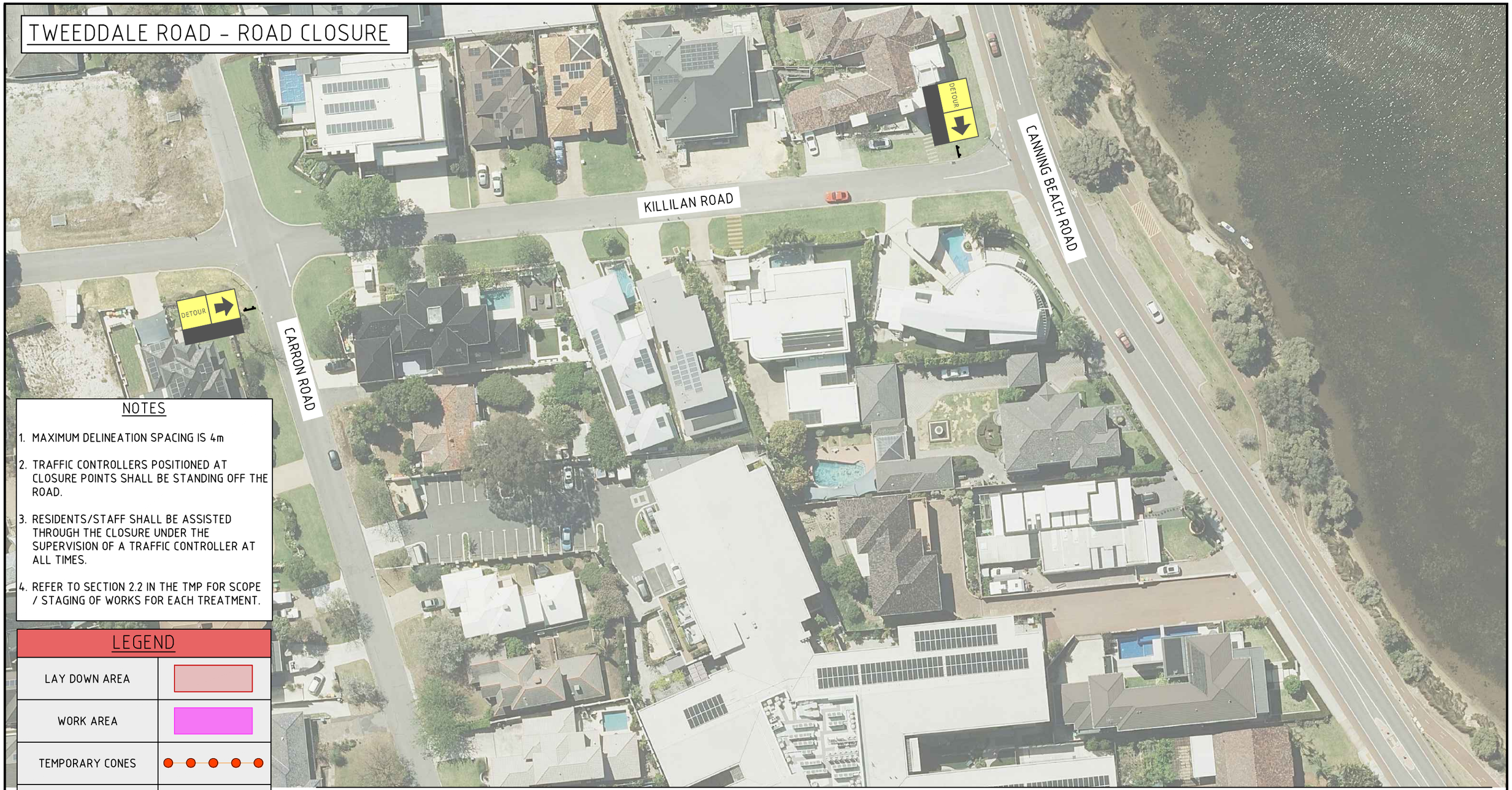
-10%	14	27	41	63	72	81	90
+25%	137	175	200	225	250	275	375
-	110	140	160	180	200	220	300
-10%	99	126	144	162	180	198	270

TWEEDDALE ROAD – ROAD CLOSURE



NOTES

1. MAXIMUM DELINEATION SPACING IS 4m
2. TRAFFIC CONTROLLERS POSITIONED AT CLOSURE POINTS SHALL BE STANDING OFF THE ROAD.
3. RESIDENTS/STAFF SHALL BE ASSISTED THROUGH THE CLOSURE UNDER THE SUPERVISION OF A TRAFFIC CONTROLLER AT ALL TIMES.
4. REFER TO SECTION 2.2 IN THE TMP FOR SCOPE / STAGING OF WORKS FOR EACH TREATMENT.

LEGEND

LAY DOWN AREA	
WORK AREA	
TEMPORARY CONES	
TEMPORARY SIGN	

HOURS OF IMPLEMENTATION

MON-SAT: 0700 TO 1700

NOTIFICATION SHALL BE PROVIDED TO COUNCIL AT LEAST 1 WEEK PRIOR TO IMPLEMENTATION

MATCH LINE C – TGS 006

31 McCOOK STREET, FORRESTDALE
WESTERN AUSTRALIA 6112
ABN 27 631 848 578
PH: (08) 6244 1650 WEB: www.qtm.net.au
POSTAL ADDRESS: PO BOX 97 MADDINGTON 6109

N

	NAME	ACCREDITATION	DATE	SIGNATURES
DESIGNED	Michael Downs	KTS AWTM 23 46566 03	02/12/2023	
REVIEWED	Alan Stewart	KTS AWTM 22 43771 05	04/12/2023	
RTM	N/A			

TGS #	2311-TGS33552-007
REV. #	01
LOCATION	18 Tweedale Road, Applecross
ROAD AUTHORITY	City of Melville
SCALE	NOT TO SCALE

TRAFFIC MANAGEMENT PLAN PREPARED FOR:

DESC.	Apartment Construction
CLIENT	Pyramid Construction
AGENT	Brad Stringer
CONTACT #	0427 192 827

SIGN SPACING TOLERANCE CHART (m)

+25%	18	37	56	87	100	112	125
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-10%	14	27	41	63	72	81	90
+25%	137	175	200	225	250	275	375
-	110	140	160	180	200	220	300
-10%	99	126	144	162	180	198	270

CARRON ROAD – ROAD CLOSURE – PUBLIC NOTICE
VMBS ONSITE 1 WEEK PRIOR

VMB DISPLAY MESSAGE

CARRON ROAD CLOSED	FROM 7AM DD/MM

TWEEDDALE ROAD – ROAD CLOSURE – PUBLIC NOTICE
VMBS ONSITE 1 WEEK PRIOR

VMB DISPLAY MESSAGE

TWEEDDALE ROAD CLOSED	FROM 7AM DD/MM

QTM

31 McCOOK STREET, FORRESTDALE
WESTERN AUSTRALIA 6112

ABN 27 631 848 578
PH: (08) 6244 1650 WEB: www.qtm.net.au
POSTAL ADDRESS: PO BOX 97 MADDINGTON 6109

N

	NAME	ACCREDITATION	DATE	SIGNATURES
DESIGNED	Michael Downs	KTS AWTM 23 46566 03	02/12/2023	
REVIEWED	Alan Stewart	KTS AWTM 22 43771 05	04/12/2023	
RTM	N/A			

TGS #	2311-TGS33552-008
REV. #	00
LOCATION	18 Tweedale Road, Applecross
ROAD AUTHORITY	City of Melville
SCALE	NOT TO SCALE

TRAFFIC MANAGEMENT PLAN PREPARED FOR:

DESC.	Apartment Construction
CLIENT	Pyramid Construction
AGENT	Brad Stringer
CONTACT #	0427 192 827

SIGN SPACING TOLERANCE CHART (m)

+25%	18	37	56	87	100	112	125
-	15	30	45	70	80	90	100
-10%	14	27	41	63	72	81	90
+25%	137	175	200	225	250	275	375
-	110	140	160	180	200	220	300
-10%	99	126	144	162	180	198	270

PUBLIC COMPLAINT ACTION FORM

PYRAMID

PUBLIC COMPLAINT ACTION FORM			
Date:		Job Number:	
Prepared by:		Title:	
COMPLAINT DETAILS:			
Description:			
Action:			
MATTER CLOSED OUT:			
Action complete:		Yes ☐ No☐	
Complainant satisfied:		Yes ☐ No☐	
Signed:		Date:	

PYRAMID

Date

Road Closure of XXXX Road, Applecross

To Whom it May Concern,

Please be advised that XXXX activities are planned for date/s of XXXX. These activities require a full/ half road closure for XXXX dates between the hours of XXXX. Please see attached Traffic Management Plan Map showing the affected roads/ routes.
We will have a traffic management team in place to ensure that the the road closure impacts are as minimal as possible.
If you have any queries regarding this road closure or the traffic management activities, please contact Site Manager XXXX on phone number XXXX.

Best Regards,
Pyramid Constructions (WA) Pty. Ltd.

4 Document Revisions

Rev	Date	Description	Prepared	Checked	Approved
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]		

Initial preparation of Project specific CMP and subsequent review/amendment

Status	Date:	Description	Prepared By:	Review By:	Approved By:
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]