Attachment B1

Construction Management Plan

Client: WATERFORD PBSA PTY LTD

Super Intendent: EXAL

Project: WATERFORD PBSA

Project Number: WPBSA

Contractor: FIRM Construction

REVISION STATUS

Rev	Date	Details	Prepared By	Approved By
			Name	Name
0	20 Nov 2021	Initial Draft	J. Trehearn	M. O'Gorman
1	25 Mar 2022	Issued for Building Permit	J. Trehearn	M. O'Gorman
2				
3				
4				

Note: Changes to this document electronically or in any other form is not permitted without the specific authorization of the Project Manager.

Disclaimer: The information presented in this Project Specific Management Plan has been compiled from sources believed reliable. However, it cannot be assumed that all acceptable measures are contained within the Plan nor that other additional measures may not be required by the Client under particular, specific or exceptional circumstances and that statutory procedures and rules may apply and take precedence over this material.

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1.0 Introduction

This Construction Management Plan (CMP) is a project specific plan developed to outline FIRM Construction's Construction Management processes. The implementation of this Construction Management Plan allows FIRM Construction to effectively manage quality aspects of a project from the planning stage through to practical completion and defects liability period. A copy of the Construction Management Plan is maintained on site for access by any authority or site worker and is referenced during the induction process.

This Construction Management Plan details the construction requirements for the project and is reviewed, approved, implemented, and maintained by FIRM Construction.

This Construction Management Plan is monitored, reviewed, and updated at least every 12 months or when a change in conditions or requirements occurs.

2.0 Project Description

Project Title: Waterford PBSA

Project No: 2021.04 Waterford PBSA

3.0 Project Location

The project is located over 9 existing properties bordered by 3 roads, McKay St, Keany Place and Garvey St. Numbers 1-7 (Lots 21-24) McKay Street, Numbers 1-7 (Lots 18-20 & 29) Keany Place and Number 8 (Lot 28) Garvey Street. Lot 1 McKay Street will be acquired at a later stage of the project.

For ease of reference, until a new Certificate of Title is issued, the Project site address will be referred to as 7 McKay Street, Waterford.

Project site: 7 McKay Street, Waterford

4.0 Project Details

SCOPE OF WORK	The general work scope for this project includes three Separable Portions (SP) for construction of 3 towers • SP1 – Forward Works • SP2 – Building 1 and Building 3 • SP3 – Building 2
WORKING HOURS	Monday - Saturday: 7am-5pm
CONSTRUCTION PROGRAM	Start: 26 May 2022 Finish: (To be programmed), approximately 32 months from May 2022
ESTIMATED PEAK MANNING	150 Person
UNSAFE AREAS OR CONDITIONS	Site to be fully enclosed. Full project CRAW to be completed prior to project commencement and reviewed 6 weeks into construction program to review any unforeseen risks associated with the works
ENVIRONMENTALLY SENSITIVE AREAS	Trees labelled as “to be retained”, will be appropriately protected as per plan

5.0 Project Scope

The general work scope for this project includes three Separable Portions (SP) for construction of 3 towers

- SP1 – Forward Works
- SP2 – Building 1 and Building 3
- SP3 – Building 2

The project scope covers a large portion of civil works including the installation of contiguous piles with anchors. Building 1 and 2 share a common basement carpark and Building 3 is a standalone tower.

External works include a central walkway between building 1 and 2 over the basement carpark which will have architectural elements contributing to the public art contribution. Other works such as ramps, walls, stairs, and hard and soft landscaping will also be undertaken.

The site contains mature trees, which shall be protected by the establishment of tree protection zones, and regularly checked by an arborist during the project lifecycle.

6.0 Site Management

A Construction Site Plan showing the extent of the site, site facilities and surrounding areas is shown below. Also shown is a traffic flow diagram.

The provided site plan identifies the following:

The extent of the site and surrounding area.

- Laydown areas (Red hatch area)
- Parking areas (Red hatch area)
- Site entry and exit
- Office facilities
- First aid post
- Location of fire extinguishers
- Site fencing with site signage
- Muster points

The Site Evacuation Plan and Site Evacuation Procedure are displayed at relevant locations around the site for reference during an emergency evacuation.

Construction Site Plan

7.0 Delivery and storage of materials

A traffic flow Site Plan has been created to illustrate the flow of traffic including deliveries etc. to the project site. A traffic management consultant has been engaged and will provide a more comprehensive report on traffic management. In the meantime, the following plan will be implemented.

- All construction traffic will enter off Manning Road – onto Conlon Street, then Garvey Street and then Keany Place
- Site traffic will enter site from Keany Street and Exit onto Garvey Street
- STOP/SLOW will be in place for all HV traffic entering/exiting site
- Traffic flow designed to minimize impact on surrounding streets with offloading and onloading of material and waste to be completed within the site boundary
- Site speed limit at 10km/hr.

Traffic Flow Plan

Delivery vehicles will be required to use the designated site access to be advised prior to arrival. Offloading of equipment and materials will occur in designated areas as directed by the FIRM Site Manager.

Materials will only be stored in dedicated laydown areas as advised by the FIRM Site Manager.

Public realm infrastructure such as kerbing, pavements, light poles etc will be protected or replaced/reinstated to original condition (as per dilapidation reports) on practicable completion.

8.0 Dilapidation Survey

Prior to project start up the Project Manager

- Engages a registered contractor to conduct a Dilapidation Survey at agreed locations
- Establishes and agrees on the buildings to be surveyed with the registered contractor

The Project Manager retain records of the Dilapidation Surveys for future reference

9.0 Vibration, Dust, Wind and Erosion

Management of vibration, dust, wind and erosion has been detailed in the accompanying Health, Safety and Environmental Management plan (HSEMP).

10.0 Construction Noise

Management of construction noise and other site generated noise has been detailed in the accompanying Health, Safety and Environmental Management plan (HSEMP).

11.0 Dewatering and Stormwater

According to the Geotechnical Report and investigation, there is no requirement for dewatering of this site.

12.0 Site Fencing & Signage

Cyclone Fencing, as in Chain link mesh fencing panels with concrete set posts will be installed around the perimeter of the site. This fencing is more durable and practicable for security and for the longer construction period of approximately 32 months. No hoardings or gantries for pedestrian access will be required.

Signage other than construction safety signage (i.e., Marketing signage) will be received and approved by the City of South Perth prior to installation and as per the City's guidelines and approval.

13.0 Public Communication and Complaints

Prior to the project commencing FIRM Construction will provide a letter to all surrounding properties, outlining the project scope and how if needed to gain contact with FIRM Construction should there be any issues or complaints about the works being undertaken.

FIRM Construction point of contact for all complaints is the HSEQ Manager, who can be contacted via safety@firmconstruction.com.au.

All complaints received will be kept in a 'complaint register'. Upon receiving the complaint, the following information shall be recorded.

- Name and contact details of complainant
- Date and time of complaint
- Details of complaint and effect on property

Should a complaint be received by client or client's representative, FIRM Construction requests that details of this complaint are sent to them to ensure appropriate control measures can be put in place to prevent a reoccurrence.

A copy of each new complaint will be sent to the client or their representative each time one is received.

FIRM Construction will investigate the complaint through discussion with the complainant and agree a course of action. FIRM Construction will record the course of action taken in the complaint and will in turn inform the complainant.

FIRM Construction will confirm with the client or their representative that the matter has been dealt with and amicably or otherwise resolved.
FIRM Construction shall also provide copies of any correspondence or documents.

14.0 Mobilisation to Site

Prior to project start up the Project Manager conducts and records a Project Handover Meeting with the project team to review the project documents received from the Estimator and address the items on the Mobilisation Checklist by planning and allocating responsibilities.

The Project Manager ensures that mobilisation to site is conducted in accordance with the Mobilisation Checklist and;

- Site documents are prepared and displayed in accordance with the Site Document Requirement Register
- The project Construction Management Plan is prepared printed and authorised'
- The consultant design risk registers are reviewed for safety in design
- The CRAW is scheduled, conducted and recorded

15.0 Procurement

The Contracts Administrator in accordance with System Procedure SP 04

- Provides subcontractors and suppliers with the relevant documentation, refer Subcontractor HSE Pack
- Assesses and selects subcontractors and suppliers
- Prepares and authorises Purchase Orders and Term & Conditions and scope of works
- Monitor progress and variations
- Verifies product received and work completed and authorises payment of relevant invoices

The Site Supervisor shall maintain an Asset Register of all equipment purchased for the site or procured from another site.

16.0 External Service Providers

The Contracts Administrator determines what external services are required and submits the relevant applications;

- Electricity
- Gas
- Water
- Sewerage
- Telecommunications
- Data provider

The Contracts Administrator selects the appropriate subcontractor to connect the relevant services in accordance with System Procedure SP 04.

The Contracts Administrator files all the relevant documentation in accordance with the Project Filing Register and Legal and other Requirements Register.

17.0 Construction Methodology

The Project Manager and Site Supervisor ensure that construction is implemented in accordance with the Construction Program.

The Project Manager and Site Supervisor prepare Inspection and Test Plans (ITPs), ITP Register and Checklists for each stage of construction identified below.

The Site Supervisor coordinates monitors and inspects the construction activities below with reference to the Construction Program, subcontractor's scope of works, Inspection and Test Plans (ITPs), ITP Register and relevant Checklists and records the result.

The Project Manager and Site Supervisor shall where required request information from the relevant consultants using the Request for Information and track responses using the RFI Register.

Where a change to the scope of work or noncompliance to contractual requirements is identifies the Site Supervisor issues a Site Instruction to the relevant Subcontractor.

Prior to Practical Completion the Site Supervisor conducts an inspection to identify any outstanding defect items and records the defects and actions required on the Defects List and issues to the relevant subcontractors for action.

The Project Manager will prepare a return schedule of all ITPs/Hold Points/Samples from the Specification issued to the Superintendents Representative for review and distribution to the consultant.

17.1 Stages of Development

This project will be split into 2 stages to accommodate the planning conditions of a substantial start to works by the end of 2022. Also, one of the existing properties on the project site, will remain occupied by the current owners until a relocation is possible. The property at 1 McKay Street, will remain intact during the forward works program. Acquisition and demolition of 1 McKay Street is forecast to begin in approximately February 2023.

Stages

- Forward works – May 2022 to Dec 2023
- Main Construction – Jan 2023 – Feb 2025*

*Construction Program to be confirmed

18.0 Construction Management Plan Context

FIRM Construction is certified for ISO 14001 Environment, ISO 9001 Quality, AS 45001 Health and Safety and is accredited for Federal Health and Safety. FIRM operates an integrated HSEQ system. This includes FIRM Construction Policies, Procedures, Management Plans, Safe Work Procedures, SWMS, operational forms and flowcharts.

This Construction Management Plan has been developed within the framework of FIRM Construction's integrated HSEQ management system.

19.0 Reference Documents

FIRM Construction maintains a Legal and Other Requirements Register that identifies the relevant legislative requirements for Health and Safety Acts, Regulations, Codes of Practice, Australian standards and other requirements relevant to the project and is an attachment to this Plan.

A Project Document Register of Firm Construction documents referenced in this plan is attached to this plan with the documents referenced.

A Form Format Register of Firm Construction forms referenced in this plan is attached to this plan with the form formats referenced.

A Record Filing Register of Firm Construction records required by this plan is attached to this plan.

The Quality Policy is attached to this plan.

20.0 Records

Site Document Requirement Register

CMP-01 Mobilization Checklist

CMP-02 Project Handover Agenda

CMP-03 Project Close out Agenda

CMP-04 Equipment Calibration Register

CMP-05 Asset Register

CMP-06 Site Instruction

CMP-07 Defects List

CMP-09 Inspection and Test Plans (ITPs)

CMP-10 ITP Registers

CMP-11 Checklists

HSEMP-01 Project Daily Diary

HSEMP-02 Site Inspections

Form 6-06 - Request for Information

From 6-07 RFI Register

Subcontractor HSE Pack

Purchase Orders and Term & Conditions

Attachment B2

Health and Safety and Environmental Management Plan

Client: WATERFORD PBSA PTY LTD

Super Intendent: EXAL

Project: WATERFORD PBSA

Project Number: WPBSA

Contractor: FIRM Construction

REVISION STATUS

Rev	Date	Details	Prepared By	Approved By
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FIRM ON SAFETY

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1 Introduction

Health and Safety Management are core values within FIRM Construction (FIRM) through which we strive for Zero Harm. FIRM believes through leadership, engagement, integrity, honesty, and respect; the goal Zero Harm can be achieved. FIRM Construction's Health, Safety and Environmental Management System is compliant and accredited under the ISO 45001, ISO 14001 and ISO 9001.

All FIRM site personnel, visitors, subcontractors, suppliers, consultants and all other people providing goods and services under the FIRM contract will adhere to this Health, Safety and Environmental Management Plan (HSEMP).

2 Purpose

Effective Health Safety and Environmental management are equal to that of productivity and quality as a critical prerequisite for the overall efficiency of any business.

Health Safety and Environmental Management is not only a management issue; it requires the pro-active involvement and commitment of all parties working together to create and facilitate a safe and healthy working environment. The creation and maintenance of a safe and healthy working environment can only be achieved by those working within it.

The purpose of this Project Health, Safety and Environmental Management Plan is to combine and utilise best practice standards from FIRM and the Client.

This document provides a basic guideline for all parties to interact towards the common goal of achieving a working environment where loss through personal injury, material damage and waste is prevented.

FIRM will ensure that all employees and subcontractors clearly understand the nature of their 'Duty of Care' obligations.

3 Definitions and Abbreviations

Term	Description
ALARP	As Low As Reasonably Practicable
Appointed Person	A person appointed to a position under the FIRM roles and responsibilities
AS	Australian Standards
AS/NZS	Australian/New Zealand Standards
Client	BMW
Competent Person	A person assessed as competent by FIRM for the tasks they shall perform by.
R&O	Risk and Opportunity
EMP	Environmental Management Plan

Term	Description
ERP	Emergency Response Plan
Hazard	Anything that has the potential to cause harm to people or damage to property, environment, or the community
HSE	Health, Safety and Environmental
HSEC	Health, Safety, Environmental and Community
HSES	Health, Safety, Environmental and Security
ISO	International Organisation for Standardisation
JHA	Job Hazard Analysis
NCCC	National Code of Conduct for Construction
NCR	Non-Conformance
FIRM	FIRM Construction
Project	WATERFORD PBSA
Risk	A combination of the potential consequence and likelihood of a hazard occurring over a given period of time
SDS	Safety Data Sheet
HSEMP	Health, Safety and Environment Management Plan
SWMS	Safe Work Method Statement
VOC	Verification of Competency

4 References

The main reference documents are as follows:

4.1 Legislation

- WA Occupational Safety and Health Act 1984
- WA Occupational Safety and Health Regulations 1996
- National Standard for Construction Work 2005 and the Environmental Protection Act 1986 (WA)
- WA Environmental Protection Act 1987 / Environmental Regulations (all inclusive)
- Commonwealth Environmental Protection Act & Native Title Act 1993
- Aboriginal Heritage Act 1972 / Aboriginal Heritage Regulations 1974
- Workers Compensation and Injury Management Act 1981
- Workers Compensation and Injury Management Regulations 1982

4.2 Australian Standards

Reference	Aspect
AS1269	Occupational Noise Management (All Parts)
AS1319	Safety Signs for the Occupational Environment
AS1337	Eye Protection for Industrial Applications
AS1418	Cranes, Hoists and Winches (All Parts)
AS1509	Rules for Design and Construction of Formwork

Reference	Aspect
AS1576	Scaffolding
AS1577	Scaffold Planks
AS1657	Fixed Platforms, Walkways, Stairways and Ladders – Design Construction and Installation
AS1666.2	Wire Rope Slings (Care and Use)
AS1674	Safety in Welding and Allied Processes (All Parts)
AS1715	Selection, Use and Maintenance of Respiratory Protective Devices
AS1716	Respiratory Protective Devices
AS1742	Manual of Uniform Traffic Control Devices (All Parts)
AS1743	Road Signs – Specifications
AS1891	Industrial Fall-Arrest Systems and Devices (All Parts)
AS1892.1	Portable Ladders
AS2294	Roll Over Protection
AS2397	Laser Safety
AS2436	Guide to Noise Control on Construction, Maintenance and Demolition Sites
AS2550	AS 2550 Cranes, Hoists and Winches – Safe Use (All Parts)
AS2601	Demolition of Structures
AS2759	Steel Wire Rope – Use, Operation and Maintenance
AS2790	Electricity Generation Sets – Transportable
AS2865	Safe Working in a Confined Space
AS3000	Electricity Wiring Rules
AS3010	Electrical Installation – Generating Sets
AS3012	Electrical Installations – Construction and Demolition Sites
AS3017	Electrical Installations – Testing and Inspection Guidelines
AS3760	In-Service Safety Inspection and Testing of Electrical Equipment
AS3775.2	Chain Slings – Grade T – Care and Use
AS4024	Safety of Machinery
AS4332	The Storage and Handling of Gases in Cylinders
AS/NZ ISO 31000	Risk Management
AS4308	Procedures for the Collection, Detection and Quantitation of Drugs of Abuse in Urine
AS4497.2	Round Slings – Synthetic Fibre – Care and Use
AS4576	Guidelines for Scaffolding
AS4603	Flashback Arresters – Safety Devices for Use with Fuel Gases and Oxygen or Compressed Air
AS4801	Occupational Health and Safety System
AS4836	Safe Working on Low Voltage Electrical Installations

Reference	Aspect
AS4839	The Safe Use of Portable and Mobile Oxy-Fuel Gas Systems for Welding, Cutting, Heating and Allied Processes
ISO9001	Quality Management Systems

4.3 Code of Practice

Title	Source
Excavation	WorkSafe WA
Fatigue Management for Commercial Vehicle Drivers	WorkSafe WA
First Aid Facilities and Services	WorkSafe WA
Managing Noise at Workplaces	WorkSafe WA
Manual Handling	WorkSafe WA
Personal Protective Clothing and Equipment	WorkSafe WA
Prevention of Falls at Workplaces	WorkSafe WA
Transportation of Hazardous Materials	National Transport Commission
Workplace Amenities and Facilities	WorkSafe WA
Workers Compensation (Injury Management) 2005	WorkSafe WA
Working Hours	WorkSafe WA

4.4 FIRM Procedures

Reference	Document No	Document Type
Site Evacuation		Plan
Project Organisation		Chart
Project Emergency Contact		List
Site Document Requirement		Register
Mobilization	CMP-01	Checklist
Project Handover Meeting	CMP-02	Agenda
Project Close Out Meeting	CMP-03	Agenda
Equipment Calibration	CMP-04	Register
Position Descriptions	3-01	PD
Project Risk and Opportunity Register	7-01	CRAW
Project Training	3-13	Matrix
Purchase order and Terms and Conditions	4-01	Form
Project Daily Diary	HSEMP-01	Form
HSE Site Inspection	HSEMP-02	Form
Toolbox Meeting	HSEMP-03	Form
Job Hazard Analysis	HSEMP-04	JHA
JHA Review Record	HSEMP-05	Form

Reference	Document No	Document Type
JHA Register	HSEMP-06	Register
Assessment of Emergency Response &1st Aid Requirements	HSEMP-08	Form
Emergency Drill Report	HSEMP-10	Report
SDS Register	HSEMP-12	Register
Site Induction Record	HSEMP-13	Form
Site induction Questionnaire	HSEMP-13a	Form
FIRM Plant Operations Assessment	HSEMP-13b	Form
Site Induction Register	HSEMP-14	Form
Site Attendance	HSEMP-15	Register
Plant and Equipment	HSEMP-17	Register
Mobile Concrete Pump Checklist	HSEMP-18	Form
Mobile Crane Checklist	HSEMP-19	Form
Mobile plant Checklist	HSEMP-19	Form
Mobile plant checklist (General)	HSEMP-20	Form
Plant Risk Assessment	HSEMP-21	Form
Daily Plant and Equipment Prestart Checklists	HSEMP-22	Form
Electrical Equipment Register	HSEMP-24	Register
Harness Register	HSEMP-26	Register
Hazard Report	2-01	Form
NCR Report	2-02	Form
NCR Register	2-03	Form
Incident Report	2-04	Form
Incident Register	2-05	Register
HSEQ Performance Statistics	2-12	Report
Monthly Project Meetings Minutes	2-13	Report
HSEQ Report	2014	Report

4.5 Health, Safety and Environmental Policy

The Project's safety objectives are outlined within the "FIRM Constriction's Occupational Health and Safety Policy". A copy of the current Policy Statement is attached within the Appendices of this Management Plan.

The latest revision of all FIRM Documentation, including the policy, is available on PROCORE. The latest version of the policy will be displayed within the site offices to be visible to all personnel.

5 Organisation Chart

Refer to **Appendix D.**
Personnel have been selected due to their experience working to Client's expectations, Construction expertise.

6 Leadership and Accountability

FIRM understand that the delivery of a Zero Harm culture requires strong leadership to impact safety performance, and therefore leaders require training to understand their role and responsibilities.

This training is in the line of skill development for people management, roles and responsibilities that include legal requirement and duties of care, plus core skill of a construction site manager / supervisor.

As leaders and key personnel for the project along with their training, they will be able to demonstrate HSE leadership and accountability by ensuring that:

- HSE is a core value and a value that is never compromised.
- Appropriate and qualified resources are available or sourced to maintain a high standard of HSE
- HSE is raised and discussed as the initial agenda item of any meeting
- HSE hazards or non-compliance items identified are reported and rectified as soon as practicable and in accordance with the assessed level of risk
- Promote, recognise, and reward safe behaviours, and correct at-risk behaviours observed immediately
- Monitor, review, and report on HSE performance regularly and implement changes as required, to ensure that HSE objectives and targets set are achieved, in accordance with section 8 of this document
- Develop the essential skills required to lead and work safely through training, education coaching and interaction
- Project personnel are aware of the hazards and risk in their workplace and act accordingly
- Verify critical controls are in place before any workgroup performs any critical tasks
- Repeat incidents of the same kind are unacceptable (Leading incident investigation)
- Participation in client leadership initiatives that may include but not limited by:
  - Leadership Interaction
  - HSE Leadership Training
  - Undertake daily prestart

6.1 FIRM on Safety

FIRM has introduced a long-standing initiative 'FIRM on Safety. The drive is to improve the skill of the natural leaders in the team and to give the teams a voice on the way things were done. 'FIRM

on Safety' is the driving force for the behaviour-based observation system implementation system, where all project personnel are actively encouraged to speak up for safety.

The use of this slogan has assisted the focus on hazard management and trends, which enable the business to target critical risks. These risks that are identified are used for improving systems of work. Being

FIRM on Safety is the primary driver around FIRM's expectation to "Stop Work" if effective controls are either inadequate or uncertain at any time during project. The ability by all to "Stop Work" is actively encouraged throughout the FIRM business.

7 Project HSE Objectives and Targets

The project team shall work towards compliance with the FIRM HSE objective and goals by establishing priorities, building team confidences, consulting with Client and workforce regularly.

A monthly HSE report shall be compiled by the FIRM Corporate HSE Manager and issued to all project management team members for review and consideration with their project works.

Performance Objectives	Source Document	KPI	Target	Process Owner
Lead Indicators				
Maintain compliance with all FIRM, Client & Client HSE management plans and procedural requirements throughout the project.	Hazard Identification and Control.	Results from scheduled FIRM and/or Client audits. Percentage of non-conformances and observations closed out within the agreed timeframe.	Min of 100% compliance on any project audit. 100% non-conformances and observations closed out within agreed time frames set.	Project Manager
Maintain compliance with workplace inspection and compliance audit schedules.	FIRM inspection checklist. FIRM compliance audit scorecard.	Percentage of inspections completed. Percentage of audits completed.	95% of inspections and audits conducted to schedule.	Project Management Team
Ensure all staff are adequately trained and competent for	FIRM training plan and matrix.	Percentage of staff trained according to the training plan.	90% of training conducted to schedule.	Project Management Team

Performance Objectives	Source Document	KPI	Target	Process Owner
the work they are to undertake.		Percentage of staff performing work for which they are not trained or verified as competent.	0% is noting that staff are not trained or competent to perform operations.	
Main strong environmental performance standards.	Work Method Statements and/or JHA's. Incident reports.	No. of work method statements and/or JHA's with environmental issues considered. Spills cleaned up within 24 hours.	100% of work method statements and/or JHA's with environmental issues included. 100% of spills cleaned up within 24 hours.	All
Recycling Commitments.	Tip requirements.	Percentage of inspections completed. External service provider to remove waste from the site.	Segregation of Wood, Metal, Concrete, General Waste and Construction Waste.	All
Lag Indicators				
Maintain the overall project goal of zero harm to HSE of personnel, the environment and the community.	Incident reports. Community complaints.	No. of FAI, MTI & LTI reported for FIRM and its subcontractors. No. of environmental incidents reported. No. of community complaints reported.	0 FAI, MTI & LTI incidents per week. 0 Environmental incidents per week. 0 Community complaints.	All

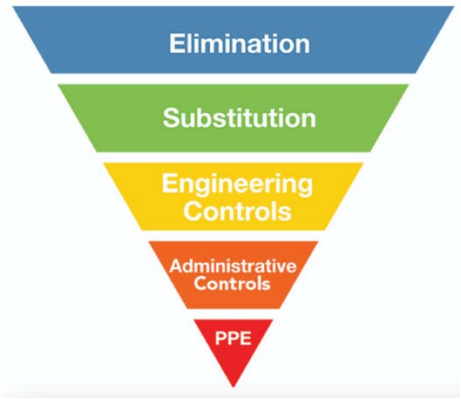
8 Risk Management

Risk Management is an integral part of FIRM's management process, which is achieved by a logical and systematic method of identifying, assessing, controlling and monitoring risk associated with an activity, function or process in a way that will enable FIRM, our sub-contractors and the client to eliminate losses and maximise opportunities.

Risk Management will ensure all personnel involved on FIRM managed sites are not exposed to uncontrolled risks that have the potential to cause injury or loss during construction, commissioning, operation, and maintenance. FIRM requires that all workplace hazards are identified, risk assessed, and control measures implemented.

This requirement covers the assessment of risk associated with identified hazards related to occupational safety and health and the selection of appropriate control measures in accordance with the hierarchy of controls.

All risk assessments shall apply the Hierarchy of Controls to their mitigation process, with Elimination being first and foremost in managing hazards within the workplace.
The Hierarchy of Controls utilized by FIRM are as follows



FIRM Site management personnel are required to complete the following internal Risk Management training modules:

- Hazard Identification
- Safe Work Method Statements
- Incident Investigation; and
- Hazardous Substances

A Critical Risk Analysis Workshop shall be performed ansd authorised for use in consultation with the Client prior to mobilisation to the site. The construction risk assessment document developed from this workshop shall be reviewed and updated if there is a change in job scope or changes to the environment. In the formulation of risk profiles and assessments, the Hierarchy of Control shall be used in all instances.

8.1 Effective Consultation and Communication of Hazards

The project shall facilitate consultation and communication processes to ensure the effective application of hazard and risk management across project.

The CRAW shall be presented to project personnel for review and discussion upon mobilisation to the site, as a component of the site-specific induction process.

A ‘Permit to Work’ system exists for all high-risk activity work to ensure safe systems for work are in place.

All hazards identified on site shall be communicated to project personnel through inductions, signage, pre-start and toolbox meetings. Tasks to be conducted in these areas shall be covered by Safe Work Methos Statements.

Personnel returning to site shall be briefed by their direct Supervisor of any changes that may have been made to the approved SWMS) and/or the working environment in their absence.

8.2 Hazard Register

All hazards identified from risk management activities shall be documented in the project Risk and opportunity Register, which shall be available for review upon request.

The results of the CRAW risk assessment provide the basis for this Risk and Opportunities Register. This register is considered a 'live' document and shall be updated to include outcomes from the accident, incident and hazard investigation reports, site audits, as well as emergency response debriefing sessions.

The Corrective Action register shall detail corrections required, persons responsible for implementing these actions and the timeframes set for completion. This register shall be used to track the status of corrective actions through to completion and review.

The following HSE impact types should be considered within the CRAW process:

- Personal safety: an injury that has occurred or has the potential to occur; and/or damage or potential damage to equipment and property (e.g., burn, pinch, graze, crush, fire, deformity, etc.).
- Health impact: Occupational health concern / illness that has occurred, or has the potential to occur, due to exposure over a period of time (e.g., sunburn, noise-induced hearing loss, musculoskeletal damage, respiratory reaction to inhalation of fumes, occupational exposure limit (OEL) exceeded, etc.).
    a. Hazards with an acute exposure risk likely to result in a health impact within one shift should be recorded against work areas
    b. Similar Exposure Group (SEG) should be reserved for chronic health exposures (i.e., those exposures that are cumulative in effect over a long period of time and that result in an illness). These would typically be specific to roles working within a work area
    c. Where a SEG includes personnel from multiple independent work areas, their hazards shall be grouped at the highest level in the work area hierarchy.
- Environment impact: harm that has occurred, or has the potential to occur, to the surroundings in which an organisation operates, including air, water, land, natural resources, flora and fauna (e.g. dust, pollution, spills, non-compliance to license requirements, etc.).

- Community impact: harm that has occurred, or has the potential to occur, to those people generally inhabiting or with land connections in the immediate or surrounding areas in which an organisation operates. This includes harm to the people themselves, sites or items of cultural significance as well as disruption to their normal lifestyle and interactions (e.g., smell, dust, vibration, noise, etc.).
- Reputation impact: an event which has occurred, or has the potential to occur, and results in an impact on credibility or business reputation and / or potential public exposure in media, word of mouth or local mythologies.
- Conformance / compliance impact: an event which has occurred, or has the potential to occur, and results in an impact on the ability to meeting an internal (client) or external obligation (e.g. license limits).

8.3 Site Hazard Action Plan

Should a hazard be recognised in the workplace, all efforts shall be made immediately to eliminate or temporarily control if it is safe to do so. Control methods can be applied through isolation, signage appropriate barricading or by placing a person in the capacity of Spotter to warn others of the Hazard.

FIRM will investigate the circumstances of the hazard and initiate actions to control or eliminate the hazard. FIRM personnel shall ensure that the hazards register is updated accordingly, and actions are closed out by the responsible person.

8.4 Hazardous Areas

A hazardous area is defined as, but not limited to, Drop Zones, Confined/Restricted Spaces, Exclusion zones, etc. All Hazardous areas are to be discussed at the daily prestart meeting and implemented controls communicated, including the use of signage, barricading etc.

As per normal, any tasks to be conducted in these areas shall be covered by JSEA's that are completed by the work crew on the day the activity is planned, or as directed by the client.

8.5 Safe Work Method Statements

High-risk construction works as outlined in the CRAW will require the implementation of specific Operational plans as provided by FIRM.

As defined within legislation, 'high-risk construction works' means any of the following:

- Construction work involving a risk of a person falling from one level to another
- Construction work involving demolition
- Construction work involving disturbance or removing asbestos
- Construction work involving alteration to a structure that requires the structure to be temporarily supported to prevent its collapse
- Construction work involving excavation to a depth of more than 1.5 metres

- Construction work on or near pressurised gas pipes (including distribution mains)
- Construction on or near energised electrical installations and lines (whether overhead or underground)
- Work on a construction site where there is movement of powered mobile plant
- Construction work in an area where there are artificial extremes of temperature
- Construction work in a confined space
- Construction work requiring welding or cutting (Hot works).

A SWMS must specify the job to be done, the equipment to be used, the procedure to be followed and the timescale of the work.

8.6 Task-Specific Risk Assessment

Tasks that are designated high-risk shall require the implementation of the FIRM Operational, and where applicable, this risk assessment shall be added to the project Risk and Opportunities Register.

New controls or improvements to existing controls shall be identified to reduce HSEQ risks. These shall be documented as part of formal action plans. Where possible, risk reduction actions should form part of existing improvement planning activities.

Examples of existing activities that identify risk reduction actions include:

- Incident Investigation.
- Risk Register reviewed Quarterly or where deficiencies ID.
- HSE Improvement Planning activities.
- Safety Interactions and Environmental Contacts.
- Gap Analysis, Internal Audits and Business Conformance Audits; and
- HSE Meetings.

The risk assessment must specify the job to be done, the equipment to be used, the procedure to be followed and the timescale of the work.

8.7 Permit to Work

The Permit to work system is to be included in the site induction which all personnel shall be required to attend. Permits for high-risk works require the approval of a FIRM Site representative and client, and this will require Site Manager/HSEQ Manager to approve the permit for any high-risk works. The HSEQ Manager will monitor Permit development and use and record approved PTW within the FIRM PTW register.

8.8 Hazard Identification (HAZID) Meeting

To support the shared commitment to the provision and maintenance of a safe workplace FIRM discuss the Risk and opportunity Register's content with the client as and when required. The

purpose of this will be for the FIRM Project Team to meet the Client and relevant Stakeholder representatives to review works and project location to identify project-specific hazards.

By leveraging off the collective expertise and intimate knowledge of the area, FIRM can work collaboratively and proactively to secure good outcomes for workplace safety and minimise project risk.

This meeting is to be held prior to mobilisation onsite and sets the groundwork for a positive partnership with the Client and create a collaborative environment between stakeholders, minimising the potential for interface issues once onsite with actions arising from the meeting agreed and approved prior to mobilisation.

9 Management of Change

Advice of Client design and/or procedural method changes that may have an impact on the safety and health of project personnel must be provided to the Project Manager by the Client as soon as possible, so that existing work method statements and/or JHA's for the affected work scope may be changed and communicated to relevant project personnel. Management of change will also apply to design or procedural changes what will need to be presented to the client for approval prior to the works commencing.

The outcomes from any incident or hazard report investigations, changes to applicable statutory legislation, or project changes required by the Client or Contractor that may have an impact on the safety and health of project personnel must be formally reviewed by the Project's HSE personnel in consultation with the Project Manager and any nominated employee safety representatives.

Proposed changes to be implemented on the project because of this formal review process must be communicated to the Contractor's HSEQ Manager to ensure that this plan is updated accordingly. The HSE legal and other requirements, of each project, are kept up to date by the HSEQ Manager using subscriptions to regulatory authority websites or other suitable means.

9.1 Change Management Process

Site Specific process to manage and implement changes requires the following process to be implemented:

Process	Action	Responsibility
Identify Change	An identified action or activity that creates a changed environment either internally or to other stakeholders and project areas should be raised and discussed within the team.	All
Identify Impacts	Upon outlining the extent of the changes required and the stakeholders, surrounding community or environment that it may impact. The impacts and	Project Manager

Process	Action	Responsibility
	associated risks should be discussed with the appropriate Client representative. An agreement upon the process and communication of the change implementation should be identified between the relevant parties that will ultimately give the proposal approval.	
Develop Proposal	The Project Manager will assign to the Change Implementer, the task of developing the Change Management proposal. The Proposals will outline the proposed changes and how they will be managed. The proposal may also include Change management communication such as an internal site memo, prestart discussion and construction notice or Traffic Management Plan.	Project Manager / Appointed Change Implementer
Obtain Approval	Upon development of the Change proposal and communication, the proposal will be submitted to the Client to gain approval prior to implementation.	Change Implementer
Communication	Upon approval of the change proposal, the information relating to required changes will be disseminated to all affected parties. The Change implementer will liaise and communicate with other parties outside of FIRM (where required) to ensure that the information is communicated appropriately. The communication and consultation of the change proposal may be by prestart discussions, toolbox meetings, site memos, construction notices, further training, traffic management plans and where necessary signage.	HSEQ Manager, Supervisors
Implementation	Once the change has been communicated and where required consultation was undertaken, the actual change can be implemented.	Site Manager
Assessment	Upon completion of the implementation of the change, the Project Manager along with the nominated Change Implementer will review the process associated with the implemented change. Any deficiencies or improvements required will be added to the corrective actions register as appropriate.	Project Manager

10 Communication, Consultation and Participation

The Project team shall ensure HSE information is regularly circulated to project personnel through:

- Daily Pre-Start Meetings
- Monthly HSE (Toolbox) Meetings

- HSE Notice Boards
- Monthly HSE Safety Committee Meetings
- Promotional Material
- FIRM Safety Alerts.

10.1 Pre-Start Meetings

Formal consultation processes shall be established for the project with daily Pre-Start Meetings and monthly HSE (Toolbox) Meetings to be conducted. Project personnel are required to participate in these sessions to proactively identify and discuss any HSE issues or concern that they may have and to ensure their understanding and involvement in HSE requirements of the project.

Pre-Start Meetings shall include but are not limited to:

- HSES Performance
- Incidents, hazards, and risks
- Shared learnings from both internal and external incidents
- Procedural changes
- HSE Obligations.

Additional Meetings, such as Toolbox Talks, shall be conducted following any incidents or serious potential incidents.

The project shall conduct Pre-Start Meetings and record information on the Pre-Start Meeting form. All project personnel shall attend daily Pre-Start Meetings. The original minutes are to be filed by HSE personnel.

10.2 Toolbox Meetings

All project personnel shall attend Monthly HSE (Toolbox) Meetings. The project shall conduct and take the minutes of these meetings. The original minutes are to be filed by the site management team. A copy of the weekly HSE (Toolbox) Meeting minutes shall be posted on notice boards within the project site office and crib huts by the HSE personnel.

10.3 HSE Committee

Employee's safety representative(s) shall be nominated and elected for the project (where direct labour numbers exceed 100 on-site individuals), with notification to – WorkSafe and the Client, as well as attendance at the required statutory training session for this role. Nominated employee safety representatives shall attend and participate in Client safety committees, where established for the project or operational site. Elected safety representatives shall also be encouraged to assist in incident investigations and weekly inspections.

10.4 HSE Communication Matrix

Task – Event	Responsible Person	Frequency	Goals	Provisions
Project Planning /Progress Meetings	Project Manager	Monthly.	Review and discuss the HSE performance of the Project Management team over the previous week. Identify and discuss HSE requirements with works planned. Review progress with the closeout of corrective action items on the Hazard Register.	Site Administration to record minutes and issue a copy to the FIRM HSEQ Manager. Project management team members to action items assigned to them during the meeting.
Promote safe work methods	All	Ongoing.	Achieving Zero Incidents & Injury culture.	Promote at every opportunity.
Pre-Start Meetings	Site Manager	Daily.	Review and discuss HSE performance on the previous shift. Identify and discuss HSE requirements for the day, in accordance with the work scope. Resolve any HSE issues and points raised.	Supervision to record information on the Pre-Start Meeting form. All employees / subcontractors to review and sign onto SWMS
HSE (Toolbox) Meetings	Site Manager	Monthly.	Resolve any HSE issues and points raised. Provide specific training topics to improve safety awareness and compliance by project personnel.	Supervision to record minutes on Toolbox Meeting form. Post meeting minutes on site notice boards.
Other Contractors Interface	Project Manager	As required.	Ensure that Other Contractors are notified in a timely	Project Manager to notify and discuss potential interface

Task – Event	Responsible Person	Frequency	Goals	Provisions
	and/or Client Representatives		manner of required works in their areas to ensure the safety of both project and Other Contractor personnel.	issues with the client representatives. Formal notification to be issued by Client representatives to Other Contractors, including site-wide notices, where required.
Client Communication notices	Client Representatives	As required.	HSE information distribution to the site or project.	FIRM project management will communicate the information via Pre-Start meetings and by posting on notice boards.
Change Management	Project Manager	As required.	Discuss and review proposed changes for the project that may have an HSE impact.	Contractors Corporate HSEQ Manager to be notified of changes to update this plan accordingly.
JHA	All	Prior to any work activity.	To ensure that all hazards associated with works on the project are identified, with the risk assessed and effectively controlled.	Project personnel to develop JHA The Site Manager / HSEQ Manager is to review and approve any JHA developed. Employees assigned to works to read, ensure their understanding, sign on and adhere to applicable JHA.

10.5 Culture

FIRM is actively developing a positive and robust safety culture within the business and promotes safety as a priority in all facets of our works. All meetings will commence with a 'safety moment' and safety issues will always be addressed first and prior to scheduled works for the day being discussed.

11 Induction and Orientation

FIRM project management shall ensure that all personnel have been inducted and trained in accordance with the project requirements, before being allowed on site to start any work.

11.1 Site Induction and Orientation

FIRM Site Manager or delegate shall conduct a site specific induction for all employees, subcontractors and third party personnel, which shall include but not be limited to the following topics:

- Fitness for Work, including Fatigue Management and Drug and Alcohol
- Health Safety and Environment Policy / Expectation
- Hazards and hazard reports
- Inspection and task Observation
- Incident reporting
- Emergency plans (Muster Point, Drills, First and Emergency equipment)
- The Site Specific Traffic Management Plan
- JHA or equivalent
- Fire prevention and protection
- Mobile Phones
- Personal Protective Equipment (PPE) – including PPE Management
- Manual Handling
- Electrical Safety / Equipment requirements (Test and Tag; Register)
- Hazardous Substances Management (including SDS)
- Housekeeping
- Toolbox Meetings
- Plant and Equipment (Pre-start; Risk Assessment; OEM manuals; Maintenance schedule mechanical Inspection)
- Pre-Start Meetings
- Power, hand & banned tools
- Ladder safety
- Heat Stress
- Noise
- Fatigue
- Employee Assistance Program (EAP)
- Competency assessment, including verification of competency (VoC) if applicable
- Tagging Out process
- Permit to Work process
- Project Rules and responsibilities

All other areas and situations that require the use of Permit to Work and Isolation systems shall be delivered to groups of employees as they present to the site.

This induction shall be completed immediately when the employee presents for work.

12 Access and Security

FIRM have adequate security processes in place, such as appropriately designed and rated temporary fencing etc. to cover all risks posed to people and assets on the Project as noted below:

All security risks may be reported to the local police dependent on severity, as well as the client and investigated should it be deemed necessary.

12.1 Site Security and Fire Safety Precautions

FIRM Construction is responsible for securing the Site. Security includes but is not limited to:

- Erection and maintenance of full Site perimeter security fencing
- Only personnel that have completed the FIRM Inductions and relevant mobilisation requirements will be allowed access to the site.
- FIRM site personnel will ensure that all access gate's will be locked at the end of each day.
- FIRM site personnel will ensure that buildings are made secure and entry doors are locked on completion of works each day
- Light Vehicle Access to site will be at the discretion of the Site Manager.
- Subcontractor vehicles will be permitted on site under the direct approval of the FIRM site manager and are to be parked in the dedicated parking area only on site.
- Project visitors to the site must inform site management of their intentions to visit prior to arriving onsite. On arrival, all visitors must report to the Site Office to be put through the visitor access protocol, where they will receive a Visitors Induction and escorted on site throughout their visit.
- Access to the works will be via the main site access gate.
- Project personnel are to be cautious of live traffic and vehicle movements and remain off the road when walking at all times.
- Emergency Muster location will be on the school oval at the main site access gate.

12.2 Service Providers

Service providers must complete an induction to engage in work on the project site.

12.3 Visitors

A visitor is someone who is intending to visit the site and shall not perform any work and is not fully inducted. Visitors shall be escorted sign on to a visitor's book located within the FIRM site office and be always escorted by a FIRM representative when on site. Upon leaving they shall sign off in this book.

13 Subcontractor Pre-Selection and Assessment

Subcontractor selection and engagement will be in accordance with the FIRM Health, Safety and Environment Management System Manual, the HSE and Quality performance of suppliers and subcontractors shall be evaluated prior to the establishment of contractual agreements in accordance with FIRM procedures and applicable Client site requirements. The evaluated function shall be performed by the Project Manager in consultation with HSEQ Manager. The supplier and subcontractor selection process shall be based upon:

- HSEQ performance measured by responses to a questionnaire with preference given to ISO 9001, ISO 14001 and AS 4801 (ISO 45001) accredited organisations
- Technical ability to satisfy the projects tender requirement and

Subcontractors are to have in place procedures that ensure they are able to work safely, while adhering to the Project's requirements. Additionally, they shall be required to comply with and implement project standards, procedures, risk control measures and comply with all legislative requirements.

All subcontractors appointed for the project shall be issued a starter pack, which is a summarised version of the key HSE requirements specified within this plan.

All subcontractors appointed shall attend a kick-off meeting with the Project Management team, prior to mobilising to the project site, to review their level of compliance and understanding of the HSE requirements. The starter pack's declaration statement, acknowledged that they have read, understood, and will comply with these requirements on-site shall be completed and approved at this meeting.

Subcontractors shall be managed on the project in the same manner as that of the Contractor's direct labour.

Contractors are accountable to the FIRM Project Manager, or his delegate to:

- Be familiar with and apply the requirements of the FIRM HSEMP and Procedures as well as Project HSEMP Addendum and Procedures
- Undertake Hazard studies and Risk Analysis of their work to identify and qualify the level of risk involved and specific control actions to be contained in task specific JHA
- Ensure satisfactory safety performance in their area of control.
- Ensure compliance of all sub-contractors with the Contractors HSEMP, FIRM HSEMP
- Ensure provision and maintenance of safe systems of work
- Ensure employees are provided with appropriate PPE and training that conforms to relevant Australian Standards
- Ensure commitment and accountability of all their personnel
- Provide appropriate training and development in their areas of responsibility
- Enforce Statutory Regulations

- Investigate and report all incidents in their area of control and submit completed investigations to the FIRM Project Manager and HSEQ Manager within required time frames;
- Ensure contractor personnel attend the FIRM site specific induction
- Confirm all tools and equipment to be used are appropriate and in safe condition
- Perform the following routine activities at a minimum of the frequencies specified:

Site Managers / Supervisor – Activities	Frequency
Contractor's Manager to attend monthly OS&H Meeting or other designated meeting, plus one member (minimum), of the workforce as approved by the workforce.	Monthly
Attend pre-start meetings with all personnel prior to commencement of each shift.	Daily
Participate in Toolbox Safety Meetings for all staff, employees and sub-contractors' staff and employees.	Weekly
Inspect workplace including sub-contractors' workplace and record findings.	Daily
Review safety performance with the FIRM Project Manager and FIRM HSEQ Manager.	Weekly
Review sub-contractor work programs and safety performance with sub-contractors.	Weekly
Report and investigate all incidents that occur in their area of responsibility including their sub-contractors.	Immediately
Maintain a current register of all vehicles / mobile plant, electrical equipment, lifting equipment, fire extinguishers, registered equipment, and scaffolds under its control.	Monthly
Conduct weekly formal inspections of the workplace and submit the Inspection Report to the FIRM Project Team including HSEQ Manager.	Weekly
Promote and participate in the "Safety Interactions" initiative.	Daily

14 Training and Competency

The project shall only recruit competent and trained employees for each job and shall provide all necessary on-going training so that they can perform their work safely.

The project shall require the use of Registered Training Organisations (RTOs) to provide specific accredited training courses as required (i.e., High Risk Works requiring licences). Delivery of training modules to project personnel shall be arranged by site management.

A Training Matrix for the project (covering all training requirements for the duration of the project) will be developed based upon the CRAW, contractual and legislative requirements for the project.

All tradespersons and operators must provide a copy of their trade certificate/licence prior to mobilisation.

FIRM's Site Manager shall ensure that project personnel attend all required induction and training sessions.

Where required, a Verification of Competency (VoC) is to be completed to assess an employee's competency, when

- There is doubt towards the employee's ability to undertake the work
- Post incident, if deemed appropriate through the incident investigation process
- Mandatory for the following works if provided VOC is older than **three** years
    - EWP (Boom Type) Operation
    - Load shifting equipment (Loaders, Excavators, Graders, Rollers)
    - Mobile plant (dump trucks, earth moving equipment, water cart operation, etc.) and
    - Crane Operation – VOC for Class of Crane within two years.

The following activities do not, unless there is doubt as to the employee's ability to undertake the works, require a VoC as long as the individuals core role reflects the task being undertaken and hold a valid and in date High Risk Work License (HRWL)

- Rigging
- Dogging
- Scaffolding
- Confined Spaces
- Work at heights

VoC assessments are to be completed by an external RTO only, at no time shall a VoC be completed internally. Only personnel holding tickets/licenses **and** relevant Verification of Competency (VoC) (if required) are permitted to operate plant and equipment onsite.

FIRM and their Subcontractors Management team shall ensure that all site personnel (where applicable) hold

- Hold current technical certifications, High-Risk licenses or registrations where required by local legislation, regulatory bodies, or HSE Performance standards.

All trade persons and operators must provide a copy of their trade certificate/license prior attending site.

14.1 Driver's License and Certificates of Competency

All site personnel driving a vehicle must have a current valid OPEN Australian driver's license, appropriate for the type of vehicle being driven.

14.2 Operators and Tradespeople

All workers must be licensed and qualified for the works they are engaged to complete. Mobile plant operators and various other high-risk tasks will require the relevant competency from a registered training organization.

15 Injury Management

Injury management involves the coordinated use of medical, psychological, social education and vocational measures to restore function or achieve the highest possible level of function for persons at work following an injury or illness.

FIRM shall undertake to assist injured personnel to achieve a full return to work, as far as is reasonably prac table, in accordance with the project's injury management system.

FIRM acknowledges the value of early intervention for effective injury management, which provides physical, psychological, and financial benefits to employees by:

- Preserving the employee's self-esteem
- Wherever possible, preserving the employee's career goals; and
- Contributing to moral by demonstrating a genuine interest in the employee.

16 Emergency Management Plan

Project personnel shall adhere to the requirements detailed in the Project Emergency Response Plan for the project. In conjunction with the Risk and Opportunity Register. FIRM will ensure that the School Incident and Emergency processes are taken into consideration and where applicable implemented into this HSEMP.

Each project has a stand-alone documented Emergency Response Plan (ERP) prepared in accordance with the FIRM Construction's HSEMP.

17 Health and Safety Reporting

All project-related accidents, injuries and illnesses are to be recorded by FIRM Construction. This report provides the means for checking and reviewing the HSE system and plan; verifies that all FAI, MTI and LTI have been recorded and provides essential details on working hours and HSE trends. This information is collated on a daily and weekly basis and is used to update FIRM's management on HSE performance.

This report will also be submitted to the project Client representative on request.

17.1 Weekly Reporting

Project personnel shall compile the safety performance statistics weekly and insert into Procore.

17.2 Monthly Reporting

All project-related accidents, injuries and illness shall be recorded internally.

This report provides the means for checking and reviewing the HSE system and plan, verifies that all FAI's MTI's and LTI's (if any) have been recorded and provides essential details on working hours and HSE trends. This information is also used to update FIRM's management on HSE performance.

These records shall be audited / inspected regularly and as a minimum in accordance with the FIRM's audit schedule.

17.3 Incident Reporting (Health and Safety)

Project personnel will report all accidents or incidents to the FIRM Site Manager immediately to ensure that:

- Immediate action is taken to either eliminate or control further occurrences
- Investigation into the immediate and secondary causes is fresh in the mind of those involved so assumptions cannot be made on how the incident occurred
- Allow the investigation team to commence the investigation into how, when, where and why what caused the incident

An incident report is to be prepared by the Site Manager and submitted to the Firm Construction HSEQ Manager by the end of shift on which an accident or incident has been reported.

Where the incident has resulted in injury or suspected injury to a person, they will be escorted to the nearest medical facility / hospital.

The Client will be notified as soon as possible by FIRM's HSEQ Manager.

Where an incident requires notification to a statutory authority the HSEQ Manager in consultation with FIRM Company Directors shall notify the statutory authority immediately on the relevant form.

17.4 Incident Reporting (Environmental)

Any environmental incident, near miss or potential hazard that has caused, or has the potential to cause damage or harm to the environment, shall be reported and fully investigated by FIRM. Environmental incidents shall as a minimum include actual or near misses resulting in:

- A breach of procedural legal and other requirements
- All hydrocarbon/chemical spills onsite (aside from drips on concrete)

- Environmental damage (i.e., vegetation disturbance, no clearing approval)
- Environmental pollution / contamination
- Unapproved impacts on vegetation, flora, fauna, water (fresh, ground, and marine), heritage sites and atmosphere
- Unapproved discharge to air, land, and water
- Public complaints

FIRM site management, in consultation with the Project Manager/HSEQ Manager shall be responsible for coordinating activities required, and for organising further remedial programs, where applicable, in response to any reported environmental incident.

The Client is to be notified immediately by the FIRM HSEQ Manager/Project Site Manager.
An investigation of the incident is to be completed.

The FIRM Site Manager is responsible, in liaison with the HSEQ Manager, shall put in place corrective and preventive actions that are appropriate to the nature and scale of the event, and complete these actions within agreed time frames. Corrective and preventive actions shall address the root causes of the event and reduce the probability of a recurrence.

The effectiveness of corrective and preventative actions shall also be assessed as part of the event investigation process.

The project risk opportunity register shall be updated and reviewed in response to a reported incident on site.

17.5 Hazard Reporting

All workplace hazards shall be reported and captured. These reports shall be entered into the project hazard register which is then allocated to the relevant employee and tracked for close out.

Wherever possible, hazards should be corrected immediately. If this is not possible, the hazardous area is to be made safe (barricaded and signposted) and reported to the responsible supervisor for action.

18 Resolution of Health & Safety Issues/Stop Work Policy

Project personnel have the right to refuse to work in an area where they have reasonable grounds to believe that to continue to do so would expose them or any other person to a risk of injury or harm.

Wherever possible, the Site Manager shall contain HSE issues at the local level, between the immediate parties involved and resolve them using a consultative/conciliatory approach to the satisfaction of all concerned.

Should the issue need additional assistance or have the potential to escalate, the Project Manager shall become involved in the resolution process in consultation with the HSEQ Manager.

Should the issue become protracted, the site management team shall refer the matter to their respective Company Directors for resolution and enactment of further dispute resolution procedures.

19 Document Control

All HSE documents relevant to the contract shall be maintained in accordance with the Quality Management Plan for the project. Changes to any documentation shall (if required) be communicated to the Client.

19.1 Compliance Registers

Compliance registers shall be maintained by the Site Manager, who shall be responsible for compiling and maintaining all required HSE records, such as:

- SWMS's
- Operational Plans
- Training / VOC
- Risk and Opportunity Register
- Hazardous Substance / MSD
- Rigging/fall prevention equipment (quarterly inspection and tagging)
- Ladders (quarterly inspections and tagging)
- Firefighting equipment (servicing records)
- Scaffold (Scaff tag)
- Electrical (quarterly inspections and tagging)
- Pressurised equipment (quarterly inspection and tagging)
- Vehicles and Mobile Plant; and
- Classified Plant including Crane registration and maintenance.

20 Inspections, Auditing, Monitoring and Reporting

The HSEQ Manager shall conduct HSE system audits at owing scheduled intervals, to ensure compliance with this Plan:

- 6 weeks post-mobilisation
- Quarterly after that
- Annual Management System Audit and
- At the point of demobilisation

FIRM site management shall complete a daily and weekly inspection of their worksite which shall include subcontractor's management, supervisors, and leading hands. In addition to this, weekly observations will be conducted to measure behaviour-based safety outcomes.

Wherever possible, inspections shall be completed in conjunction with HSE personnel, supervisors and representatives from the Client (if appropriate).

Completed audit and inspection documents shall be issued to the Site Manager to assign corrective actions to site management personnel for review and close out. This information shall be tracked by the HSEQ Manager.

20.1 Inspection and Testing

The following issue have been identified within this plan which has added the requirement for regular scheduled inspection for the following:

- Safety of materials and products
- Temporary electrical installations and electrical equipment
- Stationary plant and equipment
- Rigging and lifting equipment
- Pressurised equipment
- Fall arrest and protection equipment
- Ladders and access equipment
- Cranes, light vehicles, mobile plant and equipment.

Completed inspection and test records shall be maintained by FIRM site management personnel and shall be made available to the Client for review upon request.

21 Fitness for Work

The project is committed to ensuring that project personnel report to work in a fit state.
Fitness for work assessment shall be carried out at the following times:

- After relevant incidents (i.e., after events involving light vehicles, mobile plant, or incidents of a serious nature, as defined within statutory legislation);
- When individuals appear unfit for work (for cause testing);
- At random; and
- At the request of the individual (self-testing). Self-testing breathalysers shall be provided.

Training and awareness sessions on fitness for work issues (alcohol and other drugs, fatigue management and stress and depression) shall be presented to project personnel during the course of the project via the site induction and monthly HSE (Toolbox) meetings.

All project personnel, service provider and visitors shall be subject to random urine drug screening on site. Positive test results, requiring the execution of the program's performance management and rehabilitation processes.

All testing shall be conducted by competent and approved personnel in accordance with the relevant Australian Standards for this testing.

The purpose of this program is to develop and reinforce a culture in which all personnel recognise and support the fact that attending work in an impaired state is not acceptable for anyone and where self-monitoring and management of potential impairment issues is undertaken by individuals with support being provided by peers and supervisory management.

21.1 Fatigue Management

Fatigue is a recognised potential safety and health risk. Employees are encouraged to report to their supervisors any situation where tiredness or their physical condition is impacting on their ability to perform their work in a safe manner. Reasonable rest periods shall be allowed according to the physical demand of the work.

The Site Manager shall ensure that hours worked are consistent with the contractors and the project's policy of scheduled working hours.

Employee safety is the project's prime consideration when scheduling work. Where additional unscheduled, or emergency type work is required, working hours may be extended temporarily.

21.2 Working Hours

The project shall adhere to the site regulations with project working hours.

Normal work hours are between 7:00 am to 5:00 pm (Monday to Saturday), works outside of these hours require approval from the FIRM Project Manager.

21.3 Health Awareness

Health promotion activities to be undertaken by the Contractors on the project shall be identified within the Toolbox meeting schedule and shall include QUIT programs and fitness for work training.

21.4 COVID 19 Management

FIRM Construction will abide by all requirements as stipulated by the Western Australian Government, Western Australian Health Department, West Australian Police, and other required bodies in ensuring all controls are implemented as per the direction given.

FIRM Construction's HSEQ Manager will be the primary point contract for COVID Management within FIRM Construction, and will liaise with all subcontractors in ensuring compliance.

21.5 Workplace Harassment

As per the projects Anti-Harassment Policy, FIRM aims to maintain and uphold a working environment free from harassment.

Harassment takes many forms, but usually constitutes repeated, unwelcome, and unreciprocated acts or remarks, which make the workplace unpleasant or humiliating for the person subjected to this behaviour. What one employee accepts as reasonable behaviour or takes as a joke can be very distressing to another.

Any employee who believes they have been subjected to harassment or who observes behaviour that may amount to harassment, must immediately report it to their:

- Supervisor; or
- Another member of the management team with whom they feel comfortable discussing the issue.

It is also to be noted that at no time will a FIRM employee, Subcontractor harass or Intimidate a member of the Curtain University community, where the same is expected of the university towards the project team. Any occurrence will be dealt with by FIRM Construction through the project Superintendent directly.

The project management shall ensure that all complaints are treated confidentially, seriously, and sympathetically and appropriate action is taken whenever harassment occurs.

22 General Safety Procedures and Guidelines

22.1 Access and Egress

FIRM shall ensure a safe means of access and egress is provided on site for project personnel at every work location.

22.2 Isolation and Tagging

FIRM shall ensure, prior to carrying our any work on live or potentially live plant or equipment, the plant or equipment is effectively isolated from all hazardous energy sources.

All designated systems, plant and equipment shall have written isolation procedures. This includes, electrical systems greater than 24V, mobile plant, generators, welding machines, self-contained lighting towers, other transportable combustion powered equipment and hydraulic, pneumatic, and explosive powered devices.

Only those personnel who are trained and deemed competent are able to be involved in the isolation of fixed plant and/or equipment.

22.3 Excavation

A permit shall be obtained and approved for all excavations on site. Before the entry of any personnel, the sides of excavations shall be adequately shored, sloped and/or benched to prevent collapse in accordance with the relevant standard. Spoil from excavations shall be set down at least 1m away from the edge of the excavation.

Excavations that expose services must be surveyed before backfilling commences and all excavations must be adequately compacted once backfilling is complete. An Excavation Permit shall be re-validated (or a new Excavation Permit issued) if there is any need or intention to change the size, depth or means of excavation or if the works will not be completed by the indicated expiry date.

22.4 Hot Works

Hot works is identified as any work which involves burning, welding, hot riveting, grinding, using fire or spark producing tools or other work that produces a source of ignition. A permit shall be obtained and approval for all works requiring a Hot Work Permit to work.

Designated hot work areas are exempt (workshop etc.) from requiring a permit for hot work however, a risk assessment of the workplace must be undertaken and periodically reviewed to ensure the designated hot work area is safe.

22.5 Working at Heights

FIRM shall ensure safe systems of work and procedures are implemented for all work at heights. A rescue plan shall be developed and implemented, with all required equipment and trained and competent personnel shall be made available, for each specific work at heights activity.
Project personnel assigned to work at height, or requiring the use of fall restraint equipment, must have completed an approved safe work at height training course.

A permit shall be obtained and approved. The hierarchy of control shall be used when considering methods of safe work at heights. Fall-arrest systems will not be used without the approval of the FIRM HSEQ Manager.

The site management shall ensure whenever practicable, solid barricading or edge protection is used where there is a potential risk of falling and the potential for free fall arrest is eliminated where possible. All openings and penetrations shall be secured with fixed covers and or barricades so that falling into or through them is impossible.

Where work at height activity is planned, an exclusion zone below may be established to ensure the safety of all personnel on site.

Work shall be organised so that people do not interfere with other workers or increase the risk to themselves or others. The sequence of jobs so that different trades are not working above or below each other at the same time without suitable protection.

22.6 Spotters

Spotters may be utilised for the safe movement of mobile plant onsite. If the work site does not allow for the safe detour of pedestrian and vehicles, the spotter must direct mobile plant operations to cease until the traffic is clear of the area.

All spotters must use positive communication techniques either hand signals or radio. Spotters shall ensure they are always in visual sight of mobile plant operator or working at heights personnel at all times. Spotters are required to wear standard Personal Protective Clothing and be provided with a two-way radio at all times while spotting. Communication methods must be agreed before works starts.

22.7 Electrical Equipment

The site management team shall ensure all users of electrical tools, appliances and extension leads, visually inspect their electrical tools and equipment for signs of damage prior to use. Regular function testing of RCD's by use of the 'test button' shall be performed.

Inspection, testing and tagging of electrical equipment shall be performed as follows:

Daily	Users shall inspect any equipment to be used for visual damage to housing and energy source (leads, hoses) prior to each use.
Quarterly	All portable electrical equipment, portable tools, extension leads, generators, welders, fixed electrical plant and equipment, installations such as crib rooms and workshops shall be tested and tagged. This testing shall be completed by a competent person and shall include continuity, polarity and earthing and installation tests (as appropriate).
Yearly	Fixed and portable electrical equipment and appliances used in offices shall be tested and tagged.

Tag colours for quarterly tests are:

December – February	Red
March – May	Green
June – August	Blue
September – November	Yellow
Annual	Black

Annual testing and the application of black tags shall only apply to office electrical equipment.
Inspection, testing and tagging of RCD's shall be performed as follows:

Type of Test	Portable	Fixed
Inspection and push button test.	Daily or before each use, whichever is the longer.	Six (6) monthly.
Operating time using RVD tester.	Monthly.	Twelve (12) monthly.

Inspection and tagging of electrical equipment is to be completed by a competent person (licenced electrician) and information recorded and maintained within the 'Electrical Equipment Inspection and Testing Register'. Where leads are detachable from the equipment, separate test tags shall be placed on the equipment and lead.

The site management team shall ensure that:

- The maximum length of extension leads does not exceed
  a. 25m for 1.0mm², 32mm for 1.5m² conductors (10 Amp cables)
  b. 25m for 1.5mm², 40m for 2.5mm² conductors (15 Amp cables)
  c. 32m for 2.5mm² conductors or 40m for 4mm² conductors (20 Amp cables)
- Extension leads are not joined to form longer leads
- Power leads are suitably restrained and supported above ground level using either cable stands or standard lead restraining clips
- Power leads are not routed along access ways, walkways or handrails unless supported by lead restraining clips
- Power leads are not used while coiled or reeled
- Portable RCD units are used to distribute power directly to power tools only and not as an adapter to extend the length of power leads or for multiple distribution of power leads
- Portable switched socket outlets are IP55 rated, and RCD protected
- All welding machines must have Voltage Reduction Devices fitted
- All portable generators / lighting plants shall have lockable isolation points and lighting plants are to comply with IP56
- Double adapters or domestic power boards are not used in construction.

22.8 Generators

Self-contained, transportable generating sets driven by internal combustion engines that are intended to provide an independent 50 Hz AC supply at above 32V AC, single phase or three-phase, shall meet the following requirements:

- Comply with AS 2790 and AS 3010.1 with the additional features as varied below. All live parts, including 'neutral' parts, shall be guarded, and insulated including terminals at the back of the outlet
- Single phase windings shall have the neutral terminal connected to the earth terminal of the device as per Clause 6.19(b) and Figure 1 of Amendment No.1 of AS 2790. Three phase units shall have the star point of neutral connected similarly
- All socket outlets providing non-welding power shall be weatherproof, hi-impacts polycarbonate or of similar construction, with an isolating switch that operates in all live conductors
- The single-phase outlets indicted above shall be protected by a residual current operated circuit breaker set to trip at a maximum earth leakage of 30 mA
- Generators shall be inspected and tested by a licenced electrical worker and tagged in accordance with the tagging procedure and be always protected from wet weather conditions
- Earthing of generators must comply with manufacturer instructions and the requirements of AS 3000. As required, this may include earth stakes buried to a depth of at least 600mm

and sized in accordance with AS 3000 – Section 5.5.1, unless specifically stated otherwise for safe operation of the generator.

22.9 Pressurized Equipment

Pressurised equipment includes hydro-testing equipment, oxy/acetylene hoses or cylinders and containers that are subjected to pressure above or below that of our atmosphere.

The site management shall ensure any person who is required to use pressurised equipment are trained in the use of such equipment and furthermore is fully conversant with the hazards associated with this equipment.

Cylinders containing compressed or liquefied gas shall be:

- Isolated from open flames, heat and where possible direct sunlight (including welding and electrical leads, spark producing equipment etc.)
- Valves and connections kept free of mineral oil and greases
- Kept upright and secured to prevent value damage and potential gas leaks
- Valves closed (at the cylinder), protective caps installed, and regulators removed prior to movement
- Secured to an operating unit or welding trolley, with a purpose-built cradle to be used for lifting;
- Suitable keys attached to all cylinders when in use
- Pressure reducing regulators used for cylinder gas (flash back arrestors secured to hand piece and cylinder connections for oxy sets)
- Hoses properly secured with hose clamps at each end (wire is not acceptable)
- Tagged as either full, in-use or empty

Hose assemblies are to be inspected and tagged by a competent person on a quarterly basis, with information to be recorded and maintained within the FIRM Equipment Register. The colour of inspection tags and/or identification will be in accordance with the site electrical tagging colour coding, as detailed in this plan.

22.10 Equipment Guarding

FIRM site management shall ensure all plant and equipment, including portable power and hand tools are in a safe and serviceable condition.

The following general requirements shall be implemented and followed by project personnel:

- No person shall remove any safety guard device from a grinding or drilling machine unless the equipment is isolated
- Operators of buffing, grinding, and drilling machinery shall protect themselves and others in the work vicinity from airborne projectiles through the use of screen and personal

protective equipment (PPE). The minimum requirements being hearing and eye protection

- No grinder or buffer shall be fitted with any other cutting wheel, e.g., saw blade, polishing disc or pad, other than those recommended by the manufacturer
- Access to equipment shall be controlled and monitored where safeguarding and interlock systems are insufficient to protect persons from moving plant and equipment
- Fail-safe switches or devices shall be installed on all rotating fixed plant and hand tools (e.g., saws, lathes, drill presses, etc.);
- Guards shall only be removed for maintenance and repair and only once the equipment is isolated and locked out. Guards shall be replaced prior to equipment being put back into service; and
- No guarding shall be modified or altered in any way except through application of a detailed risk assessment and change management process.

22.11 Portable Tools

A portable tool is defined as any hand tool or power tool (electric, pneumatic, hydraulic or fuel driven) that can be manually transported by one person.

All portable tools shall be:

- In a good state of repair and safe for the user, or any other person working within the vicinity of their operation
- Used only for the task they were designed for and in accordance with the manufacturer's instructions (all guarding and handles to be attached and operable)
- Maintained in accordance with the manufacturer's instructions; and
- Have 'Deadman' switches fitted.

Portable tools may be subjected to inspection by FIRM representatives during on-site work. Excessively worked tools requiring maintenance shall be removed from the project. 320mm (9") grinders are not permitted on the project; the maximum permitted size is 125mm (5").

22.12 Scaffolding

All scaffolding erection and dismantling shall comply with the requirements of AS 1576 Scaffolding and AS 4576 Guidelines for Scaffolding. Toe boards shall be installed in such a manner that they will contain tools and materials thus minimising the risk of falling objects.

Safe use of scaffolding on site shall be controlled using the 'Scaff tag' system (to be used at each entry point), with inspections recorded and maintained within the subcontractors 'Scaffold Register' by a competent person (qualified scaffolder) every seven days. This register is to then be provided to the FIRM Site Manager weekly.

During erection, scaffolders shall be protected from the risk of falling using personal fall protection equipment and shall at all times work from at least two secure planks. It is unacceptable to work only on scaffold tubes or to climb scaffolds unprotected.

All scaffolds must be tied-in or have outriggers fitted when the height exceeds twice the width of the base and all protrusions, including scaffold clips shall be covered to prevent injury. All accesses to scaffold platforms shall have self-closing gates and ladders will have a handrail. Lightweight self-closing gates are to be used wherever practicable.

Scaffold erection and dismantling shall only be carried out by certified competent scaffolders (in accordance with the particular class of scaffold).

The subcontractor shall appoint a competent person as the scaffold supervisor responsible for scaffolding works on site.

22.13 Ladders – Fixed and Portable

The site manager shall ensure all ladders comply with the relevant Australian Standards:

- AS 1657 – Fixed Platforms, Walkways, Stairways and Ladders
- AS 1892.2 and AS 1892.4 – Portable Timber Ladders (including stepladders and trestle ladders
- AS 1892.1 – Portable Ladders Metal.

The site manager shall ensure portable ladders are regularly inspected by a competent person (qualified scaffolder) with information to be recorded and maintained within the 'Ladder Inspection Register'. Ladders are required to be inspected for damage and integrity prior to use on any task.

Portable ladders shall not be used for general work activities unless it is a platform ladder with edge protection. Three points of contact must be always maintained when using any ladder.
Where a ladder has been installed for access purposes, it shall extend a metre above the edge of the work platform or access / egress point, to be placed on an incline of 1 to 4 and be tied off at the top with suitable material. Extension ladders must overlap by at least ¼ of the length.

22.14 Personal Protective Equipment

Personal protective clothing and equipment (PPE) shall be supplied to all FIRM employees as required for specific jobs. FIRM requires all engaged subcontractor to provide all required PPE for the works being completed.

FIRM will NOT provide PPE to subcontractors, unless the works being completed are outside of the subcontractor's scope of works and additional PPE is required.

All PPE used shall conform to the relevant Australian Standards and fit for purpose.

As a minimum, the following PPE shall be supplied and used onsite:

- Hard Hat
- Eye protection (Grinding, Cutting, etc) that complies with AS 1337 (tinted outdoor and clear within building facilities), including prescription glasses;
- Appropriate Hi Visibility clothing that complies to AS/NZS 4602
- Hi leg lace up safety boots (not elastic sided); and
- Gloves.

Goggles and / or full-face shields, must be worn when performing applicable tasks which includes drilling, grinding, using a circular saw, handling chemicals and metal hammering. Protective gloves, suitable to the task, must be worn when using cutting implement.

All site mandatory PPE shall be worn, used, and maintained by project personnel, including any specialised equipment.

All fall arrest and protection equipment shall be inspected and tagged by a competent person (qualified rigger, who holds a certificate of competency for inspection of harnesses) on a quarterly basis, with information to be recorded and maintained within the FIRM Rigging Register. The colour of these inspection tags shall be in accordance with the site electrical tagging colour coding, as detailed within this plan. Wherever practicable, free fall arrest points on harnesses are to be at the front (sternum) to assist in self-rescue, all harnesses are to have separate rescue loops and triple action carabineers are to be used.

22.14.1 Maintenance, Service Life and Inspection

There are two basic types of service life for Personal Protective Equipment, namely:

- Safety Helmets/Hard Hats – Two-year service life under Australian/New Zealand Standards. Safety helmets should be replaced if subjected to a hard impact.
- Fall Arrest/Safety harness – should be disposed of if subjected to a loading condition in use e.g., arresting fall.

All PPE and protective clothing should be inspected prior to use and maintained in accordance with the manufacturer/suppliers' recommendations. Where PPE or clothing is found to be or suspected of being faulty or defective in any way, or where it has been in contact with a chemical substance that could potentially alter its reliability, or has reached the end of its service life, it shall be immediately removed from use and an appropriate out of service tag placed in it where it is not able to be disposed of immediately.

An inspection record should be maintained for critical PPE where it is defined by the manufacturer/supplier, or where it is specifically defined as a requirement under legislation.

22.15 Light Vehicles and Mobile Plant

All designated mobile plant operators shall conduct a daily pre-start check to identify any faults, damage and/or wear and tear. Daily inspections shall be recorded on the provided log book,

maintained within all and mobile plant. All mobile plant shall have a risk assessment and deemed fit for the purpose. The risk assessment will be kept by the FIRM site Management team within the FIRM Plant and Equipment Register. The risk assessment will be reviewed at the start of every shift or when the pre-start is undertaken.

* *A light vehicle is any land-based vehicle weighing less than 4.5 tonnes gross. As a result of improvements in light vehicle airbag technology and cabin structural integrity rollover protection is no longer mandated. Fit roll over protection systems (ROPS) must be available in vehicles with a three star or lower ANCAP rating.*

Project personnel shall be responsible for the condition of any mobile plant they have been assigned to operate.

When unattended, all mobile plant must be turned off and parked in gear with the park brake engaged.

22.16 Vehicle and Mobile Plant Access

Only vehicles and mobile plant that conform to FIRM's requirements for Vehicles and Mobile Plant shall be:

- Registered and licensed as required
- Have compliance plates where required
- Fitted with the appropriate safety equipment
- Mechanically safe and in good working order
- All mobile equipment is to be kept visible, free of soil or mud build-up inclusive of vegetative material before entering or departing the Site
- Beacon Light
- Plant Risk Assessment completed
- Pre-start Booklet.

Personal/private vehicles are not to be used on site.

22.17 Petrol Powered Equipment

Petrol powered equipment may be used on site with approval from the FIRM Site Manager. All Petrol powered equipment is to have completed a prestart and associated risk assessment for the safe use and operation of that equipment. The Risk assessment is to be provided to FIRM Site Management for keepsake and stored within the plant and equipment register.

22.18 Radios

FIRM shall ensure suitable communication systems (i.e., handheld radios) for applicable works (e.g., cranage) on site in accordance with project specifications.

FIRM project management shall ensure that project personnel use appropriate, non-offensive language and prevent unnecessary general chatter on any radios. Radio communication for cranes is only to occur on isolated, approved channels. Where an additional channel is required, a request to FRIM Site Management must be submitted and approved prior to beginning works.

22.19 Mobile Phones

The use of mobile phones at the work location shall be minimised to those personnel approved to use them. General mobile phone use is to occur away from the work front. If a person wishes to take or make a call, they will stand clear of their work for the duration of the call.

When operating a vehicle, mobile phones, and other portable electronic devices whether hands free or not, must only be used by the driver of a vehicle while the vehicle is stationary and in a safe location.

No Plant operation will be undertaken while talking on a mobile phone.

Photos taken for any reason other than legitimate project purposes onsite must be approved prior to being distributed off site.

22.20 Cranes

FIRM shall ensure all crane use and inspections are in accordance with AS 2550 – Cranes Safe Use; AS 1418 (all parts relating to relevant crane type). All cranes must be inspected prior to arriving on site and be approved for site access.

Mobile cranes leased for project shall carry the current plant logbook and manufacturer's operation and maintenance manual(s) at all times. Details of maintenance history and modifications shall be entered in the plant logbook.

All lifts will be subject to a Risk Assessment and any lift that is more than 75% of the safe WLL (at any radius) and any lift exceeding 20 tonnes, will require a Lift Study and Lift Plan to be completed and approved by the FIRM Project Manager and HSEQ Manager prior to the commencement of the lift. Crane drivers and riggers will be consulted when developing a critical lift.

FIRM site management shall take special precautions to ensure the lift area is clearly identified, clears of all obstructions, and does not pose a risk to personnel, plant, vehicles or construction and operational activities. Non-essential personnel will be removed from the lift area and no personnel will ever work or travel under a suspended load.

Where there is uneven or unstable ground the ground is to be inspected in conjunction with supervision, out riggers are to be fully always extended and adequate packing must be placed beneath the outriggers.

Wind during the lifting operation may not exceed 15 Knot, if greater the lifting operation will stop.

A risk assessment and JHA shall be conducted prior to each lift and signed off by all personnel involved in the lift. Tag lines (> 16mm) will be secured to all loads being lifted by the means of a suitable knot i.e., bowline (shark hooks and the like are not permitted to be used on the end of any tagline).

22.21 Lifting Equipment and Winches

Lifting gear includes, chains, ropes, coupling, fittings, hoist blocks, stays, pulleys, hangers, slings, braces or movable contrivances of a similar kind, used or intended for use on, or in connection with construction work.

Lifting gear shall be visibly marked in accordance with the relevant Australian Standards and such marking shall be legible throughout the working life or the equipment.

Rigging and lifting equipment shall be inspected on a quarterly basis by a competent person (qualified rigger) for the purpose of determining their suitability for safe use, with information to be recorded and maintained within either the FIRM Rigging and Equipment Register or compiled and provided to FIRM Site Management by the on-site crane team. All lifting gear shall be tagged, or otherwise identified as having undergone a quarterly inspection, with the colour of lifting gear tags and/or identification to be in accordance with the site electrical tagging colour coding, as detailed within this plan. Test certificates shall be maintained on file for all equipment.

A qualified engineer shall approve manufactured lifting attachments. Non-Destructive Testing (NDT) shall be carried out when it is suspected that the gear may have been subjected to excessive stress or annually as required. All lifting attachments shall be included in all lifting equipment inspections.

General requirements for site include:

- Fibre ropes shall not be used for crane lifting activities, only as taglines
- The use of synthetic fibre slings shall be risk assessed prior to use to determine suitability for task. A pre-start inspection of these slings shall be completed by a competent person prior to use. Synthetic slings must always display current test tags
- The grade of lifting chains is to be a minimum of T80
- All hooks must have a safety latch
- All safety shackles must have the correct split-pin fitted
- Slings used with lever-hoists or chain blocks must have a SWL greater than that of the lever hoist or chain block
- All rigging gear shall be stored off the floor and away from hazardous substance and materials.

22.22 Elevate Work Platforms (EWP)

EWPs shall carry the current logbook and manufacturer's operation and maintenance manual(s) at all times. Details of maintenance history and modifications shall be entered in the plant logbook.
Evidence of third-party annual inspection certification in accordance with AS 1418.10 – EWP Inspections and Testing shall be supplied.

A Pre-Start inspection of EWP must be completed prior to use, with the details recorded in the EWP logbook. The responsible FIRM Site Manager shall sign off in the plant logbook in the relevant daily inspection entry area to verify that the operator has carried out an inspection and completed the plant logbook as required.

The EWP shall be operated in accordance with AS 2550.10 and the manufacturer's instructions, including the requirement to always wear and secure a harness whilst in the basket of the equipment and when the equipment is moved. No one shall exit the basket of a EWP whilst it is elevated, unless there is no safer means of access / egress and the conditions specified in AS 2550.10 (clause 9.4) are met. The risks involved in this process shall be assessed by means of a permit to work and specific task JSEA.

Portable electrical equipment used in an EWP shall be plugged into the EWP 240V power outlets.

Note:

1. Boom Lift EWP's will require specific training, including a WP classification on a valid High-Risk Licence (WA). All works conducted within a Boom Lift EWP will be classified as Working at Heights. It is noted that no separate WAH training outside of the provided training within the WP certification is required.
2. Scissor Lift Type EWP's are not classified as High Risk equipment therefore there is no requirement for a WP classification on a High Risk Work Licence (WA). However, FIRM expects all personnel who use a scissor lift to be appropriately trained and component either providing proof of training by a registered training organisation (RTO) or letter by the employee's manager confirming confidence in the employees ability to safely operate the Scissor Lift EWP.

22.23 Dropped objects

A dropped object is any item that falls from one level to another and have the potential to injure people or damage plant or equipment. They are created by the incorrect storage or use of equipment when working in elevated areas.

Materials at height will be stored correctly, E.g. fire extinguishers in handrail brackets, bolts in boxes, bars laid down, slinging gear on a rack, scaffold boards, tubes and fittings in racks, nothing stacked above kick board height and all tools secured to you by a wrist strap or attached to a tool belt.

'No go' areas will be implemented as an effective method of making sure people are not exposed to hazards. Clear signage and barricading warning people not to access hazardous areas. They will be implemented to highlight the risks of entry to an area where work is being undertaken overhead and there is a risk of falling objects.

Relevant information and instruction of work areas will be provided at prestart sessions about 'no go' areas with adequate supervision to ensure that no unauthorised workers enter the 'no go' areas.

22.24 Housekeeping

FIRM shall incorporate housekeeping into all processes, operations, and tasks to ensure housekeeping is an integral part of these processes.

Materials stored in open areas shall be stored in a tidy manner and in appropriate containers. Aisles, shelves, steel racks, walkways, corridors, doorways, entrances and exits shall be unobstructed, free from slip/trip hazards and the accumulation of combustible materials. Waste materials and rubbish shall be removed from the job site areas on a continuous basis to prevent a build-up of rubbish and construction waste.

Loose objects such as sheeting shall be secured against movement by strong winds.

22.25 Barricading

Project personnel shall comply with project requirements for barricades:

- Barricades are to be installed where required to a minimum height of 900mm and maximum height of 1,100mm and with vertical support posts spaced at intervals not exceeding 3 metres.
- Barricades to be placed at least 1m beyond any point of potential contact with a hazard
- Danger and warning signage to be used with all barricades and fencing fitted to barricading adjacent to traffic areas
- Soft barrier such as flagging, or para-webbing may not be used as a barrier
- No person shall remove any part of any permanent handrail, mid-rail, platform, kick plate or stairway from any site fixed installation without specific prior approval from the FIRM Site Manager.

22.26 Banned Tools and restricted Tools

Due to past experience within FIRM, and incident statistics taken from the broader construction industry the project has adopted a view that the equipment noted below are not to be used on site and are banned from site:

- Adjustable spanner (shifters)
- 9 Inch (225mm) grinders
- Mild Steel hammers
- Crow bars without cap at one end
- Domestic electrical extension leads
- Domestic electrical power boards
- Domestic Ladders
- 900mm or three step ladders
- Trestle planks of >450mm wide
- Single plank hop ups of less than 450mm wide
- Power tools without Deadman switches
- Fixed open bladed knives (including Stanley knives)

- Over-centre type binders
- Sit harness (waist only)
- Safe right auto stop rope descender/brake
- Torque multiplier
- Personal music devices with headphones (I Pods, MP3, gaming units or similar).

The following tools/equipment are restricted and will require approval from FIRM Site Management prior to use

- Self-retracting knife
- Unsecured scaffold hammer frog (with metal ring)
- Powered nail gun (explosive or pneumatic)
- Reciprocating / Sabre saws
- Hydro blasting equipment
- Skiving knives
- Quick cut saw
- Hardened Steel hammers / sledgehammers
- Triple Road Trains
- Double pointed podgy (crow bars) bars; and
- ATRA Ace WO-3250 Magnetic Drill.

22.27 Asbestos (ACM) Management

FIRM will ensure, so far as is reasonably practicable, that exposure of a person at the workplace and surrounds, to airborne asbestos is eliminated, except in an area that is enclosed to prevent the release of respirable asbestos fibres and negative pressure is used. If this is not reasonably practicable, the exposure must be minimised so far as is reasonably practicable.

FIRM will ensure the exposure standard for asbestos is not exceeded at the workplace, and health monitoring is provided to a worker who is carrying out licensed removal work, other ongoing asbestos removal work or asbestos-related work and there is risk of exposure when carrying out that work and ensure the health monitoring is carried out under the supervision of a registered medical practitioner and information as specified in the WHS Regulations is provided to that medical practitioner.

23 Traffic Management

FIRM is aware of vehicles/pedestrian interface issues and shall put systems in place to eliminate the potential for injury, particularly where it is necessary for vehicles/plant to reverse.

The following controls will be implemented to avoid vehicle pedestrian interface incidents:

- Traffic management to be avoided during peek school periods
- Avoid reversing all together where possible

- Vehicle/plant operators to be aware of surroundings and consider the high likelihood of pedestrians and other vehicles entering blind spots
- Survey the area and make safe before driving; and extra precautions required to restrict public interface/access; Signage and security requirements as personnel may be used to control traffic flow through congested / hazard or restricted areas
- Restricted areas and vehicle escorts
- Vehicle speed
- Overhead powerlines and excavation
- Communications
- Portable barriers and spotters
- Give way rules
- Parking
- Defined No-Go Zones
- Environmental Conditions
- Emergency Management.

24 Occupational Health and Hygiene

Worksite conditions that may cause adverse health effects leading to occupational illnesses are required to be assessed, controlled, and monitored in order to mitigate the associated risks. Occupational illness may be defined as abnormal health conditions that can be related to environmental factors associated with employment. This may include skin disease or disorders, respiratory disorders, disorders due to physical agents (heatstroke, sunburn), repeated trauma or infectious diseases.
FIRM require all subcontractors to ensure personnel representing the subcontractor attends to site in a fit state, free from obvious injury and/or impairment.

The following sections highlight the potential employment environmental factors that could lead to disorders and subsequent controls and monitoring procedures to be referenced and implemented.

24.1 Smoking

Refer to FIRM Smoke Free Policy.
The project is a smoke free site as per Department of Education (WA) guidelines.
Smoking is not permitted within any of the following areas:

- Site facilities
- Within the School boundary
- Hazardous material storage areas
- Refuelling areas
- Within 5m of the entrance to any building.

Smoking is only permitted in designated areas and butt bins must be used, this designated will be advised to each project team member on induction. Should any team member be found

smoking within the boundaries of the project, one warning will be given and the cigarette is to be immediately extinguished. Any further indiscretions by the same person, will result in their site access being revoked,

24.2 Occupational Noise

The risk exposure to noise hazards will be managed in accordance with AS 1269.

Identified noise hazard areas or activities shall be managed using a combination of controls. For example:

- Suitable noise controls fitted to plant and equipment, (i.e. mufflers)
- Warning signage
- Job rotation to reduce employee exposure times
- Provision of appropriate hearing protectors
- Education and training of project personnel
- Quantitative fit testing for RPD and HPD as per Contract; and
- FIRM Noise Management Procedure PC-CS-HSEP-3.30.

In accordance with Worksafe, legislative and contract requirements, FIRM Construction employ the following noise management process:

- As this project is based within a live school environment, ALL practicable measures ARE to be made to reduce any noise that can have a negative impact on the school environment especially where excessive noise may have a negative impact on school children particularly sensitive to noise. Such includes:
    - Substituting noisy equipment and processes with less noisy alternatives (where possible); and
    - Use machinery which causes less noise/vibration to surrounding existing infrastructure/occupied buildings.

- Where substitution is not possible, and where the construction work will necessitate higher than normal construction noise levels, The CA or PM will advise the SR and the school in advance (24 hours prior) of the relevant works commencing.

FIRM Construction notes that positive Communication and Consultation with SR and School is paramount to enable FIRM Construction to carry out the works with the least disruption possible. The CA or PM will liaise with the SR to determine any specific or a typical DoE or City of Kwinana noise requirements which extend beyond the scope of this noise management procedure. Should there be any specific noise susceptibility concerns relating to any individual, class, building or school event, these are to be discussed between the project team and a resolution on noise management to be reached.

At all times FIRM Construction will comply to the *Environmental protection (Noise) Regulations 1997 (WA).*

24.3 Manual Handling

Identified manual handling and ergonomic risks or activities shall be managed using a combination of controls. For example:

- Scheduled, periodic survey of ergonomics and manual handling, as required.
- Training of personnel in correct manual handling techniques; and
- Provision of appropriate manual handling aids and equipment to reduce handling requirements.

The performance of manual handling will be in accordance with the National Code of Practice. This system and formats will be utilised by the appropriate FIRM personnel to undertake the monitoring of the activities and risks involved.

24.4 Dust, Particulates, Fumes, Mists, Gases and Vapors

FIRM project management shall ensure exposure to dust, fumes, mists, gases and vapors from work on site are minimised, inclusive of controlling ACM.

No angle grinding shall be carried out on materials that contain synthetic mineral fibres, i.e. glass fibre, ceramic fibres, without the specific approval of the Client. Respiratory protection shall be worn when cutting concrete using a quick cut saw and water shall be used to suppress dust.

Respiratory protection shall comply with AS 1715 – Selection Use and Maintenance of Respiratory Protection Devices and persons shall be trained and assessed in the safe use, care and maintenance of respiratory protection.

During ACM Removal works, the specialist contractor will ensure that any particulate dust is suppressed in accordance with the ACM removal methodology as provided to FIRM by the specialist contractor. This can take the form of;

- Water Suppression systems
- Vacuum systems
- Spray area to be removed with water/PVA mixture to seal sheets prior to removal

24.5 Safety Data Sheets

FIRM Site management shall maintain a current register and copies of SDS's for all chemical or substances brought onto site.

All chemicals must have a registered SDS that is less than 5 years old.

FIRM will ensure spill response bins/kits are maintained and located in close proximity to hydrocarbons/chemical storage areas for use to contain and recover spills.

24.6 General Requirements for Storage of Chemicals & Substances

Corrosive storage cabinets are to be manufactured in compliance to AS 3780-1994. This standard allows for the storage in one cabinet of 1000kg in solid form or 1000L in liquid form, or which is not more than 250kg in solid from or 250L in liquid from may be of Packaging Group II and not more than 50kg in solid form or 50L in liquid form may of Packaging Group I.

Specified design features include:

- Walls, floors, doors and roof must either be constructed of corrosion proof material or be protected by a corrosion resistant lining or coating
- The door must be self-closing, close fitting and held shut by catches at no fewer than two points
- The door must not open inward and must be capable of being opened from the inside of the cabinet
- The cabinet bottom must form a liquid tight compound at least 150mm deep and be capable of containing at least 25% of the maximum storage capacity
- Any shelves must permit free air movements.

Where there is more than one cabinet in any building or area, either the total quantity kept will not exceed the maximum allowable in one cabinet, or the cabinets will be separated by a minimum of 5 metres. Cabinets will be positioned such that they do not block exits or stairways and should be near a facility that allows for hands to be washed.

Note: AS/NZS 3833-1998, which covers mixed storage, specifies a minimum separation of 3 metres between cabinets storing any class of dangerous goods.

Adequate ventilation will be provided for all package storage and handling areas and at places where packages are opened. Ventilation will be sufficient to maintain exposure levels below the recommended workplace exposure standards.

The storage of any incompatible goods in a designated corrosive substance cabinet is prohibited under Section 4.3.2.2 of AS 3780.

24.7 Movement of Hydrocarbons

FIRM will ensure all hydrocarbons are transported, handled, stored, and disposed of correctly in order to prevent contamination of soils, surface water and groundwater.

24.8 Delivery of Substances

Transport of loads shall be in accordance with the Australian Code for Transport of Dangerous Goods by Road and Rail Storage onsite.

24.9 Hazardous Substances

Hazardous substances present potential for injury, ill health or environmental impact if these substances are not handled, stored, packaged, used or disposed of correctly.

24.10 Hygiene

The Site Manager shall ensure project personnel maintain a high standard of hygiene with the use of site crib rooms and ablutions. These facilities shall be maintained in a clean, tidy and hygienic state at all times.

25 Environmental

25.1 Environmental Management

Environmental management procedures will form an integral part of the Project construction. Monitoring of these procedures through weekly Inspections will be conducted by the FIRM site management team.

Records of all inspections will be maintained by FIRM.

26 General Environmental Procedure and Guidelines

26.1 Environmental Inductions

All project leadership and induction sessions shall include environmental requirements for the project.

The FIRM site induction shall include information on environmental requirements specific to the site such as ACM, waste management and vegetation clearing and disturbance, as well as orientating new project personnel to environmental emergency response facilities on site, i.e. spill kits, fire extinguishers, etc.

26.2 Spill Response

FIRM shall be responsible for providing and maintaining spill control and clean up equipment for its activities on site.

Spillages shall be controlled in the first instance and clean up implemented within a 24-hour period, with all spillages reported to the HSEQ Manager within 4 hours of occurrence.

The FIRM project management team shall ensure all necessary precautions are taken to prevent the discharge into waterways of any oils or similar materials (hydrocarbons), or of any non-biodegradable liquids.

Servicing of all plant and equipment shall only be performed by a competent person with equipment required for the work to be performed as per the OEM and JHA. Drip trays and bunds shall be used for equipment containing fuel.

Spill kits shall be located in the proximity of any hazardous material or hydrocarbon storage, or transfer areas as required.

26.3 Waste Management

Waste disposal will be controlled in accordance with local government regulations. Waste stations shall be established around the project site, which include bin or skips required for appropriate segregation of all waste types generated in an area. All bins shall be clearly labelled, securely covered, not overflowing, stored neatly, and emptied at regular intervals. Onsite recycling and registered waste disposal areas will be utilised to reduce offsite waste disposal.

Licensed Waste removal shall be via appropriate operators. Dockets are to be retained and reported for all licensed waste disposal.

Concrete waste and concrete wash out shall be contained within plastic lined bunds and constructed prior to concrete pouring commencing. Concrete washout pits shall be disposed of in accordance with site requirements. All spills of concrete shall be picked up and disposed of prior to the end of each shift.

Cigarette butt containers i.e., 'Butt Stops', (not open trays or tins) shall be provided within designated off site smoking areas.

26.4 Air Quality (Dust) Management

FIRM shall manage air quality (dust) as follows:

- Use water to suppress dust emissions, stockpiles and work areas
- Apply further dust suppression controls where dust levels are deemed excessive
- Report any community complaints regarding dust levels or any dust levels that are deemed excessive as an environmental event.

26.5 Noise and Vibration Management

The project shall conduct its activities in compliance with the Environmental Protection (Noise) Regulations 1997 and HSEQMS – B2 Hearing Conversations, B3 Manual Handling and Vibration.

All equipment shall be appropriately fitted, maintained or substituted with noise reduction devices if necessary, to comply with project noise levels.

Activities shall be managed according to weather conditions and proximity to noise sensitive areas to minimise the impact of noise and vibrational emissions. All noise generating activities will be conducted subject to noise curfews working hours are 7:30am – 5:00pm Monday to Friday adhering to the noise policy of the City of Joondalup. This includes management of noise sources such as two-way radio communications, vehicle and equipment, tooling and equipment noise, placement of site generators. Works planned to be conducted outside of these working hours are to be requested of and approved by the City of Joondalup, prior to these works commencing.

26.6 Cultural Heritage

In accordance with the Aboriginal Heritage Act 1972 FIRM project management shall ensure that:

- All information is obtained on the location of Cultural Heritage Sites in the area prior to mobilisation
- Respect Cultural Heritage Sites and ensure they are not disturbed unless written approval has been obtained from the Client
- Immediately inform the Client of any previously unidentified heritage sites or suspected heritage sites located during on-site works
- Protection of any heritage sites from damage until further investigation by the Client. The discovery of any heritage sites or artefacts (including bones) requires that works cease immediately in the area and the site is not disturbed until otherwise authorised by the Client
- Communicate the appropriate management practices to project personnel when working near these protected areas via site induction and toolbox meetings
- Give all reasonable assistance to officers of the Department of Indigenous Affairs if they are investigating events or alleged events that have occurred within the project area.

26.7 Native Fauna

All native animals are protected by law under the Wildlife Conservation Act 1950 (WA). Accordingly, native fauna, including goannas and snakes, cannot be harmed or killed. Consequently, if native animals are causing a nuisance onsite, then relocation is the only management action available. Removal and relocation will only be completed by suitably qualified personnel or local rangers.

26.8 Community

The project shall undertake the following, to minimise the impact to the local community from its activities:

- Provide information sessions to project personnel on the importance of behaving responsibly in the community.
- Inform project personnel that inappropriate behaviour off-site may be grounds for disciplinary action, including dismissal.
- Respond to community complaints in a timely and respectful manner
- Be respectful that the project is within a school environment and as such swearing, radios, excessive construction noise is not permitted

27 Non-Compliance

Those persons who do not comply with their 'Duty of Care', FIRM HSE site requirements, Contractor's internal project requirements or continually place the safety and health of themselves or other at risk, will be subject to disciplinary and counselling action, which may include termination of employment, and/or removal from site.

28 Emergency Contact Information

EMERGENCY SERVICES AND CONTACTS
WELLARD PRIMARY SCHOOL

EMERGENCY SERVICES

POLICE
FIRE
AMBULANCE

CALL: 000

POISONS HOTLINE

CALL: 13 11 26

WA POLICE

CALL: 13 14 44

KALAMUNDA POLICE STATION

CALL: 08 9351 0699

WARNING AND ALERT

DFES PUBLIC INFORMATION

CALL: 13 33 37

BUREAU OF METEOROLOGY – NATIONAL WEATHER WARNING

CALL: 1300 659 210

SITE CONTACTS

CM: Clive Nightingall
CALL: 0498 955 515
SM: TBA
CALL: TBA

SITE SUPERVISOR: Liam Cassidy
CALL: 0437 235 019

PM/CA: Ian Richardson
CALL: 0451 226 466
HSEQ MANAGER: James Trehearn
CALL: 0478 215 569

FIRM CONSTRUCTION OFFICES
CALL: 08 9207 7888

NEAREST HOSPITAL AND GP

EMERGENCY HOSPITAL: ST John of God Midland Hospital

CALL: 08 9462 4000

Address: 1 Clayton St Midland

GP: Kalamunda GP Supa Clinic

CALL: 08 6323 2906

Address: 51 Canning Road Kalamunda

UTILITIES

WATER CORPORATION
CALL: 13 13 75

ELECTRICITY – WESTERN POWER
CALL: 13 13 51

GAS
CALL: 13 13 52

TELSTRA
CALL: 13 22 00

DIAL BEFORE YOU DIG
CALL: 1100

POLLUTION HOTLINE
CALL: 1300 784 782

FIRM ON SAFETY

Appendix A Occupational Health and Safety Policy

FIRM
CONSTRUCTION

OH&S POLICY

FIRM Construction Pty Ltd is committed to meeting its legal obligations in regard to the provision of the health, safety and welfare of all persons (including directors, employees, subcontractors, clients and the public) at its workplaces, including worksites, and acknowledges that Occupational Health and Safety (OH&S) is a critical component of our business and management activities.

The commitment of FIRM Construction Pty Ltd is based on the principal of controlling risks to a level that is considered reasonably practicable in order to meet the legal obligations under State legislation, regulations and codes of practice.

Through the OH&S Management System, FIRM Construction Pty Ltd formalises systems for work and defines responsibilities of managers and employees.

The OH&S Management System and the OH&S policy describe the commitment of the company to health and safety and clearly define how the health, safety and welfare of all persons are ensured by facilitating:

- Compliance with all applicable legislation and regulations;
- Adoption of "best practice" approach to OH&S; and
- Integration of occupational health and safety into all aspects of FIRM Construction Pty Ltd business.

In order to maintain a safe and healthy workplace, FIRM Construction Pty Ltd:

- Seek to ensure its facilities operate to the highest standards to protect directors, employees, subcontractors, visitors and the public;
- Provide safe systems of work developed in consultation with employee taking into account the hazards identified and implementing risk minimization controls;
- Provide appropriate training, information, inductions and supervision on systems to all who work in its business activities so that they are able to comply in a responsible and lawful manner;
- Seek to improve, develop and enhance new programs and procedures to actively increase the OH&S outcomes;
- Ensure the reporting and investigation of injuries, illness, incidents and near misses is conducted in a consultative manner to prevent recurrence;
- Measure and evaluate OH&S performance by regular monitoring audits and inspections of compliance with FIRM Construction Pty Ltd policies and legal obligations.
- Consult with employee and encourage initiatives that contribute to a safer and improved working environment; and
- Regularly review the OH&S Management System to ensure its appropriateness and effectiveness in managing systems of work and OH&S responsibilities.
- Commit to establish measurable objectives and targets and monitor and measure continual improvement aimed at elimination of work related injury and illness.

All employees have strict obligations and responsibilities under this policy to put safety first, to work safely and to report unsafe work practices or situations to their manager or supervisor. Directors and senior management strongly endorse this policy and will regard breaches very seriously.

Authorised by: **Director**

Date: 16 June 2011

Certified System
OHS
ISO 45001
SAI GLOBAL

Appendix B Quality Policy

FIRM
CONSTRUCTION

QUALITY POLICY

FIRM Construction Pty Ltd is a commercial construction contractor committed to delivering high quality construction services to mining, government, industrial and property sectors throughout Western Australia.

It is our aim to continually strive for improvement in all we do. This ensures we expand our position in the market place and enhance our professional standing in the construction industry.

FIRM Construction Pty Ltd is committed to achieving the following Objectives:

- Continually improving business processes and performance effectiveness;
- Maintaining compliance with ISO 9001:2015 Quality Standards including the integration with our Quality Management System;
- Exceed the expectations of clients in delivering quality and value for their investment;
- Mitigating risks, which are considered practicable in order to meet the legal obligations under State & Commonwealth Legislation, Regulations and Codes of Practice.

The FIRM Construction Pty Ltd Quality Management System contains procedures, work methodologies and defined responsibilities for all personnel.

With regular planning, client surveying, reviewing and auditing, opportunities to improve business systems and organisational performance are identified.

All employees are obligated under this policy to take responsibility for maintaining vigilance for improvement and the delivery of quality.

Authorised by: **Date:** 16 June 2021

Director

Certified System
Quality
ISO 9001
SAI GLOBAL

Appendix C Environmental Policy

FIRM
CONSTRUCTION

ENVIRONMENTAL POLICY

FIRM Construction Pty Ltd is committed to the continuous improvement of its environmental performance and recognises its responsibility to meet community expectations. FIRM Construction will also meet and where prac-table exceed the requirements as stated within ISO14001 Environmental Management.

FIRM Construction Pty Ltd believes environmental stewardship is both a management obligation and the responsibility of each employee to protect the environment and prevent pollution.

To achieve these commitments, Firm Construction Pty Ltd will:

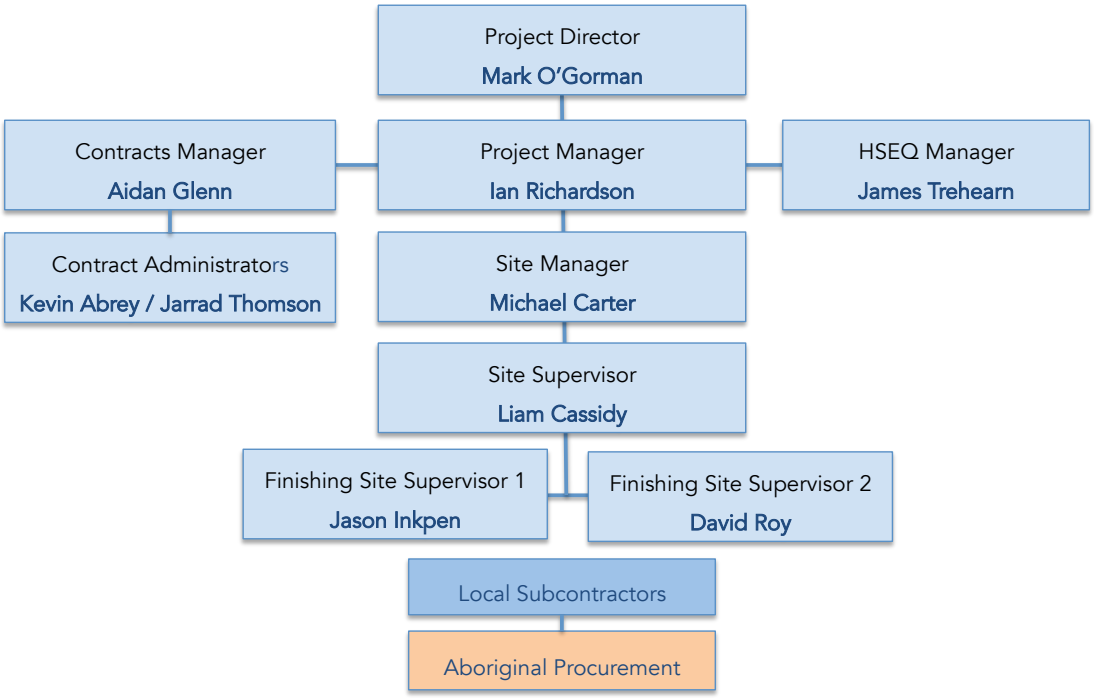
- Maintain and continuously improve the environmental management system across the organization.
- Ensure all employees and subcontractors receive appropriate training to fulfil their individual environmental responsibilities.
- Proactively pursue the identification of all risks to the environment and eliminate or, if not possible, manage each risk to as low as reasonably practicable.
- Establish annual environmental objectives and targets and implement company procedures to achieve the targets.
- As a minimum comply with all relevant legal and statutory obligations.
- Ensure there are adequate resources and skills available to achieve environmental commitments.
- Implement procedures within each project to minimise pollution, manage waste effectively, use water and energy efficiently and address relevant cultural heritage and biodiversity issues.
- Formally monitor and review environmental performance against defined objectives through regular inspections and auditing.
- Ensure companies providing services to FIRM Construction Pty Ltd manage their environmental performance in line with this policy.

Authorised by: **Date:** 16- June - 2021

Director

Certified System
Environment
ISO 14001
SAI GLOBAL

Appendix D Organisation Structure



Appendix E Proposed Site Map

Attachment B3

Quality Management Plan

Client: WATERFORD PBSA PTY LTD

Super Intendent: EXAL

Project: WATERFORD PBSA

Project Number: WPBSA

Contractor: FIRM Construction

REVISION STATUS

Rev	Date	Details	Prepared By	Approved By
			Name	Name
0	20 Nov 2021	Initial Draft	J. Trehearn	S. Linklater
1	25 Mar 2022	Issued for Building Permit	J. Trehearn	M. O'Gorman

Note: Changes to this document electronically or in any other form is not permitted without the specific authorization of the Project Manager.

Disclaimer: The information presented in this Project Specific Management Plan has been compiled from sources believed reliable. However, it cannot be assumed that all acceptable measures are contained within the Plan nor that other additional measures may not be required by the Client under particular, specific or exceptional circumstances and that statutory procedures and rules may apply and take precedence over this material.

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1.0 Introduction

This Quality Management Plan (QMP) is a project specific plan developed to outline FIRM Construction's Quality Management processes. The implementation of this Quality Management Plan allows FIRM Construction to effectively manage quality aspects of a project from the planning stage through to practical completion and defects liability period. A copy of the Quality Management Plan is maintained on site for access by any authority or site worker and is referenced during the induction process.

This Quality Management Plan details the Quality requirements for the project and is reviewed, approved, implemented and maintained by FIRM Construction.

This Quality Management Plan is monitored, reviewed and updated at least every 3 months or when a change in conditions or requirements occurs.

2.0 Project Description

Project Title: WATERFORD PBSA

Project No: WPBSA

2.1 Project Details

The general work scope for this project includes three Separable Portions (SP) for construction of 3 towers

- SP1 – Forward Works
- SP2 – Building 1 and Building 3
- SP3 – Building 2

The project scope covers a large portion of civil works including the installation of contiguous piles with anchors. Building 1 and 2 share a common basement carpark and Building 3 is a standalone tower.

External works include a central walkway between building 1 and 2 over the basement carpark which will have architectural elements contributing to the public art contribution. Other works such as ramps, walls, stairs, and hard and soft landscaping will also be undertaken.

The site contains mature trees, which shall be protected by the establishment of tree protection zones, and regularly checked by an arborist during the project lifecycle.

3.0 Quality Management Plan Context

FIRM Construction is certified for ISO 14001 Environment, ISO 9001 Quality, AS 45001 Health and Safety and is accredited for Federal Health and Safety.

FIRM operates an integrated HSEQ system. This includes FIRM Construction Policies, Procedures, Management Plans, operational forms and flowcharts.

4.0 Reference Documents

The Quality Policy is attached to this plan, refer to appendix A.

5.0 Leadership

5.1 Leadership & commitment

5.1.1 General

The Project Manager demonstrates leadership and commitment with respect to the quality management system by:

a) Taking accountability for the effectiveness of the quality management system;

b) Ensuring that the quality policy and quality objectives are established for the quality management system and are compatible with the context and strategic direction of Firm Construction;

c) Ensuring the integration of the quality management system requirements into Firm Constructions business processes;

d) Promoting the use of the process approach and risk-based thinking;

e) Ensuring that the resources needed for the quality management system are available;

f) Communicating the importance of effective quality management and of conforming to the quality management system requirements;

g) Ensuring that the quality management system achieves its intended results;

h) Engaging, directing and supporting persons to contribute to the effectiveness of the quality management system;

i) Promoting improvement;

j) Supporting other relevant management roles to demonstrate their leadership as it applies to their areas of responsibility.

5.1.2 Client focus

The Project Manager demonstrates leadership and commitment with respect to client focus by ensuring that:

a) Client and applicable statutory and regulatory requirements are determined, understood and consistently met;

b) The risks and opportunities that can affect conformity of products and services and the ability to enhance client satisfaction are determined and addressed;

c) The focus on enhancing client satisfaction is maintained

5.2 Policies

The Project Manager is responsible for ensuring the following policies are reviewed approved and dated and displayed in the relevant locations on site

- Quality
- Safety
- Environmental
- Drug and Alcohol

5.3 Roles and responsibilities

The Project Manager is responsible for developing and approving the Project Organization Chart.

The Project Organization Chart identifies the project positions and their interrelationship.

A Project Organization Chart is attached identifying the names of project personnel and is approved and dated by the Project Manager.

The roles and responsibilities for each position in relation to management of quality on the project are established by the Project Manager and identified below:

The Project Manager is ultimately responsible for all project quality matters including the collation and analysis of all quality data collected for the project.

The Site Supervisor is the next in line for managing the projects quality matters and is responsible for the implementation of the project Quality Management Plan.

The HSEQ Manager is the projects System Manager who is also responsible in assisting with the collation and analysis of all collected Quality data.

The Contract Administrator is responsible for conducting all works in line with the quality requirements of the project and assisting the Site Supervisor and HSEQ Manager when necessary.

Workers
All workers are responsible for

- Attending a site induction where they are made aware of the quality requirements of the project, the Quality Management Plan and its location on site.
- Complying with the relevant requirements of the project Quality Management Plan
- Reporting any potential non-conformity to the Site Supervisor.

Subcontractors
All subcontractors and suppliers are required to comply with the specified requirements identified in the Purchase Order and Terms and Conditions.

All subcontractors engaged to perform work for FIRM Construction are required to comply with the HSE Management Plan and to comply with directions from Firm Construction's Site Supervisor and HSEQ Manager.

Specialized Support

FIRM Construction will engage specialized consultants to ensure that specialized works are being carried out in an appropriate manner, i.e., if heritage elements arise throughout the course of the project.

The following table captures the responsibilities within the quality management framework.

Quality Activity	Document	Responsibility
Mobilisation to site	**Mobilisation Checklist**	Project Manager, Site Supervisor.
Review Project Management plans	**Quality Management Plan QMP** **Construction Management Plan CMP**	Project Manager, Site Supervisor, Contract Administrator and HSE.
Prepare Construction Program	**Construction Program**	Project Manager
Prepare Procurement Schedule	**Procurement Schedule**	Contracts Administrator
Set up Inspection and Test Plans (ITP's) and ITP Registers **Off-site Inspections**	**Inspection and Test Plans (ITP's) and ITP Registers**	Project Manager Site Supervisor SRE/SEM
Prepare Equipment Calibration Schedule	**Equipment Calibration Register**	Site Supervisor

6.0 Planning

6.1 Quality Objectives & Planning to Achieve Quality Objectives

6.1.1 Quality Objectives

Firm Construction's company Quality objectives which will be implemented on the project are to:

- Comply with applicable legislation, codes and standards,
- Maintain compliance with ISO 9001:2015 Quality Standards;
- Maintain Compliance with the Quality Management requirements
- Maintain compliance with and maintain all Inspection Test Plans.
- Comply with all required quality checklists;
- Ensure all Construction Management Plan quality requirements are implemented correctly
- Ensure that construction complies with the client requirements, specifications and drawings
- Ensure the construction program is implemented in the specified time frames
- Ensure the construction program is implemented within the specified financial restraints
- Monitor quality performance with reference to the objectives, KPIs and targets
- Ensure all project personnel are competent and are aware of their roles and responsibilities
- Identify quality non-conformity and, determine the causes, assess the risks and implement controls to minimize the risks;

6.1.2 Process Control

The Project Manager and Site Supervisor ensure processes are implemented and maintained for monitoring measurement and evaluation in accordance with the Quality Management Plan.

The project Manager and Site Supervisor will manage process control in line with the FIRM, Project Process flowchart, refer to Appendix G, and the Firm Construction system procedures and all associated documentation. They will ensure applicable legal requirements and requirements Firm Constructions Quality Objectives set for the project are met.

6.1.3 Key Processes

Key processes for ensuring quality on the Project will be Customer Orientated Processes, Support Oriented Processes and Assessment Orientated Processes.

6.1.3.1 Customer Oriented Processes

Firm Construction will ensure the process of purchasing is completed as per System Procedure SP 04 - Purchasing- Suppliers & Subcontractors.

Suppliers manufacturing products and the service of subcontractors will be managed to ensure compliance to all relevant codes and standards. This will be achieved quality inspections and is highlighted within this Quality Management Plan.

6.1.3.2 Support Oriented Processes

Processes in place to ensure the support of quality on the project include calibration of equipment and the maintenance of plant and equipment. Appropriate technicians will calibrate measurement traceability equipment and record will be maintained in the equipment calibration register.

The process to manage the maintenance of plant on the project is the use of the plant register, which captures all plant on site. The Site Supervisor and HSEQ Advisor / Manager will ensure all plant is maintained and serviced as per the manufacturers recommendations and data entered into the register.

6.1.4 Assessment Oriented Processes

Firm Construction's Assessment Oriented Processes allow the Project Manager and Project team to determine compliance and performance on the project. Auditing as per the Firm Construction Audit Schedule and auditing requirements will achieve this. RFI's, ITR's and ITP's all assist in the process of assessing quality on the project and assuring the appropriate codes and standards are met.

This is further detailed in section 6.3.

6.1.5 Planning to achieve Quality Objectives

The Project Manager shall set KPIs and targets that are measurable and consistent with the policies and objectives and are recorded on the HSEQ Objectives, KPIs and Targets Register created for the project.

The Site Supervisor will ensure all quality data relating to the projects Objectives KPIs and Targets Register will be collected daily and recorded on the HSEQ Performance Statistics for submission to the Project Manager.

The data will be analysed at Monthly Project Meetings to determine if targets have been achieved and the outcomes are to be recorded on the Monthly Project Meetings Minutes. Where targets have not been achieved appropriate corrective action shall be determined, implemented and monitored to determine effectiveness.

The Project Manager will update the corporate HSEQ Report monthly with reference to the HSEQ Performance Statistics

When planning how to achieve the quality objectives, the Project Manager will set out the following:

a) What actions need to be implemented?

b) What resources will be required including relevant personnel?

c) The roles and responsible of relevant personnel.

The Project Manager maintains and retains documented information on the quality objectives and plans to achieve them.

Quality Objective	Measure (KPI)	Target	Actions
• Ensure all Construction Management Plan quality requirements are implemented correctly	• Quality Site Audit • Site Inspection	As per FIRM requirements Weekly	Conduct weekly Site Inspections Conduct Quality Site Audits Identify nonconformities and implement corrective action
• Ensure that construction complies with the client requirements, specifications and drawings	• Inspection and test plans • Checklists	0 defects	Monitor subcontractor and supplier performance daily with reference to scopes of work, specifications, drawings and standards and record on Checklists and ITPs Identify nonconformities and implement corrective action
• Ensure the construction program is implemented in the specified time frames	• Construction program	On time	Monitor progress daily with reference to the construction program and amend resources as required
• Ensure the construction program is implemented within the specified financial restraints	• Budget	Meet budget	Monitor progress monthly with reference to the budget and amend resources as required
• Monitor quality performance with reference to the objectives, KPIs and targets	• To specification (ITPs) • Construction program • Budget • Client perception	Record progressively Review monthly	Record data daily and review monthly and annually Where targets have not been achieves implement appropriate corrective action
• Ensure all project personnel are competent and are aware of their quality roles and responsibilities	• Position Descriptions are current and available • Competencies are current and available	100% 100%	Review competencies during Site Audits and Site Inspections and schedule relevant training where required

Quality Objective	Measure (KPI)	Target	Actions
• Identify quality hazards, non-conformity and incidents, determine the causes, assess the risks and implement controls to minimize the risks	• Quality Hazards identified • Quality Hazards controlled • Quality Nonconformities identified • Quality Nonconformities controlled • Quality Incidents identified • Quality Incidents controlled	< 6 per year < 6 per year < 6 per year < 6 per year < 6 per year < 6 per year	Implement the continual improvement process daily
• Monitor client perception with a focus on enhancing customer satisfaction	• Client meetings • Client complaints • Client complements	1 per Fortnight > 4 per year > 4 per year	Record client feedback and review and assess if actions are required

6.2 Planning of Changes

When Firm Construction determines the need for changes to the quality management system, the changes are implemented in accordance with System Procedure SP 08 Change Management' – appendix B.

Firm Construction considers:

a) The purpose of the changes and their potential consequences;

b) The integrity of the quality management system;

c) The availability of resources;

d) The allocation or reallocation of responsibilities and authorities.

6.3 Process of Assuring Quality

All quality assurance on the Project will stem from the projects MDR. All quality assurance requirements for each system on the project will be broken down, identified and explained in the ITRs, ITP's and Hold Point checklists to ensure compliance and assist in the process of Entry Into Service.

From the MDR Firm Construction will engage the SRE to assist in the development and completion of an ITR, which branches out into the ITP's of each element within that scope of work.

Firm Construction will collaborate with the SRE to ensure ITP's will be broken down into specific disciplines to ensure the Hold Points are verified and signed off by the assigned responsible person for that discipline.

The ITP's will outline all Hold Points for that specific component to which Firm Construction will develop a Hold Point Release document to request inspection from the client.

The hold point release document will formally request the client for sign off and approval to continue works past that Hold Point. The form will consist of the checklists and requirements of the relevant codes and standards that will support the sign off of each Hold Point.

This process will ensure that the requirements for each Hold Point are met and signed off by Firm and the SRE for each element. This document will be provided to the client to sign off and accept that each Hold Point has been adequately addressed and can be released.

A record of each checklist will be attached to the Hold Point Release document and stored on the Firm Server within the relevant ITP folder. Each ITP will sit within its relevant ITR folder to ensure that each ITP within that ITR has the required documentation and approvals.

Each System will have an ITR to capture all required ITP's for that specific element. Once the ITP of each sub-system has been completed it will be signed off in the ITR to indicate its completion. The ITR's will then be documented within the MDR to progressively capture the completion of each system on the project throughout the program.

This process will ensure each system on the project has been adequately inspected to assure its quality meets the requirements of the codes and standards and is logged in the MDR.

6.4 Quality Inspections

Firm Construction will document and maintain records of all Inspection and Test Plans which:

- Describe the inspection, test, performance criteria and verification requirements, including survey audit regime for each product or service to ensure the works conform to the contract requirements;
- Provide details of the program for inspections and testing and the supervision implemented to ensure the works conform to the requirements of the contract; &
- Provide detail of sampling methods including methodology and sampling plans.

6.4.1 Inspection Test Record and Inspection Test Plan's

Firm Construction in collaboration with the SRE's shall develop Inspection Testing Records, which overarch the Inspection Test Plan's developed by Firm Construction for each aspect on the project.

Each leg of a system will have an ITR and be broken down into its relevant ITP's and checklists. Once each leg of the system has passed their ITP's the ITR for that System will be issued to the Client for sign off and approval.

6.4.2 Hold Point Schedule and Notification

The Hold Points on the project will be identified through the ITP's and scheduled with a lead time of at least one week and will involve the engagement of the SRE.

FIRM acknowledges the requirement to not proceed beyond a hold point without Client approval and that a minimum of 7 days notice is needed to coordinate inspections. The supplier will be supplied with the project ITP'S and be made aware of all hold points.

6.4.3 Off-site Manufacturing Inspection

Off site manufacturing inspections will be executed at suitable intervals for the fabrication of structural steel, tilt up panels and other metal works items. Off-site manufacturing inspections will be documented through the ITP's.

This process will ensure that the following is monitored and submitted to Client.

- Materials Certification
- Type and routine testing
- Factory acceptance testing

A record of all Off site Manufacturing Inspections will be documented and stored within the Firm server. The Client will be given an appropriate notice period should they wish to attend an off-site inspection, however all required checklists and testing records will be provided.

Firm Construction will issue the Hold Point Release form requesting factory visits one week prior to the event.

6.4.4 Inspection and Testing Procedures

FIRM Construction shall submit specific ITPs for Client approval in line with contract documentation; these are to address the following items of work.

- Building Architecture and Structures
- Landscaping
- Hydraulics
- LV Electrical and Fire Detection & Occupant Warning Systems
- Communications
- Fire Safety
- Fire Protection
- Civil: Roads, Drainage and Earthworks; &
- Track.

6.4.5 Inspection of Product and Service Received

The Site Supervisor shall on receipt of product, inspect the product with reference to the delivery docket and sign the delivery docket as evidence of inspection and that the product is the correct type and quantity and not damaged.

Any nonconformity shall be recorded on the delivery docket and a Nonconformity Report and the supplier will be notified.

The Contract Administrator shall compare the supplier delivery docket with the Purchase Order and supplier invoice prior to payment and sign the invoice as evidence of acceptance and payment.

The Project Manager or Contracts Administrator shall on the completion of services provided by a subcontractor and receipt of the subcontractor invoice assess the service with reference to the Purchase Order and sign the subcontractor invoice as evidence of inspection and acceptance prior to payment.

Any nonconformity shall be recorded on the supplier invoice and Nonconformity Report and the subcontractor notified with a Site Instruction.

A record of all delivery dockets and subcontractor invoices will be kept and recorded within the Firm server, which are available to the Client upon request.

6.4.6 Non Conformance Register

Firm Construction will maintain a Non Conformance Register for the project.

This includes:

- The details of non-conformance;
- The party responsible for implementing the disposition and corrective actions;
- The date of implementing the disposition;
- The date of implementing the corrective action;
- Whether the Client's design consultants approval is required;
- Whether comment by the Client is required or has been received; and
- A register and detailed advice of all engineering and technical changes that have occurred.

6.5 Handover and Commissioning Process

Firm constructions Handover and Commissioning Plan will be followed for the commissioning of each aspect on the project overseen by the Client.

The main objectives of this plan are to

- Ensure the new building and equipment are ready for occupancy and use, i.e. fit for purpose;
- Ensure that the new equipment meets all Government legislative requirements and council requirements;
- Any defects are identified which will be rectified by Firm Construction.

7.0 Support

7.1 Resources

7.1.1 General

The Project Manager determines and provides the resources needed for the establishment, implementation, maintenance and continual improvement of the project Quality Management Plan.

The Project Manager provides an adequate budget for the acquisition of resources required to implement, maintain and improve the project Quality Management Plan.

The Site Supervisor ensures that the requirements for quality resources are assessed with reference to the site layout, construction program and activities and number of site personnel and are made available and monitored.

7.1.2 Infrastructure

The Project Manager determines, provides and maintains the infrastructure necessary for construction processes and to achieve specified requirements.

The following infrastructure is provide on site

a) Site buildings and associated utilities;

b) Plant and equipment

c) Transportation resources;

d) Information and communication technology.

7.1.3 Environment for the operation of processes

The Project Manager determines, provides and maintains the environment necessary for construction processes and to achieve specified requirements.

A suitable work environment consists of:

a) A functional social structure (e.g. non-discriminatory, calm, non-confrontational);

b) Providing psychological support (e.g. stress-reducing, burnout prevention, emotionally protective);

c) Physical conditions (e.g. adequate space, facilities, airflow, hygiene and control of temperature, heat, humidity, light, and noise)

7.1.4 Monitoring and measuring resources

7.1.4.1 General

The Project Manager determines and provides the resources needed to ensure valid and reliable results when monitoring or measuring is used to verify conformity to requirements.

The Project Manager ensures that the resources provided:

a) Are suitable for the specific type of monitoring and measurement activities being undertaken;

b) Are maintained to ensure their continuing fitness for their purpose.

The Project Manager retains records as evidence of fitness for purpose of the monitoring and measurement resources on Calibration Certificates and the Equipment Calibration Register.

7.1.4.2 Measurement traceability

When measurement traceability is a requirement, or is considered by the Project Manager to be an essential part of providing confidence in the validity of measurement results, measuring equipment is:

a) Calibrated or verified, or both, at specified intervals, or prior to use, against measurement standards traceable to international or national measurement standards; when no such standards exist, the basis used for calibration or verification is recorded on a Calibration Certificate and the Equipment Calibration Register;

b) Identified in order to determine their status;

c) Safeguarded from adjustments, damage or deterioration that would invalidate the calibration status and subsequent measurement results.

The Project Manager determines if the validity of previous measurement results has been adversely affected when measuring equipment is found to be unfit for its intended purpose, and takes appropriate action as necessary.

An authorized technician will be outsourced by Firm Construction to complete the calibration or verification of measurement traceability equipment. This will ensure the competency to fulfill the requirements when calibrating measurement traceability equipment.

7.1.6 Organizational knowledge

The Project Manager determines the knowledge necessary for construction processes and to achieve specified requirements.

This knowledge is maintained on the server made available to project personnel as required.

When addressing changing needs and trends, the Project Manager considers current knowledge and determines how to acquire or access any necessary additional knowledge and required updates.

Organizational knowledge is knowledge specific to Firm Construction; it is generally gained by experience.

It is information that is used and shared to achieve Firm Construction's objectives.

Organizational knowledge can be based on:

a) Internal sources (e.g. intellectual property; knowledge gained from experience; lessons learned from failures and successful projects; capturing and sharing undocumented knowledge and experience; the results of improvements in processes, products and services);

b) External sources (e.g. standards; academia; conferences; gathering knowledge from customers or external providers).

7.2 Competence

Firm Construction takes consideration of training, skills, experience, and qualifications when assessing whether personnel are adequately prepared for the project.

Records of training and qualifications will be captured at the induction and documented within the training matrix.

Firm Construction will ensure the appropriate licenses are obtained and verified for occupations that require licensing under the relevant regulations, this includes:

- Electrical workers, as issued by the Electrical Licensing Board.
- Gas fitting, under the Gas Standards (Gas fitting and Consumer Gas Installations) Regulations 1999.
- Plumbers, who hold the appropriate plumbing license granted by the Plumbers Licensing Board.

- High Risk Work license's:
    - Rigging
        - Dogging (DG)
        - Basic rigging (RB) (Includes dogging)
        - Intermediate rigging (RI) (includes dogging and basic rigging)
        - Advanced rigging (RA) includes dogging, basic and intermediate rigging)
    - Scaffolding
        - Basic Scaffolding (SB)
        - Intermediate scaffolding (SI) (includes basic scaffolding)
        - Advanced scaffolding (SA) (includes basic and intermediate scaffolding)
    - Cranes and hoists
        - Slewing mobile cranes (C1) (up to and including 60 tonnes lifting capacity)
        - Slewing mobile cranes (CO) (open/over 100 tonnes lifting capacity)
    - Load shifting equipment
        - Fork-lift truck (LF)

Firm will ensure on going training is completed when required to ensure personnel on site are adequately skilled and competent to complete their activities to the required standard in a safe manner.

The Project Manager

a) Determines the necessary competencies for site supervisory personnel that affect or can affect quality performance and identifies the competencies required in the relevant Position Description and records on the Project Training Matrix.

b) Ensures that site supervisory personnel are competent on the basis of appropriate education, induction, training, or experience with reference to the relevant Position Description;

c) Where applicable, takes actions to acquire the necessary competence, and evaluate the effectiveness of the actions taken in accordance with System Procedure SP 03- Human Resource Management

The Project Manager retains appropriate documented evidence of relevant competencies and training including the Project Training Matrix on site in accordance with the Project Filing Register

The Site Supervisor:

a) Determines the necessary competencies of workers that affects or can affect quality performance with reference to the relevant legislation or code of practice and record on the Project Training Matrix

b) At induction verifies that workers are competent on the basis of appropriate education, induction, training, or experience. Details of worker and subcontractor's competencies and training are maintained in the Project Training Matrix

c) Where applicable, takes actions to acquire the necessary competence, and evaluate the effectiveness of the actions taken.

The Site Supervisor retains appropriate documented evidence of relevant competencies and training including the Project Training Matrix on site in accordance with the Project Filing Register

Applicable actions to acquire the necessary competence can be

- The provision of training
- Verification of competency (VOC)
- Mentoring
- The re assignment of currently employed persons
- The hiring or contracting of competent persons.

As a minimum, FIRM Construction workers and subcontractors working on the project require general construction induction training provided by a Registered Training Organization (White Card).

Workers must keep their white card available for inspection by an inspector.

7.3 Induction Awareness

The Site Supervisor will conduct site-specific induction training for all FIRM Construction workers and subcontractors working on the project prior to entering the project site with reference to the Site Induction Record.

The induction training includes:

a) The quality policies;

b) Their contribution to the effectiveness of the Quality Management Plan, including the benefits of improved quality performance;

c) The implications of not conforming to the quality management system requirements, including the consequences, actual or potential, of their work activities;

d) Quality hazards and risks that are relevant to them.

Workers are made aware of the following at toolbox meetings

a) The performance of the project Quality Management Plan;
b) Information and outcomes of the investigation of relevant nonconformities

The Site Supervisor ensures that all workers complete the Site Induction Record and sign and date as evidence of completing the induction

The Site Supervisor shall sign and date the Site Induction Record to verify completion of the induction and attached to all relevant training, qualifications or licenses for filing in accordance with the Project Filing Register.

The Site Supervisor attaches an induction sticker to each workers helmet to monitor who has been inducted on site.

7.3.1 Visitor Inductions

The Site Supervisor conducted visitor inductions that include an overview of site safety rules and emergency response.

Visitors sign the attendance register prior to entering the site

A project-inducted person shall accompany visitors whilst they are on site.

7.4 Information and communication

The Project Manager determines the need for internal and external information and communications relevant to the Quality Management Plan with reference to the following:

a) The client at monthly client meetings
b) Project supervisory personnel at monthly project meetings;
c) Subcontractors at monthly subcontractor meetings
d) All site personnel at weekly toolbox meetings
e) ITPs

The Project Manager defines the objectives to be achieved by informing and communicating, and evaluates whether those objectives have been met.

The Project Manager takes into account diversity aspects (for example language, culture, literacy, disability), where they exist, when considering information and communication needs.

The Project Manager ensures that, when appropriate, the views of relevant external interested parties about matters pertinent to the Quality Management Plan are considered.

7.5 Documented information

Project documents and records are created and update and controlled in accordance with System Procedure SP01 -Document and Record Control, appendix C.

7.5.1 General

The project Quality Management Plan has been developed with reference to the FIRM Construction HSEQ Management System that complies with ISO 14001 and AS/NZS45001 and includes the following documents:

- HSEQ Management System Manual
- Quality Management Plan
- Construction Management Plan
- HSE Management Plan
- System Procedures
- Project Management Plans
- HSE Operational Plans
- Registers
- Form Formats
- Records

7.5.2 Creating and updating documents

The Project Manager shall ensure that when documents are created and updated the documents are:
a) Clearly identified and described (e.g. a title, date, author, or reference number)
b) Formatted (e.g. language, software version, graphics) and media (e.g. paper, electronic);
c) Reviewed and approved for suitability and adequacy.

7.5.3 Design development outputs, inputs, controls and review

Firm construction will determine the design and development inputs for the project through ensuring the required information are included for every step of the development. This will include ensuring Firm Construction have the required functional and performance characteristics, ensure all plans comply with the statutory and regulatory

requirements and have the relevant information from design and the required records including the ITP are completed. Firm Construction will ensure all design input requirements as per the Client's requirements are met.

Firm Construction will provide the design and development output for each aspect of the project clearly identifying the detailed information for completion. This will be provided to Client in the form of shop drawings, which describe the components of the product and identify what specification is required to assure the quality of the product.

Firm Construction will ensure the shop drawings meet the input requirements for the design and provide suitable information for required purchasing and product acceptance criteria.

Firm Construction will review the developed shop drawings to identify and remove any barriers to a successful design. Reviewing the shop drawings will identify any gaps in the design, confirm if the specified requirements and requirements of the Client. Firm construction will then discuss with the Client what is required prior to the commencement of works.

7.5.4 Control of documented Information

The Project Manager ensures that project documented information required by the project Quality Management Plan is controlled to ensure the documented information
a) Is available and suitable for use, where and when it is needed;
b) Is adequately protected (e.g. from loss of confidentiality, improper use, or loss of integrity).

This is achieved by the Project Manager who manages to control documented information in line with SP01, refer to Appendix C. The project Manager will;

- Ensure documented information is correctly distributed, accessed, retrieved and used;
- Correctly stored and preserved, including the preservation of legibility;
- Ensure all changes are controlled (e.g. version control);
- Documents are retained and disposed appropriately;
  Allow access to the relevant documents to workers, and where they exist, workers' representatives,

The Project Manager determines the necessary documented information of external origin for the planning and operation of the project Quality Management Plan and identifies the controlled documents on the Legal and other requirements Register for access and retrieval and ensures their currency and applicability is reviewed every 6 months during internal audits.

The Firm Construction Document Control Register will be used for the project to outline all relevant documents, the document version, issue date, how many copies are on site and who has been issued a copy of each document. This will allow the Site Manager to ensure the sub-contractors have the most recent designs to construct from.

8.0 Operations

8.1 Operational planning and control

Prior to project start up the Project Manager conducts and records a Project Handover Meeting with the project team to review the project documents received from the Estimator and address the items on the Mobilization Checklist by planning and allocating responsibilities.

The Project Manager develops a Construction Management Plan, for the implementation and control of processes to meet requirements of the project Quality Management Plan, and to implement actions determined during the HIRAC process:

The Project Manager

a) Establishes criteria for the processes

b) Implements control of the processes in accordance with the criteria

c) Maintains verifying documented information to the extent necessary to have confidence that the processes have been carried out as planned

d) Determines situations where the absence of documented information could lead to deviations from the Quality Management Plan

e) Adapts work to workers where possible

The Project Manager implements the relevant processes for multi-employer workplaces to coordinate the relevant parts of the project Construction Management Plan with other organizations

At the completion of the project the Project Manager conducts and records a Project Close out Meeting with the project team to review project performance.

Relevant Construction Operational Plans are attachment to the project Construction Management Plan where required.

The Project Manager implements the relevant processes for multi-employer workplaces to coordinate the relevant parts of the Construction Management Plan with other organizations.

8.2 Design & development changes

The Project Manager shall implement the design and development processes to any changes of design and development on the project in accordance with System Procedure SP 06 Design and Development, appendix D.

8.3 Control of externally provided processes, products and services

8.3.1 General

The Contract Administrator ensures that the procurement of goods and services are controlled to ensure conformity in accordance with System Procedure SP 04 -Purchasing- Suppliers & Subcontractors, appendix E.

The Contract Administrator selects subcontractors and suppliers with reference to the Preferred Supplier / Subcontractor Register or if a new subcontractor the quality criteria identified on the Subcontractor Risk Assessment.

Type and extent of control

Firm Construction ensures that externally provided processes, products and services do not adversely affect its ability to consistently deliver conforming products and services to its clients.

Controls for externally provided processes i.e. subcontractors and suppliers are identified in Procedure SP 04 Purchasing – Suppliers & Subcontractors and the CMP and HSEMP.

Firm Construction:

a) Ensures that externally provided processes remain within the control of its quality management system;

b) Defines both the controls that it intends to apply to an external provider and those it intends to apply to the resulting output;

c) Considers:

1) The potential impact of the externally provided processes, products and services on its ability to consistently meet client and applicable statutory and regulatory requirements;

2) The effectiveness of the controls applied by the external provider;

d) Determination of the verification, or other activities, necessary to ensure that the externally provided processes, products and services meet requirements.

8.3.2 Information for external providers

Firm Construction ensures the adequacy of requirements prior to their communication to the external provider.

The Contracts Administrator prepares and the Project Manager authorizes Purchase Orders and Terms & Conditions prior to forwarding to the external provider.

Firm Construction communicates to external providers its requirements for:

a) The processes, products and services to be provided;

b) The approval of:

1) Products and services;

2) Methods, processes and equipment;

3) Releasing of products and services;

c) Competence, including any required qualification of persons;

d) The external providers' interactions with the organization;

e) Control and monitoring of the external providers' performance to be applied by the organization;

f) Verification or validation activities that Firm Construction, or its customer, intends to perform at the external providers' premises.

8.4 Construction provision

8.4.1 Identification and traceability

Firm Construction uses Inspection and Test Plans and Checklists to identify outputs when it is necessary to ensure the conformity of construction processes.

Firm Construction identifies the status of outputs with respect to monitoring and measurement requirements throughout the construction process.

Record of ITPs and other inspection records will be periodically stored on FIRMs server; Client may have access to this on request. Collation of this data will be on going in preparation for handover at completion. FIRM can

provide a remote link to this data. The Site Supervisor will regularly monitor the status of the Inspection and Test Plans to track if they are complete and compliant.

8.4.2 Property belonging to customers or external providers

Firm Construction exercises care with property belonging to customers or external providers while it is under its control or being used by Firm Construction.

Firm Construction identifies, verifies, protects and safeguards clients' or external providers' property provided for use or incorporation into the construction process.

When the property of a client or external provider is lost, damaged or otherwise found to be unsuitable for use, Firm Construction reports this to the client or external provider and retains documented information on what has occurred.

Client or external provider property may include materials, components, tools and equipment, premises, intellectual property and personal data.

8.4.3 Preservation

Firm Construction preserves the outputs during construction, to the extent necessary to ensure conformity to requirements by identification, handling, contamination control, packaging, storage, transmission or transportation, and protection.

8.4.4 Post-delivery activities

Firm Construction meets the requirements for post-delivery activities associated with the project i.e. provide warranty provisions during the defects liability period.

In determining the extent of post-delivery activities that are required, the Firm Construction considers:

a) Statutory and regulatory requirements;

b) The potential undesired consequences associated with the construction process;

c) The nature, use and intended lifetime of the finished structure or building;

d) Client requirements contract and specifications

e) Client feedback.

Post-delivery activities may include actions under warranty provisions, contractual obligations such as maintenance services, and supplementary services such as recycling or final disposal.

8.4.5 Control of changes

The Project Manager ensures that planned changes that impact on quality performance are implemented and controlled in accordance with System Procedure SP 08 Change Management:

Planned changes may include:

a) New products, processes or services;

b) Changes to work processes, procedures, equipment, or organizational structure;

c) Changes to applicable legal requirements and other requirements;

d) Changes in knowledge or information about hazards and related quality risks;

e) Developments in knowledge and technology.

The Project Manager ensures temporary and permanent changes are controlled to promote quality opportunities and to ensure they do not have an adverse impact on quality performance.

The Project Manager reviews the consequences of unintended changes, taking action to mitigate any adverse effects, as necessary, including addressing potential opportunities.

FIRM acknowledge that product changes and other engineering changes need to be in accordance with 8110-100-013 Engineering Management for Projects Procedure.

8.5 Release of product and service

Firm Construction manage the collation of project compliance information and documentation to ensure satisfaction of the relevant authorities to ensure the building can be occupied.

Firm Construction retains documented information on the release of products and services. The documented information includes:

a) Evidence of conformity with the acceptance criteria;

b) Traceability to the persons authorising the release.

8.6 Control of nonconforming output

The Project Manager ensures that the control of nonconforming output is implemented and controlled in accordance with System Procedure SP 02 Continual Improvement, refer to Appendix F.

The Project Manager and Site Supervisor will ensure that outputs that do not conform to the Clients requirements are identified and controlled to prevent their unintended use or delivery.

The Project Manager and Site Supervisor will take appropriate action based on the nature of the nonconformity and its effect on the conformity of outputs. This applies to nonconforming products and services detected after delivery of products, during or after the provision of services.

The Project Manager and Site Supervisor deal with nonconforming outputs in one or more of the following ways:

a) Correction;

b) Segregation, containment, return or suspension of provision of products and services;

c) Informing the customer;

d) Obtaining authorization for acceptance under concession.

The Project Manager and Site Supervisor verify conformity to the requirements when nonconforming outputs are corrected.

8.7 Durability

Firm will report non-conformances, which may impact the durability performance of elements of the Work in accordance with the Clients Asset Management Plan and Durability Report.

The Design Consultant will review proposals for the rectification of both minor and major non-conformances, which may have an impact on the durability performance of elements.

9.0 MONITOR AND REVIEW

9.1 Monitoring, measurement, analysis and evaluation

9.1.1 General

The Project Manager and Site Supervisor implement and maintain processes for monitoring, measurement and evaluation.

The Project Manager and Site Supervisor determine:

1) Applicable legal requirements and other requirements
2) Firm Construction's activities and operations related to identified hazards and quality risks; risks, and quality opportunities
3) Operational controls
4) Firm Construction's quality objectives
5) The criteria or KPIs against which the company evaluates its quality performance;
6) The methods for monitoring, measurement, analysis and evaluation, as applicable, to ensure valid results;
7) The frequency that monitoring and measuring is performed;
8) When and in what forum will the results from monitoring and measurement shall be analysed, and evaluated and communicated.

The Site Supervisor conducts Weekly Site Inspections with worker participation to monitor the implementation of the following

- Construction Management Plan
- Induction, competency verification and training
- HIRAC process including opportunities
- Incident Injury and nonconformity process
- Emergency Preparedness and response
- Subcontractor compliance to requirements

The Site Supervisor records the outcomes of the Monthly Site Inspections on the Monthly Site Inspection Report and any non-conformity identified are actioned in accordance with the nonconformity process.

The Project Manager and Site Supervisor evaluate quality performance, and determine the effectiveness of the Quality Management Plan at Monthly Project Meetings and records the outcomes on the Monthly Project Meeting Minutes

The Site Supervisor retains the following as evidence of the monitoring, measurement, analysis and evaluation results.

- Quality objectives
- HSEQ Objectives, KPIs and Targets (KPIs against which the company evaluates its HSE performance)
- HSEQ Performance Statistics
- HSEQ Report
- Project Legal and other requirements Register
- Risk and Opportunity Register
- Project Daily Diary
- Weekly Site Inspection Report
- Monthly Project Meeting Minutes
- Equipment Calibration Register

9.1.2 Control of Inspection, Measuring and Test Equipment

The Site Supervisor ensures, as applicable, that all monitoring and measurement equipment is calibrated or verified when it arrives to the project. The calibration certificate number will be attained where applicable and details entered in to the Equipment Calibration Register which is stored on the server and accessible to the Project Manager, Site Supervisor, Contract Administrator and HSE Officer.

Throughout the project all Inspection, Measuring and Test Equipment will be calibrated when required by a competent technician and logged in the Equipment Calibration register. (Calibration is traceable to a national or international standard where applicable).

9.1.3 Evaluation of compliance with legal requirements and other requirements

The Project Manager ensures that compliance with applicable legal requirements and other requirements are evaluated during the project Quality Site audits.

The auditor:

a) Reviews Firm Construction's
b) Legal and Other Requirements Register to ensure it is complete and current
c) The project Quality Management Plan and current practices with the Legal and Other Requirements Register to ensure compliance with the current Legal and Other Requirements.
d) Evaluates compliance;
e) Records nonconformities identified on the Nonconformity Register and Nonconformity Report for action
f) Maintain knowledge and understanding of Firm Construction's status of compliance with legal requirements and other requirements;
g) Records compliance evaluation results on the internal Audit Report.

9.2 Internal audit

9.2.1 Internal audit objectives

The Project Manager ensures that internal audits are conducted in accordance with System Procedure SP 02 Continual Improvement at planned intervals in accordance with the Audit Schedule to provide information on whether the project Quality Management Plan:

a) Conforms to:

1) The company's own requirements for its project Quality Management Plan, including the safety and environmental policies and quality objectives;

2) The requirements of ISO 9001 and AS/NZS 45001 standards

b) Is effectively implemented and maintained.

9.2.2 Internal audit process

Firm Construction's internal quality audit will include:

- An assessment of quality and technical requirements to assess if the specifications and drawings were met as specified in the scope of works.
- The Inspection & Test Plan for current activities to see if they are completed as per the controlling procedures or specification.
- If all verification documentation required approved for the current site activities

- Non conformities identified (if applicable)
- Significant changes impacting the project
- Significant quality risks and opportunities

The activities to be audited will be subject to the projects program and complexity of active tasks.

The Project Manager:
a) Establishes a project Audit Schedule;
b) Plans the audit with reference to
    1) The importance of the processes concerned and the results of previous audits,
    2) Significant changes impacting Firm Construction;
    3) Performance evaluation and improvement
    4) Significant quality risks, risks and quality opportunities;
c) Defines the audit criteria and scope of the audit;
d) Selects a competent auditor and ensures audits are conduct to maintain objectivity and the impartiality of the audit process;
e) Ensures that the results of the audits are recorded on the Audit Report and reported to relevant management;
f) Ensures that relevant audit findings are reported to relevant workers, and where they exist, workers' representatives, and relevant interested parties;
g) Nonconformities identified are recorded on the Nonconformity Register and Nonconformity Report and actioned to continually improve the project quality performance
h) Retains the Audit Schedule and Audit Report as evidence of the implementation of the audit and the audit results.

Audits are conducted in accordance with System Procedure SP 02 Continual Improvement

9.2.3 Second Party Audits

FIRM Construction shall align to the Clients audit schedule for Second Party Audits. All requirements set out by the third party certification authority shall be met by FIRM Construction with SAI Global to conduct annual audits to verify compliance. Refer to Appendix H for the Audit Schedule.

9.3 Supplier / Subcontractor Performance Monitoring

The Site Supervisor shall monitor supplier and subcontractor performance during Weekly Site Inspections on an ongoing basis to ensure safety and environmental compliance with reference to Inspection and Test Plans (ITPs) Purchase Orders, Terms & condition, Scope of work, specifications and drawings and record evidence of compliance on the relevant Checklists and Inspection and Test Plans.

The supplier or subcontractor shall be advised of any unacceptable product or service either verbally or in writing depending on the severity of the problem and requested to rectify the nonconformity. Details of the nonconformity shall be recorded on a:

- Supplier delivery docket,
- Site Instruction and issued to the Subcontractor for rectification, &
- Nonconformity Report.

Supplier and subcontractor performance shall be reviewed at project meetings and details recorded in the Project Meeting Minutes.

9.4 Management review

Top management reviews Firm Construction's company HSEQ Management System at least annually at the Management Review Meeting to ensure its continuing suitability, adequacy, and effectiveness.

The Project Manager reviews Firm Construction's project Quality Management Plan at least every 3 months during the Quality Site Audit to ensure its continuing suitability, adequacy and effectiveness.

The management review includes:
a) The status of actions from previous management reviews;
b) Changes in external and internal issues that are relevant to the project Quality Management Plan including:
  1) Applicable legal requirements and other requirements
  2) Firm Construction's quality risks, risks and quality opportunities;
c) The extent to which the quality policies and the quality objectives have been met;
d) Information on the quality performance, including trends in:
  1) Incidents, nonconformities, corrective actions and continual improvement;
  2) Monitoring and measurement results;
  3) Audit results;
  4) Results of evaluation of compliance;
  5) Quality risks, risks and quality opportunities;
e) Relevant communications with interested parties;
f) Opportunities for continual improvement;
g) Adequacy of resources for maintaining an effective project Quality Management Plan.

The outputs of the management review include decisions related to:

- Conclusions on the continuing suitability, adequacy and effectiveness of the project Quality Management Plan.
- Continual improvement opportunities and;
- Any need for changes to the project Quality Management Plan,
- Resources needed
- Actions needed, when objectives have not been met.

The Project Manager communicates the relevant outputs of the management review to its relevant workers, and where they exist, workers' representatives

The Project Manager retains Management Meeting Minutes as evidence of the results of management reviews.

10.0 Improvements

10.1 Continual improvement

10.1.1 Continual improvement objectives

The Project Manager ensures the suitability, adequacy and effectiveness of the project Quality Management Plan is continually improved by

a) Eliminating or reducing the causes associated with identified nonconformity with the implementation of appropriate corrective actions;
b) Promoting a positive quality culture though worker participation and encouraging feedback at toolbox meetings;
c) Enhancing quality performance by regular review of performance (KPIs) and implementing corrective action where required.

The Project Manager ensures that workers participate, as appropriate, in the implementation of quality continual improvement objectives.

10.1.2 Continual improvement process

The Project Manager and Site Supervisor implement and maintain the following continual improvement processes

- Determining the cause of nonconformities and implementing corrective actions
- Updating the project Quality Management Plan to incorporate improvements
- Change management (including opportunities)

The continual improvement processes take into account the outputs of

- Reviews of performance KPIs to determine if objectives have been achieved
- Reports nonconformity
- Monitoring of operations
- Auditing
- Compliance

Appendix A

Firm Construction Quality Policy

QUALITY POLICY

FIRM Construction Pty Ltd is a commercial construction contractor committed to delivering high quality construction services to mining, government, industrial and property sectors throughout Western Australia.

It is our aim to continually strive for improvement in all we do. This ensures we expand our position in the market place and enhance our professional standing in the construction industry.

FIRM Construction Pty Ltd is committed to achieving the following Objectives:

- Continually improving business processes and performance effectiveness;
- Maintaining compliance with ISO 9001:2015 Quality Standards including the integration with our Quality Management System;
- Exceed the expectations of clients in delivering quality and value for their investment;
- Mitigating risks, which are considered practicable in order to meet the legal obligations under State & Commonwealth Legislation, Regulations and Codes of Practice.

The FIRM Construction Pty Ltd Quality Management System contains procedures, work methodologies and defined responsibilities for all personnel.

With regular planning, client surveying, reviewing and auditing, opportunities to improve business systems and organisational performance are identified.

All employees are obligated under this policy to take responsibility for maintaining vigilance for improvement and the delivery of quality.

Authorised by: **Date:** 16 June 2021

Director

FIRM
CONSTRUCTION

Appendix B

Systems Procedure SP-08 Change Management

(To Be provided separately and on request)

FIRM
CONSTRUCTION

Appendix C

System Procedure SP-01 Document and Record Control

(To Be provided separately and on request)

FIRM
CONSTRUCTION

Appendix D

Systems Procedure SP-06 Design and Development

(To Be provided separately and on request)

FIRM
CONSTRUCTION

Appendix E

System Procedure SP-04 Purchasing Suppliers and Subcontractors

(To Be provided separately and on request)

FIRM
CONSTRUCTION

Appendix F

System Procedure SP-02 Continual Improvement

(To Be provided separately and on request)

FIRM
CONSTRUCTION

Appendix G

Project Process Flowchart

(To Be provided separately and on request)

Forward Works for New Commercial Construction Works
Waterford PBSA
LGC Traffic Management

Firm Construction

Bay Yeo

November 2022 - August 2023

I STEWART SMITH (AWTM Cert No. 20-2051-03) declare that I have designed this Traffic Management Plan following a site inspection on 05/08/2022. The Traffic Management Plan prepared, is in accordance with the Main Roads Code of Practice, AGTTM and AS 1742.3

Signature: …… Date: 08/08/2022

	Name / Company	Accreditation Details	Date	Signed
TMP designed by	Stewart Smith LGC Traffic Management	AWTM-202051-03	08/08/2022	
TMP Reviewed by	Clansy Holt LGC Traffic Management	AWTM 21-3216-05	08/08/2022	
Revised by	Clansy Holt LGC Traffic Management	AWTM 21-3216-05	26/08/2022	
RTM reviewed and Endorsed by	N/A	N/A	N/A	
Compliance Audit to be undertaken by:	N/A	N/A	N/A	
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. LGCPL-3225 Signed Authorised Officer Date (Print Name) Position			

TMP No LGCPL -3225	Rev. No. 1	Date 26/08/2022
TGS No LGCPL -3225 - 001	Rev. No. 1	Date 26/08/2022
TGS No LGCPL -3225 - 002	Rev. No. 1	Date 26/08/2022
TGS No LGCPL -3225 - 003	Rev. No. 1	Date 26/08/2022
TGS No LGCPL -3225 – 004	Rev. No. 0	Date 08/08/2022
TGS No LGCPL -3225 – 005	Rev. No. 1	Date 26/08/2022
TGS No LGCPL -3225 - 006	Rev. No. 0	Date 08/08/2022
TGS No LGCPL -3225 - 007	Rev. No. 0	Date 24/08/2022

Revision Register

Revision Number	Revision Date	Comments	Section / Page No.	Revised By
0	-	-	-	-
1	24/08/2022	Revised at LGA Request	2.1, 2.2, 4.2.5, 3.2 TGS 001, 002, 003, 005, 007	SS CH

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1. INTRODUCTION

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 forward works only involved at Waterford PBSA, with the works to take place in an area bounded by Garvey St, Keaney Pl and McKay St, in the suburb of Waterford.

Multiple TTM scenarios have been developed for the Project, allow for heavy vehicles movements in and out of the site, either managed by traffic controllers, or under normal traffic flow. TTM scenarios have been provided to allow for road closures on either Garvey St or Keaney Pl to facilitate any crane lift works as part of the construction works. The building permit being applied is forward works only and the location of the crossings selected will not have superstructure on them.

Works will be completed by, but not limited to, various items of plant and machinery, various heavy vehicles, light vehicles, and workers on foot with hand tools.

Works will be completed by Firm Construction.

1.2 Objective and Strategies

The objectives of the Traffic Management Plan is 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.

2. PROJECT OVERVIEW

2.1 Location

The project will take place take place in an area bounded by Garvey St, Keaney Pl and McKay St, in the suburb of Waterford.

Figure 1 Site Location

2.2 Project Details, Site Assessment and Site Constraint /Impacts

ITEM	DESCRIPTION
Project	New Commercial Construction Works Forward Works Only
Location	Waterford PBSA
Road Classification, Existing Speed Limit	Garvey St – Access Road - 50kmh Keaney Pl – Access Road – 50kmh McKay St – Access Road – 50 kmh
Road Authority	City of South Perth
Local Government	City of South Perth
Client	Firm Construction
Prime Contractor	Exal Group Pty Ltd
Sub-Contractor	Firm Construction
Scope of Works	New Commercial Construction Works
Staging of Work / Temporary Traffic Management	November 2022 - August 2023
Project Date	November 2022 - August 2023
Hours / Days of Work	0700 to 1700 Monday to Friday
Duration of Work	9 months

ITEM	DESCRIPTION
Other Constraints	• Due to site conditions, it will be necessary to implement a number of site constraints. The constraints are: o Reducing speed to 40km/h on the approaches to and from worksites where workers are within 1.2m of the live lanes. o Movement past the work area, via a hold and release of traffic on Metcalfe Rd o Movement around the work area, via road closure and detour of traffic on Garvey St Movement around the work area, via road closure and detour of traffic on Keaney Pl o Movement past the work area, via truck symbolic signage on Garvey St and Keaney Pl • Traffic Management crews are required to undertake a pre-start meeting on site with all crew members at the start of each working day before implementation of any TGS. Staff are to discuss any potential hazards associated with the works, location and traffic environment. • Pedestrian movements - Onsite traffic controllers shall monitor and assist • Access for local residents and/or businesses, • Access to adjoining properties shall be maintained at all times.
Concurrent/adjacent Works or Projects	There are no concurrent or adjacent works at the time of preparing the TMP and the City of South Perth will notify if there are any planned works as part of the approvals process.

2.3 Existing Traffic and Road Environment

ITEM	DESCRIPTION
Traffic Volume and Composition	No traffic volumes are available from MRWA for the worksite
Existing road configuration	Single lane in each direction
Existing pedestrian / cyclist facilities	There is a footpath on the opposite verges of Keaney Pl, McKay St and Garvey St.

2.4 Overview of Proposed TTM

ITEM	DESCRIPTION
Temporary Traffic Management Descriptions	This Traffic Management plan involves non-complex traffic arrangements as per section 4.2.3 of CoP. Advanced warning signage, hold and release of traffic, road closure and detour of traffic during works Aftercare – all TTM signage to be removed at the end of each shift and the road returned to normal road conditions.
Speed zone dates and times	November 2022 - August 2023 0700 - 1700
Lane Closures dates and times	N/A
Road Closures dates and times	November 2022 - August 2023 Monday to Friday – 0700 to 1700 Council approval require 1 week prior
Signal modifications description	N/A
Proposed lane widths	Existing Lane Sizes.
Road Safety Barrier	N/A

2.5 Project Representatives

Position	Name	Contact Details
Road Authority Representative	City of South Perth	Ph: 08 9474 0777 E: enquiries@southperth.wa.gov.au
Local Government Representative	City of South Perth	Ph: 08 9474 0777 E: enquiries@southperth.wa.gov.au
Project Manager / Prime Contractor	Bay Yeo Exal Group PTY LTD	Ph: 0439 566 168 E: bay.yeo@exal.com.au
Site Supervisor/Manager	Bay Yeo Exal Group PTY LTD	Ph: 0439 566 168 E: bay.yeo@exal.com.au
TMP Design	LGC Traffic Management 6 Bushby St Bellevue WA 6056	Office: 9374 0161/ 0497 947 955 E: stewart@lgctraffic.com.au
TMP Implementation	LGC Traffic Management 6 Bushby St Bellevue WA 6056	Office: 9374 0161 E: admin@lgctraffic.com.au

Firm Construction have engaged LGC Traffic Management to prepare this Traffic Management Plan and associated controls for the works.

The TMP will be implemented by LGC Traffic Management (Registration No: 0035).

3. RISK MANAGEMENT

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.

3.1 Risk Classification Tables

QUALITATIVE MEASURES OF CONSEQUENCE OR IMPACT

Level	Consequence	Description
1	Insignificant	Mid-block 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	Mid-block 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 then170% 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.

OSH QUALITATIVE MEASURES OF CONSEQUENCE OR IMPACT

Level	Consequence	Description
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.

QUALITATIVE MEASURES OF LIKELIHOOD

Level	Likelihood	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.

QUALITATIVE RISK ANALYSIS MATRIX – RISK RATING

	CONSEQUENCE				
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 RATING

Residual Risk Rating	Required Treatment
Very High	Unacceptable risk. **HOLD POINT**. Work cannot proceed until risk has been reduced.
High	High priority, OSH 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.

3.2 Risk Register

Generic Risks									
Item	Risk Event	Consequence	Pre–treatment Risk			Treatment	Residual Risk		
			L	C	RR		L	C	RR
1.	Vehicles crashing into / through the worksite due to distractions, speeding, confusion or accident.	Causing injury to workers.	B	3	H 12	Provide traffic management, worksite to be delineated, advanced warning signage to be designed as per AGTTM. Traffic arrangements to be evaluated for effectiveness following initial opening to traffic. Where conflicting measures are present, traffic controllers are to make changes to ensure safety and note all changes in the daily diary and notify the supervisor.	D	3	L 6
2.	Workers hit by vehicles during set up and dismantling of traffic management.	Causing injury.	C	4	H 12	Shadow vehicle with flashing lights used to protect workers. Workers to wear high visibility garments in accord with AGTTM. Driver of a shadow vehicle to act as spotter. Spotter to sound horn to warn worker of approaching vehicle inherent risk. Spotter to assist at all times.	D	4	M 8

Generic Risks									
Item	Risk Event	Consequence	Pre–treatment Risk			Treatment	Residual Risk		
			L	C	RR		L	C	RR
3.	Authorised Vehicles entering or leaving the work site may stop unexpectedly or behave in an unexpected manner.	Injury to workers, plant and vehicles or pedestrians navigating the work site.	C	3	M 9	Commercial vehicles must be fitted with warning devices. Operators instructed on safety procedures with spotters to assists drivers entering and leaving the work area.	D	3	L 6
4.	Pedestrians tripping, falling or getting too close to works whilst navigating through work area.	Resulting in accident, disruptions to workers and delays.	C	3	M 9	Spotters to be placed at near work area to assist pedestrians navigating through the site. Traffic controllers to assist pedestrians to cross the road and use other footpath as required.	D	3	L 6
5.	Traffic becoming congested or banking up passed traffic control devices.	Resulting in confusion, drivers becoming agitated increasing risk of incidents	C	3	M 9	Traffic controllers are to monitor for congestion and flow through out traffic management treatment. If congestion occurs and vehicles bank up passed control devices then distances between signage are to increase by 25% in accordance with the AGTTM.	D	3	L 6
6.	Restrictions by traffic control treatment may cause unacceptable delays for emergency services.	Reduce response time for, Police, fire emergency services to ambulance services to affected persons.	C	3	M 9	Emergency services will be notified prior to works commencing. Priority will be given to emergency services. All personnel are required to respond to emergency traffic and facilitate safe and unhindered passage	D	3	L 6

Generic Risks									
Item	Risk Event	Consequence	Pre–treatment Risk			Treatment	Residual Risk		
			L	C	RR		L	C	RR
7.	Work vehicles/ workers operating plant and equipment in unexpected manner.	Causing injury to workers, traffic controllers and pedestrians. Plant and machinery cause injury to pedestrians	B	3	H 12	Exclusion zones to be used as per LGC Traffic SWMS. Commercial vehicles must be fitted with warning devices. Operators instructed on safety procedures with spotters to assists drivers and operators of work machinery Traffic controllers to assist pedestrians and cyclists to navigate around a work area to reduce risks of injury	C	3	M 9
8.	Inclement Weather.	Increased risk of incident due to poor visibility of workers, pedestrians and traffic	B	3	H 12	Make sure arrow board is dimmed. Distance between signs prior to work area can be increased to increase reaction time for oncoming traffic. Supervisor is to be notified and all changes to be noted and recorded in daily dairy Otherwise works to be postponed until weather is suitable to commence	D	3	L 6
9.	Residents requiring entrance/egress from residential properties.	Vehicles inside work area may hit unexpecting hazards, causing injury/damage to members of public and/or workers.	C	3	M 9	Traffic control will monitor work area and driveways to assist drivers with access and egress. Any vehicles entering or exiting work site will be communicated via two-way radio.	D	3	L 6
10.	Traffic Controller fatigue	Mistakes being made during reversible flow	C	3	M 9	Breaks to be taken as per AGTTM and MRWA CoP	D	3	L 6

Site Specific Risks									
Item	Risk Event	Consequence	Pre–treatment Risk			Treatment	Residual Risk		
			L	C	RR		L	C	RR
1	No available traffic counts lead to predictions from Road Hierarchy which may be incorrect.	Unexpected congestion, driver frustration.	C	3	M 9	Traffic controllers to monitor traffic flows and make adjustments as necessary. If traffic counts are too high, work may be cancelled.	D	3	L 6
2	Residents unaware of works entering the worksite in an uncontrolled manner	Increased risk of incident or personal injury to residents	B	3	H 12	Send letters of notification to residences that will be affected by the works to increase public awareness	C	3	M 9
3.	Workers will be between 1.2m and 3.0m of the live lane of traffic and may present a distraction to oncoming road users resulting in a collision	Serious injury, damage to property	C	3	M 9	The implementation of advanced warning is to be incorporated in to the design of this TMP to reduce the likelihood and impact of an y potential incidents.	E	3	L 3

4. TRAFFIC MANAGEMENT PLANNING AND ASSESSMENT

4.1 Traffic Assessment and Analysis

4.1.1 Traffic and Speed Data

A summary of recent traffic data is provided below:

Location	Vehicles per day (% heavy vehicles)	Date	Source
Garvey St	-	2022	Traffic Map
Keaney Pl	-	2022	Traffic Map
McKay St	-	2022	Traffic Map

A summary of recent speed data is provided below:

Location	Posted Speed (km/h)	85th Percentile Speed (km/h)	Date	Source
Garvey St	50	Not Available	2022	Traffic Map
Keaney Pl	50	Not Available	2022	Traffic Map
McKay St	50	Not Available	2022	Traffic Map

4.1.2 Traffic Flow Analysis

There are no traffic volumes for Garvey St, Keaney Pl and McKay St on the main roads or local government council maps. As per site check it is a quiet road where the proposed works are not expected to have any significant impact on the traffic flow.

4.1.3 Temporary Speed Zones

There is no further reduction in speed limit of 40kmh on Metcalfe Rd as workers on foot will be more than 1.2m from the nearest trafficable lane, during work shifts.

After work hours the road will be left clean and free of debris.

4.1.4 Existing Traffic signals

N/A

4.1.5 Impact to Adjoining Network

Minimum impact is expected on the surrounding road network.

4.1.6 End of Queue Treatment

N/A

4.1.7 Temporary Traffic Signals

N/A

4.2 Road Users

4.2.1 Pedestrians

N/A

4.2.2 Cyclists

Where necessary, traffic controllers will direct and assist cyclists through the worksite during the works are detailed on the Traffic Guidance Schemes (TGSs).

Cyclists that are using the road will be unable to enter the site and will be directed to follow the flow of traffic.

4.2.3 Public Transport

There are no public transport routes within this TMP.

4.2.4 Heavy and Oversized Vehicles

Using the RAV network map from Main Roads, indicates that this section of Garvey St, Keaney Pl and McKay St is not a RAV network.

Oversize vehicles are not expected at the worksite.

4.2.5 Existing Parking Facilities

On street parking on Keaney Pl and Garvey St is on the same side of the road as the entries of the site. Entry of the site will be maintained using existing crossovers with delineation places to ensure ease of access. Parking on McKay St is not allowed on the side of the road the works are on.

4.2.6 Access to Adjoining Properties / Business

Where access to properties is impacted by the proposed works or the associated traffic control systems arrangement will be made to maintain property access where ever practicable to do so. Property owners or occupiers adjacent to the work site will be advised

of the works via advance written notification informing them of the works, the likely duration and the possible impact on property access.

Traffic Controllers are to assist any property owner to allow access/egress at all times. Where available delineation should be place on either side of the access way. There will some scenarios where access to property will be restricted and property owner will have to follow alternative paths in order to access their properties.

4.2.7 Rail Crossings

N/A

4.2.8 School Crossings

There are no school crossings within or near the work area.

4.2.9 Special Events and Other Works

The City of South Perth will advise if there are any conflicting events in the area.

4.2.10 Emergency Vehicle Access

At all times when employees are onsite, the Site Supervisor will take whatever action is practicable to assist emergency vehicles, tow trucks and/or service vehicles to gain access to crash or vehicle breakdown sites which are causing, or have the potential to cause an obstruction to traffic flow or imperil the safety of road users.

4.3 Night Work Provisions

N/A

4.4 Road Safety Barriers

N/A

4.5 Consultation and Communication / Notification

4.5.1 Other Agencies

The City of South Perth will be made aware of the works as part of the approval process.

4.5.2 Public

The public shall be notified of the works and traffic management arrangements which will effect journey times via:

- Letter drop to all residents and businesses within the traffic control zone one week ahead of the scheduled works.

5. SITE ASSESSMENT

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. Major changes will require road authority approval.

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 (T3-3) signs may be placed as required and all changes shall be recorded in the daily diary.

If rain occurs, Traffic Management Personnel shall inspect 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, thunder storms, etc.)

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

5.1.2 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.

All changes are to be noted in the daily diary.

5.1.3 Fog/Dust/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 the Road Geometry, Terrain, Vegetation and Structures of the site. Notwithstanding this, should the initial set out inspection indicate adverse impacts associated with the road geometry, terrain, vegetation or structures, traffic control should be modified to address identified issues and changes noted in the daily diary.

5.2 Existing Traffic and Adverting Signs

Where existing traffic signage is located within the traffic control zone, and is contrary to the temporary traffic control the signage shall be covered, and coverings removed at the end of the work shift.

6. SAFETY PLAN

6.1 Occupational Safety and Health

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.

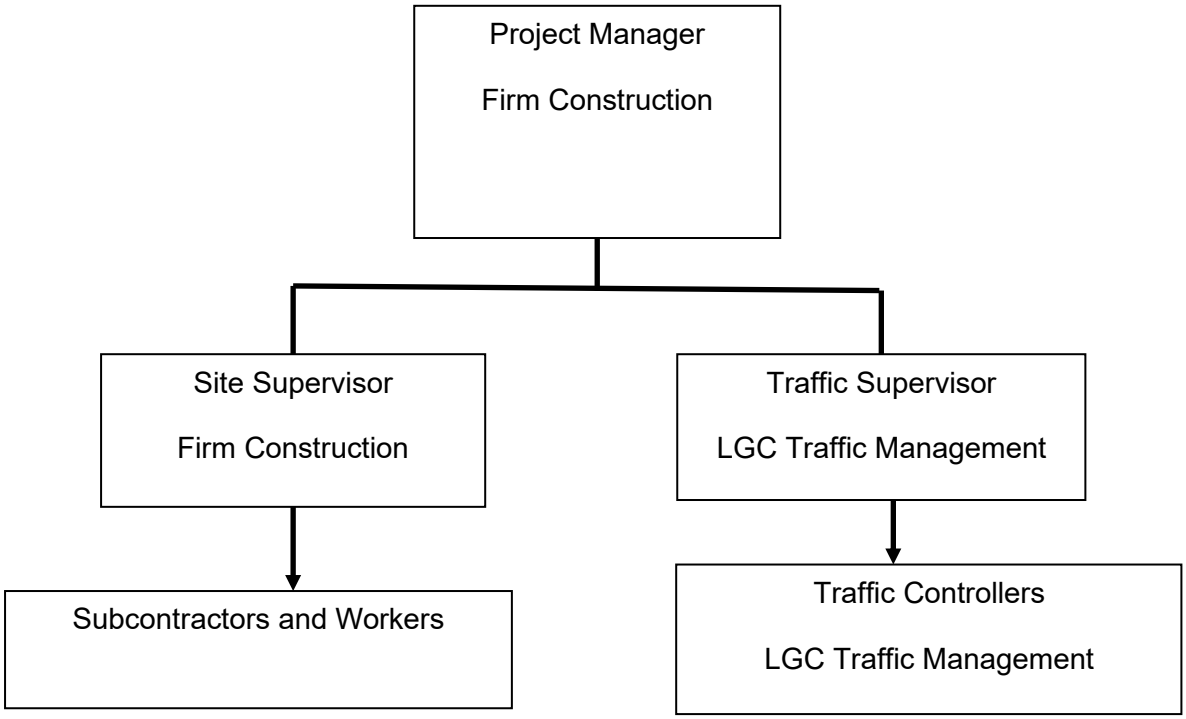
All personnel engaged in the field activities will follow the correct work practices as required by the CoP, AGTTM and AGTTM.

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 AGTTM (except where specifically detailed in this TMP with reasons for the variations). Should a situation arise that is not covered by this TMP, CoP, AGTTM or AGTTM, the Road Authority Representative shall be notified.

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
- 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 the AGTTM Part 7 Traffic Controllers Instructions
- 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 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 flashing yellow lamps in accordance with AGTTM clause 4.14.1. All workers will be made aware of the safe work practice at the time of the site induction.

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

7. IMPLEMENTATION

7.1 Traffic Guidance Schemes

The Traffic Guidance Scheme (TGS) outlined in Appendix “D” 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.

TGS Number	Revision	Details
LGCPL-3225–001	1	Site specific TGS – Hold & Release of Traffic for HV Entry and Exit from Site – Garvey St, Keaney Pl & McKay St, Waterford
LGCPL -3225-002	1	Site specific TGS – Truck Symbolic Signage – Garvey St, Keaney Pl & McKay St, Waterford
LGCPL -3225-003	1	Site specific TGS – Road Closure & Detour – Garvey St frontage of site
LGCPL -3225-004	0	Site specific TGS – Road Closure & Detour – Garvey St frontage of site
LGCPL -3225-005	1	Site specific TGS – Road Closure & Detour – Keaney Pl frontage of site
LGCPL -3225-006	0	Site specific TGS – Road Closure & Detour – Keaney Pl frontage of site
LGCPL -3225-007	0	Site specific TGS – Advance Warning VMS Placement

7.2 Sequence and Staging

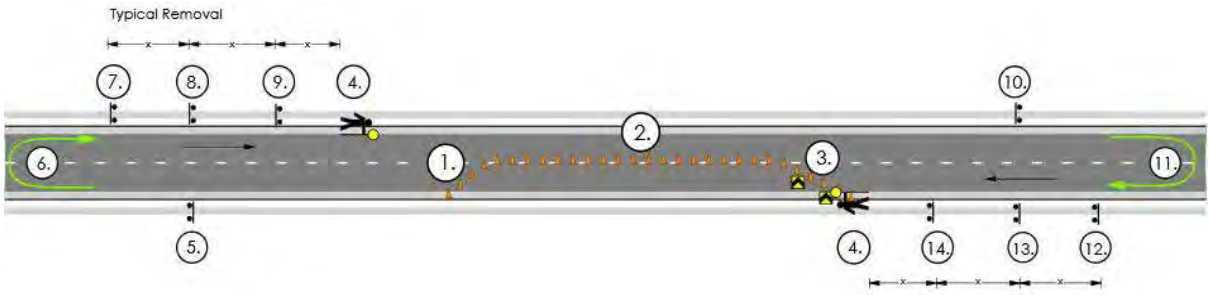
The sequence of temporary traffic management installation, work activities and temporary traffic management removal are shown in the table below.

Step	Details
1	Pre-start meeting onsite, discussion of hazards, TMP, roles, and setup of worksite.
2	Install the traffic management as per AGTTM part 6 sections 6.3 & 6.4

Step	Details
3	Supervise work vehicles entering delineated work areas and proceed with works as per AGTTM part 6 section 7
4	On completion of works, dismantle all traffic management delineation devices, as per AGTTM part 6 sections 8.3 & 8.4 The general procedure for removing a site is the: 1. work area (devices in reverse order) 2. affected side of roadway (signage in direction of travel) 3. non-affected side of roadway (signage and devices in direction of travel) 4. side roads (closure devices then signage in direction of travel) 5. detours (in direction of travel).

Two-way road – lane closure

Task	Description and Removal Sequence Number
a.	TCs holds road traffic in both directions on stop
b.	Lane closure removed, from termination area to taper, including all signs and devices within work area 1 to 2
c.	Taper removed, from center of road to edge of road 3
d.	TC operation finishes with road now open in both directions and four cones on the centerline of the road at the TC stations are removed.



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.
- Retro-reflectivity. - Signs for night-time use whose retro-reflectivity 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.

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.

7.3.2 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

Flashing arrows are not required within this TMP.

7.3.4 Delineation

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.

Cones will be inspected at intervals necessary to ensure any mis-alignment or displacement is identified and corrected prior to this causing disruption to traffic.

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.

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 20km/h below the posted speed limit 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

Traffic Management crews are required to undertake a pre-start meeting on site with all crew members at the start of each working day before implementation of any TGS. Staff are to discuss any potential hazards associated with the works, location and traffic environment.

8. EMERGENCY ARRANGEMENTS AND CONTINGENCIES

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 AGTTM Pt 2.

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

If it is determined that a road closure point is required on Waterford PBSA, to preserve the site, detour routes will be put in place.

This will be signed and controlled by traffic management personnel with road closure, detour signs and / or other devices outlined in Section 5 of AGTTM Part 10. This detour will be advised to Police, who will take charge of the site upon arrival.

8.1.2 Minor Incident or Vehicle Break Down 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.

8.5 Failure of Services

8.5.1 Failure of Traffic Signal

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	Manager_soc@stjohnambulance.wa.gov.au	000
DFES	dfes@dfes.wa.gov.au	000
Power	http://www.westernpower.com.au/customerservice/contactus/	13 13 51
Gas	enquiries@atcogas.com.au	13 13 52
MRWA RNOC	RNOC.Control.Room.Information.Desk@mainroads.wa.gov.au	138 111

9. MONITORING AND MEASUREMENT

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 the AGTTM. All such actions are to be recorded in the Daily Diary. Should road users be observed to continue to travel in excess of the 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 available at short notice 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, The CoP and AGTTM will be instituted. The monitoring program shall incorporate inspections:

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

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 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.

9.1.1 Before works start

- 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;
- 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 all 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

- All TTM signage to be removed at the end of each shift and the road returned to normal road conditions

9.1.4 After hours

- N/A

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 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.

Internal Audits may be undertaken during the works ensuring conditions in the TMP are met. Audit findings, recommendations and actions taken shall be documented.

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

LGC Traffic Management will implement a procedure that ensures comments and complaints received from the public are registered. The Supervisor shall be responsible for the monitoring of the Register on a daily basis.

10. MANAGEMENT REVIEW AND APPROVALS

10.1 TMP Review and Improvement

The Project Manager will ensure that the Traffic Management Plan is implemented and evaluated for effectiveness. The Supervisor shall inspect and monitor traffic movements around the site in conjunction with the personnel who have erected the control measures.

LGC Traffic Management will implement a procedure that ensures comments and complaints received from the public are registered. The Supervisor shall be responsible for the monitoring of the Register on a daily basis.

10.2 Variations

A variation to AGTTM, AGTTM and MRWA CoP is not.

On-site variations, if required, shall generally only be made following approval by the Traffic Supervisor and recorded in the daily diary. In emergency situations, on-site variations shall be made and recorded in the daily diary, and the Traffic Supervisor notified as soon as practicable. Any changes which require alteration to the design of the Traffic Management shall be consulted to and approved by the AWTM/RTM.

10.3 Approvals

Before to works commencing it is necessary to seek approval from the following:

- Local Government Authority – City of South Perth

APPENDIX A – NOTIFICATION OF ROADWORKS

NOTIFICATION OF ROADWORKS

Notifications are to be distributed at least one (1) week in advance of works
Where Police attendance is required at least three (3) weeks' notice shall be given (except in an emergency)
Where the traffic management is to interfere with traffic signal operation, prior approval is required 3wks in advance by MRWA RNOC.

TMP reference	LGCPL-3225	Communication plan sent to MRWA	Yes ☐	No ☐	N/A ☒
Anticipated start date:	November 2022	Anticipated finish date:	August 2023		
Daily work hours:	0700 - 1700	Is weekend work applicable?:	Yes ☐	No ☒	
Location of works (Road/Street, Suburb):	Waterford PBSA				
Description of works:	New Commerical Construction				
Description of traffic management arrangements:	Advanced warning signage, hold and release, Road Closure & detour as required				
Posted Speed Limit:	50	Worksite speed limit:	50	After hours speed limit:	50

What is the anticipated effect on traffic flows?:	Minor						
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 ☒		Will children's crossings be altered during 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					
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?					
Will the width restrictions be in place outside the daily work hours?	Yes ☐	No ☒	If yes, what is the minimum height of the structure causing the restriction?		
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	Name:		Bay Yeo		

the best contact for further details in relation to these works.	Contact number (mobile):		[comob]		
Please provide the name and phone number of the contact for prior notification of movements.	Name: Contact number (mobile):		Bay Yeo [comob]		
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 South Perth				
Postal Address:					
Telephone:	08 9231 0744	Email:	enquiries@southperht.wa.gov.au	Facsimile:	
Contact:					
Telephone:		Email:		Mobile:	

Construction Contractor:	Firm Construction				
Postal Address:	181 York St SUBIACO WA 6008				
Telephone:	08 9207 8000	Email:		Facsimile:	
Contact:					
Telephone:		Email:		Mobile:	
After hours contact:		Telephone:		Mobile:	

Traffic Management Contractor:	LGC Traffic Management				
Postal Address:	6 Bushby Street, Bellevue WA 6056				
Telephone:	(08) 9374 0161	Email:	admin@lgctraffic.com.au	Facsimile:	
Contact:	Operations				
Telephone:	(08) 9374 0161	Email:	admin@lgctraffic.com.au	Mobile:	0437 893 810
After hours contact:		Telephone:		Mobile:	0437 893 810

Distribution List	Email/Website
WA Police State Traffic Coordination	State.Traffic.Intelligence.Planning.&.Co-ordination.Unit.SMAIL@police.wa.gov.au
WA Police Student Pedestrian Policy Unit	childrenscrossingsunitsmail@police.wa.gov.au
MRWA Customer Information Centre	enquiries@mainroads.wa.gov.au
MRWA Road Network Operations Centre	RNOC.Control.Room.Information.Desk@mainroads.wa.gov.au
MRWA Heavy Vehicle Operations	hvs@mainroads.wa.gov.au
MRWA Engineer Bridge Loading	DLSEHeavyLoadsGroup@mainroads.wa.gov.au
MRWA	roadworks@mainroads.wa.gov.au
St John's Ambulance	BusinessSupportServices@stjohnambulance.com.au
Fire & Emergency Services	dfes@dfes.wa.gov.au
Public Transport Authority	Transperth.servicedisruptions@pta.wa.gov.au
Arc Infrastructure (previously Brookfield Rail)	thirdparty.notifications@arcinfra.com
MRWA Digital Communications	communications@mainroads.wa.gov.au
Local Government	enquiries@southperht.wa.gov.au

APPENDIX B – VARIATION TO STANDARDS

APPENDIX C – RECORD FORMS

Daily Diary

Daily Diary

Client: _____ LGC Order Number: 01 - 2501

Customer Supervisor: _____ Customer Reference No.: _____

Date: _____ **Job Number:**

Full Address of Traffic Management Location: _____

Location: _____

Location: _____

Names	Leave Yard	Finish Yard	Total Hours
Team Leader			

VEHICLES/TRAILERS

Vehicle		Arrow Board		VMB		Misc	

SITE CHECKS (Use ✓ Yes, No, N/A where applicable)	Is road subject to time restrictions? Yes/No Specify:								AM PM		AM PM	
TIME (Hourly)												
Are signs upright, stable, clean and visible?												
Are sign spacings correct to plan?												
Are speed limit signs doubled up?												
Are signs doubled up on dual carriageways?												
Are tapers of correct length?												
Are cones straight and spaced correctly?												
Are pedestrians catered for?												
Are vehicle queue lengths acceptable?												
Are lane widths acceptable (min 3m)?												
Are arrow boards/VMB's operating correctly?												

Daily Diary (Hourly) Time	Activity/Observation

After Care				Items Lost/Damaged
MMS		Cones		
Box Signs		Bollards		
AB Trailer		VMS Trailer		

Crew Leader Signature:		Date:	
Client Signature:		Date:	

Approved: Max Line Phone Number: 08 9374 0161 Version Date: 07/06/2019
Document: LGCFO0045 Version:2

Incident Report Form

Any incident occurring onsite shall be reported using the following incident report format.

Region - MIDVALE	**Incident Report No**
Contact number	Contractor- N/A

Major Incident Reports must be forwarded to the Operations Manager within 1 hour of the incident occurring or becoming apparent.

Contractors shall use this Form for reporting of Traffic incidents on works under Contract and this form supplements the OSH Incident Reporting Form.

A. Details surrounding incident:

OSH Incident Report No	0 /2019		
REPORT TO	☐ Supervisor ☐ TMR ☐ Other		
Police Attended **Yes** / No	**Road Surface**	**Atmospheric**	**Light Conditions**
Fatality ☐	Unsealed ☐	Clear	Day Light ☐
Injury ☐	Sealed ☐	Overcast	Night Time ☐
Property Damage ☐	Road Condition Wet / Dry	Raining	Dawn / Dusk
		Fog / Smoke / Dust	**Street Lighting On / Off**

Time and Date of incident	**AM / PM**		
	Day	Month	Year

Other relevant details, (Last maintenance, grade, watering and dust conditions):

B Details **of Traffic Management in place:**

TCD No:				Name of individual that			
Time last inspected:				Accreditation No:			
TCD Approved:	Day	Month	Year	TMP Approved:	Day	Month	Year

C Descriptions of Vehicles involved in incident:

Vehicle Make, Model Pedestrian / Cyclist		Registration No	Expiry date	Insurance & policy/No
1				
2				
3				
4				

C Driver's license details:

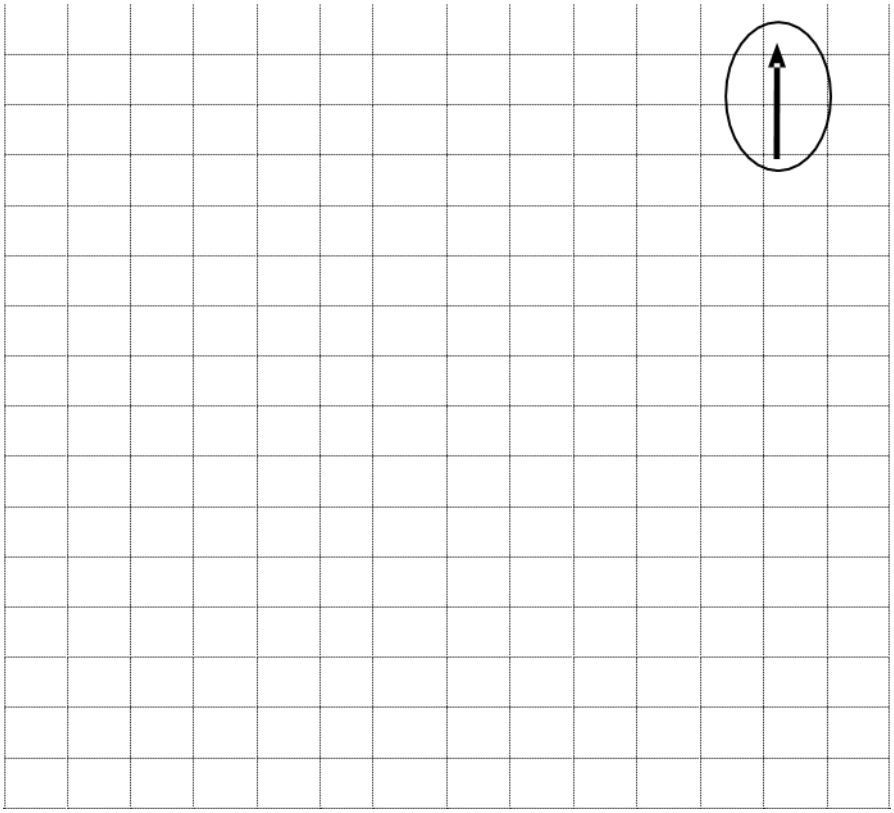
Vehicle 1	
Driver's license holders Name	
State license issued	
Driver's license number	
D.O. B	

Vehicle 2	
Driver's license holders Name	
State license issued	
Driver's license number	
D.O. B	

D Description of Incident:

Draw the incident including the direction of travel, traffic control signals, fixtures and North point

.



Comments:

E Attachments:

The following copies MUST be submitted with this Incident Report.

Approved TMP ☐ Approved TCP ☐ Approvals for temporary speed restrictions ☐ Daily Diary ☐

F Police Report:

Accident reported to Police: ☐ YES X☐ NO Report made by ☐ Phone☐ Fax☐ Mail or E-mail

Date Report Made Day Month Year Police WA Reference Number

G Witness:

One

Name .....

Address: .....

.....

Phone: .....

Two

Name: .....

Address: .....

.....

Phone: .....

H Details of Person Completing this Incident Form:

Name: ..... Contractor Name: .....

Position: ..... Phone: .....

Date:

Signature

APPENDIX D – TRAFFIC ANALYSIS AND VOLUME COUNTS

APPENDIX E – ROADWAY ACCESS AUTHORISATION PERMIT

APPENDIX F – TRAFFIC GUIDANCE SCHEMES

WORKS TIME: 0700 to 1700

HOLD & RELEASE
HV SITE ENTRY / EXIT

NOTES

- **TRAFFIC CONE SPACING IS 4.0M.**
- **EXCAVATIONS GREATER THAN 500MM IN DEPTH SHALL HAVE A MINIMUM CLEARANCE FROM THE EDGE OF THE EXCAVATION TO THE NEAREST EDGE OF THE ADJACENT TRAFFICABLE LANE OF 2.5M, IN ACCORDANCE AGTTM PART 3, TABLE 6.1.**
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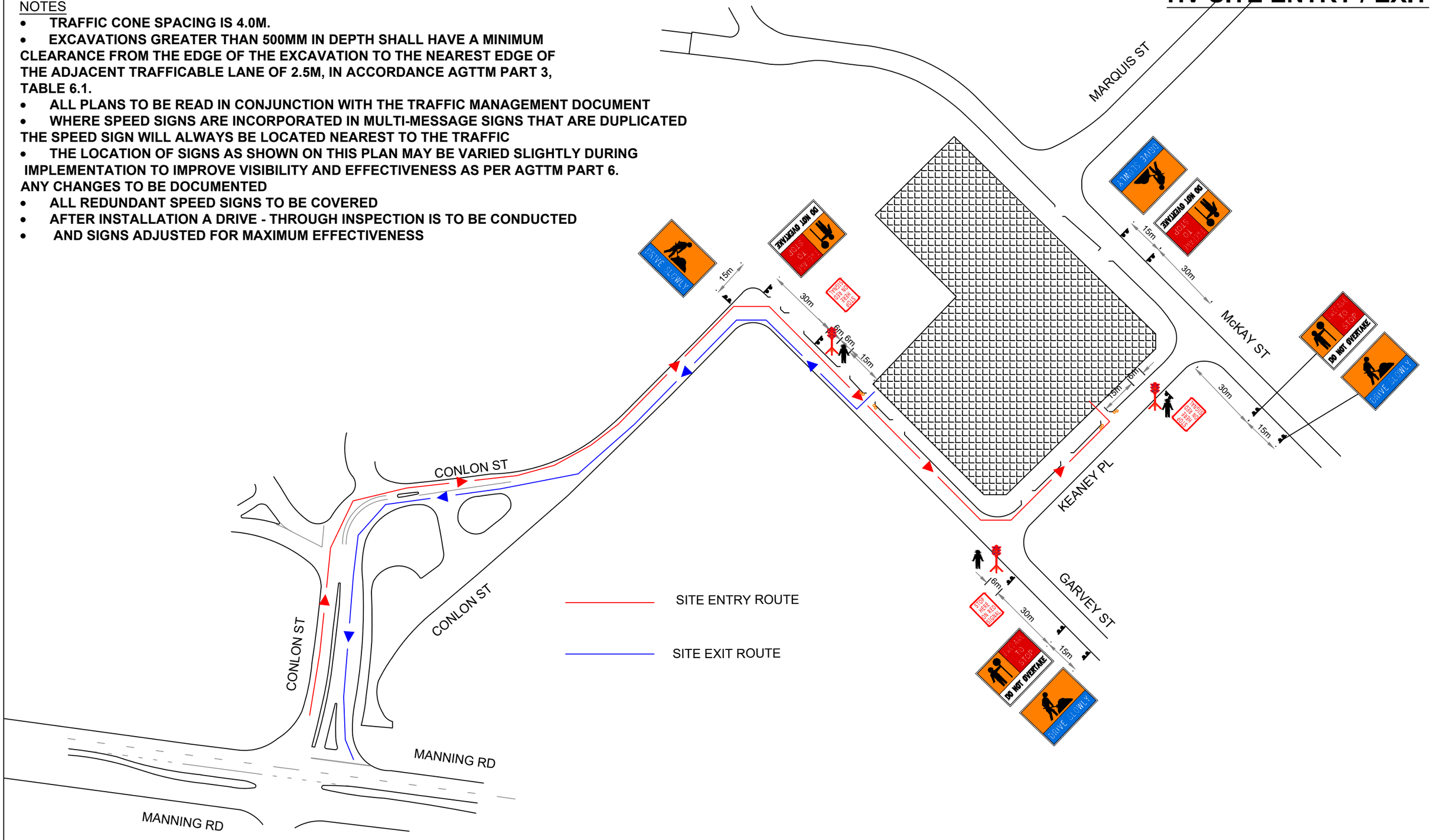

	LGC TRAFFIC MANAGEMENT LGC TRAFFIC HEAD OFFICE 9 BUSHBY ST, BELLEVUE WESTERN AUSTRALIA 6056 (08) 9374 0161 INFO@LGCTRAFFIC.COM.AU	FIRM CONSTRUCTION 181 YORK ST SUBIACO WA 6008 08 9207 7888	REV #	DATE	COMMENTS	NAME	ACCREDITATION	SIGNATURE	DATE DRAFTED: 08/08/2022	SCALE: NOT TO SCALE	DRAWING NO: LGCPL-3255-001
			0	08/08/2022	ORIGINAL VERSION	DESIGNED BY: STEWART SMITH	AWTM 20-2051-03		POSTED SPEED: 50 KM/H	LOCATION: GARVEY ST, WATERFORD	REVISION: REV 1
			1	26/08/2022	COUNCIL COMMENT	DRAFTED BY: STEWART SMITH	AWTM 20-2051-03		WORKSITE SPEED: 50 KM/H	ROAD AUTHORITY: CITY OF SOUTH PERTH	SITE SPECIFIC DRAWING ISSUE: 19/11/19 REV 1 FOR THE MOST CURRENT VERSION OF THIS CONTROLLED DOCUMENT, REFER TO THE LGC DATA SERVER
						REVIEWED BY: CLANSY HOLT	AWTM 21-3216-05				

WORKS TIME: 0700 to 1700

ADVANCE WARNING
HV SITE ENTRY / EXIT

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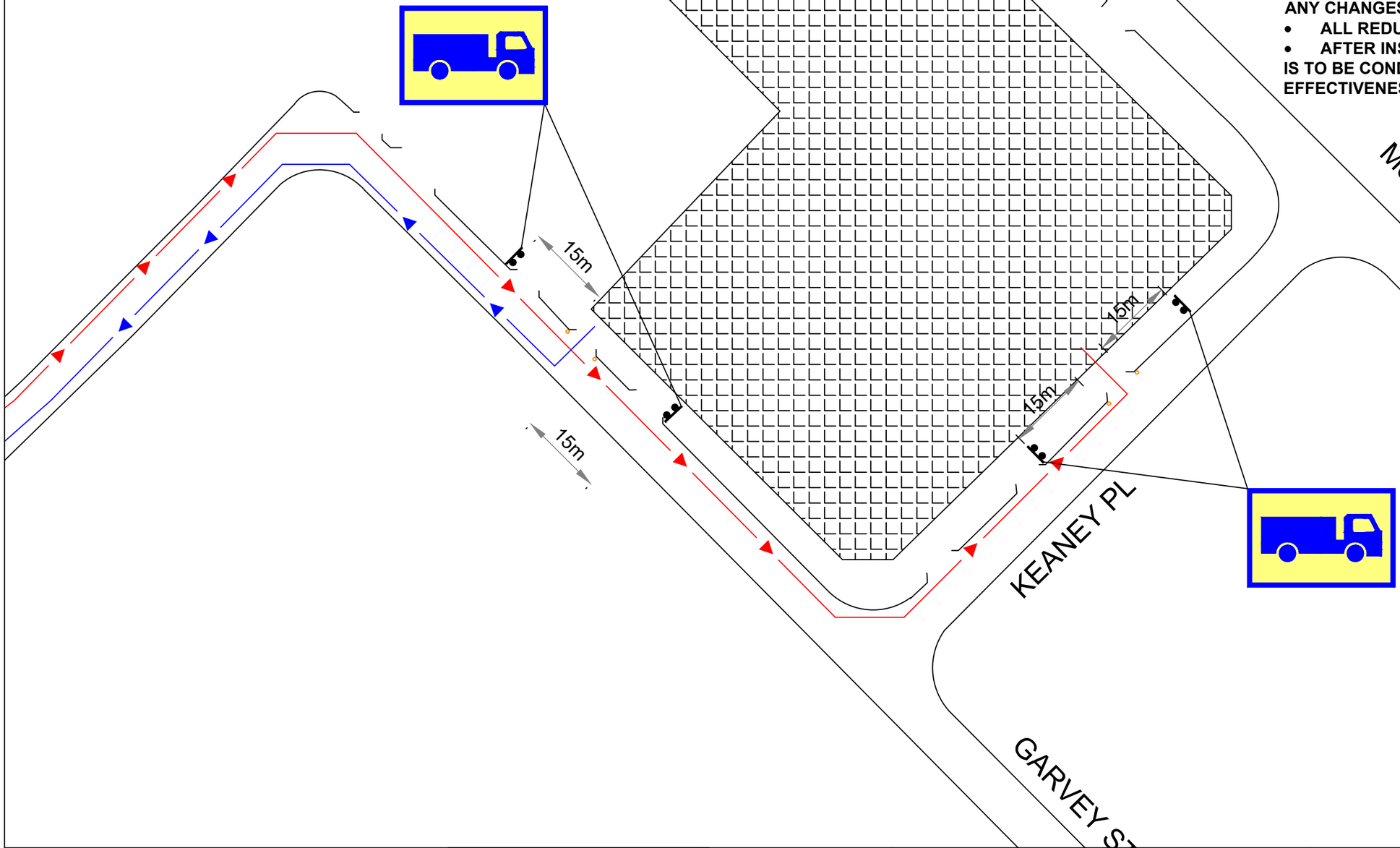

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REV #	DATE	COMMENTS
0	08/08/2022	ORIGINAL VERSION
1	26/08/2022	COUNCIL COMMENT

	NAME	ACCREDITATION	SIGNATURE
DESIGNED BY:	STEWART SMITH	AWTM 20-2051-03	
DRAFTED BY:	STEWART SMITH	AWTM 20-2051-03	
REVIEWED BY:	CLANSY HOLT	AWTM 21-3216-05	

DATE DRAFTED: 08/08/2022	SCALE: NOT TO SCALE	DRAWING NO: LGCPL-3255-002
POSTED SPEED: 50 KM/H	LOCATION: GARVEY ST, WATERFORD	REVISION: REV 1
WORKSITE SPEED: 50 KM/H	ROAD AUTHORITY: CITY OF SOUTH PERTH	SITE SPECIFIC DRAWING ISSUE: 19/11/19 REV 1 FOR THE MOST CURRENT VERSION OF THIS CONTROLLED DOCUMENT, REFER TO THE LGC DATA SERVER

WORKS TIME: 0700 to 1700

NOTES

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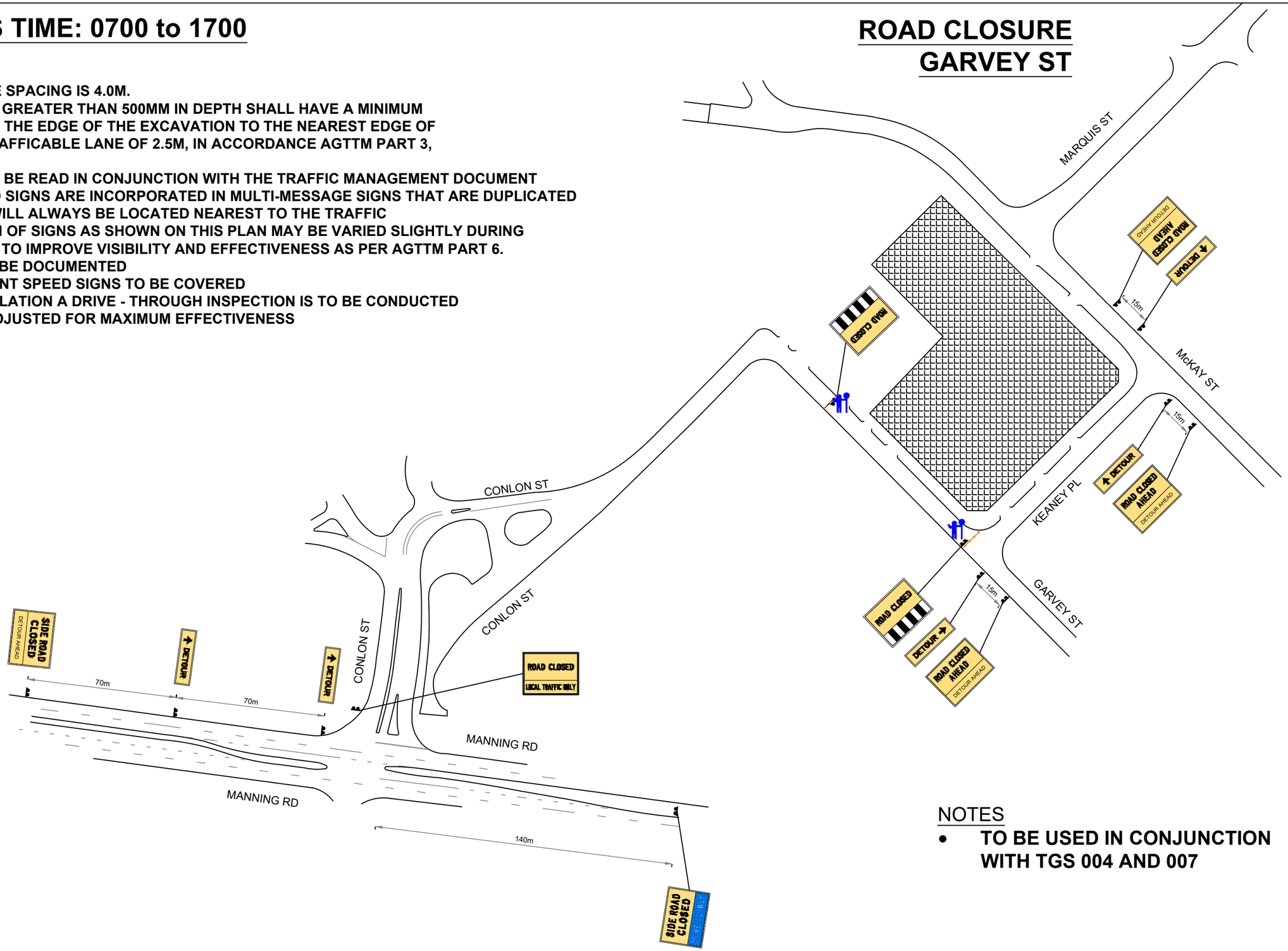
ROAD CLOSURE
GARVEY ST



NOTES

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08 9207 7888

REV #	DATE	COMMENTS
0	08/08/2022	ORIGINAL VERSION
1	26/08/2022	COUNCIL COMMENT

	NAME	ACCREDITATION	SIGNATURE
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DRAFTED BY:	STEWART SMITH	AWTM 20-2051-03	
REVIEWED BY:	CLANSY HOLT	AWTM 21-3216-05	

DATE DRAFTED: 08/08/2022	SCALE: NOT TO SCALE	DRAWING NO: LGCPL-3255-003
POSTED SPEED: 50 KM/H	LOCATION: GARVEY ST, WATERFORD	REVISION: REV 1
WORKSITE SPEED: 50 KM/H	ROAD AUTHORITY: CITY OF SOUTH PERTH	SITE SPECIFIC DRAWING ISSUE: 19/11/19 REV 1 FOR THE MOST CURRENT VERSION OF THIS CONTROLLED DOCUMENT, REFER TO THE LGC DATA SERVER

WORKS TIME: 0700 to 1700

DETOUR - GARVEY ST ROAD CLOSURE

NOTES

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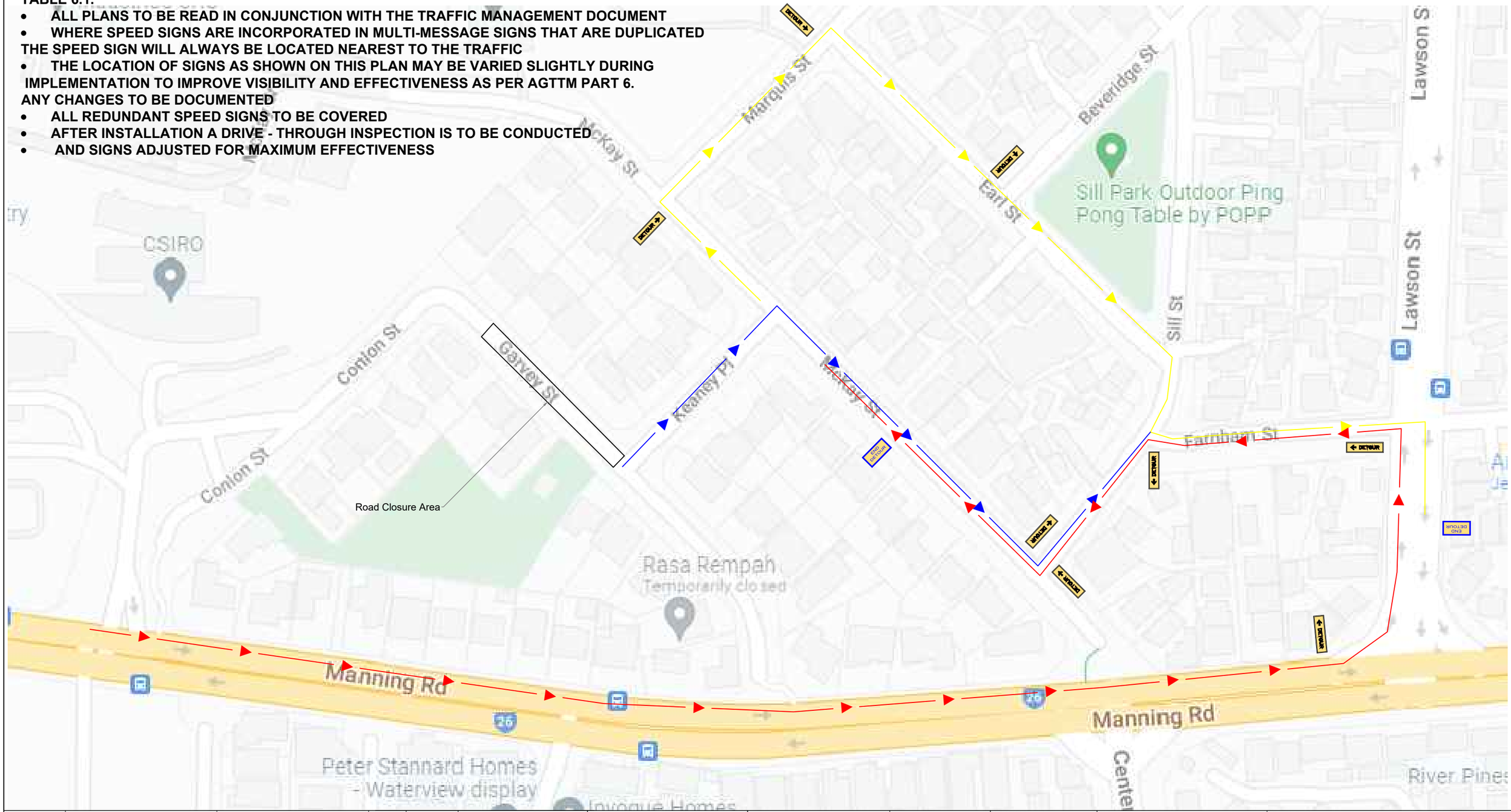

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SUBIACO WA 6008
08 9207 7888

REV #	DATE	COMMENTS
0	08/08/2022	ORIGINAL VERSION

	NAME	ACCREDITATION	SIGNATURE
DESIGNED BY:	STEWART SMITH	AWTM 20-2051-03	
DRAFTED BY:	STEWART SMITH	AWTM 20-2051-03	
REVIEWED BY:	CLANSY HOLT	AWTM 21-3216-05	

DATE DRAFTED: 08/08/2022	SCALE: NOT TO SCALE	DRAWING NO: LGCPL-3255-004
POSTED SPEED: 50 KM/H	LOCATION: GARVEY ST, WATERFORD	REVISION: REV 0
WORKSITE SPEED: 50 KM/H	ROAD AUTHORITY: CITY OF SOUTH PERTH	SITE SPECIFIC DRAWING ISSUE: 19/11/19 REV 1 FOR THE MOST CURRENT VERSION OF THIS CONTROLLED DOCUMENT, REFER TO THE LGC DATA SERVER

WORKS TIME: 0700 to 1700

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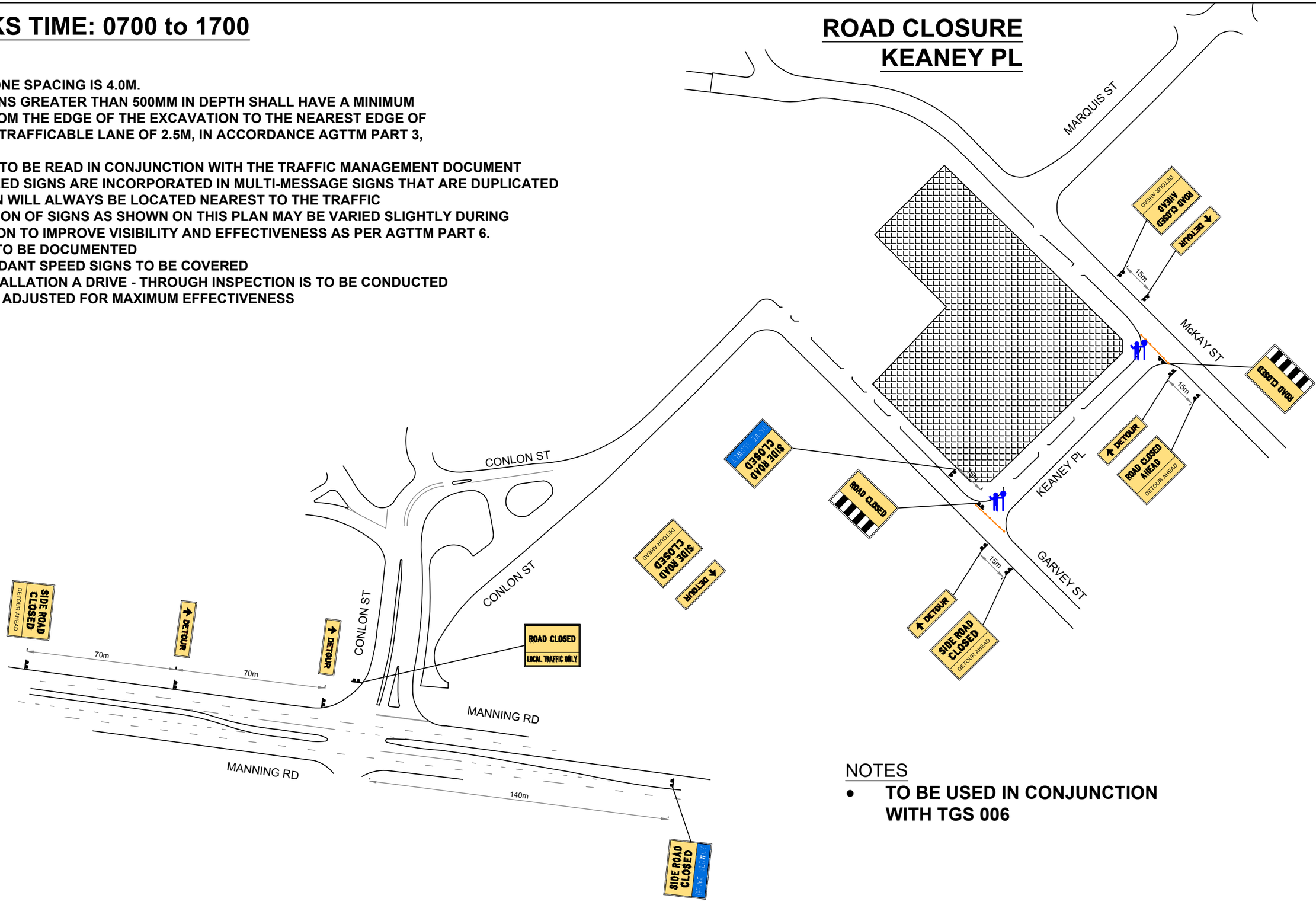
ROAD CLOSURE
KEANEY PL



NOTES

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REV #	DATE	COMMENTS
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1	26/08/2022	COUNCIL COMMENT

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DRAFTED BY:	STEWART SMITH	AWTM 20-2051-03	
REVIEWED BY:	CLANSY HOLT	AWTM 21-3216-05	

DATE DRAFTED: 08/08/2022	SCALE: NOT TO SCALE	DRAWING NO: LGCPL-3255-005
POSTED SPEED: 50 KM/H	LOCATION: GARVEY ST, WATERFORD	REVISION: REV 1
WORKSITE SPEED: 50 KM/H	ROAD AUTHORITY: CITY OF SOUTH PERTH	SITE SPECIFIC DRAWING ISSUE: 19/11/19 REV 1 FOR THE MOST CURRENT VERSION OF THIS CONTROLLED DOCUMENT, REFER TO THE LGC DATA SERVER

WORKS TIME: 0700 to 1700

ROAD CLOSURE
KEANEY PL

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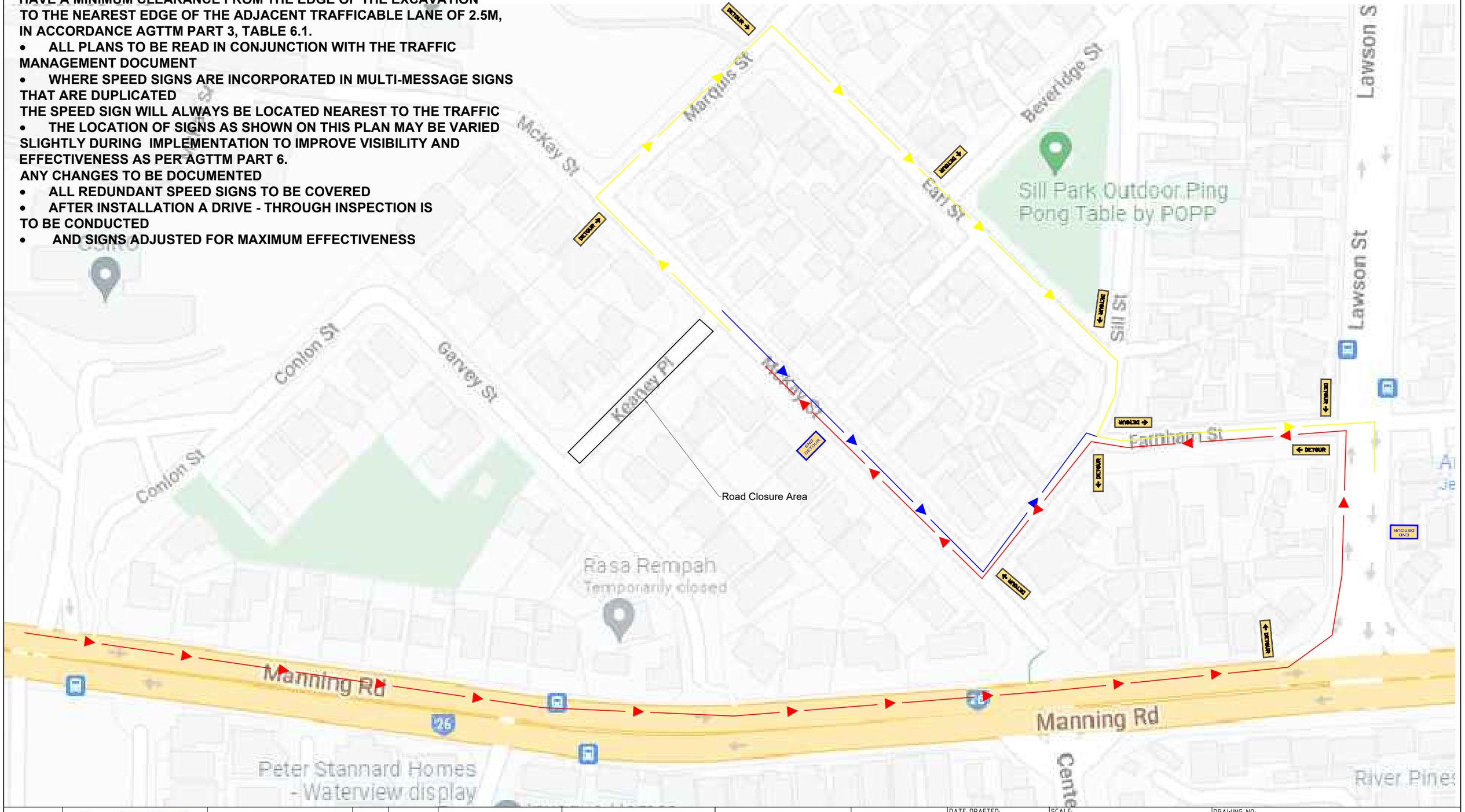
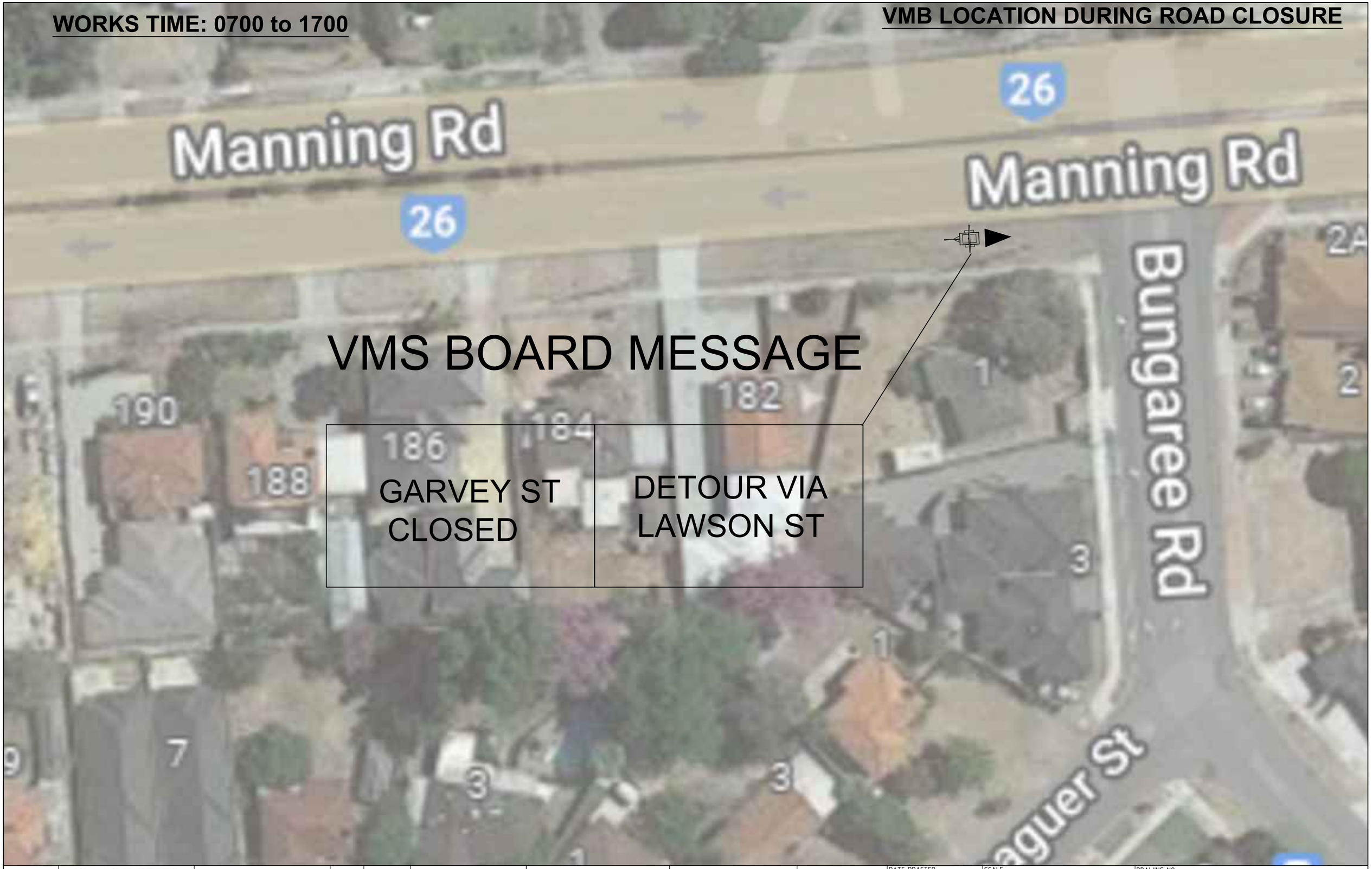


N	LGC TRAFFIC MANAGEMENT LGC TRAFFIC HEAD OFFICE 9 BUSHBY ST, BELLEVUE WESTERN AUSTRALIA 6056 (08) 9374 0161 INFO@LGCTRAFFIC.COM.AU	FIRM CONSTRUCTION 181 YORK ST SUBIACO WA 6008 08 9207 7888	REV #	DATE	COMMENTS	NAME	ACCREDITATION	SIGNATURE	DATE DRAFTED: 08/08/2022	SCALE: NOT TO SCALE	DRAWING NO: LGCPL-3255-006
			0	08/08/2022	ORIGINAL VERSION	DESIGNED BY: STEWART SMITH	AWTM 20-2051-03		POSTED SPEED: 50 KM/H	LOCATION: GARVEY ST, WATERFORD	REVISION: REV 0
						DRAFTED BY: STEWART SMITH	AWTM 20-2051-03		WORKSITE SPEED: 50 KM/H	ROAD AUTHORITY: CITY OF SOUTH PERTH	SITE SPECIFIC DRAWING ISSUE: 19/11/19 REV 1 FOR THE MOST CURRENT VERSION OF THIS CONTROLLED DOCUMENT, REFER TO THE LGC DATA SERVER
						REVIEWED BY: CLANSY HOLT	AWTM 21-3216-05				

WORKS TIME: 0700 to 1700

VMB LOCATION DURING ROAD CLOSURE



VMS BOARD MESSAGE

GARVEY ST CLOSED	DETOUR VIA LAWSON ST

LGC TRAFFIC MANAGEMENT
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REV #	DATE	COMMENTS
0	08/08/2022	ORIGINAL VERSION

	NAME	ACCREDITATION	SIGNATURE
DESIGNED BY:	STEWART SMITH	AWTM 20-2051-03	
DRAFTED BY:	STEWART SMITH	AWTM 20-2051-03	
REVIEWED BY:	CLANSY HOLT	AWTM 21-3216-05	

DATE DRAFTED: 08/08/2022	SCALE: NOT TO SCALE	DRAWING NO: LGCPL-3255-007
POSTED SPEED: 50 KM/H	LOCATION: GARVEY ST, WATERFORD	REVISION: REV 0
WORKSITE SPEED: 50 KM/H	ROAD AUTHORITY: CITY OF SOUTH PERTH	SITE SPECIFIC DRAWING ISSUE: 19/11/19 REV 1 FOR THE MOST CURRENT VERSION OF THIS CONTROLLED DOCUMENT, REFER TO THE LGC DATA SERVER