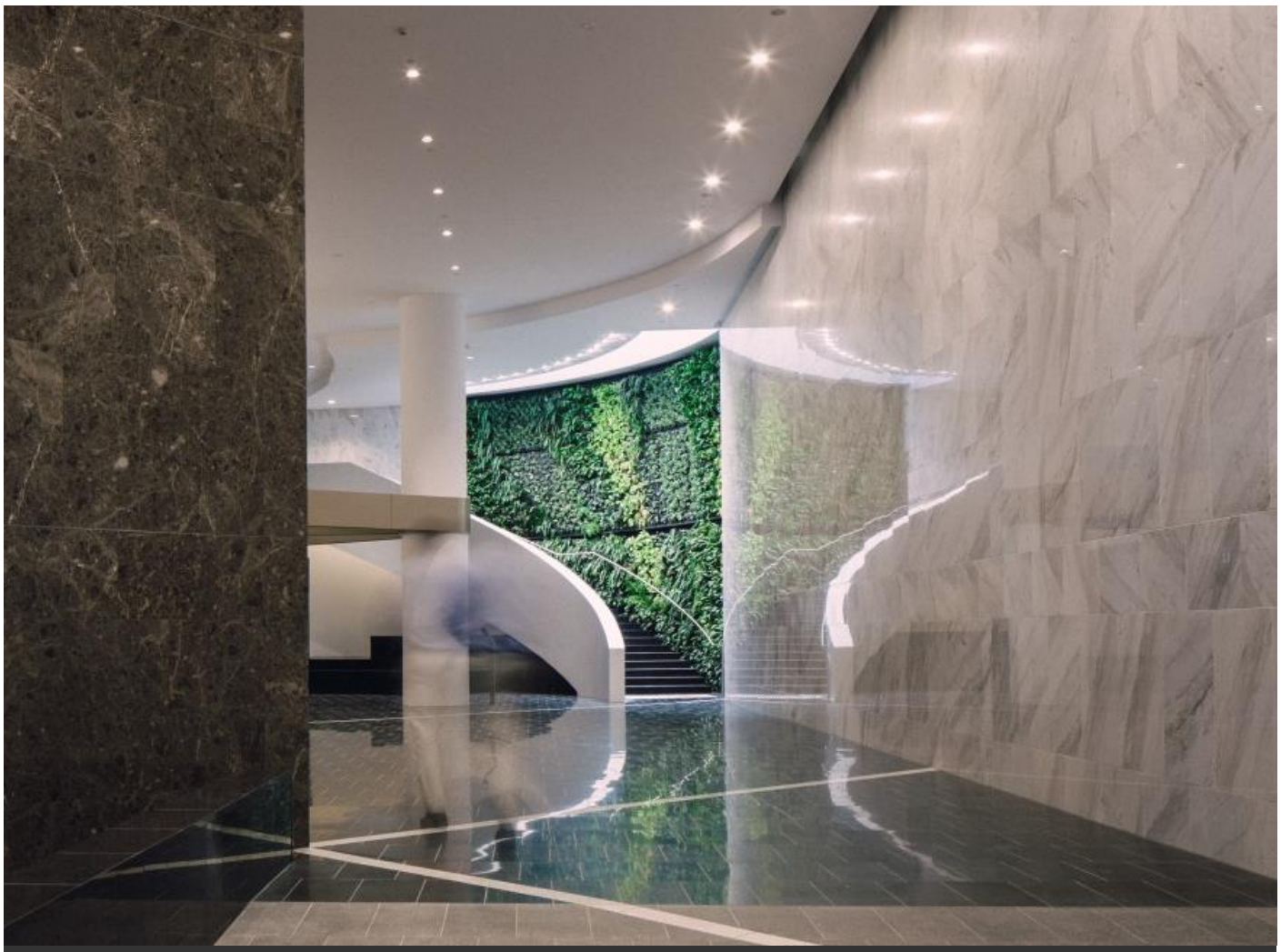


Environmental Management Plan

Mudgee Hospital

Version 5 –– 21/01/2019 –– Uncontrolled if printed

Contents

Preface

Hutchinson Builders has developed this Environmental Management Plan (EMP) as the appointed Principal Contractor.

This plan provides specific information regarding the management of project-related works and will ensure that a uniform approach to environmental management is adopted.

A copy of the plan (EMP) shall be referenced in Hutchinson Builders site specific induction and will be held on site by Hutchinson Builders so that all site employees, Client Reps, Subcontractors have access to the plan at all times. This plan is to be reviewed at 3 monthly intervals or amended where deficiencies are identified, or changes occur in Hutchinson Builders' Environmental Management System or project works change such that the information contained in the plan is no longer accurate or valid. If this EMP is altered it will be the Team Leaders / Team HSEQ Managers responsibility to ensure that the revised EMP is distributed to all Hutchinson Builders Site Management Staff, Client Representatives, Site Employees and Sub-contractors associated with the work.

Plan Review:

Name	Position	Responsibility Statement	Signature
Sean Lees	Team Leader	HB-HSEQ-F-007-A	
Corey Weston	Construction Manager	HB-HSEQ-F-007-A	
Sam Bandy	Project Manager	HB-HSEQ-F-007-B	
Steve Wyatt	HSEQ Manager	HB-HSEQ-F-007-I	
Nick Maher	Site Manager	HB-HSEQ-F-007-C	
Steve Anderson	Operations Manager	HB-HSEQ-F-007-C	
Tom Green	Foremen	HB-HSEQ-F-007-D	
Greg Inwood	Foremen	HB-HSEQ-F-007-D	
Lachlan Bloomfield	Foremen	HB-HSEQ-F-007-D	
Paul Schuster	HSE Advisor	HB-HSEQ-F-007-E	

The Site Manager will be contactable at all times for the duration of the project. The Site Manager Contact details are;

Name; Nick Maher

Phone; 0466 451 310

Email; nick.maher@hutchinsonbuilders.com.au

Plan Revision:

Revision Number	Review Date	Person Reviewing	Summary of amendments
Rev A	21/01/19	Steve Wyatt	Plan amended to reflect site specific requirements, conditions and client requests.
Rev B	18/02/19	Steve Wyatt	Plan amended to reflect client requirements in the SSD 9211

Glossary

Term		Definition
C.A.R.		Corrective Action Report
Consequence		The outcome of an event expressed qualitatively or quantitatively, being a loss, injury, disadvantage or gain
Control Method		Method available to facilitate compliance with the performance criteria
Corrective Action		Action taken to eliminate the cause of a non-conformance, defect or short-coming
EMP		Environmental Management Plan
EMSM		Environmental Management Systems Manual
Environmental Aspects		Any element of an organisation's activities, products or services that can interact with the environment
Environmental Impact Environmental Issue		Any change in the environment whether adverse or beneficial, wholly or partially resulting from organisation activities, products or services A term used by the Company to address both environmental aspects and impacts.
EPA		Environment Protection Authority
ERP		Emergency Response Procedure
EWMS		Environmental Work Method Statement
HSE		Health Safety and Environment
Likelihood		A qualitative description of probability or frequency
NATA		National Association of Testing Authorities
PM		Hutchinson Builders Project Manager
PPE		Personal Protective Equipment
PRA		Project Risk Assessment
SDS		Safety Data Sheet
SM		Hutchinson Builders Site Manager
WHSMP		Work Health & Safety Management Plan

1. Environmental Policy Statement

Environmental Policy

HB-HSEQ-P-002

Hutchinson Builders operates within the construction industry and is committed to the delivery of construction activities through environmentally responsible practices from inception through to completion.

The leadership team recognises that the role in the protection of the environment to the extent to which we control is the cornerstone of our success.

The leadership team shall demonstrate this commitment by:

- Developing processes and procedures to identify, prevent and mitigate undesirable environmental impacts
- Establishing a framework for setting and monitoring environmental objectives
- Complying with all relevant statutory duties, regulations and codes of practice
- Championing the use of best practice environmental techniques and continuous improvement initiatives
- Implementing an effective monitoring and review process
- Conducting operations in accordance with approved environmental procedures
- Fostering a collaborative approach between senior management, workers and all external parties to achieve a responsible environmental outcome in all company activities

This Environmental Policy shall be communicated to all persons working on behalf of Hutchinson Builders to provide an understanding of the environmental objectives of the business.

Those persons involved with Hutchinson Builders operations shall be encouraged to exercise environmentally responsible practices into their everyday lives.

Greg Quinn
Managing Director

Date 2 March 2017
Version 5

ISO
14001:2015
ENVIRONMENTAL MANAGEMENT SYSTEM

2. Introduction

2.1 Purpose

This Environmental Management Plan (EMP) was developed by Hutchinson Builders to identify and provide management solutions for potential environmental impacts arising from the construction of insert job name and address here.

The aim of this EMP is to provide the framework for environmental management of the construction phase of the project.

It is the responsibility of all project personnel, contractors and subcontractors to comply with the objectives and requirements of this EMP and related documents.

Specifically this document:

- Sets the environmental objectives or standards to be achieved
- Identifies relevant legal requirements and conditions of approval
- Identifies environmental aspects of the construction activities and the potential environmental impacts which may result
- Details measures to mitigate potential environmental impacts and protect any special environmental characteristics of the site
- Identifies extraordinary factors (i.e. natural disasters, emergencies) that may cause environmental impacts and describes contingency plans to deal with these
- Describes strategies to ensure site personnel are aware of the environmental risks associated with the activity, and are trained in the measures and contingency plans to deal with them
- Details the monitoring and review program to evaluate environmental performance and ensure the effectiveness of environmental controls and contingency plans
- Describes the activities organisational structure and environmental responsibilities of site personnel including sub-contractors
- Outlines the mechanisms for communication of environmental information throughout the organisation and other stakeholders
- Describes the response and reporting procedure for complaints
- Details the requirements for record keeping
- Provides for continual improvement.

2.1.1 Environmental Commitment

Hutchinson Builders and their staff are committed to a ensuring a high standard of responsible environmental management during the Project.

Hutchinson Builders are committed to:

- Reducing the risk of adverse environmental impacts through an ongoing process of hazard identification, risk assessment, control implementation, monitoring and review;
- Minimising the potential for disturbance and disruption to surrounding stakeholders, including residents, businesses and the public;
- Striving for continuous improvement through ongoing environmental performance evaluation against Environmental Work Method Statements (EWMS), three monthly auditing, and ongoing update and review of this EMP;
- Sustainable procurement; and
- Complying with all relevant regulatory, local laws and planning requirements.

2.1.2 Objectives of this Environmental Management Plan

The objectives of this EMP are to:

- Minimise the potential for adverse environmental impacts arising from construction activities;
- Outline the mitigation measures to ensure environmental risks are adequately managed during construction;
- Ensure all activities comply with relevant local and State regulatory requirements; and
- Ensure all activities comply with any environmental conditions of approval or permits.

The objectives will be achieved through the management commitment, strategies and monitoring programs outlined in this EMP and related plans.

2.2 Project Scope and Description

Located in the township of Mudgee situated in the central west of New South Wales, the Mudgee Hospital Re-Development Project has been planned to accommodate the projected clinical service requirements of the region through to the year 2027; these clinical requirements were identified by the Western New South Wales Local Health District (WNSWLHD) (stakeholder/user). New South Wales Health Infrastructure (HI) is responsible for the delivery of major health infrastructure for the NSW Ministry of Health.

The Mudgee Hospital Re-Development incorporates an entirely new three storey (including plant) accrue clinical services building that will provide: medical, surgical, emergency, palliative care, rehabilitation, mental health, paediatric services, and birthing suites. Further to the main building, the development also includes 127 carparks, the demolition of three buildings (including the original hospital building), and associated landscaping and infrastructure.

HI has awarded the design completion and construction of this project to Hutchinson Builders. We are proud to be a part of the project and look forward to continuing our successful relationship with Health Infrastructure

Activities undertaken on the construction site and the timeframe in which these activities occur during the time which the site is operational are outlined in Table 1. The Site Layout with erosion and sediment control measures is provided in **Appendix G**.

TABLE 1

Construction time frames

Activity	Estimated Timeframe
Construction hours of work	0700 – 1800 weekdays & 0800 – 1300 Saturdays
Site Establishment	1 week
Demolition	5 months
Foundation and bulk earth work	1 month
Structure	8-9 months
Fit out and Finishes	2 months
External works	2-3 months

2.3 Structure of the Environmental Management Plan

The EMP consists of:

- This overarching Environmental Management Plan which describes the environmental management system for the works in alignment with ISO 14001.
- Element based Environmental Work Method Statements (EWMS) which details the specific objectives / performance standards, control measures, monitoring and responsibility for the various environmental aspects associated with the works.
- Element based sub-plans for environmental aspects which carry a higher environmental risk.

The following supplementary documentation below in Table 2 may be required to be incorporated with the EMP. these documents may be provided by an external agent.

TABLE 2

Supplementary Documentation

Reference Element	Y/N	Elements(s)
EWMS-1	Y	Erosion and Sediment Control
EWMS-2	Y	Waste Management
EWMS-3	N	Pest control and Fauna Management
EWMS-4	Y	Vegetation and Weed Management
EWMS-5	N	Acid Sulphate Soil Management
EWMS-6	N	Fire Ant Management
EWMS-7	Y	Air Quality (Dust and Odour Management)
EWMS-8	Y	Noise and Vibration
EWMS-9	Y	Dangerous Goods and Hazardous substances
EWMS-10	Y	Sustainable practices
EWMS-11	Y	Cultural and Natural Heritage

Related documents

The EMP must be read in conjunction with the following documents:

- Environmental Management Systems Manual (EMSM)
- Work Health & Safety Management Plan (WHSMP)
- Emergency Management Plan (EMP)
- Quality Management Plan (QMP)
- Regional EnviroScience Remedial Action Plan and Waste Management Plan

3. Responsibilities

The project specific organisational structure is provided in the Work Health & Safety Management Plan (WHSMP). The general structure of authority and reporting flow paths is shown in the project **WHSMP Section 3 – Project Organisational Chart**.

3.1 On-site Environmental Responsibilities (EMSM Section 5)

The Site Manager is responsible for on-site activities and ensuring the management strategies outlined in this EMP and related documents are implemented correctly, and monitoring performance indicators. The Site Manager is also responsible for ensuring all on-site activities comply with project permits, local government and regulatory requirements.

The environmental responsibilities of Hutchinson Builders workers on site are outlined in Table 3 as well as in the relevant **Responsibility Statements HB-HSEQ-F-007-A to HB-HSEQ-F-007-L** that are signed upon commencement on the project and retained in the site specific WHSMP.

TABLE 3

Project Team Environmental Responsibilities

Position Title	Responsibility
Construction / Project Manager Refer **HB-HSEQ-F-007-B**	Overall project environmental management and due diligence Allocation of resources Approval of EMP and revisions Sustainable procurement Ensuring that all project management receive appropriate environmental inductions and additional training as required Promote environmental incident avoidance Respond to environmental incidents Corrective and preventative action Emergency preparedness and response Supporting the HSE Advisor in execution of their responsibilities and 'top-down' promotion of environmental best practice. Liaison with community and regulator
Site Manager Refer **HB-HSEQ-F-007-C**	Overall Project environmental management and due diligence Allocation of resources Ensuring that all site personnel receive appropriate environmental inductions and additional training as required Reporting on this EMP Promote environmental incident avoidance Monitoring of performance of this EMP Respond to environmental incidents Corrective and preventative action Emergency preparedness and response Approval of any chemicals entering the site Maintenance of up-to-date EMP and documents at the site Emergency response manager Compliance with permits, local council guidelines and regulatory requirements. Monitoring of sub-contractor compliance with the EMP Provide Contact details on front gate and be contactable 24 hours a day
Site Foreman Refer **HB-HSEQ-F-007-D**	Direct activities in accordance with this EMP and related documents Ensure that all site personnel are aware of any changes to this EMP and related EMPs Ensure that all personnel, including visitors are appropriately inducted Ensuring their individual areas of control and associated personnel comply with the requirements of this EMP and related documents. Monitoring of sub-contractor compliance with the EMP
HSE Advisor or Refer **HB-HSEQ-F-007-E** Project Environmental Representative Refer **HB-HSEQ-F-007-L**	Maintenance of Training Register and Community Complaints and Consultation Register Complete environmental checklists Maintain, assess, monitor and update the EMP and other environmental documents Promote environmental incident avoidance Environmental performance in conjunction with project management Site inspection and monitoring Reporting to project/site manager on performance of the system and improvement opportunities Respond to environmental incidents Reporting any incidents, non-conformance or corrective actions.

Position Title	Responsibility
HSEQ Manager	Provide environmental advice, support and management to the Project Manager and site personnel Consult with project management and relevant stakeholders regarding environmental issues Identify and prepare environmental toolbox and awareness training materials Conduct system environmental audits

3.2 Sub-contractor requirements

Contractors shall be required to comply with the specific performance objectives of the contract and participate in the implementation of the EMP.

Key responsibilities of sub-contractors and their personnel in the field are to:

- Work with site supervisors to ensure their activities are undertaken in a manner which does not cause environmental harm;
- Rectify environmental controls removed or damaged by their activities and
- Report situations that have, or may result in environmental harm.
- Only work in the designated times as detailed in the DA being no earlier than 0700 and no later than 1800 on weekdays and no earlier than 0800 and no later than 1300 on Saturdays.
- Night works has not been approved but if lighting for external use is required it will comply with **AS 4282 – 1997 Control of obtrusive effects of outdoor lighting**

4. Relevant Legislation & Standards (EMSM 6.2.3)

Key legislation and policy directly relevant to the works are outlined in the **Environmental Legislation and Guidelines HB-HSEQ-F-005-A** (refer to **Appendix A**).

4.1 Licences, Permits and Consents

Certain project activities will need to comply with the relevant local council laws and state regulatory requirements. A review of relevant legislation and development approval conditions, and consultation with local regulatory bodies found the following statutory environmental permits and approvals where required:

Mark X if required	Required licences/ permits / consents required – if applicable
☒	Development approval
☐	Approval to enter the site (from land owner)
☐	Approval of the Erosion and Sediment Control Plan (ESCP)
☐	Local and/or State Government approval for any disturbance to protected vegetation
☐	Road authority approval for ancillary works within a road reserve
☐	State government approval (e.g. waterway licence) to disturb, clear, modify, bypass or temporarily dam a watercourse
☐	EPA licence to construct works within tidal areas or within a Marine National Park
☐	Regulated waste disposal

The requirement for any environmental permits and approvals will be reviewed with any significant change in scope of works or construction methodology. These approvals and any changes in current conditions of approval will be updated in this EMP by the Site Manager or delegate and re-distributed to site contractors. Up to date permit and licence details will be maintained and available at the site office (see **Appendix B**)

4.2 Relevant Guidelines and Standards (EMSM Section 6.2.5)

The primary guidelines and standards applicable to the development and implementation of the EMP can be located via **List of Relevant Australian Standards HB-HSEQ-F-004**. Unless mentioned elsewhere in the EMP, the standards to be adopted for monitoring and assessment of environmental performance shall be the relevant Australian Standards.

4.3 Environmental Sampling and Laboratory Analysis

Where environmental sampling and analysis is required, methods and procedures used for sampling and analysis must be capable of withstanding rigorous scrutiny. The use of NATA registered laboratories or laboratories that perform to a recognised quality standard should be considered.

5. Environmental Aspects

5.1 Site Risk Assessment (EMSM 6.2.1)

Most, if not all, aspects of construction involve environmental risks of varying degrees. A break-down of construction activities and the associated risk levels (of an activity causing an adverse environmental impact) are provided in the **WHSMP - Appendix 1 Project Risk Assessment** (PRA). This document forms the primary risk management tool for the works and shall be reviewed as part of the EMP review procedure discussed in **Section 10**.

An assessment of the projects location and scope of work was completed to identify potential environmental issues that may require consideration and/or management during construction (refer to **WHSMP Appendix 1 - Project Risk Assessment – Environmental Impacts**).

Those aspects that were identified as having a moderate or greater risk of causing significant environmental impacts are as follows:

Aspect	Details	Control
Sediment Control	• Sed fencing Maintenance • Road maintenance • Access and Egress maintenance and requirements	• Establish all sediment controls in accordance with Plan including fencing and grids • Wheel wash at exit points • Establish procedure for road maintenance
Unexpected Contamination	• Spill of sufficient amount • Materials lost from vehicle	• Enact Environmental Emergency Response Plan • To be practiced as part of emergency response training
Removal Of Asbestos	• Bonded Asbestos • Friable Asbestos mixed with ash in soil	• Comply with legislative requirements • Comply with HB requirements • Comply with Enviro Science Remedial Action and waste management plan
Removal of Lead	• Lead based paint found along guttering and window surfaces	• Comply with legislative requirements • Comply with HB requirements • Comply with Enviro Science Remedial Action and waste management plan
Air Pollution	• Plant during civil phase • Substance used during Construction phase	• All plant to be in a serviceable and well maintained condition • Comply with EWMS 7 – Air Quality
Noise and Vibration	• Plant and equipment	• Operate within DA specified times and decibel levels • Local letterbox drop • Appropriate hearing protection as required • Comply with EWMS 8 Noise and Vibration
Water Discharge and Stormwater control	• Rain event • Unauthorised pumping	• Implementation and maintenance of Engineer designed and approved Sediment control system. • Stormwater protection established in accordance with sediment control plan • All ponding onsite to be removed by mechanical means where practical. Any discharge from site will be tested and approved. • Consultation with client and community

Dust and Odour	• Silica • General Site • Work generating smell	• Comply with legislative and Hutchinson Builders requirements EWMS 7 • Site fencing to be shade clothed with misters • All excavated material to be watered to prevent dust • Dust suppression to be well established on site • Odour to be managed at source, ensure suitable product selection and consultation with neighbours with details.
Waste Management	• Removal of contaminated soil • Segregation of construction waste	• All vehicles tyres washed down prior to exiting site. • All Loads covered and disposed of at approved facility • Comply with EWMS 2 – Waste Management
Unexpected Find	• Aboriginal or Historical significance	• Refer to EWMS 11 – Cultural and Natural Heritage for guidance

Those environmental aspects that were assessed as a low to insignificant risk will be monitored as part of routine site inspection activities by the Site Manager or their delegate. If aspects initially assessed as low to insignificant risk, result in environmental harm, the risk assessment should be revised and this EMP updated. The PRA will be reviewed 3 monthly and appropriate management measures will be developed and implemented within a practical time after their identification. Implementation of the controls is to occur by the Site Manager in consultation with the HSE Advisor.

5.2 Sub-contracted activities

The detachment of subcontractors from the main project delivery team can present an environmental risk to a project due to:

- Challenges in communicating environmental risks and controls to transient nature of sub-contractors and their employees
- Sub-contractors operating under a different management systems or standards.
- There will be nil requirement to provide lighting after hours as no work will be allowed after 1800 on weekdays and 1300 Saturdays.

Hutchinson Builders will ensure that the work of sub-contractors is monitored through daily surveillance whilst onsite; the site inspection and auditing processes are detailed in Section 8.

5.3 Sustainable Procurement

Sustainable procurement refers to the purchase of goods and services that have a lesser or reduced effect on the environment and human health (over the entire life cycle of the product i.e. production, distribution, usage and disposal), while maintaining value for money, when compared with other products or services that serve the same purpose.

Hutchinson Builders shall adopt a sustainable approach to procurement in the process of delivering the project.

5.4 Environmental Management Measures

Specific management measures for the various environmental aspects of the works are provided as Environmental Work Method Statements in **Appendix C**. The environmental management measures outlined aim to minimise or prevent the risk of adverse environmental impacts.

Waste generated though construction activities may be outsourced to a licenced third party. Disposal dockets shall be retained on the job file for future reference. Where the client specifies the use of a project specific Waste Management Plan a supplementary plan will be established and retained on site as per **Section 1.3**.

5.5 Emergency Planning and Response (Section 6.3.7)

Environmental management will include planning for potential emergencies at the site. The organisational structure, responsibilities and on-site contact details for all emergencies is specified **Emergency Response Plan** (**WHSMP – Appendix 7**). The relevant plan will be available in the site office. All emergency contacts will be recoded on the Emergency Contacts for site template (**WHSMP – Appendix 7 – Appendix A**) and be displayed on the site notice board.

The general procedure for managing environmental emergencies is provided in **Appendix F**.

Members of the Emergency Control Structure (ECS) will receive the relevant training to enable them to respond to identified environmental emergency situations in accordance with EMSM Section 6.3.2 Included in the site specific induction all workers will receive appropriate training in Emergency Response Procedures.

The ERP must be regularly tested and information revised regularly to ensure all details are current, including:

- The names of key response personnel
- Personnel responsibilities and contact details, including after-hours contact
- Contact details of emergency services
- The location of on-site information on hazardous materials, including SDSs and spill kits
- Information about minimising / controlling the emergency
- Procedures for notifying project management, regulators and public, if necessary.

6. Training, Awareness & Competency (EMSM Section 6.3.2)

6.1 Induction

Prior to working onsite all personnel and subcontractors will complete an environmental induction informing them of:

- Hutchinson Builders Environmental Policy;
- Legal requirements, including their duty of care under the State Environmental Protection Act;
- The purpose, objectives and key elements of the EMP ;
- Environmental responsibilities;
- Significant environmental issues relevant to the site;
- Key environmental control measures;
- Incident avoidance, management, emergency plans, and response;
- Reporting process for environmental harm/incidents; and
- Protection and maintenance of environmental controls.

A copy of the EMP and related documents will be maintained on-site by the Site Manager/HSE Advisor and made accessible to personnel and subcontractors on the site. All subcontractors are responsible for ensuring personnel are aware of site environmental management measures and adequate materials are available to implement these.

6.2 Environmental training

Staff working onsite shall be provided with environmental training to achieve a level of awareness and competence appropriate to their assigned activities where required. Targeted environmental training will be provided to individuals or groups of workers with a specific authority or responsibility for environmental management or those undertaking an activity with a high risk of environmental impact. This training will be prepared and delivered by the HSE Advisor or Corporate Environmental Advisor in alignment with the specific **Site Training Register HB-HSEQ-F-031**.

The HSE Advisor will maintain an up to date register (Refer **WHSMP - Appendix 6 Site Training Register**) for the site.

Subcontractors should also maintain training details of any additional environmental awareness or competence training provided to personnel, and make records available to site management upon request.

6.3 Toolbox Training (EMSM 6.3.3)

Ongoing toolbox training using form **Toolbox Talk OHSE HB-HSEQ-F-055** shall be prepared and delivered by the HSE Advisor to ensure that relevant information is communicated to the workforce on an ongoing basis and that feedback can be provided on issues of interest or concern. For additional information relating to the use and implementation of Toolbox Talk refer to OHSMS procedure **PP:06 Communication on Site**.

7. Communication & Reporting (EMSM Section 6.3.3)

7.1 Internal communications and reporting pathways

The organisational structure described in Section 2 represents the general communication and reporting pathways for the contract.

Signage shall be erected displaying contact details for the Site Manager and persons responsible for responding to incidents and emergencies.

Hutchinson Builders will ensure consultation / cooperation and consultation occurs with duty holders & site personnel through the following consultative arrangements and in alignment with the EMSM, and internal OHSMS Procedure **PP:06 Communication on Site**:

- Weekly HB Site Meeting
- Weekly Subcontractor Meeting
- Weekly HSE Committee Meeting
- Toolbox and Prestart Meetings (refer **Section 6.3**)

7.2 External stakeholders

Hutchinson Builders are committed to working with other stakeholders to ensure an amicable approach is taken to the sharing of infrastructure and resources through specific and open lines of communication.

The Project Manager and Site Manager are responsible for consultation with external stakeholders. Sub-contractors are to notify the Site Manager of any issues or contact with stakeholders and refer all stakeholders to site management for further information. The Principal's Representative will be advised of all stakeholder consultation prior to it occurring and invited to attend meetings and/or discussions.

7.3 Routine reporting

General Progress Reports shall be prepared monthly using form **Project Performance HB-HSEQ-F-049** by the Site Manager or delegate and made available to the Principal. The report will, at a minimum, provide the following information summaries:

- Any EMP revisions
- Weekly **HSE Inspection BIG 8 HB-HSEQ-F-048**
- Environmental training
- Results of internal audits
- Non-conformances, incidents and/or proposed actions for rectification or improvement of management procedures, and
- The status of any open non-conformances
- Monitoring results, if requested.
- Project specific reporting requirements.

7.4 Internal reporting – hazards, non-conformance and corrective action

The Project Manager will be responsible for ensuring that all incidents are investigated and reported internally in accordance with the Hutchinson Builders procedure using form **Incident Report Form HB-HSEQ-F-027-B**.

Further to documenting a hazard or event, the type and extent of investigation will be determined by the Team HSE Manager. Management will review all information available and consider the risks associated with the hazard or incident. All events resulting in injury, disease or other harm will be investigated to determine the cause of the event. The result of the investigation will be reported to the Management Team. Where a systematic breach has been identified a corrective action will be raised in accordance with **Environmental Management Systems Manual** section 7.8.2

7.5 Incident and corrective action reporting to the Principal

The Principal shall be consulted on what environmental occurrences are considered to be incidents, prior to any works commencing. The Principal shall be notified of the occurrence of an environmental incident, or where there is any uncertainty about any incident.

7.6 Reporting incidents to regulatory authorities

The state regulatory body shall be notified in writing of any incident which has caused, or may cause serious or material environmental harm. The Project Manager is responsible for ensuring incidents are reported to regulatory authorities within the required time frames.

A written notice detailing the following information must be provided to the state regulatory body within 14 days only when the released contaminates exceed the allowable limit. The following are details that are required to be included on the notification:

- The name of the operator, including their registration certificate number
- The name and telephone number of a designated contact person
- Quantity and substance released
- Person(s) involved
- The location and time of the release
- The suspected cause of the release
- A description of the effects of the release
- The results of any monitoring performed in relation to the release
- Actions taken to mitigate any environmental harm caused by the release
- Proposed actions to prevent a recurrence of the release.

7.7 Complaints and complaints response

A **Community Complaints and Consultation Register HB-HSEQ-F-041** will be established for the project for the purpose of documenting impacts or complaints from neighbours or community. Incidents involving members of the community or complaints directly received may require an **Incident / Injury / Hazard Report Form HB-HSEQ-F-027-B** to be completed and retained on site for the duration of the project.

Sub-contractors will ensure that any complaints received by them during works are forwarded to site management immediately. Sub-contractors are not to initiate consultation or communication with community or stakeholders without site management approval.

Complaints shall be managed by the Project Manager, Site Manager or their delegate, in consultation with other relevant stakeholders so that a timely resolution is achieved. The resolution process shall involve a review of the effectiveness of control measures, which shall be modified where found to be deficient, and extended to other work areas or practices to avoid recurrence of the issue (refer Section 9)

8. Record Keeping & Document Control (EMSM Section 6.3.4)

The following records shall be accessible at the main site office:

- Current and superseded versions of the site specific EMP (all versions)
- Regulatory licences and permits
- Pre-clearance survey (where applicable)
- Regulatory authority inspection reports
- Correspondence with regulatory authorities and other interested parties
- Employee training records
- **Register of Environmental Monitoring HB-HSEQ-042** and all relevant Environmental monitoring records
- Records of all environmental accidents/incidents/emergency (**Incident / Injury / Hazard Form HB-HSEQ-F-027-B**)

- **Corrective Action Report HB-HSEQ-F-029-A**
- **Site Weekly Date Collection Form HB-HSEQ-F-049-A**
- **Community Complaints and Consultation Register HB-HSEQ-F-041**
- **HSEQ Internal Audit Report HB-HSEQ-F-045-A**
- **HSEQ Monthly Review Agenda HB-HSEQ-F-057**
- **Weekly HSE Inspection BIG 8 HB-HSEQ-F-048**
- Records of the type, quantity and lawful disposal of regulated waste and recyclables removed from site
- Records of stormwater testing results and lawful discharge
- Calibration records for environmental monitoring equipment

Document control on the project is to occur in alignment with the EMSM **Section 6.3.5**. Further details on document control and management of project records is provided in the WHSMP.

9. Monitoring & Review Of Environmental Performance (EMSM Section 6.4.1)

9.1 Monitoring and Meetings

Environmental inspection of the site will be carried out by means of a routine monitoring program, which will identify non-conformances and areas for improvement. A formal audit program will also be implemented at the site.

Key aspects of the program include:

- Weekly site inspections will be undertaken by the HSE Advisor using the **Weekly HSE Inspection BIG 8 HB-HSEQ-F-048** to review performance against the key performance indicators outlined in **Register of Project Performance Measures HB-HSEQ-F-50**. Records of inspection findings, recommendations for improvement and non-conformances will be maintained in accordance with this EMP.
- On a regular basis, responsible personnel, including site supervisors, sub-contractor representatives and site management, will review site environmental performance, non-conformances and identify areas for improvement.
- All site personnel and sub-contractors will report non-conformances, identified as part of day to day works.
- Reporting to the Project Manager environmental management issues identified through Toolbox Talks
- Audit findings will be closed where practical within one month of audit.
- Monitoring and inspection shall be documented on **Weekly HSE Inspection BIG 8 HB-HSEQ-F-048**. All inspection, monitoring and non-conformance records are to be maintained for the purposes of audit and overall compliance monitoring for the life of the project.
- Any equipment required to satisfactorily complete environmental inspections must be recorded on the **Plant and Equipment Register HB-HSEQ-F-032** and include calibration records. Training records will also be maintained for measuring and monitoring equipment as required.

9.2 Environmental Work Method Statements (EMSM Section 6.2.1)

The EWMS provided in **Appendix C** detail the aspects that need to be monitored and controlled to reduce the potential environmental impacts at the site. Monitoring and inspection should assess activities against these EWMS to review overall environmental management performance at the site.

9.3 Internal Auditing (EMSM Section 6.4.4)

Construction activities and environmental procedures at the Project site will be audited for compliance with this EMP. Audits will be conducted as per the **OHSMS Internal Audit Schedule HB-HSEQ-F-045**. The Environmental Auditor will be either an appointed independent consultant, HSE Manager, Site Manager, or delegate.

Audits may be conducted along with other required site audits, e.g., health and safety and quality audit. The scope of the audit will cover all construction activities on the site. It shall be the auditor's responsibility to:

- Provide an assessment of compliance with the environmental procedures and EWMS identified in this EMP;
- Identify any other activities that have, or may cause an adverse impact to the environment, or non-conformance to regulation;
- Provide recommendations to the Project Manager and Site Manager regarding any practical measures that can be made to improve the effectiveness of environmental management at the Project site, and
- Complete and distribute and Audit Report within 1 week of the audit.

10. Non-Conformance & Preventive / Corrective Action (EMSM Section 6.4.2)

Negative findings arising from complaints, incidents, and routine inspection, monitoring and auditing shall be cause for corrective / preventive action. This shall include the completion of **Corrective Action Report HB-HSEQ-F-029-A** and the preparation of documented action plans consistent with the level of risk associated with the matter of concern.

In the event of a non-conformance:

- The nature of the event will be investigated
- Advice will be sought from a specialist where the matter is outside the expertise of project management
- Monitoring will be undertaken where required to properly investigate an incident, compliant or non-conformance
- An appropriate preventative and corrective action will be implemented
- The effectiveness or need for new/additional controls will be reviewed
- Strategies will be identified to prevent recurrence
- Environmental documentation will be reviewed and revised
- In certain situations work will be ceased until appropriate remedial actions are taken.
- Any non-conformance will be documented in the monthly **Project Performance HB-HSEQ-F-049** and forwarded to team HSE Manager for record and follow up. Corporate will be advised on monthly basis via Team C.A.R register.

The Site/Project Manager and HSE Advisor should be notified of any non-conformance within 24 hours of the incident occurring. However, if it appears that legislation has been breached or the events are of a major non-conformance the Corporate Environmental Advisor must be immediately notified.

Corrective action should be taken within a timely manner to ensure that the issue is addressed. A record of non-conformance for the event must be completed. Any issues for corrective or preventative action identified should be recorded, including responsibility for action and date for completion.

10.1 Close-out of Corrective Action Reports

The status of corrective actions shall be periodically reviewed by the HSE Advisor to ensure that all actions arising from inspections and audits are implemented in a timely manner, and verified and recorded as being satisfactorily completed.

Corrective action requests and observations of concern arising from external audits shall be addressed immediately following the site audit closing meeting using draft audit findings and resolved within two weeks of receiving the final audit report.

Corrective actions shall be included in the monthly **Project Performance HB-HSEQ-F-049**.

APPENDIX A – LEGAL REQUIREMENTS

Issues	Applicable Legislation / Guidelines / Standards	Regulating Authority	Major Requirements Of Legislation
Office (including Site Offices)			
Energy Consumption			
Lighting	Department of Climate Change and Energy www.climatechange.gov.au	Department of Climate Change and Energy	• No specific legislation requirements.
Equipment Operation	Department of Climate Change and Energy www.climatechange.gov.au	Department of Climate Change and Energy	• No specific legislation requirements.
Air Conditioning / Heating	Department of Climate Change and Energy www.climatechange.gov.au	Department of Climate Change and Energy	• No specific legislation requirements.
Electricity	Department of Climate Change and Energy www.climatechange.gov.au	Department of Climate Change and Energy	• No specific legislation requirements.
Air Emissions			
Energy Use	Protection of the Environment Operations Act 1997	NSW EPA	• Monitor power usage and review opportunities for reduction. • Turn off appliances, including computers when not in use.
Vehicle use (exhaust emissions)	Department of Climate Change www.climatechange.gov.au	Department of Climate Change and Energy	• Ensure all vehicles are serviced in accordance with manufacturer's guidelines. • Consider alternate energy sources for vehicles, i.e. natural gas and hybrid types.
	Protection of the Environment Operations Act 1997	NSW EPA	• General Duty of care to prevent environmental harm through pollution
	Protection of the Environment Operations (Clean Air) Regulations 2010	NSW EPA	• No specific legislation requirements.
	Ozone Protection Act 1989	NSW EPA	• Ensure all vehicles are serviced in accordance with manufacturer's guidelines. • Consider alternate energy sources for vehicles, i.e. natural gas and hybrid types.

Issues	Applicable Legislation / Guidelines / Standards	Regulating Authority	Major Requirements Of Legislation
Waste Management			
Paper	Protection of the Environment Operations Act 1997	NSW EPA	• Undertake Paper Saving Initiatives. • When purchasing new printers consider printers which can print double sided. • Educate Staff on printer use and paper saving initiatives.
	Protection of the Environment Operations (Waste) Regulations 2014	NSW EPA	• No specific requirements, however the Waste Management Hierarchy should be used Avoid/Reduce - Reuse - Recycle - Dispose • Minimisation of waste generated • Segregation of waste
Packaging	Protection of the Environment Operations Act 1997	NSW EPA	• Recycle and reuse
	Protection of the Environment Operations (Waste) Regulations 2005	NSW EPA	• No specific requirements, however the Waste Management Hierarchy should be used Avoid/Reduce - Reuse - Recycle - Dispose • Minimisation of waste generated • Segregation of waste
Equipment	Protection of the Environment Operations Act 1997	NSW EPA	• Recycle if possible. Otherwise comply with regulatory requirements for disposal. (For example, laser printer and ink cartridges, photocopier toner cartridges and CDs including cases).
	Protection of the Environment Operations (Waste) Regulations 2014	NSW EPA	• The Waste Management Hierarchy should be used Avoid/Reduce - Reuse - Recycle - Dispose • Minimisation of waste generated • Segregation of waste
Chemical storage (e.g. for cleaning)	Protection of the Environment Operations Act 1997	NSW EPA	• Audit storage 6 monthly. • Use biodegradable and non-toxic cleaning products where available. • Check SDS for storage and disposal recommendations
	Protection of the Environment Operations (Waste) Regulations 2014	NSW EPA	• Stipulates that the disposing of waste, or treating and disposing of waste, should occur in a way that causes the least harm to the environment. • The Waste Management Hierarchy should be used Avoid - Reduce - Reuse - Recycle - Dispose

Issues	Applicable Legislation / Guidelines / Standards	Regulating Authority	Major Requirements Of Legislation
	Work Health and Safety Act 2011; Work Health and Safety Regulation 2011	WorkCover NSW	• Stipulates requirement to minimise the risk of a dangerous event (e.g. fuel or chemical spill) occurring and controlling exposure. • Must obtain SDS on purchase from manufacturer. • Requirements for labelling of chemicals • Store in chemical cabinets or chemical stores as appropriate.
Chemical storage (e.g. for cleaning)	AS 1940 The Storage and Handling of Flammable and Combustible Liquids	WorkCover NSW NSW EPA	• Proper storage of hazardous substances and dangerous goods (toxic, flammable and combustible, corrosive) and implementation of all reasonable precautions and care to achieve an acceptable level of risk. • Stipulates emergency management and fire protection requirements.
	AS 1216 Classification, Hazard Identification and Information Systems for Dangerous Goods	WorkCover NSW NSW EPA	• Ensure different classes of chemical are appropriately segregated. • Store all chemicals in appropriate containers that are clearly marked. • Clearly label chemical storage areas. • Train personnel in safe chemical storage and handling.
Vehicle Use			
Project Trip Planning	Protection of the Environment Operations (Clean Air) Regulations 2010	NSW EPA	• Vehicle sharing, planning work to minimise site trips
Commuting to the Office	Protection of the Environment Operations (Clean Air) Regulations 2010	NSW EPA	• Encourage car-pooling / public transport / walking and cycling.
Vehicle Efficiency	Protection of the Environment Operations (Clean Air) Regulations 2010	NSW EPA	• Ensure all vehicles are serviced in accordance with manufacturer's guidelines.
Construction Site			
Air Emissions			
Fugitive Emissions - total volatile organic compounds (TVOCs) could be produced from contaminated soils.	Protection of the Environment Operations (Clean Air) Regulations 2010	NSW EPA	• Monitor emissions, where required. • Develop project specific Work Health & Safety Management Plan to limit exposure. • No unreasonable releases of contaminants to air resulting from activities on the site, including nuisance releases, unless authorised by EPA • No other air emissions, including odours, are detectable at the boundary of the site. • A management plan for the control of dust and air emissions is to be prepared and implemented where risk is moderate or higher

Issues	Applicable Legislation / Guidelines / Standards	Regulating Authority	Major Requirements Of Legislation
Dust and particulates from excavation and transport of material around and off site	Protection of the Environment Operations (Clean Air) Regulations 2010	NSW EPA	• Monitor dust emissions visually and apply water for dust suppression, if required. • No unreasonable releases of contaminants to air resulting from activities on the site, including nuisance releases, unless authorised by EPA • No other air emissions, including odours, are detectable at the boundary of the site.
Gaseous compounds (SO2, NO2) from equipment and vehicle use, exhaust emissions	Protection of the Environment Operations (Clean Air) Regulations 2010	NSW EPA	• Monitor emissions • Plan to limit exposure. • Ensure all vehicles are serviced in accordance with manufacturer's guidelines. • No unreasonable releases of contaminants to air resulting from activities on the site, including nuisance releases, unless authorised by an Environmental Authority Development approval • No other air emissions, including odours, are detectable at the boundary of the site.
Greenhouse gas emissions from vehicle and machinery use	Protection of the Environment Operations (Clean Air) Regulations 2010	NSW EPA	• No unreasonable releases of contaminants to air resulting from activities on the site, including nuisance releases, unless authorised by EPA • No other air emissions, including odours, are detectable at the boundary of the site. • Reduce use of greenhouse gas emitting vehicles and equipment where possible. • Monitor emissions where appropriate.
Fuel Storage and Handling	Protection of the Environment Operations Act 1997 Environmental Compliance Report Liquid Chemical Storage, Handling and Spill Management	NSW EPA NSW Department of Environment and Conservation	• General duty of care to prevent environmental harm through pollution • Must notify EPA when a pollution incident occurs that causes or threatens material harm to the environment • Where possible have contractor's fuel equipment prior to commencing work at the site. • Where onsite refuelling is required, this should be conducted away from potentially sensitive receptors (e.g. waterways), preferably using a spill kit / tray and the contractor instructed to clean up any leaks or spills.
	Work Health and Safety Act 2011; Work Health and Safety Regulation 2011	WorkCover NSW	• Must obtain SDS on purchase from manufacturer. • Requirements for labelling of chemicals • Store in chemical cabinets or chemical stores as appropriate.

Issues	Applicable Legislation / Guidelines / Standards	Regulating Authority	Major Requirements Of Legislation
Chemical Storage	AS 4452:1997 "The Storage and Handling of Toxic Substances". AS 1940 (2004) "The Storage and Handling of flammable and combustible materials". AS 3780 (2008) "The storage and handling of corrosive substances"	Australia Standards	• Proper storage of hazardous substances and dangerous goods (toxic, flammable and combustible, corrosive) and implementation of all reasonable precautions and care to achieve an acceptable level of risk. • Stipulates emergency management and fire protection requirements. • Ensure different classes of chemical are appropriately segregated • Store all chemicals in appropriate containers that are clearly marked. • Clearly label chemical storage areas. • Train personnel in safe chemical storage and handling.
	Work Health and Safety Act 2011; Work Health and Safety Regulation 2011	WorkCover NSW	• Must obtain SDS on purchase from manufacturer. • Requirements for labelling of chemicals • Store in chemical cabinets or chemical stores as appropriate.
Transporting hazardous substances	Protection of the Environment Operations (Waste) Regulations 2005	NSW EPA	• Stipulates requirements for vehicle placarding, insurance, safety equipment and bulk transport of dangerous goods. • Stipulates safety obligations for employers, building occupiers and employees, as well as, notification or accidents or near misses. • Obtain SDS for each chemical / hazardous substance and transport in accordance with manufacturer's guidelines.
Equipment Decontamination	Protection of the Environment Operations Act 1997	NSW EPA	• General duty of care to prevent environmental harm through pollution. • Must notify EPA when a pollution incident occurs that causes or threatens material harm to the environment. • Use phosphate free detergent, dispose of waste water appropriately.
Emergency Management			
Fuel and Chemical Spills	Work Health and Safety Act 2011; Work Health and Safety Regulation 2011	WorkCover NSW	• Stipulates requirement to minimise the risk of a dangerous event (e.g. fuel or chemical spill) occurring.
	Protection of the Environment Operations Act 1997	NSW EPA	• General duty of care to prevent environmental harm through pollution. • Must notify EPA when a spill occurs that either causes or threatens material harm to the environment. • All staff and contractors involved in handling or use of fuels and chemicals (including hydraulic fluids) are to have spill kits available for use if required. • Project manager to contact EPA if significant spill / incident occurs.

Issues	Applicable Legislation / Guidelines / Standards	Regulating Authority	Major Requirements Of Legislation
Sewerage, Gas or Water release (caused by damage to underground services)	Protection of the Environment Operations Act 1997	NSW EPA	• General duty of care to prevent environmental harm through pollution. • Must notify EPA when pollution occurs that either causes or threatens material harm to the environment.
	Work Health and Safety Act 2011; Work Health and Safety Regulation 2011	WorkCover NSW	• Employee and employer obligations for the location of underground services detailed prior to excavation.
Emergency Response	Stage Emergency and Rescue Management Act 1989 NSW Work Health and Safety Act 2011 Work Health and Safety Regulation 2011	WorkCover NSW	• Stipulates requirements for evacuation plans and the provision of emergency escape routes.
Flora and Fauna			
Vegetation clearing or disturbance	Protection of the Environment Operations Act 1997 Native Vegetation Act 2003	NSW EPA	• General duty of care to prevent environmental harm through pollution. • Relevant approvals should have been obtained by any clients authorizing clearing. • Do not undertake any clearing without first obtaining permission from the site manager AND checking that the relevant approvals have been obtained. • If in doubt, obtain advice from relevant council about whether any clearing restrictions or approvals may apply. • Fencing may be required to protect vegetation. • Methods to reduce ground compaction, root damage or modification of the site conditions near vegetation may be required.
Native Fauna	Native Vegetation Act 2003	NSW EPA	• All fauna is protected under the Act (including common animals) • Do not injure or harm animals that may be in the way of works. • Ensure that measures to avoid injury to native wildlife have been considered if necessary. • During clearing of vegetation it may be necessary to have spotter-catchers on site to remove animals. • Hollow dwelling animals may be within tree trunks and logs. • Leave snakes alone unless they are an absolute threat to your safety.

Issues	Applicable Legislation / Guidelines / Standards	Regulating Authority	Major Requirements Of Legislation
Weed management	Noxious Weeds Act 1993	NSW EPA	• Pest management laws define different classes of declared weeds and required management strategies for each. It is illegal to introduce certain classes of declared plants (I.e. there is a legal obligation to prevent weed spread). • Must wash down vehicles to prevent the spread of weeds between areas • Ensure all vehicles/equipment are clean on arrival at the site. • If weeds are present, on leaving the site it will be necessary to wash down the vehicle to avoid spread of declared weeds to another site. • Follow Department of Natural Resources Management guidelines for vehicle wash down or visit an approved wash down centre.
Heritage Issues			
Protected Areas / Parks / Scientific Areas	National Parks & Wildlife Act 1974	NSW EPA	• Check with relevant authority for permit requirements prior to investigation works in World Heritage areas, National Heritage places and Wetlands of international importance
Cultural Heritage	Heritage Act 1977 Heritage Regulation 2012	NSW EPA	• The duty of care under the legislation protects not just registered cultural heritage sites but all sites • A Cultural Heritage survey may be required, and for some projects a Cultural Heritage Management Plan. An application for local government approval may also need to be lodged. • Where sites have areas containing native remnant vegetation or areas where no disturbance to the ground surface has occurred; cultural heritage (Heritage and cultural heritage) may be present. • If it is suspected that an area may be of cultural importance, request a search of the EPA Heritage Register(s) to see if the site is registered.
Discovery of Bones or Artefacts (Discovery of items of European or Indigenous Cultural Heritage Discovery of Bones or Artefacts)	Heritage Act 1977 Heritage Regulation 2012	NSW EPA	• The duty of care under the legislation protects not just registered cultural heritage sites but all sites • The discovery of bones or artefacts must be reported to the EPA and the artefacts must not be interfered with. • Any bones or artefacts found must be protected and conserved. • Aboriginal ownership of any items found must be recognised. • If items are uncovered that are suspected to be of cultural heritage significance, cease work immediately and notify the EPA. • Do not move or disturb items or artefacts. • The Project manager should contact the Police if bones are discovered.

Issues	Applicable Legislation / Guidelines / Standards	Regulating Authority	Major Requirements Of Legislation
Native Title	Native Title Act 1993 Commonwealth	NSW EPA	• Permission must be sought from Native Title holders for any work to be conducted on land to which Native Title applies. • The site may be operating under an Indigenous Land Use Agreement (ILUA).
Noise and Vibration			
Sensitive Receptors	Protection of the Environment Operations (Noise Control) Regulations 2008	NSW EPA	• Identify potential sensitive noise receptors prior to commencement of work. If present, consult with potential receptors and modify procedures or timing to reduce impact. • Reduce the noise source sound pressure level. • Select a suitable location for any noise source taking advantage of any attenuation provided by barrier structures or by providing a buffer.
	AS/NZ 2436:2010 "Guide to Noise Control on Construction, Maintenance and Demolition sites".	Australia Standards	• Methods for sound measurement and the control of noise are outlined • Guidelines provided for hearing protection
Soil Management			
Erosion and sediment control	Protection of the Environment Operations Act 1997 Best Practice Erosion & Sediment Control 2008 Best Practice Erosion & Sediment Control 2008	NSW EPA	• Must not deposit sand, soil, silt or mud— - in a roadside gutter, stormwater drain or a water; or - in a place where it could move or be washed into a roadside gutter, or stormwater drain • Local council can develop environmental plans to manage erosion and sediment erosion issues. Check with the appropriate local council for further details • Minimisation of erosion and control of sediment in all construction activities. • Use of erosion control matting to minimise soil erosion on steep slopes and for highly erosive soils. • Stabilised entry and exit points to minimise tracking of sediment offsite. • Sediment control for service trenches. • Preserve as much soil cover (grass, leaf litter, gravel and erosion control mats) as possible. • Maintain kerb vegetation where practicable to filter out sediment • Commence earthworks immediately prior to building. • Topsoil should be stockpiled (with cover) for later use. • Building materials should be located within the sediment control zone. • A perimeter bank may be required upslope of a stockpile.
Waste Management			

Issues	Applicable Legislation / Guidelines / Standards	Regulating Authority	Major Requirements Of Legislation
Disposal of waste from building sites	Protection of the Environment Operations (Waste) Regulations 2005	NSW EPA	• Outlines the requirements of a waste management program such as the activities that may generate waste
Management of Excavated Material	Protection of the Environment Operations (Waste) Regulations 2005	NSW EPA	• Minimisation of waste generated • Ensure the correct storage of waste and segregation of different waste materials. • A waste management program may be required as part of the development approval conditions. • Protect the environment through the minimising the amount of excavation required. • Use excavated material as backfill. • Where large excavation is required, stockpile topsoil and replace on completion of works. • A specific site rehabilitation program may need to be followed
Contaminated Soil	Protection of the Environment Operations Act 1997	NSW EPA	• Obtain permit from EPA if offsite transportation and/or disposal required. • Obtain permission from landfill operator for disposal. • All occupiers of land including subcontractors must be notified if a site is included on the contaminated land register or the environmental land register • Check with client whether contaminated soil has been documented on site and whether the appropriate permits have been obtained. • Check with Local council for any local codes or policies • The owner of the site should provide necessary notifications to occupiers if site is contaminated or included on the environmental land register
Water Management			
Water Use	Protection of the Environment Operations Act 1997 Water Management Act 2000 NSW	NSW EPA	• No releases of substances to surface waters, groundwater or stormwater e.g. cement, building waste, rubbish, hydrocarbons, etc. unless authorised by an EPA Approval • Minimise volumes of clean water used on site. • Ensure water valves/ taps can be turned off by using meters. • Minimise consumption of water for irrigation on site landscape.

Issues	Applicable Legislation / Guidelines / Standards	Regulating Authority	Major Requirements Of Legislation
Surface Water Discharge	Protection of the Environment Operations Act 1997 Best Practice Erosion & Sediment Control 2008	NSW EPA	• No releases of substances to surface waters, groundwater or stormwater e.g. cement, building waste, rubbish, hydrocarbons, etc. unless authorised by an EPA Approval. • No releases of stormwater off-site into a stormwater drain which results in the build-up of sand, silt or mud; or the deposition of sediments off site. • Identify potentially sensitive surface water drainage areas and, where possible move activities away from sensitive areas. • Use measures to minimise potential for surface water discharges.

APPENDIX B – LICENCES, PERMITS AND CONSENTS

APPENDIX C – ENVIRONMENTAL WORK METHOD STATEMENTS

EWMS 7 - Air Quality (Dust and Odour)
EWMS 8 - Noise and Vibration Management
EWMS 9 - Dangerous Goods and Substances

EWMS-7 Air Quality (Dust and Odour)

Hierarchy of Control (HOC): 1. Eliminate 2. Substitute 3. Isolate 4. Engineer 5. Admin 6. PPE

Environmental Aspects	Impacts	HOC	Controls / Work Methods	Responsible Person/s for Monitor & Review
Planning	Proactively avoid creation of negatively impacting particulate matter on the surrounding environment.	5	• Plan site layout to minimise the effect of machinery and potential dust creating activities. This includes planning desired routes for mobile plant, site vehicles and deliveries. Set down areas and access and egress will also be considered to minimise the effect upon sensitive receptors.	Project Manager / Site Manager / HSE Advisor
		5	• Avoid importing potentially airborne materials unless necessary. In this event plan the importing of loose materials to coincide with staged works so as the material/s are exposed for a little time as possible.	Project Manager / Site Manager
		5	• Plan the works to avoid the use of oversized plant and equipment. Give preference to newer / less polluting plant and equipment.	Project Manager / Site Manager
		5	• Plan bulk earthworks to be staged as far as practicable to avoid large areas of exposed soil at the same time.	Project Manager / Site Manager
		5	• Communicate desired outcome and appropriate air quality controls to all site personnel during the induction procedure and through **Toolbox Talk OHSE HB-HSEQ-F-055** and **Daily Pre Start Meeting Form HB-HSEQ-F-054** as required.	Site Manager / HSE Advisor
Stockpiles / Dust Creating Materials on Site	Creation of unnecessary / excess particulate matter	1 4 4	• Remove materials created on site which pose a risk of dust creation, e.g. unwanted spoil, as soon as practicable. • Manage stockpiles on site so they are present for as least time as possible. If stockpiles are retained on site for an extended period or during adverse conditions take appropriate action. This may involve compacting and flattening or contouring the stockpile. Other controls can involve wetting or covering the stockpile as necessary. For long periods stockpiles (excess 28 days) can be seeded to ensure vegetation cover to aid stabilisation or using alternative soil binder products. • Debris created from construction activities such as cutting, grinding, sawing or sanding must be cleaned up regularly to avoid the materials becoming airborne. Where practicable use dust suppression techniques when conducting these activities such as water sprays or	Site Manager / Subcontractors

Hierarchy of Control (HOC): 1. Eliminate 2. Substitute 3. Isolate 4. Engineer 5. Admin 6. PPE

Environmental Aspects	Impacts	HOC	Controls / Work Methods	Responsible Person/s for Monitor & Review
			local extraction (suction devices).	
Earthworks / Exposed Soil	Risk of dust creation from the surface of exposed soil.	4	• Minimise the amount of exposed soil on site at any given time. Manage areas of exposed soil using appropriate dust suppression techniques. This shall involve wetting down areas through the use of water trucks or sprinklers as required.	Site Manager
		4	• Once earthworks have been completed, revegetate the area/s as soon as possible. Revegetation methods may involve seeding, hydromulch or turfing depending upon the severity of the risk and the project specification.	Site Manager
Vehicles - Tracking of Materials and Dust Creation	Creation of dust and tracking a materials on roads by site vehicles	5 4	• Implement site controls to avoid creating excess dust. These controls should include: - Impose a maximum speed limit for all vehicles which is clearly signed. This limit will be relative to the site conditions such as the quality of the road surface, type of traffic and weather conditions. - Implement site exit controls to avoid tracking material when leaving the site. Examples are rumble grids, rock pads or wash-down bays.	Site Manager / HSE Advisor
		4	• Ensure trafficked areas are wetted down to aid dust suppression through the use of water trucks, or if practicable for lesser affected areas, sprinkler systems. Any trafficked material out of site must be removed immediately and preventative controls reassessed for effectiveness. Avoid dry sweeping as this will only create airborne dust particles.	Site Manager / HSE Advisor
Emissions from Plant and Equipment	Negative impacts from noxious emissions to site personnel, nearby sensitive receptors and the general environment.	5 5	• Ensure all plant and machinery complies with relevant emission standards and legislation. Service logs must be routinely checked and up to date and plant and machinery must be inspected daily. • Promote the use of plant and equipment which uses electricity as opposed to diesel or petrol. Avoid unnecessary idling of plant or equipment when not in use.	Site Manager / HSE Advisor
Emissions from Hazardous Substances / Waste Material	Emissions released into the surrounding environment form chemicals and waste material	5 4	• The will be no burning of waste materials at any time. • Hazardous substances must be used and stored in compliance with relevant legislation and manufacturer's guidelines at all times. A copy of the current Safety Data Sheet (SDS) must be kept on site for all	Site Manager / HSE Advisor / Site Manager

Hierarchy of Control (HOC): 1. Eliminate 2. Substitute 3. Isolate 4. Engineer 5. Admin 6. PPE

Environmental Aspects	Impacts	HOC	Controls / Work Methods	Responsible Person/s for Monitor & Review
		4	hazardous materials on site. • When necessary appropriate ventilation / extraction controls must be utilized.	
	Particulate matter as a result of suspected or confirmed asbestos containing material (ACM) or lead containing material	5	• In the event of suspected or confirmed asbestos or lead containing materials a site specific management plan must be drafted by a suitably qualified person* which is accepted by the regulated body. Any management plan accepted as part of the project works must be fully adhered to at all times.	Project Manager / Site Manager / Environmental Consultant.
Regular monitoring and record keeping	Effects on the surrounding community and adherence to legislation and guidelines	5 5 5 5	• Conduct regular on-site and off-site inspections to record and monitor air quality for any changes or negative impacts. • Maintain a record of any complaints **Community Complaints and Consultation Register HB-HSEQ-F-041**, and employ appropriate controls to rectify the complaint if justified. If air quality cannot be maintained cease all related activities immediately until alternative control methods can be implemented. • Record incident reports as required using an **Incident Report Form HB-HSEQ-F-027-B** and action any **Corrective Action Reports HB-HSEQ-F-029-A** as necessary. • Quantitative air monitoring shall be untaken to resolve issues or if requested by regulators as required.	Site Manager / HSE Advisor
Odour	Sensitive Receptor Complaints Community disapproval and reputation loss Health impacts and young and elderly		• It is unlikely that works related to this project will produce odour capable off effecting sensitive receptors that is not common in the normal environment. • All odour will be managed at the source, which will included fans, ventilation and absorption as required. • Any uncontrolled odour released will be managed using the environmental response procedure and relevant spill control kits.	

*****A suitably qualified and experienced professional is defined as a person with training and/or qualifications that are recognised by the assessing authority; and relevant experience in the workplace with the subject matter.

This EWMS has been developed to comply with Legislative requirements, Hutchinson Builders Requirements and SSD 9211. It has been amended to reflect Site Specific Conditions and approved for use by;

Name: Steve Wyatt	**Position:** HSEQ Manager	**Signature:** 	**Date:** 18/02/19

Worker Acknowledgement

I acknowledge the following:

a. that I have been trained in the EWMS listed above,
b. the controls and requirements are clearly understood,

I will comply with the EWMS and I have been consulted and had the opportunity to input into the EWMS.

Name:	Position:	Signature	Date:	Name:	Position:	Signature	Date:

Examples Air Quality Management

Rumble grid and rock pad in place on the construction site exit.

Revegetation of previously exposed swale drain. A mixture of hydromulch and turf has been used.

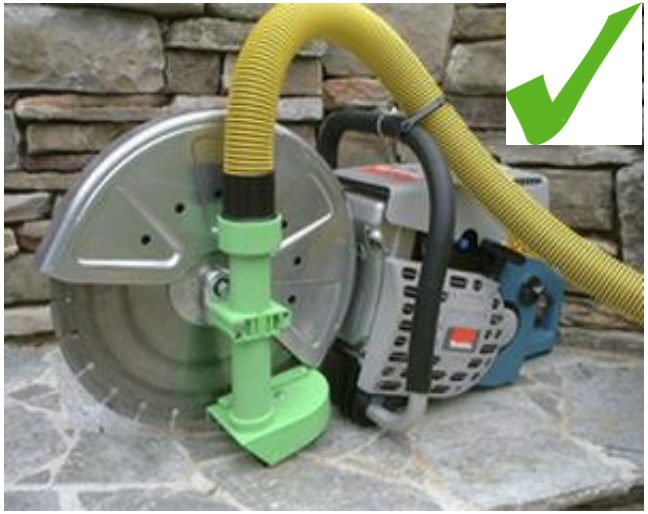
Water-truck in use to keep trafficked routes Wet down to aid dust suppression.

Dirt has been tracked extensively onto a public road. This can become airborne or enter stormwater drains.

Construction vehicle creating dust due to insufficient controls and lack of adherence to speed limits.

Examples Air Quality Management

Concrete cutting with no dust suppression Controls.



Demo saw fitted with dust extraction device.

Concrete cutter fitted with a hose to enable effective dust suppression.

EWMS-8 Noise and Vibration

Hierarchy of Control (HOC): 1. Eliminate 2. Substitute 3. Isolate 4. Engineer 5. Admin 6. PPE

Environmental Aspects	Impacts	HOC	Controls / Work Methods	Responsible Person/s for Monitor & Review
Planning of Works	Potential to create unnecessary noise and/or vibration through lack of planning	5 5 5	• Plan work activities with the potential to create excessive noise / vibration with the contractors involved to ensure the correct sized plant is selected and least impacting methods are used. Discuss if silencing equipment needs to be employed. • Keep neighbours / sensitive receptors informed of any expected noisy events which can't be supressed or changes to existing schedules in advance. • Consultation with neighbours and sensitive receptors will assist with maintain a harmonious environment both within the site and surrounding areas. • Plan the site layout and vehicle / machinery routes, including access and egress, to cause as least disturbance as possible in relation to sensitive receptors and the general community. • This EWMS has been developed in accordance with EPAs Interim Construction Noise Guideline (Dec 2009)	Project Manager / Site Manager / HSE Advisor Project Manager / Site Manager Site Manager
Plant and Equipment	Potential excess noise and/or vibration through improper use or plant/equipment selection.	5 3 1 / 2 1	• Operation of plant and equipment must be restricted to the hours of 06.30 – 18.30 Monday to Friday and 07.00 – 13.00 on Saturdays except where prior approval has been obtained (or as your local council approval hours) • Position potentially noisy plant and equipment away from sensitive receptors as much as possible. Try to position noisy plant and equipment away from each other to prevent noise and vibration compounding or stagger the works where practicable. • If possible eliminate noisy activities on site, i.e. can the work be carried out at a more suitable location off-site such as fabrication at a workshop. Explore the option of substituting plant or machinery for quitter counterparts where possible. • Avoid or minimise vehicles and plant idling when not in use.	Site Manager / Subcontractors
	Potential for excessive noise or vibration from malfunctioning equipment	5	• Ensure all plant and machinery complies with relevant noise and vibration control standards. Service logs must be checked and up to date and plant and machinery must be inspected daily. If the equipment is not working properly or creating a higher level of noise	Site Manager / Subcontractors

Hierarchy of Control (HOC): 1. Eliminate 2. Substitute 3. Isolate 4. Engineer 5. Admin 6. PPE

Environmental Aspects	Impacts	HOC	Controls / Work Methods	Responsible Person/s for Monitor & Review
			than expected, cease work until the item has been inspected.	
	Activities exceed legislated accepted levels of noise and/or vibration, or warrant complaint.	5 5	• If an activity or combined activities result in the legislated maximum levels being exceeded, cease the activity or activities immediately until effective controls are put in place. • If a complaint is received cease the activity or activities in question until the issue has been investigated by site and project management.	Site Manager / Subcontractors
Site Personnel	Risk of noise directly from the actions of site personnel whilst on site and whilst arriving / leaving.	5 5 5 1	• Noise and vibration procedures and controls should be incorporated into site specific Work Method Statements (WMS's) and relevant documents which are made easily accessible so all personnel are properly informed of requirements. • All site personnel must be trained upon arrival to the construction site using a site specific induction which includes all relevant noise and vibration procedures. • Toolbox training will take place as required in regard to noise and vibration requirements and management. • Ensure that vehicles and plant are not queuing or idling outside the site especially before or after specified construction working hours. Ensure site personnel do not make excessive noise when arriving to, or leaving the construction especially outside of construction hours.	Site Manager / Subcontractors / HSE Advisor Site Manager / HSE Advisor Site Manager / HSE Advisor Site Manager / Subcontractors
Deliveries	Noise from heavy vehicles and unloading materials / equipment.	5 5 5	• Organise the construction site to minimise truck movements and ensure that set-down areas are located away from sensitive receptors where practicable. • Ensure that vehicles, especially delivery trucks have to reverse as little as possible both in and around the construction area. If vehicles / plant do have to reverse non-tonal alarms should be fitted. • All deliveries to occur within designated construction hours unless otherwise approved.	Site Manager
Piling Techniques	Excessive noise and vibration from piling activities.	5 5 4	• Plan the methodology and technique employed when piling. Ensure that maintaining as little disturbance in terms of noise and vibration is a key factor in the choice of piling techniques. • Use industry best practice for installation of bored piers. • If percussive piling techniques are adopted limit the hours of operation, lower the height of hammers and consider acoustic	Project Manager / Site Manager

Hierarchy of Control (HOC): 1. Eliminate 2. Substitute 3. Isolate 4. Engineer 5. Admin 6. PPE

Environmental Aspects	Impacts	HOC	Controls / Work Methods	Responsible Person/s for Monitor & Review
			shielding where practicable.	
Regular Monitoring	Lack of monitoring can result in inaction and leave possible noise and vibration issues unresolved.	5 5 5	• Conduct regular on-site and off-site inspections to record and monitor noise and vibration for any changes or negative impacts. • If necessary differentiate between construction noise and noise from other sources (e.g. background noise, traffic, other works or events etc...) when evaluating. The may be done by monitoring noise when the majority of the site in on a lunch break or directly before or after construction hours. • Quantitative noise monitoring shall be untaken to resolve issues or if requested by regulators as required.	Site Manager / HSE Advisor Environmental Consultant*
Record Keeping and Reporting	Accurate record keeping and reporting can ensure that adherence to legislation and guidelines is maintained.	5 5	• Maintain a record of any complaints **Community Complaints and Consultation Register HB-HSEQ-F-041**, and employ appropriate controls to rectify the complaint if justified. If noise and vibration levels cannot be maintained at an acceptable level, cease all related activities immediately until alternative control methods can be implemented. • Record incident reports as required using an **Incident Report Form HB-HSEQ-F-027-B** and action any **Corrective Action Reports HB-HSEQ-F-029-A** as necessary.	Project Manager / Site Manager / HSE Advisor Project Manager / Site Manager / HSE Advisor

*****A suitably qualified and experienced professional is defined as a person with training and/or qualifications that are recognised by the assessing authority; and relevant experience in the workplace with the subject matter.

This EWMS has been developed to comply with Legislative requirements, Hutchinson Builders Requirements and SSD 9211. It has been amended to reflect Site Specific Conditions and approved for use by;

Name: Steve Wyatt	**Position:** HSEQ Manager	**Signature:** 	**Date:** 18/02/19

Worker Acknowledgement

I acknowledge the following:

a. that I have been trained in the EWMS listed above,
b. the controls and requirements are clearly understood,

I will comply with the EWMS and I have been consulted and had the opportunity to input into the EWMS.

Name:	Position:	Signature	Date:	Name:	Position:	Signature	Date:

EWMS-9 Dangerous Goods and Hazardous Substances

Hierarchy of Control (HOC): 1. Eliminate 2. Substitute 3. Isolate 4. Engineer 5. Admin 6. PPE

Environmental Aspects	Impacts	HOC	Controls / Work Methods	Responsible Person/s for Monitor & Review
Administrative Controls	Risk of chemical release or exposure due to a lack of administrative controls.	5 5 5 5	• No chemicals are to be brought onto site without submission of a current SDS (within 5 years) and prior approval. • Once approved SDS's must be maintained on site along with an updated hazardous substances and dangerous goods register. • If the chemical is stated as being a hazardous substance conduct a risk assessment and ensure necessary controls and suitable training are in place before use. Consider if an alternative product which is less hazardous can be used where practicable. • All hazardous substances / dangerous goods must be labelled in accordance with relevant Australian Standards. No Decanting of chemicals to take place unless correctly labelled and approved.	Site Manager / HSE Advisor / Subcontractors
Storage / Transport	Release of chemicals or endangering the surrounding environment / sensitive receptors though improper storage and / or transportation.	3 3 3 3 1	• All dangerous goods and hazardous substances are to be stored in accordance with AS:1940 and related industry best practice. • Incompatible substances must not be stored or transported together unless suitable segregation is maintained in accordance with relevant legislation and the SDS guidelines. • All fuel and chemicals to be stored in secure / bunded areas in appropriate containers with closable lids and correct labelling. The bunded area should be able to hold at least 110% of the volume of the largest container there within. • No fuel, machinery or chemicals are to be stored in a manner which may result in spill or leakage to stormwater drains or lead to soil contamination, run-off, or groundwater contamination. • Volumes of fuels and chemicals on site should be kept to a minimum and not exceed day to day requirements.	Site Manager / HSE Advisor / Subcontractors
Spill / Emergency Response Training	Effective spill / emergency response not carried out due to lack of procedure, equipment or training.	5 5	• Spill response and emergency response procedures and controls should be incorporated into site specific Work Method Statements (WMS's) and relevant documents which are made accessible so all staff are properly informed of requirements. • All site personnel must be trained upon arrival to the construction site using a site specific induction which includes all relevant dangerous	Site Manager / HSE Advisor

Hierarchy of Control (HOC): 1. Eliminate 2. Substitute 3. Isolate 4. Engineer 5. Admin 6. PPE

Environmental Aspects	Impacts	HOC	Controls / Work Methods	Responsible Person/s for Monitor & Review
			goods and hazardous substances response procedures.	
		5	• Toolbox training will take place as required in to inform site personnel of requirements and management of dangerous goods and hazardous substances.	
		5	• Specific Spill Response Training is given to all Hutchinson Builders personnel.	
		4	• Spill Kits and containment equipment to be readily available where fuels and other hazardous substances are stored and used. Spill kits must be fully stocked and maintained regularly.	
		3	• All spills / leakages must be contained and collected immediately ensuring the affected area is isolated to prevent any further contamination or spread.	
		5	• Any waste material generated from the clean-up of spills must be disposed of in accordance with relevant legislation by a licenced waste contractor.	
		4	• Suitable fire extinguishers must be located near any area where chemicals present a fire risk.	
Plant and Equipment	Release of fuel into the surrounding environment	5	• Plant and equipment to be maintained and inspected regularly and evidenced with service histories, logbooks and prestarts.	Site Manager / HSE Advisor / Subcontractors
		3	• Fuel and machinery are to be stored appropriately and away from any water bodies or drainage areas.	
		3 / 4	• Refuelling of equipment or vehicles/machinery must occur in a designated refuelling area. This area must be well equipped with hydrocarbon spill containment kits which are readily accessible and in a suitable location (away from stormwater and exposed soil/vegetation). Small equipment (e.g., blowers, weed-cutters, chain-saws) should be refuelled with a funnel. For more information on refuelling practices refer to **SWMS 34 – Refuelling (Plant and Equipment)** to be located in the site office.	
Wash Out Areas	Release of hazardous substances through the wash out of coating materials, concrete and plant and equipment.	3 / 4	• No washout to take place unless at an approved specified washout area. All washout facilities are to be in accordance with relevant legislation and industry best practice and located away from areas of water or drainage channels.	Site Manager / HSE Advisor
		5	• Check any approved washout areas at least daily for any maintenance requirements and to ensure they are under 75%	

Hierarchy of Control (HOC): 1. Eliminate 2. Substitute 3. Isolate 4. Engineer 5. Admin 6. PPE

Environmental Aspects	Impacts	HOC	Controls / Work Methods	Responsible Person/s for Monitor & Review
			capacity at which time materials need to be appropriately removed using a licenced waste contractor.	
Asbestos / Contaminated Materials	Further contamination of the surrounding environment. Negative impact upon the well-being of site personnel / sensitive receptors.	3	• If contamination or hazardous materials such as asbestos or lead paint are found or suspected to be on site, cease work to the affected area/s and isolate from all personnel. Refer to the **Removal of Asbestos Material HB-HSEQ-F-063** for further management procedures.	Project Manager / Site Manager / HSE Advisor / Environmental Consultant*
Monitoring	Lack of knowledge and understanding of potential impacts due to insufficient monitoring.	5 5	• Conduct regular inspections of all chemical and fuel stores as well as plant and equipment on site. • Monitor work practices and use of hazardous materials throughout the site for potential contamination or evidence of spills or leaks.	Site Manager / HSE Advisor
Record Keeping and Reporting	Emissions released into the surrounding environment form chemicals and waste material	5 5 5	• Maintain a record of all formal inspections **Weekly HSE Inspection - BIG 8 HB-HSEQ-F-048** and structured **HSE O &T Audit Checklists HB-HSEQ-F-046-A**. Also maintain and evaluate records of all relevant project meetings including **Management Review Committee Agenda HB-HSEQ-F-056**. • All spills or incidents involving dangerous goods or hazardous substances shall be reported immediately to the site manager and the project environmental officer. The project manager will then inform the Superintendent and relevant agencies if required. • Any incidents relating to dangerous goods and/or hazardous substances must be reported using an **Incident Report Form HB-HSEQ-F-027-B** and file and action any **Corrective Actions Reports HB-HSEQ-F-029-A** as necessary to the satisfaction of all parties involved.	Project Manager / Site Manager / HSE Advisor

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Name: Steve Wyatt	**Position:** HSEQ Manager	**Signature:** 	**Date:** 18/02/19

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Name:	Position:	Signature	Date:	Name:	Position:	Signature	Date:

Examples – Hazardous Substances and Dangerous Goods

Appropriately sized containment bund in good condition without a build-up of residue.

Fuel spill which was not contained and requires clean-up.

Correctly labelled substance describing a class 3 dangerous good which is also hazardous.

Examples – Hazardous Substances and Dangerous Goods

Incorrectly labelled substances. There is no way to access what these substances are and what to refer to in the case of an incident.

Concrete washout directly onto the ground. This substance can leach / run-off to contaminate soils and water bodies.

A simple but effective plastic and geofabric-lined washout area.

Spill kit easily accessible and clearly marked

Spill kit being misused as a rubbish bin.

APPENDIX D – COMMUNITY COMPLAINTS & CONSULTATION REGISTER

See folder 5 of the WHSMP.

APPENDIX E – ENVIRONMENTAL MONITORING REPORTS/ EVIDENCE

See folder 5 of the WHSMP

DATE	NAME OF CONTRACTOR PERFORMING TESTS	REPORT #	OUTCOME	FOLLOW-UP/CORRECTIVE ACTION		
				ACTION	INITIAL	CLOSE OUT DATE

STORMWATER MONITORING REGISTER

Date	Pond Water level (mm)	Sample number	Collect time (24hours)	Test time (24hours)	pH	Turbidity NTU	TSS (mg/L)	Flocculation required (Yes/No)	Comments

WATER DISCHARGE APPROVAL FORM

Name of Tester:		**Signature:**		**Date:**	
Location of Retained Water: Property / GPS / Flow line / Situation (bell hole, low point, etc)		**Approx. Quantity (L or m^3):**			
Date of the water quality background reading:	(Results of the background to be detailed below)	Will discharged water directly enter a waterway		***(If yes, PM must sign this form)***	
Proposed Release Method and Control: e.g. water cart, pump off the ROW through a filter tube / compost berm		**Location of discharge point (GPS / Flowline) and description (e.g. well grassed, fabric)**			
Person Responsible for Release (Supervisor):		**Signature of Person Responsible for Release:**			

Retained Water Reading			
Parameters	**Release Criteria**	**Recorded Values**	**Acceptable**
Time	N/A		
pH	6.5 – 8.5 (water must not be released outside these limits)		
Turbidity (NTU)	<75NTU or TSS < 50mg/L +/- 5%		
Litter (rubbish)	None visible		
Hydrocarbons (oil)	None visible films		

Requirement

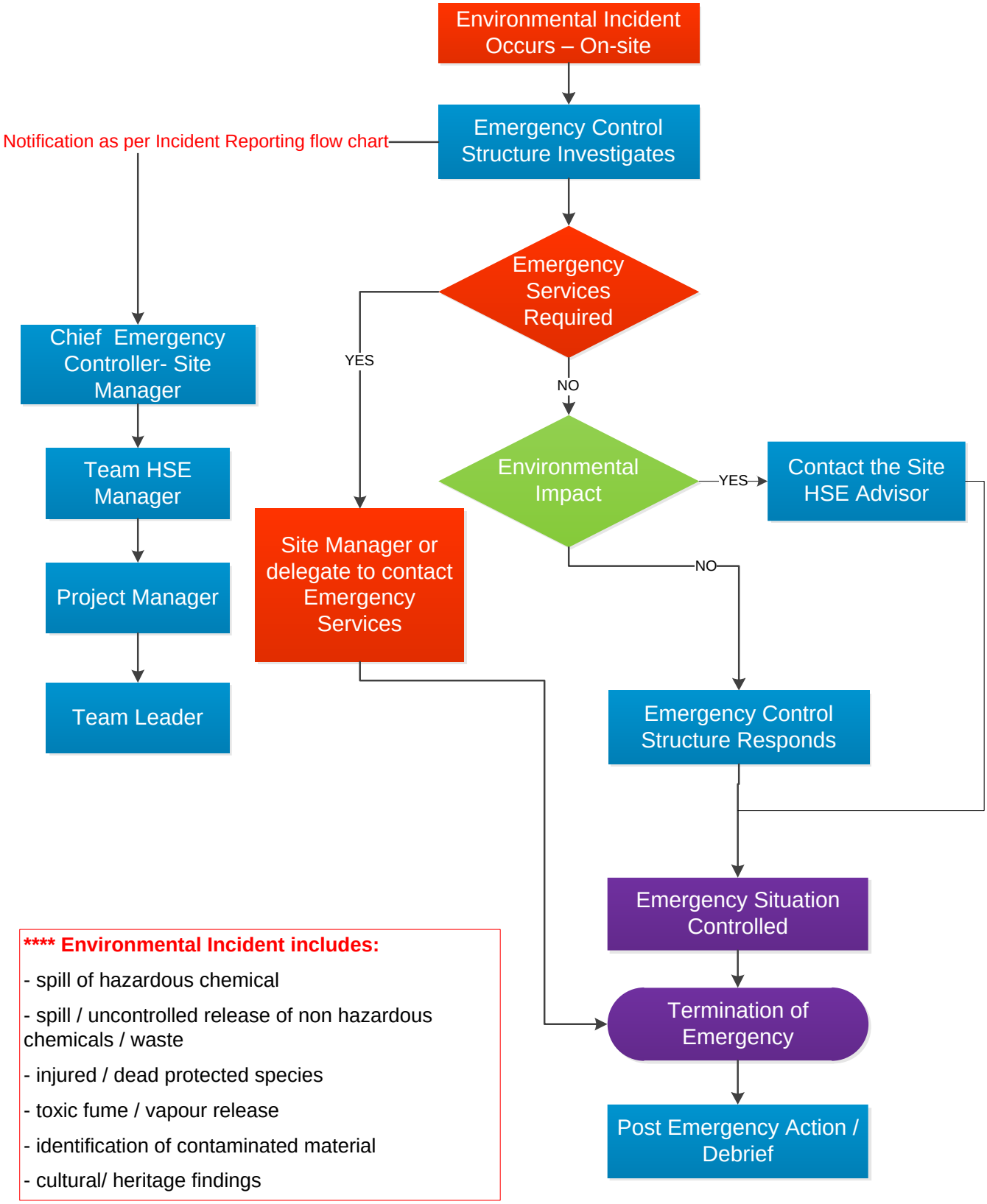
1. All discharges going off site must be supervised AT ALL TIMES
2. STOP pumping if;
    - the foot valve is picking up sediment,
    - there is scouring at discharge outlet
    - off site discharge water quality worsens
    - receiving pond is at capacity
3. If in doubt, contact Enviro Rep.

Other Conditions:

CALIBRATION RECORDS

WASTE TRACKING CERTIFICATES

APPENDIX F – EMERGENCY RESPONSE PROCEDURE (ENVIRONMENTAL)



****** Environmental Incident includes:**

- spill of hazardous chemical
- spill / uncontrolled release of non hazardous chemicals / waste
- injured / dead protected species
- toxic fume / vapour release
- identification of contaminated material
- cultural/ heritage findings

APPENDIX G – EROSION AND SEDIMENT CONTROL PLAN

EWMS- 1 Erosion and Sediment Control (Stormwater Management)

Hierarchy of Control (HOC): 1. Eliminate 2. Substitute 3. Isolate 4. Engineer 5. Admin 6. PPE

Environmental Aspects	Impacts	HOC	Controls / Work Methods	Responsible Person/s for Monitor & Review
Prior to site establishment, check for approved Erosion and Sediment Control (ESC) plan	Risk of environmental harm from sediment and sediment-laden water displaced from the site.	5	• Prior to commencement of works, a visual and desktop assessment of the site will be done to identify potential contamination. • The plan was developed by a suitably qualified person contracted by Hutchinson Builders and is in accordance with International Erosion Control Association Best Practice Guidelines 2008 • No clearing or soil disturbance is undertaken unless preceded or accompanied by installation of adequate drainage and sediment control measures.	Project Manager/ Environmental Consultant
	Erosion and sediment control plan does not work effectively	5	• Adjust to changing site conditions • Erosion and Sediment Control Plans are living documents that can and should be modified as site conditions change, or if the adopted measures fail to achieve the required treatment standard.	Project Manager Site Manager
Planning works	Mass soil loss during significant rain events	5	• Minimise the extent and duration of soil disturbance • Clearing work should be staged to minimise the duration for which soils are exposed to wind, rain and concentrated runoff. • In the northern (tropical) regions of Australia, the primary focus is on effective drainage control. Without effective drainage control, all erosion and sediment controls can be washed away! • In the southern (temperate) regions, the focus moves to erosion control, or possible sediment controls.	Project Manager Site Manager
	Excess sediment run-off site	5	• A sediment basin will usually be required if a disturbed area exceeds 2500m^2	Project Manager Consultant
	Sediment escape from entry point	5	• Site office and car parking areas identified and provided with adequate drainage, erosion and sediment controls. • Site access points limited to the minimum necessary, clearly identified on plans, and appropriate controls specified.	Site Manager
Monitoring weather	Unexpected weather event can effect construction activities	5	• Daily check and record weather to aware of any significant weather events (>25mm/ 24hours) • Ensure earthworks and grading activities are avoided during those periods of rainfall when stormwater runoff is either occurring or expected to occur	Site Manager

Hierarchy of Control (HOC): 1. Eliminate 2. Substitute 3. Isolate 4. Engineer 5. Admin 6. PPE

	Sediment controls are not in good order and working effectively	5	• All erosion and sediment control measures should be inspected: – At least daily when rain is occurring; – At least weekly (even if work is not occurring on-site) – Within 24 hours prior to expected rainfall; and – Within 18 hours of a rainfall event of sufficient intensity and duration to cause on-site runoff	
Control water movement through the site	Mass soil loss and significant sediment runoff site	5	• Divert clean stormwater (upslope water) runoff outside the site so that it does not flow through the site • Sediment traps must be installed and operated to both collect and retain sediment. • All erosion and sediment control measures, including drainage control measures, must be maintained in proper working order at all times during their operational lives.	Site Manager HSE Advisor
Material Stockpiles	Contaminated topsoil	5	• Topsoil stockpile needs to be separated to other materials and located at the undisturbed area • Topsoil is stockpiled at maximum 2m height • Long term spoil stockpiles (> 28 days) to be covered or stabilised.	Site Manager
	Cross-contaminated with topsoil Excess sediment runoff	5	• Sufficient land area must be provided for the short-term stockpiling of construction materials. • Ensure excavated material is not placed adjacent to the edge of excavation to protect vegetation, stream banks, or within locations where it may become an unacceptable source of sediment runoff. • These stockpiles should ideally be located within areas that would eventually need to be disturbed anyway. • Material stockpiles should be located away from overland flow paths and concentrated overland flow • Stockpiles of erodible materials (e.g. earth and sand) need to be located within the site's sediment control zone.	Site Manager
Stormwater kerb inlets in active construction areas as well as the basement level receiving deliveries areas are to be protected	Sediment socks fall into kerb inlet	5	• Daily check on sediment controls on council kerb inlets	Hutchinson Builders Foreman/ HSE Advisor
	Sediment deposition within creeks and wetlands can cause long-term changes to aquatic ecosystems and plant species (e.g. through weed infestation).	5	• Ensure all the sediment controls are installed as approved Erosion and Sediment Control plan and in good order	Hutchinson Builders Foreman Workers

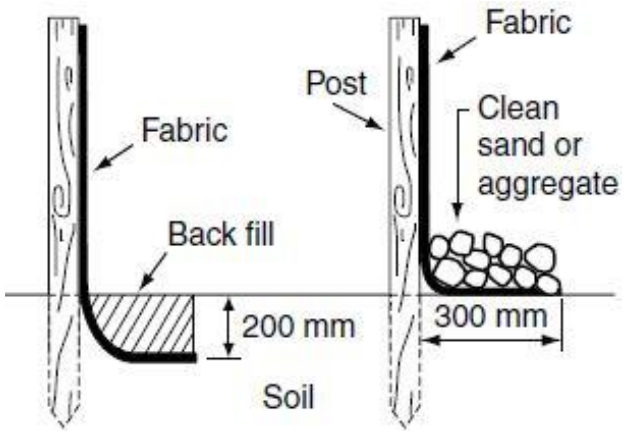
Hierarchy of Control (HOC): 1. Eliminate 2. Substitute 3. Isolate 4. Engineer 5. Admin 6. PPE

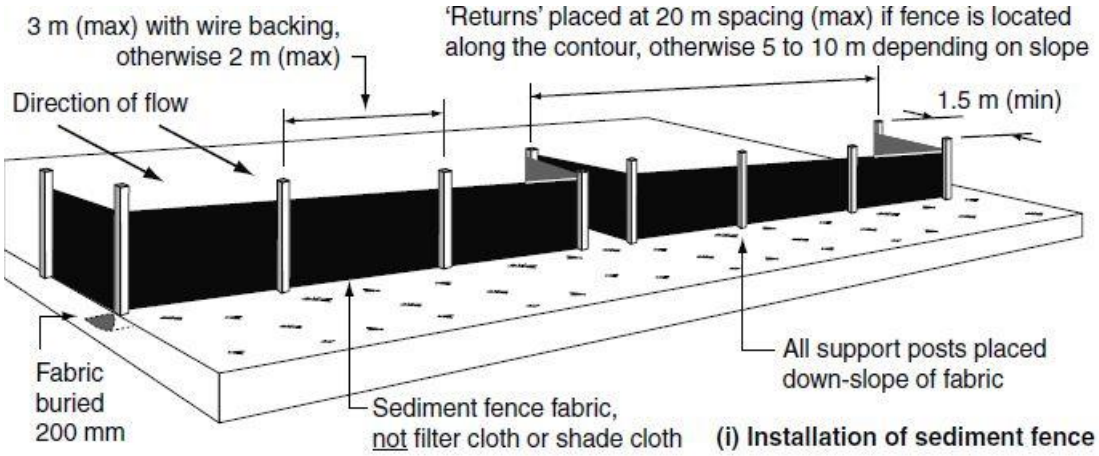
Work platforms connected to the stormwater system shall be maintained in good order and cleaned frequently of sediment/debris which may enter the system	Concentrated flow might cause erosion	5	• Roof water downpipes (temporary or permanent) should be connected to the stormwater drainage system immediately after the roof is laid.	Hutchinson Builders Foreman Workers
	Inappropriate and ineffective sediment control measures	5	• Sediment control devices must be de-silted and made fully operational as soon as reasonable and practicable after a sediment-producing event, whether natural or artificial, if the device's sediment retention capacity falls below 75% of its design retention capacity.	Hutchinson Builders Foreman Workers
	Inappropriate and ineffective sediment fence	5	• Sediment fence is buried in 200mm deep. Along the lower side of the trench, appropriately secure the stakes into the ground spaced no greater than 3m if supported by a top support wire or weir mesh backing, otherwise no greater than 2m • In areas where it is impractical to bury the lower edge of the sediment fence, the lower 200 mm (min) portion of the fabric should be placed on the ground up-slope of the fence and buried under a 100 mm (min) layer of coarse aggregate (20-40 mm) • Sediment fences should be located down-slope of the disturbance, and ideally along a line of constant land level to prevent the concentration of stormwater run-off. Where this cannot be achieved then sections of the sediment fence should have 'returns' directed up slope for 1-2 metres to control the concentration of stormwater run-off • Replace sediment fences if the fabric is ripped or otherwise damaged. The maintenance of sediment fences includes the removal of sediment deposited up-slope of the fence and, where necessary, re-trenching the fabric and ensuring posts are firmly secured in the ground • If excessive sediment build-up occurs, reapply crushed rock to the entry/exit pad. • Daily check on sediment fence	Hutchinson Builders Foreman Workers HSE Advisor
Trenching	Sediment-laden water ponding on site	5	• No more than 150m of a stormwater, sewer line or other service trench must to be open at any one time. • Where it is practical, trench needs to be backfilled when the significant event is forecasted	Site Manager

Hierarchy of Control (HOC): 1. Eliminate 2. Substitute 3. Isolate 4. Engineer 5. Admin 6. PPE

Maintain site entry point	Illegally discharge sediment to stormwater drainage Excess sediment exiting site via vehicle transport and ending up on roadway.	5	• Washing/flushing of sealed roadways must only occur where sweeping has failed to remove sufficient sediment and there is a compelling need to remove the remaining sediment (e.g. for safety reasons). In such circumstances, all reasonable and practicable sediment control measures must be used to prevent, or at least minimise, the release of sediment into receiving waters. Only those measures that will not cause safety and property flooding issues shall be employed. Sediment removed from roadways must be disposed of in a lawful manner that does not cause ongoing soil erosion or environmental harm	Site Manager
Discharge water after the rain event	Unauthorised sediment-laden water discharge resulting in impact to waterways and possible prosecution	5	• Stop all pumping in the vicinity and notify your supervisor • Contain discharge where possible • Only discharge if water has been tested and passed the criteria or it must be treated.	Site Manager
	Water quality does not meet discharge criteria	5	• All water quality data, including dates of rainfall, dates of testing, testing results and dates of water release, must be kept in an on-site register. The register is to be maintained up to date for the duration of the approved works and be available on-site for inspection by company environmental representative or regulator on request. – pH is within 6.5-8.5 – Turbidity is <75NTU or TSS <50mg/L • Treat water with flocculating agents (e.g. Aluminium Sulfate, or Gypsum. Note that Aluminium Sulfate will greatly decrease pH level in the water. It must be used in the conjunction with Hydrated Lime to balance out the pH)	HSE Advisor
Maintain sediment basin/tank (if applicable)	Erosion and sediment control measures are not in good order and not ready for the significant rain events	5	• Clean out accumulated sediment when it reaches the marker board/post, and restore the original storage volume.	Site Manager
Rehabilitation	Environmental harm caused by erosion and soil loss	5	• Exposed soil surfaces need to be stabilised as soon as practicable to prevent, or at least minimise potential environmental harm. Once stabilised, these areas need to be revegetated or otherwise rehabilitated to ensure appropriate long-term erosion control.	Site Manager

Example of Erosion and Sediment Control Measures





Correct Sediment Fence Installation

Sediment released from stormwater pipe

Normal stormwater run-off

Contaminated stormwater run-off from construction site

Example of Erosion and Sediment Control Measures

Muddy site access track

Sediment Deposition on roadway

Site entry point not stabilised

Sediment fence requires maintenance

Sediment fence over flow

Inappropriate sediment control measure

Example of Erosion and Sediment Control Measures

Missing common sense here

Good set up. Require clean-up to work efficiently

Sand bags need to be replaced

This EWMS has been developed to comply with Legislative requirements, Hutchinson Builders Requirements and SSD 9211. It has been amended to reflect Site Specific Conditions and approved for use by;

Name: Steve Wyatt	**Position:** HSEQ Manager	**Signature:**	**Date:** 18/02/19

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Name:	Position:	Signature	Date:	Name:	Position:	Signature	Date:

APPENDIX H – REMEDIAL ACTION PLAN AND WASTE MANAGEMENT PLAN

Remedial Action Plan is attached separately.

EWMS- 2 Waste Management

Hierarchy of Control (HOC): 1. Eliminate 2. Substitute 3. Isolate 4. Engineer 5. Admin 6. PPE

Environmental Aspects	Impacts	HOC	Controls / Work Methods	Responsible Person/s for Monitor & Review
Prior to site establishment	Unexpected cost for waste disposal	5	• Waste streams: identify which waste streams are likely to be generated and estimate the approximate amounts of material • Possible contamination by hazardous materials like asbestos or lead: these materials will limit reuse /recycling options and require special disposal • Focus on waste avoidance: instead of managing the waste once it has been generated, look at ways to avoid the generation of that waste in the first place • Services: select an appropriately qualified waste management contractor who will provide services for the waste streams generated and data on waste/recycling generation; • Check if washout bay (i.e. concrete, paint, plaster) is permitted on site. Where work site is close to natural watercourse, washout bay is unlikely acceptable. • Check if work site is on Fire Ant areas • Check if work site is on Acid Sulfate Risk Areas • No burning off waste is permitted	Project Manager
Site establishment and management	Unsustainable practice Potential cause of pest outbreaks	5	• Where practical, waste should be segregated into recycling materials (steel, cardboards, timber, construction materials) • Bins must be clearly and correctly labelled • Vermin must be prevented from entering waste areas and containers. • Site will be maintained in a tidy state free of litter and rubbish	Project Manager Site Manager HSE Advisor
Site establishment	Inadequate liquid waste storage and contained causing significant environmental harm	1 5	• Liquid waste (effluent) will be stored in appropriate containers in bunded areas (or an equivalent purpose-built bunding device) until transported off-site. • Roof water is not connected to the effluent tank • The capacity of the spillage containment compound shall be at least 100% of the volume of the largest package plus 25% of the storage capacity up to 10,000 L, together with 10% of the storage capacity between 10,000 L and 100,000 L, and 5% above 100,000 L	Project Manager Site Manager

Hierarchy of Control (HOC): 1. Eliminate 2. Substitute 3. Isolate 4. Engineer 5. Admin 6. PPE

Environmental Aspects	Impacts	HOC	Controls / Work Methods	Responsible Person/s for Monitor & Review
			(AS1940:2004)	
Managing amenities	Potential of effluent spillage causing significant environmental harm	1 5	• Adequate amenity is provided • Sewage generated from site amenities to discharge direct to existing sewer main/ sewage tank. • Inspect effluent tank capacity or connection from toilet blocks to sewer main weekly or more regular if number of workers increase on-site	Site Manager HSE Advisor
	Potential of effluent spillage from portable toilets	1 5	• Maintain all portable toilets in good condition to prevent leaks or spills. • Damaged toilets must be repaired/ replaced immediately. • Portable toilets should be located away from high-traffic vehicular areas. • Portable toilets must not be located on top of stormwater drain inlets or on a street. • Portable toilets shall be placed on a level ground surface that provides unobstructed access to users and servicing pump trucks. • Portable toilets should wherever possible be located upon natural ground and not on or within 5 meters of a paved surface such as asphalt, concrete or similar. • If portable toilets must be placed on a paved surface exposed to rainwater or stormwater runoff, extra care must be taken during servicing to ensure any waste water spilled onto the paved surface is rinsed and adequately collected so as not to leave any residue. A wet shop vacuum or similar would provide for adequate collection. • As a minimum, portable toilets should not be located within 100 metres from any river, creek, channel (which can include a drain, gutter or pipe) or other watercourse (whether modified or not).	Site Manager HSE Advisor
Managing paint and plaster disposal	Chemicals like solvents, oils, paints, disinfectants, pesticides, household cleaning products and bleaches can kill the helpful bacteria in your septic system. This may 'kill' the system and stop it digesting effluent.	5 1	• Washout for paint and plaster will be separated from concrete wash bay or sediment water pit • Washout for paint and plaster will not be connected to sewage tank • No paint, and plaster residue wash down to stormwater drainage	Site Manager HSE Advisor

Hierarchy of Control (HOC): 1. Eliminate 2. Substitute 3. Isolate 4. Engineer 5. Admin 6. PPE

Environmental Aspects	Impacts	HOC	Controls / Work Methods	Responsible Person/s for Monitor & Review
Managing excess concrete & concrete wash water	Water that comes into contact with cement, uncured concrete, concrete dust, etc, quickly produces a strong alkaline solution that causes chemical burns to fish, insects and plants. If even a small volume of concrete wastewater is allowed to enter streams, lakes, wetlands or harbours through the stormwater system, it can cause immense damage to the environment.	5 1	• Excess concrete is dumped on an impervious surface (i.e. black plastic) and allowed to harden. Unused wet concrete should not be dumped on bare ground to harden because this can contribute to ground water and surface water contamination. • Only wash concrete, concrete tools, mixers, and wheelbarrows at designated location (concrete wash bay/ bunded area) • Concrete washout areas are to collect and retain all the concrete washout water and solids in leak proof containers/ bunded area, • Check concrete washout facilities daily to determine if they have been filled to 75% capacity, which is when materials need to be removed. • Spilt or surplus mortar or blockfill should be allowed to harden and removed from site as hardfill.	Site Manager HSE Advisor
	If the wash water is dumped on the ground it can run off site to adjoining roads and enter roadside storm drains, which discharge to surface waters such as rivers, lakes, or estuaries. Rainwater polluted with concrete wash water can percolate down through the soil and alter the soil chemistry, inhibit plant growth, and contaminate the groundwater. Its high pH can increase the toxicity of other substances in the surface waters and soils.		• Do not dilute the runoff and dispose of it to the stormwater system • DO NOT USE SEDIMENT FENCE AS BUNDING MATERIALS AROUND THE CONCRETE WASH AREA • Lay portable bund beneath concrete pump to collect concrete runoff water.	Site Manager HSE Advisor
Managing Acid Sulfate Soil	Contaminate stockpile and stormwater runoff	5 1	• See EWMS-5: Acid Sulfate Soil Management for details	Site Manager HSE Advisor
Manage and Record Waste transaction	Misleading documents to the department and for transporting a regulated waste	5 1	• All waste and recyclables shall be disposed of by a licensed contractor. • Complete **Waste Tracking Certificate** for TRACKABLE WASTE only: – Hutchinson Builders must give TRACKABLE WASTE (regulated waste) (e.g. Asbestos, Effluent, contaminated soil) to authorised	Site Manager HSE Advisor

Hierarchy of Control (HOC): 1. Eliminate 2. Substitute 3. Isolate 4. Engineer 5. Admin 6. PPE

Environmental Aspects	Impacts	HOC	Controls / Work Methods	Responsible Person/s for Monitor & Review
			waste transporters – Check the waste category to ensure all the waste trackable type is recorded – Record the prescribed information about the waste – Give the prescribed information to the waste transporter. – Give the prescribed information to the department *[within seven days (pink copy of the WTC with parts 1 and 2 completed)]* • Keep records of the waste transaction for five years	

Example of Concrete Wash Areas		
		**Concrete washout pit with plastic liner**
		**The vinyl washout container is portable, reusable, and easier to install than a washout pit**
		**Metal washout container has ramp that allows concrete pump trucks to wash out their hoppers.** **Utilise your skip bin with black plastic liner to ensure no leakage**

Example of Waste Management

Cement wash flowing to kerb

Cement wash-off from concreting works

Cement wash-off flowing to kerb

Insufficient concrete wash bay
Concrete residue is not retained within bunded area

Sufficient Concrete wash bay

Bin is clearly labelled

Wash water being dumped on the ground

The red arrow points to a ready mixed truck chute that's being washed out into a roll-off bin, which isn't watertight. Leaking wash water, shown in the foreground, will likely follow similar paths to nearby surface waters.

This EWMS has been developed to comply with Legislative requirements, Hutchinson Builders Requirements and SSD 9211. It has been amended to reflect Site Specific Conditions and approved for use by;

Name: Steve Wyatt	**Position:** HSEQ Manager	**Signature:**	**Date:** 18/02/19

Worker Acknowledgement

I acknowledge the following:

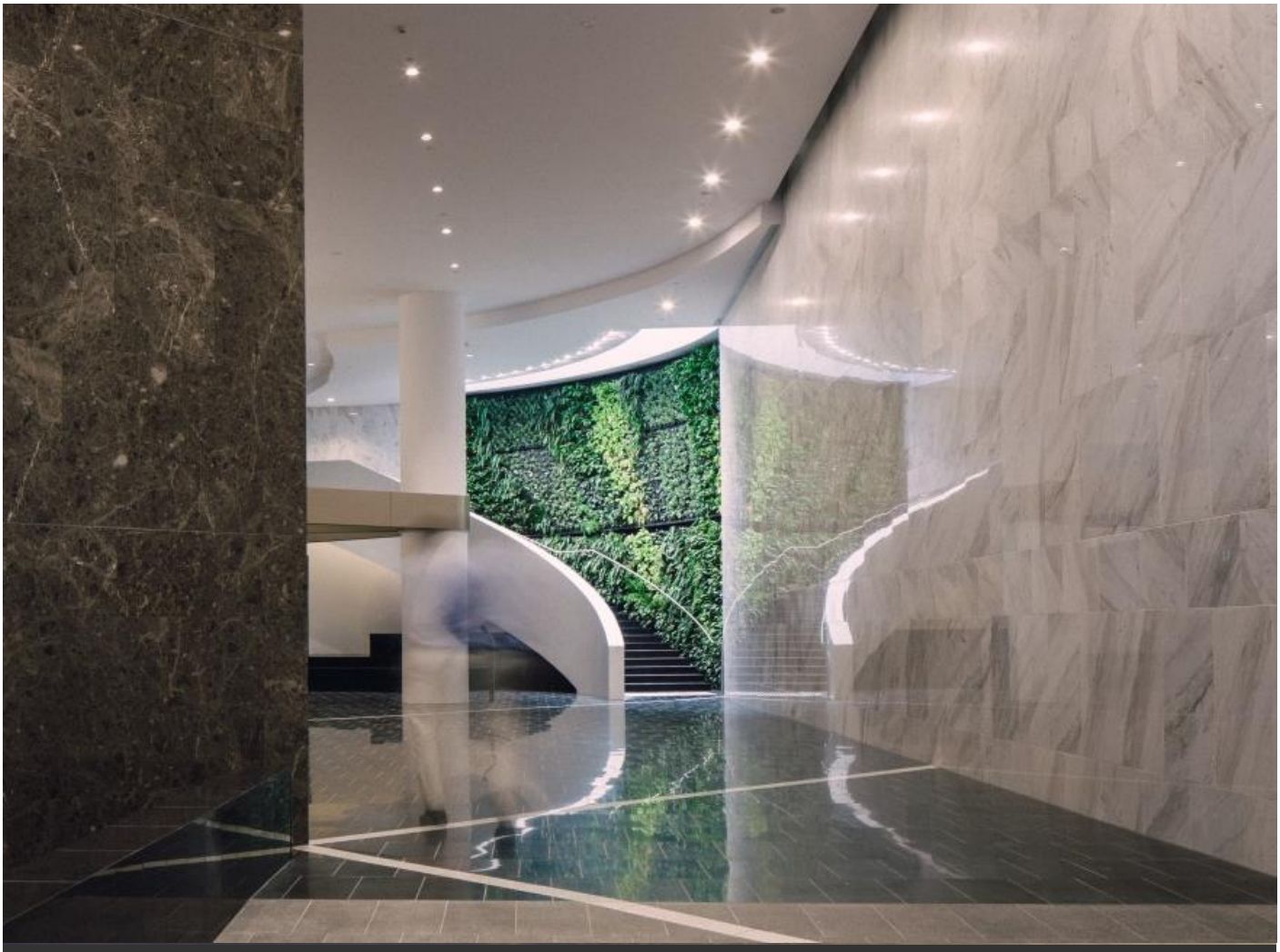
a. that I have been trained in the EWMS listed above,
b. the controls and requirements are clearly understood,

I will comply with the EWMS and I have been consulted and had the opportunity to input into the EWMS.

Name:	Position:	Signature	Date:	Name:	Position:	Signature	Date:

APPENDIX I – ASBESTOS CONTROL PLAN

HUTCHINSON BUILDERS
Established 1912



Asbestos Control Plan

Mudgee Hospital Redevelopment

Version 4 — 21/01/2019 — Uncontrolled if printed

Contents

Preface

This Asbestos Control Plan has been developed to provide a methodology and control strategy for the removal of asbestos contaminated soil from the project site Mudgee Hospital Redevelopment located on the corner of Meares and Lewis St Mudgee NSW.

This plan provides specific information regarding the management of project-related works and will ensure that a uniform approach to contaminant removal is adopted.

A copy of the plan shall be referenced in Hutchinson Builders site specific induction and will be held on site by Hutchinson Builders so that all site employees, Client Reps, Subcontractors have access to the plan at all times.

This plan is not intended to sit in isolation and must be reviewed with the Safety Management Plan, Project Risk Assessment and the Environmental Management Plan and associated documentation.

Plan Review:

Name	Position	Responsibility Statement	Signature
Sean Lees	Team Leader	HB-HSEQ-F-007-A	
Corey Weston	Construction Manager	HB-HSEQ-F-007-A	
Sam Bandy	Project Manager	HB-HSEQ-F-007-B	
Steve Wyatt	HSEQ Manager	HB-HSEQ-F-007-I	
Nick Maher	Site Manager	HB-HSEQ-F-007-C	
Steve Anderson	Operations Manager	HB-HSEQ-F-007-C	
Tom Green	Foremen	HB-HSEQ-F-007-D	
Greg Inwood	Foremen	HB-HSEQ-F-007-D	
Lachlan Bloomfield	Foremen	HB-HSEQ-F-007-D	
Paul Schuster	HSE Advisor	HB-HSEQ-F-007-E	

Plan Revision:

Revision Number	Review Date	Person Reviewing	Summary of amendments
Rev A	21/1/19	Steve Wyatt	Plan developed to reflect site and client requirements

1. Sequence of Work/ Quality Assurance

1.1 Site Mobilisation and Set Up

- Independent expert advice will be obtained by Hutchinson Builders prior to the commencement of any work in this project and will continue as part of the entire process until completion.
- All relevant risk control methodologies are to be submitted to the work group for discussion, review and approval prior to site establishment. Part of this process will be to determine the level of extra training required by the machine operators for safe work to proceed.
- Prior to mobilising machinery, preferred access and egress points to site and the work pathway are to be established with the strongest consideration given to both cross contamination and local traffic movements. A site inspection for evaluation of these routes is recommended.
- Air monitoring devices will be calibrated and established at predetermined locations in accordance with third party Hygienists request
- Once delineated all major routes on site are to be laid.
- Hold all site inductions and familiarise all staff with the Hutchinson Site Management Plan
- Determine safe parking for employee vehicles and pass in/out security protocols.
- Establish Asbestos Work Areas (AWA) and Decontamination Zones as part of these areas on site. It will be necessary for this project to group AWA to central decontamination zones for efficiency of movement throughout the site.
- Delineate the AWA by installing bunting and appropriate signage which is to remain in place until the clearance to re-occupy has been granted. All signage shall conform to AS 1319-1994. (*Reference Code of Practice for the Management and Control of Asbestos in Workplaces [NOHSC: 2018 (2005)]* examples of warning signs and labels)
- Provide a public factsheet about the asbestos in the area.
- Move all obstructions from the proposed paths and set down areas of floats and service vehicles in clean areas, install signage to indicate intended site layout and flow patterns.
- Mobilise all necessary PPE and store in designated clean areas as to not create trip hazards or obstruction to access ways. Temporary shade shelters are to follow works around the site to aid with heat stress management.
- Rumble grids, accompanying silt protection and run off filtration points are too be installed prior to any vehicle movements in the contaminated areas.
- A vehicle equipped with a task specific spill kit assembled to deal with possible asbestos contaminated soil spills (on-site) must be onsite at all times in the unlikely event that a spill occurs in transit. All waste removal vehicles are to be issued the contact details of this vehicle and inducted in the clean-up procedure. In the event of a spill off site in transit to refuse facility, drivers are to notify **1300 372 842 (EPA Hotline) and 000** if required.

1.2 Commence Loading of Contaminated Soils

- It is recommended that Hygienists inspect the AWA and decontamination facilities each day prior to work commencing to maintain quality of control measures.
- Air Monitoring pumps are to be placed at all four faces of the AWA prior to the commencement of works daily for the duration of the project. Works are not to commence without a hygienist having set pumps.
- Under light water suppression, supplied by water trucks kept outside of the AWA excavators are to load waste vehicles as deftly as possible. Workmen inside the AWA must be in minimum PPE of gloves, Type 5 disposable overalls, P2 disposable masks and closed in washable boots. Where soil is known to contain friable asbestos workman are to wear a minimum of P3 Full Face Powered Air Respiratory Protection (PARP). Whenever logistically viable, friable asbestos material must be kept in a sealed container. (Reference for PPE Appendix C of *Code of Practice for the Management and Control of Asbestos in Workplaces [NOHSC: 2018 (2005)]*)
- Operators are to have HEPA rated air filters on their machines and are to keep doors and windows firmly closed during operation – PPE will be supplied and kept in their cabs for use if it becomes necessary to alight and cross the AWA

- Truck operators are not to leave their vehicles at any time in this process. Truck operators will also be issued with PPE for emergency use.
- Trucks will then be directed to move to the decontamination zone where they will pass over a rumble grid and have their tyres and chassis cleaned of soil. Once off the grid and inspected the operators will then be allowed to cover their loads.
- Trucks are then to proceed directly to the waste facility and off load.
- All waste removal vehicles travelling within NSW or interstate to dedicated waste facilities will be tracked.
- A consignment authorisation and an EPA approved Waste Transport Certificate (WTC) will be obtained by Hutchinson Builders and given to the driver of the waste removal vehicle who will complete the necessary sections of the WTC and carry this documentation in the vehicle.
- The WTC must be kept for a period of not less than 4 years and available for inspection on request.
- Personnel at the waste facility receiving waste from Hutchinson Builders will be informed that the load contains asbestos. The waste must be unloaded and disposed of in such a manner as to prevent the generation of dust or the stirring up of dust. The waste management facility (landfill site) is responsible for ensuring that the asbestos waste is covered in accordance with the facility's environment protection licence.
- Trucks will then be directed to follow the procedures of the waste facility in relation to having their tyres and chassis cleaned of soil prior to being inspected by the operators before leaving the waste facility.
- At no time will trucks be permitted to have a load of contaminant overnight.

1.3 Maintenance

- At a fixed load counts each day the rumble grid exit through to the road is to be checked and cleared of any material that may arouse suspicion.
- At predetermined regular intervals water is to be applied to all trafficked site roads with consideration given to the fact that all dust on site will attract negative attention.
- At the end of each day active AWAs are to be sprayed with water or similar.
- Rumble grids and decontamination zones are to be assessed for quality of drainage control and component wear prior to, at least once during and after daily works are complete.

1.4 Decontamination of Excavator

- As with the waste transport vehicle the excavator must be decontaminated before moving between AWAs and before leaving site. Excavators will need to stand on one track at a time and have soil removed from the track work thoroughly. During this process operators are to keep cabins closed until give clearance to open by a hygienist or asbestos assessor.

1.5 Personnel Decontamination

- Staff will decontaminate in zones attached to every AWA. These zones will be prepared as part of establishing each AWA. Staff will not be permitted to move between AWAs and vehicle cleaning areas in dirty PPE – that is PPE that has entered an AWA. Asbestos Removal PPE should not be seen outside of AWAs. (Reference regarding PPE and decontamination procedures Sections 11.7 AND 11.9.3 of the *Code of Practice for the Management and Control of Asbestos in Workplaces [NOHSC: 2018 (2005)]*)

1.6 Quality Assurance

- Disposal dockets and receipts issued when contaminated soil and fuel tanks or other structures are removed from the site.
- Validation documentation of any 'clean fill' used at the site.
- After completion of excavation within each AWA the occupational hygienist is to inspect the surface and provide a preliminary clearance to confirm that no visible ACM debris is present.
- Once this clearance is given environmental validation can conclude.
- Further excavation may be required based on results of this validation.

- Progress reports, photographic records, daily pre-starts, incident reports will be provided to Hutchinson Builders and be available to the client on request.
- QA/QC protocols for field and laboratory work will be provided to Hutchinson Builders and be available to the client on request.
- Calibration reports for all field monitoring equipment will be provided to Hutchinson Builders and be available to the client on request.
- Chain-of-custody documents for all soil, vapour, groundwater and surface water samples and laboratory receipt notices will be provided to Hutchinson Builders and be available to the client on request.

1.7 Demobilisation

- As each AWA receives environmental validation the work area is to be collapsed.
- Establishment of exclusion zones around clean areas of the site to prevent recontamination.
- Final demobilisation will include clearance inspections and decontamination of all plant including rumble grid.

2. Training, Awareness & Competency

2.1 Induction

Prior to working onsite all personnel and subcontractors will complete an induction informing them of:

- Compliance with mobilisation, maintenance and demobilisation procedures.
- Potential health risks associated with exposure to elevated levels of asbestos fibres and the need for continual monitoring and surveillance of individual health and well-being.
- Compliance with PPE requirements for the duration of the project.
- Provision of health surveillance for each employee performed under the supervision of an authorised medical practitioner after consultation with the relevant employees. (*Reference Occupational Health and Safety Regulation 2001*). Demography, occupational and medical history as well as health advice and incidence of personal exposure will be recorded and a physical examination will be arranged if indicated. *(Reference Guidelines for Health Surveillance [NOHSC: 7039 (1995)]*
-

Hutchinson Builders will record induction and training and maintain these in a suitable form for at least five years from the date of the last entry in them. (Reference National model regulations for the control of workplace hazardous substances [NOHSC: 1005 (1994)])

2.2 Asbestos training

Prior to commencing work onsite, all personnel and subcontractors will have adequate training and proper authorisation of the appropriate regulator.

3. Communication & Reporting

3.1 Internal communications and reporting pathways

Organisation of independent clearance inspections and associated documentation (clearance certificate) will be the responsibility of the Project Manager. A register of hazardous substances will be kept and maintained during the course of the work and be available on request.

Chain-of-custody documents for all soil, vapour, groundwater and surface water samples and laboratory receipt notices will be provided to Hutchinson Builders and be available to the client on request.

Hutchinson Builders will maintain in a suitable form any assessment reports indicating a need for monitoring and/or health surveillance and the results of any monitoring and/or health surveillance for at least 30 years from the date of the last entry in them. Assessment

reports not indicating a need for monitoring and/or health surveillance will be maintained for at least five years from the date of the last entry in them.

3.2 Internal reporting – hazards, non-conformance and corrective action

The Project Manager will be responsible for ensuring that all incidents are investigated and reported internally in accordance with the Hutchinson Builders procedure using form **Incident Report Form HB-HSEQ-F-027-B**.

Further to documenting a hazard or event, the type and extent of investigation will be determined by the Team HSEQ Manager. Management will review all information available and consider the risks associated with the hazard or incident. All events resulting in injury, disease or other harm will be investigated to determine the cause of the event. The result of the investigation will be reported to the Management Team. Where a systematic breach has been identified a corrective action will be raised in accordance with **Environmental Management Systems Manual** section 7.8.2

3.3 Incident and corrective action reporting to the Principal

The Principal shall be consulted on what environmental occurrences are considered to be incidents, prior to any works commencing. The Principal shall be notified of the occurrence of an environmental incident, or where there is any uncertainty about any incident.

3.4 Reporting incidents to regulatory authorities

The state regulatory body shall be notified in writing of any incident which has caused, or may cause serious or material environmental harm. The Project Manager is responsible for ensuring incidents are reported to regulatory authorities within the required time frames.

A written notice detailing the following information must be provided to the state regulatory body within 14 days only when the released contaminates exceed the allowable limit. The following are details that are required to be included on the notification:

- The name of the operator, including their registration certificate number
- The name and telephone number of a designated contact person
- Quantity and substance released
- Person(s) involved
- The location and time of the release
- The suspected cause of the release
- A description of the effects of the release
- The results of any monitoring performed in relation to the release
- Actions taken to mitigate any environmental harm caused by the release
- Proposed actions to prevent a recurrence of the release.

3.5 Complaints and complaints response

A **Community Complaints and Consultation Register HB-HSEQ-F-041** will be established for the project for the purpose of documenting impacts or complaints from neighbours or community. Incidents involving members of the community or complaints directly received may require an **Incident / Injury / Hazard Report Form HB-HSEQ-F-027-B** to be completed and retained on site for the duration of the project.

Sub-contractors will ensure that any complaints received by them during works are forwarded to site management immediately. Sub-contractors are not to initiate consultation or communication with community or stakeholders without site management approval.

Complaints shall be managed by the Project Manager, Site Manager or their delegate, in consultation with other relevant stakeholders so that a timely resolution is achieved. The resolution process shall involve a review of the effectiveness of control measures, which shall be modified where found to be deficient, and extended to other work areas or practices to avoid recurrence of the issue (refer Section 9)

4. Monitoring & Review Of Performance

4.1 Monitoring and Meetings

Monitoring will be carried out by a competent person in accordance with Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC: 3003 (2005)].

Sample analysis will be carried out in a laboratory accredited by the National Association of Testing Authorities in accordance with legislative requirements.

Site workers will be provided with the results of monitoring and all monitoring records will be readily accessible to these workers.

4.2 Safe Work Method Statements

The Project Manager will be responsible for ensuring that safe work method statements are provided by all stakeholders prior to the commencement of any works. The activities of any sub-contractor will be monitored to ensure compliance with the safe work statements provided and immediate action to rectify the situation will be taken should non-compliance be evident.

4.3 Internal Auditing

Project systems compliance audits, external site inspections, and WHSMP reviews shall be undertaken as prescribed by the Team HSEQ Manager for the project and in conjunction with Management Procedure 05: Inspections and Monitoring of Health and Safety.

4.4 Appendix – Exposure Monitoring Sampling Record (Example)

Reference *Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC: 3003 (2005)]*

All data necessary for the determination of the fibre concentration must be recorded in a monitoring record. Furthermore, as much data as available should be recorded for control design and epidemiological studies.

SAMPLING DETAILS

- Sampling pump type and number.
- Flowmeter type and number.
- Measured Flowrate: (initial, intermediate and final).
- Flowrate Correction Data or Factor
- Start and stop time of sample.
- Sampling strategy used.
- Time and date.
- Sampled by.

SAMPLING ENVIRONMENT DETAILS

- Designation: (job title and work location).
- Harmful substances: (for example, types of asbestos.).
- Brief description of working process.
- Variable parameters which can exercise an influence on dust formation.
- Work practices: (if applicable)
    - working conditions: (normal, abnormal)
    - material: (for example, type, size, condition)
    - airflow: (worker in dust airflow - yes/no)
    - obvious influence on adjoining working places.

- Methods of dust control: (if applicable)
    - exhaust ventilation
    - other methods
    - visual impression.
- Number of employees for which the measuring value is representative.
- Personal protection (yes/no) type.
- Hours per shift.
- Days per week.

4.5 References

Commonwealth, State and Local legislative documentation used in the compilation of this ACP:

NSW Government Managing asbestos in or on soil March 2014

Guidance Note of Identification, Assessment and Management of Asbestos Contamination in Regional Public Areas (Government of Western Australia, Department of Health)

Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia May 2009

Safe Work Australia: How to Safely Remove Asbestos Code of Practice April 2016

NSW Government: Asbestos Blueprint – A guide to roles and responsibilities for operational staff of state and local government November 2011

Management of Small-Scale Low-Risk Soil Asbestos Contamination (Government of Western Australia, Department of Health)

Guideline on Investigation Levels for Soil and Groundwater Schedule B1

National Environment Protection (Assessment of Site Contamination) Measure 1999 (May 2013) Schedule B2

Contaminated Sites – Guidelines for the NSW Site Auditor Scheme (2nd edition)

Protection of the Environment Operations (Waste) Regulation 2005 under the *Protection of the Environment Operations Act 1997*

NSW EPA: Waste Avoidance and Resource Recovery Strategy 2014-21

NSW EPA: Illegal Dumping Strategy 2014-16

NSW EPA: Guidelines on the Duty to Report Contamination under the *Contaminated Land Management Act 1997*

NSW Government Environment, Climate Change & Water: Regulation Project – James Hardie Asbestos Waste Contamination Legacy Summary Project Report April 2010

NSW Waste Avoidance and Resource Recovery Act 2001 No 58

NSW Protection of the Environment Operations Act 1997 No 156

NSW Occupational Health and Safety Act 2000 No 40

NSW Occupational Health and Safety Regulation 2001 under the *Occupational Health and Safety Act 2000*

Code of Practice for the Safe Removal of Asbestos 2nd Edition [NOHSC: 2002 (2005)]

Code of Practice for the Management and Control of Asbestos in Workplaces [NOHSC: 2018 (2005)]

Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC: 3003 (2005)]

National Model Regulations for the Control of Workplace Hazardous Substances [NOHSC: 1005 (1994)]

Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment [NOHSC:1003 (1995)]

Guidelines for Health Surveillance [NOHSC: 7039(1995)]

Guide to the Control of Asbestos Hazards in Buildings and Structures [NOHSC:3002(1988)]

Australian Standards applicable throughout this ACP:

AS 1319: 1994 Safety Signs for the Occupational Environment

AS 1716: 2003 Respiratory Protective Devices

AS 1715: 1994 Selection, Use and Maintenance of Respiratory Protective Devices

AS 3544: 1988 Industrial Vacuum Cleaners for Particulates Hazardous to Health

AS 4260: 1997 High Efficiency Particulate Air (HEPA) Filters – Classification, Construction and Performance

APPENDIX J – COMMUNITY SAFETY PLAN

Public Safety Management Plan

Mudgee Hospital Redevelopment

Version 10.0 – 11/3/2019 – Uncontrolled if printed

Contents

Introduction

The purpose of this Public Safety Management Plan is to document Hutchinson Builders commitment to ensuring that the local residents, hospital staff, patients, visitors and the general public are not placed in a situation that is dangerous and potentially harmful to their wellbeing.

Our aim is to comply with the contractual requirements, Work Health and Safety Act and Regulations 2011, relevant codes of practices and community expectations.

In selection of the appropriate Public Protection controls, consideration has been given to:

- Minimising the hazards and risks to the community and personnel on site.
- Minimising interaction between the community and personnel on site.
- Minimising interaction between traffic entering site and community and hospital traffic.
- Providing adequate protection and warnings around hazardous areas.
- Community knowledge and consultation

All Site Personnel are bound by the requirements set out in this plan.

1. Project Overview

Project	Mudgee Hospital Redevelopment
Location	The property is located between Meares, Lewis and Church St Mudgee NSW 2850
Local Government	Mid-Western Regional Council
Client	Health Infrastructure NSW
Principal Contractor	Hutchinson Builders
Scope of Works	The Mudgee Hospital Re-Development incorporates an entirely new three storey (including plant) acure clinical services building that will provide: medical, surgical, emergency, palliative care, rehabilitation, mental health, paediatric services, and birthing suites. Further to the main building, the development also includes 127 carparks, the demolition of three buildings (including the original hospital building), and associated landscaping and infrastructure..
Project Start Date	25/03/2019
Duration of Work	20 months

2. Project Site Representatives

Principal Contractor – Hutchinson Builders	Name:	Contact No:
Construction Manager	Corey Weston	0437 588 203
Project Manager:	Sam Bandy	0408 115 760
HSEQ Manager	Steve Wyatt	0409 952 118
Site Manager:	Nick Maher	0466 451 310
Foreman	Lachlan Bloomfield	0438 771 243
HSE - Advisor:	Paul Schuster	0408 069 033

3. Control Copy Distribution List

Control Copy No. 1	Hutchinson Builders (Toowoomba Office)
Control Copy No. 2	Hutchinson Builders (Site Office)
Control Copy No. 3	Health Infrastructure NSW

4. Obligations and Responsibilities

Principal Contractor

Hutchinson Builders as the Principal Contractor has an obligation to ensure all work at the construction workplace is carried out in a manner that:

- Ensures compliance with the contract requirements
- Provides a safe working environment for workers
- Eliminates exposure of hazards to the public
- Minimises' the inconvenience to the local community and the general public

In order to fulfill the above obligations, the requirements contained within this Public Safety Management Plan (PSMP) are to be complied with by all those engaged in work on this project.

The management of Hutchinson Builders is committed to the requirements of the Public Safety Management Plan and these will be achieved by:

- Complying with Principal Contactor requirements under Work Health and Safety Legislation;
- Communicating requirements to all site personnel and visitors at time of HSE induction and regularly for the life of the project;
- Communicating work activities to the community through letter box drops, media notices and displaying of contact details of Hutchinson Builders Site Manager for contact from members of public 24hrs a day;
- Communicating traffic management and vehicular movement requirements to all site personnel and site visitors prior to attending the site and during the site HSE Induction;
- The use of approved barriers and regulatory and advisory signage as a means of warning the public about the dangers associated with breaching site boundaries;
- Providing the means and resources necessary to achieve a safe working environment;

- Reviewing procedures and practices; and
- Providing control measures to effectively minimise the generation of dust, Noise and Vibration through regular inspection and provision of appropriate equipment
- Eliminating the exposure to the public from contaminated materials

Construction Manager/ Project Manager

Responsibilities:

- Overall responsibility that a safe working environment is provided
- Provision and allocation of sufficient resources
- Monitoring, reviewing and amending the PSMP as required
- Liaise with all relevant stakeholders including client and community groups where necessary to ensure the immediate community remain informed on all project matters
- Ensure all service providers are approved for use on the project and are able to provide services complying with Hutchinson Builders expectations and public safety requirements

Site Manager

Responsibilities:

- Ensuring compliance with the approved PSMP
- Ensuring that the inspection of monitoring devices and protection control devices on a daily basis prior to the commencement of work and at the completion of work is carried out and recorded
- Ensure compliance with permits, local council guidelines & regulatory requirements.
- Ensure the health and safety consultation process is implemented and maintained to resolve any disputes or situations, which may arise over and work related HSEQ issue including stakeholder interaction.
- Continuous monitoring of site and works
- Identifying non-conformances / corrective action

Site Health &Safety Advisor

Responsibilities:

- To advise the site manager/site foreman about the overall state of health and safety at the workplace, using the appropriate forms contained within the WHS Management Plan.
- To conduct and record daily/weekly inspections at the workplace to identify and rectify as required any hazards and unsafe situation or unsatisfactory workplace health and safety conditions and practices to maintain a safe work environment.
- Monitor the installation and removal of temporary signage, delineators, barriers, etc.
- To provide technical advices to all levels of site management and subcontractors and also advise them on how to discharge their health and safety obligations to reduce the risk of injury and illness to workers and members of the public.

Site Personnel

Responsibilities:

- Comply with all legislative requirements and Hutchinson Builders procedures.
- Comply with requirements under the PSMP
- Not remove or alter of temporary signage, delineators, and barriers without prior approval of the Site Manager.

5. Key Risks

Hazard	Risk	Control	Reference
Public entering site	• Exposure to High risk construction activities	• Site to be completely fenced with 1.8m high restricted climbing fencing. • Signage will be placed at regular intervals identifying site as high risk and entering is dangerous. • All gates will be securely locked to prevent unauthorised access after hours • Access points not being utilised will be locked and front entrance will be monitored during work activities • Site offices will be positioned to accommodate visitors entering site without	• Project Risk Assessment (PRA)
Excavation and Trenching	• Trench collapse • Falling into trench	• All trenches will be flagged and signed • All trenches over 1m deep will have a 900mm self-supporting barricading that extends to the ground and signed • All trenches over 1.5m will be benched battered or shored. • All trenches over 2m must have at a minimum 900mm high self-supporting barricading that is signed and positioned at a minimum 2m from trench edge	PRA, SWMS 07 (Excavation, Trenching and Ground Penetration).
Heavy Vehicle entering and exiting site	• Contact between pedestrian, vehicle and HB contracted vehicles	• Signage will be established identifying that a heavy vehicle traffic increase along Church St and Meares St will occur for the duration of construction • All heavy vehicles will access site via travelling North South or South North on Church St then turning onto Meares St and left into site. • When exiting site, trucks will only turn left onto Church St • Use of exhaust brakes will be forbidden in built up areas. • All speed sign posted speed limits will be adhered to. • See Appendix A route diagram	Site Access Plan (SAP) and Public Safety Management Plan (PSMP) SWMS 18 (Operating Mobile Plant) and PRA
Interaction with Hospital Traffic	• Impeding traffic creating delays or uncertainty	• Any driveway/road space that is adjacent to Hutchinson Builders site will have suitable fencing, signage and or barricading to prevent construction works from encroaching or inhibiting hospital traffic movement	PSMP and PRA
Public movement around site	• Obstacles from site fencing creating obstacles.	• All site fencing, including concrete block supports will not protrude onto footpath. The footpath will remain clear of any materials to prevent potential trip hazard. • Signage at entry and exit points warning public of entering and exiting vehicles	PSMP
Noise	• Complaints • Sensitive receptor issues	• All plant and equipment will be inspected prior to commencing work to ensure noise production is in accordance with manufacturers recommendations. • Work times will be in accordance with contract requirements 0700 – 1800 weekdays, 0800 – 1300	EWMS 8 (Noise and Vibration)

		Saturdays with nil work to take place on Sundays. • Internal Noise Monitoring will be conducted regularly to ensure decibel level at Hutchinson Builders site extremities meets industry standards (not to exceed 85dB over an 8 hour period).	
Dust	• Complaints • Sensitive Receptor Issues • Damage to personal property	• All work that produces dust will be monitored internally to ensure it does not leave the site. • Active Dust suppression will be implemented including the establishment of site water points to allow hose connection • The use of water carts to wet down haul routes and stockpiles will be utilised • Stockpiles cannot be higher than 2m and will be stabilised within 48 hours of being established by the use of either GeoFab or seeding. • Fencing misters may be utilised if risk of dust exiting site is determined as probable by Site Management in consultation with client and hospital. • 3rd party dust monitoring will be engaged as required	HB-EWMS 7 (Air Quality) PRA and SWMS 31 (Control of exposure to respirable crystalline Silica Dust)
Vibration	• Complaints • Sensitive Receptor Issues • Damage to personal property	• In consultation with neighbours Hutchinson Builders in consultation with client and council will make a determination on best course of action if vibration activities has an adverse effect on surrounding areas. • It is not expected that construction activities will create a vibration issue.	EWMS 8 (Noise and Vibration)
Contaminated Soil (Containing Asbestos)	• Exposing neighbours and general public	• All removal of soil will be spotted by a qualified hygienist (Enviro Science) looking for signs of contaminated soil. • Correct PPE will be worn • All vehicles with suspected contaminated soil leaving site will be washed down and inspected. • For a more detail on handling Asbestos refer to Hutchinson Builders Project Risk Assessment, relevant EWMS and licensed contractors SWMS.	PRA, SWMS 10 (Working with Bonded ACM), EWMS 9 (Dangerous Goods and Hazardous Substances
Light Vehicle increase	• Interaction with public • Congested parking	• To prevent congestion all subcontractor vehicles will park in established area north of the existing Hospital off Lewis St. • Access to the actual site will be via Lewis St making entry into Site offices in the Southern part of existing hospital grounds. • All movement through centre of hospital grounds will be forbidden • Parking areas will be signed posted	PSMP
Public Complaints	• Confrontation between workers and public	• All workers at time of induction will be provided protocols when dealing with members of the public, at work and when not at work. • Adherence will be mandatory any breaches will be dealt with under Hutchinson Builders procedures and offenders may be removed from the project.	MP06 (Non Compliance with Health and Safety Requirements), PRA and WHSMP

6. Implementation

- The Site Manager shall ensure that all applicable controls and safety mechanisms are implemented prior to commencement of work.

- The Public Safety Management Plan shall be monitored continually throughout the construction period and reviewed by the Site Manager and Site Health and Safety Advisor as required.
- Weekly inspection shall be carried out by the Site Manager or Site Health and Safety Advisor to ensure that all public protection controls are maintained and comply with Legislation and Hutchinson Builders requirements
- The work site shall be delineated with the use of approved devices and signs to provide a safe and orderly passage for both Pedestrians and vehicular traffic at all times.
- Barricades will be provided to ensure worker safety as required. Locations and extent of barricading to be identified on site and reviewed as conditions change.

7. Recording and Monitoring

Weekly inspection (BIG 10) are to be conducted and these records are to be made available throughout the duration of the project. These records are to be kept on site in the site office.

A register of all incidents and complaints shall be maintained on site by the Project Manager. All incidents and complaints shall be addressed by the Project Manager and actioned as necessary. All incidents will be investigated and reported to the Principal Contractor as soon as practical and in writing within seven days

Reporting Form	Responsibility	When
Objective Target Audit	Health and Safety team member	3 Monthly
BIG 10	HSE Advisor/ Site Manager	Weekly
Non-Conformance/Corrective Action	Site Manager or Health and Safety Advisor	As Required
Incident Report	Site Health and Safety Advisor	As Required
Complaints	Site Manager or Health and Safety Advisor	As Required

8. Safety Plan

All persons and organisations undertaking works onsite have a duty of care under Legislation to themselves, their employees and all site users lawfully using the site, to take all reasonable measures to prevent accident or injury from occurring. They must ensure that works undertaken by them does not put members of the public hospital staff, patients and visitors at risk of injury through negligent work practices and complacency.

This Public Safety Management Plan forms part of the Work Place Health and Safety Management Plan (WHSMP), and provides details on how all site users will conduct themselves, in order to prevent public safety concerns.

All incident/accidents shall be managed to minimise risk of further injury or damage. They shall be reported to the appropriate authority.

9. Emergency Arrangements

The Site Manager will ensure that all site personnel are aware of accident and emergency procedures as documented in the WHSMP and Emergency Response Plan. All site personnel will be briefed on emergency procedures at the site specific induction. Details of Emergency contact details will be provided on the Information board at the front entrance.

10. Approvals & Permits

The Project Manager is responsible for gaining all necessary approvals and permits as required. All permits and approvals will be maintained throughout the duration of the project and kept on site.

11. Police and Emergency Services

All site personnel to be briefed on the need to provide emergency services access if required, and evacuation procedures should an incident occur (refer WHSMP, Emergency Response Plan and Site Induction).

12. Public Transport

A detailed public transport analysis has not been conducted but Hutchinson Builders believes its construction activities will have little to no effect on public transport operating in the area.

13. Speed Zones

Strict adherence to all speed limits is required by Hutchinson Builders staff and Subcontractors when travelling to and from the project site and whilst accessing and exiting the project site.

Adherence to NSW Road Rules and indicated speed limits whilst travelling on gazette public roads is a Hutchinson Builders expectation of all staff, suppliers, visitors, subcontractors and subcontractor workers.

In accordance with Hutchinson Builders Site Rules the following speed limits comply:

- Sealed roads – in accordance with displayed speed limits but not exceeding 100kph
- Site Access – 10kph

Note: Vehicle operators must also drive according to weather and road conditions.

14. PSMP Auditing

This PSMP will be subjected to 3 monthly audits by the Hutchinson Builders Health and Safety team to ensure compliance and fitness for purpose. Audit results will be kept on site. Any non-conformances or issues identified in the audit will be dealt with immediately by the Project Manager.

15. Variations

On-site variations to the PSMP, if required, will be recorded by the Site Health and Safety Advisor or Site Manager.

16. References

1. Work Health & Safety Act 2011
2. Work Health & Safety Regulations 2011
3. Hutchinson Builders WHSMP
4. Hutchinson Builders EMP

17. Appendices

Appendix A Site Access Route Plans

Appendix A to
Public Safety Management Plan

Site Access Route Plan

- **Hutchinson Builders Site**
- **Subcontractors Parking**
- **Route to Site**
- **Route Exiting Si**

APPENDIX K – TRAFFIC MANAGEMENT PLAN

Traffic Management Plan
Mudgee Hospital Re-Development
Hutchinson Builders

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KPI Services (NSW):Pty Ltd
TMP Prepared by Alex Reid- PWZTMP 0043630869
Doc No: Hutchinson 1202 KPI Services (NSW) Pty Ltd V4 Dated 3/4/19

Contents

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2.0 Draft	Alex Reid	0043630869	Alex Reid	14/2/2019
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Issued to Client				
Version No	Date	Position	Client	Person
4.0	12/2/19	Project Manager	Hutchinson Builders	Sam Bandy
4.0	12/2/19	Construction Manager	Hutchinson Builders	Corey Weston
4.0	12/2/19	Operations Manager	KPI Construction	Terry Knight

References and Publications

AS/NZS ISO 31000 2009	Risk Management – Principles and Guidelines
AS/NZS 1158	Lighting for roads and public spaces
AS1742.3	Manual of Uniform Traffic Control Devices Part 3: Traffic Control works on Roads
Aust roads AP-R403-12	Aust roads Report – Implementation of National best practice for traffic control at road sites
TC@WS v5	Traffic Control At Work Sites Version 5. July 2018 – Roads and Maritime Services

List of Acronyms used in this plan and their definition

Anti-gawking screen	An opaque screen attached to TRSB to shield the construction worker from the view of passing motorists
Dynamic deflection	The largest transverse deflection of a TRSB system recorded during an actual crash or during a full-scale impact test
End Treatment	The collective term for devices and features at the leading and trailing ends of TRSB systems, which are selected on the basis of traffic speed and composition, the type of TRSB system and the particular site constraints
Nominated Traffic Officer	A person responsible in accordance with clause 5.1 for preparation and implementation of the TMP and TGS
On-Site Traffic Coordinator	A person responsible in accordance with clause 5.1 for the implementation of the prepared TMP and TGS
Traffic Controller	A person authorised in accordance with Clause 6.2.2 to control traffic at roadwork's
Traffic Guidance Scheme (TGS) / Traffic Control Plan (TCP)	A Traffic Guidance Scheme or Traffic Control Plan prepared by the Contractor in accordance with the requirements of the Contract as a means of planning and communicating individual traffic changes. The Traffic Guidance Scheme shows all proposed traffic control devices and their layouts on a plan
Traffic Management Plan (TMP)	The Traffic Management Plan prepared by the Contractor in accordance with the requirements of the Contract. It outlines how the works are integrated into the operation of the road network.
TRSB	Temporary Road Safety Barrier
RMS	Roads and Maritime Services NSW
TMP	Traffic Management Plan
TGS	Traffic Guidance Scheme
TMC	Transport Management Centre
TC@WS	Traffic Control at Work Sites V5 2018
The Code	Traffic Management for Construction or Maintenance Work Code of Practice 2008
SWMS	Safe Work Method Statements
TCAS	Traffic Control Accreditation Scheme
VMS	Variable Message Signs

Hold Points

The Hold Points applicable to this TMP are as follows:

4.1 Approval of Traffic Management *Plan*
4.2 Approval of Traffic Guidance Scheme

Purpose and Scope

This Traffic Management Plan (TMP) specifies the traffic control measures and devices to be used warn, instruct and guide road users in the safe negotiation of work sites on roads, and the methodology of managing the following around the construction sites including footpaths, shared paths and bicycle paths adjacent to the roadway.

This TMP formulates the basis of the traffic guidance schemes (TGS) required for this project which cause interference or obstruction to the normal use of a road by any road user. The TMP also provides guidance for

the planning design, installation and operation of the applicable traffic guidance schemes together with requirements for maintaining a safe workplace for both the general public and workers on site.

This TMP also provides organizations carrying out works on roads with a set of uniform practices for the signage locations and delineation devices of construction which will promote the safety of both workers and road users at the construction site.

The TMP has been prepared in accordance with the TC@WS Manual V5. 2018 and specifies the traffic control measures and devices to be used to warn, instruct and guide road users around the work site or in the vicinity of the construction site. This includes safely guiding pedestrians and cyclists and motorists around the road works.

Operating under this TMP it is deemed necessary to implement the use of site specific Traffic Control Plans (TCP) for all the road works/stages applicable to this construction site. Any recommendations outside the TC@WS will have a Local Government approval (Permit) to undertake works. Any works being performed in the vicinity of this construction site that are not related to the construction site are not covered under this site-specific TMP.

Preparation of this detailed TMP and proper implementation of measures identified in the approved plan is essential to ensuring the safety of all road users as well as the workers on site. The primary objective of this TMP is to ensure all works performed from, near or on the road are executed in accordance with the TC@WS / AS1742.3 safely and not without a risk assessment deeming the proposed work safe.

While the secondary objective is to balance:

(a) The Safe and convenient movement of traffic with minimal disruption; and

(b) Construction and traffic management costs

(c) In selection of the appropriate traffic control modes, consideration has been given to:
- Minimising the hazards and risks to the community and personnel on site.
- Minimising interaction between the community and personnel on site.
- Minimising the opportunity of vehicular and plant collision.
- Optimizing traffic flow entering and exiting the site without impeding the general public.

Risk Management

Risk management on this construction site entails the identification and analysis of all safety risks likely to arise during works on around the road including the setting up, operating, changing and ultimate dismantling of a traffic guidance scheme, followed by the determination of appropriate measures to mitigate those risks.

The process is appropriate at all levels of planning and operation including the following:

(a) When preparing the required site-specific traffic guidance schemes or Traffic Control Plans and safe work method statements for the road works.

(b) When preparing traffic guidance schemes for more extensive or complex works where site specific risks will assume importance.

(c) The use of Qualified Traffic Controllers, AS1742.3 approved signage / traffic control devices

In each case the process should be carried out by first identifying all the hazards likely to arise, evaluating them in terms of likelihood of occurrence and adverse consequences using historical data, experience or other means. The proposed procedural statement or traffic guidance scheme should then be checked in detail to ensure that adequate means of controlling or reducing those risks found to be significant, are in place.
Hutchinson Builders and any sub-contractors on site must comply with the relevant legislation, government Approval or authority to work (permits) and provisions in accordance with the following legislation:

- Manual of Uniforms Traffic Control Devices – Part 3 Works on Roads, AS 1742.3
- New South Wales Workplace Health and Safety Act and Regulation 2011.
- Traffic Control at Work Sites V.5 2018. (TC@WS)
- Code of Practice 2008 Manual Tasks – Code of Practice 2000 – Traffic Management for Construction or Maintenance Work.
- RMS Transport Management Centre (TMC *if applicable)*
- Bayside Council.
- Department of Roads and Maritime Services.
- New South Wales Police Force.

Traffic Control Principles

6.1 The purpose of traffic control at roadworks is to clearly communicate to all road users, including pedestrians and cyclists, the path and speed at which they should travel through, past, or around the roadwork site. The TC@WS provides detailed guidance on the most appropriate forms of traffic control for roadwork sites and should be applied as the optimal treatment at most sites.

6.2 The credibility and effectiveness of these TGSs will be reduced when the scheme and its relevance/relation to the roadwork site is not clear. This can lead to situations where drivers disregard traffic control devices, most notably speed limit signs. It is in both the Contractor's and Principal's interest that speed limit choices in the TGS are realistic, and enforceable.

6.3 Roadwork signage must be in accordance with the TGS and installed and maintained to the required standards.

6.4 Reduced speed zones must be kept to minimum lengths. This requires 'END ROADWORK' and speed signs to be in place as close to the end of the works as practicable.

6.5 Reduced speed zones must be adept to minimum durations. This requires speed signs to be changed as soon as they are no longer appropriate.

6.6 If a speed zone is in place for road worker safety, then there must be road workers present.

6.7 A reduced speed zone in place for road safety (as a result of changes to the road environment) must be justified and the danger must be evident or made evident to the road user.

6.8 A reduced speed zone in place to protect works must be justified and the reason must be evident or made evident to the road user.

6.9 Speed zones should be implemented just prior to the commencement of works requiring the speed zone and should be removed immediately following the completion of the works requiring the speed zone.

6.10 All Long Term Signage erected must be covered up on termination of each shift, or removed from the roadway when no longer required.

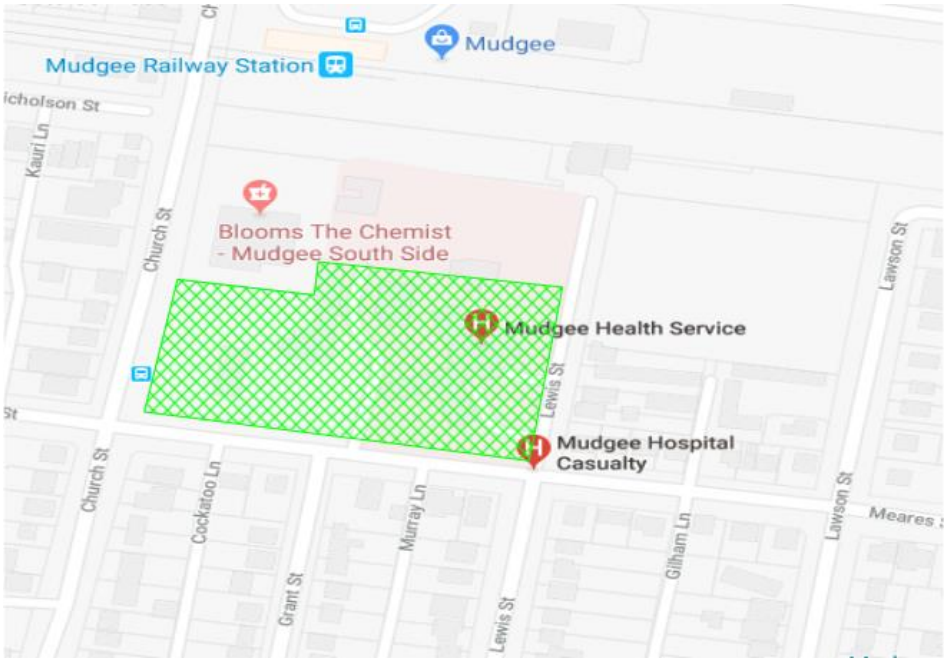
Description of Works

Hutchinson Builders have been awarded a contract to deliver the Mudgee Hospital Re-Development Project for the Australian and International community residing in Regional NSW.

Hutchinson Builders will deliver The Mudgee Hospital Re-Development and will incorporate an entirely new three storey (including plant) acure clinical services building that will provide: medical, surgical, emergency, palliative care, rehabilitation, mental health, paediatric services, and birthing suites. Further to the main building, the development also includes 127 carparks, the demolition of three buildings (including the original hospital building), and associated landscaping and infrastructure.

Location of works

Meares, Lewis and Church St Mudgee NSW 2850. (See also pages 27-35)



Delivery of Plant and Machinery

Initial Pre –Demolition deliveries of plant and equipment will Ingress and Egress from Lewis St by turning left from Meares St and enter the sites work zone that will be managed by authorized traffic controllers (refer to TCP- KPI 193). To egress successfully from site, trucks will exit the work Zone heading North along Lewis St, and U-turning into the existing cul-de-sac, (during this movement traffic control may temporarily intervene traffic heading north on Lewis St). Before turning right onto Meares St and then turning into Church St.(refer to TCP- KPI 193). Once the construction has commenced all loading and unloading of plant is to be conducted from inside the site.

Delivery of General Goods

During stage 1 and 2, Ingress of deliveries will commence through Meares St, (Gate 2 and 3) vehicles will enter site from both sides of Meares St to enable a safe truck ingress into the work site. (Refer to TCP- KPI 198) On particular days where oversize Vehicles will be required to access site Traffic control will be utilized. Traffic Control will temporarily intervene all other traffic heading East and West on Meares St on Hold and Release once the vehicle has safely entered the work site. (Refer to TCP – KPI 194)

Both Hutchinson Builders and KPI Services (NSW) are also conscious of the moderate traffic volumes in the vicinity of their construction site and and intend to ensure equipment, material loading and unloading are conducted inside the site and do not cause an unnecessary impact on the area. (Refer to TCP- KPI 194)

Special Note:
Dedicated Sub-Contractor off street Parking has been made available for all contractors to use. All access in and out of this carpark is maintained via Lewis St (refer to TCP- KPI 195).

Staging of Works

Mudgee Hospital Re-Development	Start	Finish
Stage 1		
Site Establishment, Bulk Demolition, Minor Earthworks, Excavation	February 2019	December 2019
Stage 2		
Structural Construction. and Interior Fit out, Asphalt works	December 2019	Project Completion
Stage 3		
Site building, External Works including landscaping renovation the exterior frontage	December 2019	Project Completion

12.1 Stage 1

This stage involves the preparation of the site in order to commence construction, including establishing the site compound (staff offices and employee's amenities), delivery of excavation and demolition equipment, and removal of excess top soil for the construction. This site is to be bordered by a 2m temporary fencing covered with Hutchinson Builders / NSW Government Scrims banner

All deliveries will ingress from Meares St, Gate 2 or Gate 3 from both sides of the roadway. And will egress successfully from site from Gate 4 (Church St), trucks may need to cross center line to enable a safe truck egress from the work site. (Refer to TCP- KPI 198) Traffic control may temporarily intervene all other traffic on Hold and Release for all oversize deliveries. (Refer to TCP- KPI 194) during the day to day operations during this stage all site deliveries will be loaded / unloaded inside the site perimeter.

It is anticipated that approximately 25- 50 body trucks (Truck and Dog) will be required per day to remove the excavation spoils until December 2019.

Stage 1 comprises of Demolition, Excavation and Crane / Pump installations, excavations, delivery of materials and concrete pours.

Vehicular traffic management options considered:

Option		Features	Comment
Traffic around the worksite	Sidetrack	Would allow closure of the entire carriageway. Not practical as engineering assessments would be required to determine if ground was suitable to bear traffic. Issues include presence of overhead electrical and lighting.	Not Applicable
	Detour	Would allow closure of the entire carriageway. Not required	Not Applicable
Traffic through the worksite		The works are largely removed from the travel path in an area which is inaccessible to vehicles.	Not Applicable
Traffic past the worksite	Shoulder	No additional roadside parking is required for this stage of works, general traffic or vehicles awaiting to enter site may utilize the Kerb side parking lane	Occasional
	Lane	As active works are carried out on the Eastern side of Meares St roadway, this is the natural path of traffic. If necessary clearance to workers can be maintained through partial lane closure.	Occasional

Pedestrian traffic management options considered:

- Pedestrian access is briefly impacted by these works when trucks are entering or exiting site and a Footpath closure will be activated for pedestrian safety. This will entail pedestrians temporarily waiting until the vehicle has successfully crossed into the site boundary before being permitted to continue. (refer to TCP – KPI 154)

Option		Features	Comment
Traffic around the worksite	Sidetrack	Would allow closure of the entire footpath. Not practicable as works are long term in nature and poses inconvenience for pedestrians.	Not Applicable
	Detour	Would allow closure of the entire footpath. Practicable as alternative footpath exists on Southern side of Meares St.	Occasional
Traffic through the worksite		The works at times may impact on the footpath. Traffic control will be on site to escort pedestrians through work area.	Not Applicable
Traffic past the worksite	Shoulder	Pedestrians will be controlled with boom gates or have a choice to use the pedestrian crossings provided at each end of the work site which directs pedestrians to the opposite side of road	Not Applicable
	Intermittent stoppages	Pedestrians will be controlled by intermittent stoppages while Construction Vehicles Ingress / Egress site. Pedestrians are to be escorted past works if required, trucks entering / exiting signage will be installed at each entrance driveway into site	Preferred

- Property access options considered
- No property access is impacted by these works.

12.2 Stage 2

All deliveries will enter and egress either from Meares St Gate 2 or gate 3 from both sides of the roadway. To egress successfully from site, trucks will leave site via Gate 4, during this time vehicles entering or exiting will not need to cross center to enable a safe truck egress from the work site. (Refer to TCP- KPI 198) Traffic control will temporarily intervene all other traffic on Hold and Release for large or oversize deliveries. (Refer to TCP- KPI 194) during this stage all deliveries will be loaded / unloaded inside the site perimeter

It is anticipated that approximately 30- 70 various sized trucks will be required to deliver and remove building material the Construction spoils until Completion.

To comprise of installing Structural Construction, Interior fit out, Asphalt works, delivery of materials and concrete pours.

Vehicular traffic management options considered:

Option		Features	Comment
Traffic around the worksite	Sidetrack	Would allow closure of the entire carriageway. Not practical as engineering assessments would be required to determine if ground was suitable to bear traffic. Issues include presence of overhead electrical and vegetation.	Not Applicable
	Detour	Would allow closure of the entire carriageway. Not required for these works.	Not Applicable
Traffic through the worksite		The works are largely removed from the travel path in an area which is inaccessible to vehicles.	Not Applicable
Traffic past the worksite	Hold and Release	As active works are not carried out on the roadway, intermittent stoppages will be required for Ingress / Egress for oversize deliveries	Occasionally
	Lane	Additional workspace or safety zone required to maintain clearance to excavations requiring traffic control.	Not Applicable

Pedestrian traffic management options considered:

- Pedestrian access is briefly impacted by these works when trucks are entering or exiting site, a Pedestrian Management plan will be in place at all times during the construction to insure Pedestrian Safety when around site access gates, (refer to TCP – KPI 197)

Option		Features	Comment
Traffic around the worksite	Sidetrack	Would allow closure of the entire footpath. Not practical as works are short term in nature and no suitable surface is available.	Not Applicable
	Detour	Would allow closure of the entire footpath. Not workable as no alternative footpath exists.	Not Applicable
Traffic through the worksite		The works at times may impact on the footpath. Traffic control will be on site to escort pedestrians through work area.	Not Applicable
Traffic past the worksite Traffic around the worksite	Intermittent stoppages	Pedestrians will be controlled by intermittent stoppages while Construction Vehicles Ingress / Egress site. Pedestrians are to be escorted past works if required	Preferable
	Sidetrack	Would allow closure of the entire footpath. Not practical as works are long term in nature	Not Applicable

- Property access options considered
- No property access is impacted by these works

12.3 Stage 3

External Works including landscaping and demobilizing site buildings including landscaping, renovation the exterior frontage of Meares St, Church St and Lewis St, Mudgee.

Option		Features	Comment
Traffic around the worksite	Sidetrack	Would allow closure of the entire carriageway. Not practical as engineering assessments would be required to determine if ground was suitable to bear traffic. Issues include presence of overhead electrical and lighting.	Not Applicable
	Detour	Would allow closure of the entire carriageway.	By Council Approval on selected dates.
Traffic through the worksite		The works are largely removed from the travel path in an area which is inaccessible to vehicles.	Not Applicable
Traffic past the worksite	Shoulder	Kerb-side Parking Lane Closure. External works including landscaping renovations including exterior frontage of Meares St, Church St, Lewis St, where applicable works will be carried out internally from the site.	Preferred
	Lane	Additional workspace or safety zone required to maintain clearance to excavations requiring traffic control.	Occasionally

Pedestrian traffic management options considered:

- Pedestrian access is briefly impacted by these works when trucks are entering or exiting site and the boom are activated for pedestrian safety.

Option		Features	Comment
Traffic around the worksite	Sidetrack	Would allow closure of the entire footpath. Not practical as works are short term in nature and no suitable surface is available.	Not Applicable
	Detour	Would allow closure of the entire footpath. Pedestrians would be required to divert and follow detour. To insure pedestrian safety, Possible as alternative footpath exists.	Preferred
Traffic through the worksite		It is anticipated that the work area may cross the travelled path on Meares St. Pedestrian movements would be maintained via Traffic Controller Escort. All works to be temporally stopped during escort operations	Occasional
Traffic past the worksite	Shoulder	Pedestrians will be managed by a Shoulder Closure along the site boundary on Pedestrians	Occasional

		will be required to divert onto the parking lane while works are undertaken	
	Lane	Pedestrians directed into the traffic lane. Traffic not controlled and suitable separation not possible	Not Applicable

- Property access options considered
- No property access is impacted by these works.

12.4 Meares St, Mudgee

Meares St, Mudgee is currently a Council owned and maintained roadway, the Roadway is currently configured as one lane 2 way undivided road with a parking lane either side of the roadway, Meares St is deemed a low - moderately used roadway with a ADT of less than 1500 vehicles per day. In the instance of conflicting roadwork or civil works that interfere with the Mudgee Hospital Re-Development Project, All parties are required to discuss work scopes, site safety and hazards, and to mitigate a solution to minimize disruption to both developments once an agreement has been made, Permit applications will be applied to the relevant Government Departments for work approvals. Traffic will be permitted to enter Gate 2 and 3 fom both directions on Meares St.

12.5 Worksite Hours

Works to be undertaken in accordance with approved working hours. There are no night works envisaged.

12.6 Rubbish collection

There are no bin collection services within the site location.
All waste will be removed by Private waste collection Contractors

12.7 Road Ownership Restrictions

The Mid- Western Regional Council is the local government authority that has jurisdiction over the inner portion of the metropolitan area of Mudgee , Church St, Meares St and Lewis St is an Council owned roadway.

12.8 Bus Services

There are bus stops located within the work site frontage. No impact or delays of bus services are expected.

12.9 Train Services

Mudgee Train Station is Located in the close vicinity of the site. Any works that compromise the structural integrality or impact the Rail line will need to be approved by the Rail owner. Commuters and Rail Personnel will remain unaffected by these works

12.10 Taxi Services

There are no taxi ranks within the vicinity of these works.

12.11 Specific Community Groups/Places of Worship

The Mudgee Sporting Field is located adjacent from the worksite, on street parking along Lewis St will remain unaffected while sporting events are undertaken. Close communication / stakeholder relations are to be provided to the community groups if works impede along Lewis St.

12.12 Hospitals / Emergency Services

No hospitals or Police Stations, or Fire Stations within in the vicinity of these works.

12.13 Schools, Universities in the area

There are no Schools or Universities in the vicinity if these works.

12.14 Local Businesses / Residents

All Local Business and residents are to remain unaffected by these works.

Affected Authorities

The project will be conducted at Meares St Mudgee. Traffic impacts are not expected to affect any other authority's area of responsibility. In addition, if the site requires a Council Permit for any works outside the initial Scope an allowance of 21 days prior will be required to allow the authorizing government department to allow resulting short-term or long-term changes in traffic conditions. This notification is required for each different traffic arrangement for each stage of the project.

Roles and Responsibilities

14.1 The Project Director

Has the primary duty under the Act to ensure, as far as reasonably practicable, that workers and other persons are not exposed to health and safety risks arising from the business or undertaking.
Planning and Defining Scope, Activity Planning and Sequencing, Resource Planning, Developing Schedules, Time Estimating, Cost Estimating and developing a budget.

The Project Director will liaise with the contracted traffic company to monitor and review the traffic management plan. This is likely to be in consultation with the nominated traffic officer. The project manager will ensure the TMP is accordance with the Australian standard or the TC@WS, contract specifications and authority stipulations.

14.1.2 Traffic Management Consultant

KPI Services (NSW) Pty Ltd is responsible for the following documentation:
Traffic Management Plan: Design of an effective and compliant traffic management plan that outlines how the works are integrated into the operation of the road network, identifies and considers all foreseeable risks, and assesses the impact on all road users. Preparation of this traffic management plan requires a procedure to be followed whereby all essential aspects of the plan are considered in an ordered way.

Additional Traffic Guidance Scheme: Details the traffic control signs, devices and measures to be applied at work sites to warn traffic and guide it through, or past, a work area or temporary hazard. Specific traffic guidance schemes are required for each separate element of the works.

Risk Assessment for TMP and TGS: Entails the identification and analysis of all safety risks likely to arise during works on road including the setting up, operating, changing and ultimate dismantling of a traffic guidance

scheme, followed by the determination of appropriate measures to mitigate those risks. (See Appendix C for KPI Services (NSW) Pty Ltd Risk Assessment)

14.1.3 Road Users

Monday to Fridays' inbound peak periods are predicted to be from 06:30 to 09:00hrs and outbound from 15:00 to 17:30hrs.

- Church St is a key road corridor connects the town over the rail crossing and does attract moderate volumes of traffic. This should be regarded as a hazard and tool boxed to all personnel on site. Construction worker on-street parking is strictly prohibited.
  Hutchinson Builders and KPI Services (NSW) are to be mindful to provide safety in all of the following road users with traffic controllers meeting all regulations when working on or adjacent to major road corridors.
- Heavy Vehicles
- Cyclists
- Pedestrians
- Elderly & Disabled
- Emergency Vehicles.

14.1.4 Traffic Management Company

Hutchinson Builders have elected KPI Services (NSW) Pty Ltd to implement and manage the traffic management component of this project.

To ensure the safety of the worksite, on site workers and the general public. Traffic management is also required to ensure there are no traffic delays resulting from the work site on the road. Conflicting signage is removed or covered up and work in conjunction with existing or already programmed road works.

On site management, shall ensure everyone on site is well aware of any accidents and complaints. Providing only duly accredited traffic controllers that hold a current certificate of competency: RIIWHS205D, RIIWHS302D Ensure that the appropriate traffic control devices are in place on a daily basis prior to the commencement of work; and

Ensure that any Traffic Guidance Schemes have been submitted to the administrator for approval 21 days prior to the implementation and ensuring that the traffic arrangements conform to the approved Traffic Guidance Scheme, as per Council or RMS requirements.

Responsible for completing an on-site documentation and record keeping – risk assessment, SWMS, traffic related incidents and Signage Checklist.

14.5 Site Personnel

All personnel engaged in the field activities will adhere to the correct work practices as required by the TC@WS manual and The Code. The approving authority shall be notified should a situation arise that is not covered by this TMP or the TC@WS. Further consideration for construction staff parking see clause 17. Worker access in and out of site is managed through Gate 1 (Lewis St)

- Construction Personnel of between 70- 320 staff for approximately 18 months.
- Construction worker on-street parking is strictly prohibited.
- Hutchinson Builders encourages workers to utilize park in the dedicated onsite parking compound.

14.6 Site/Traffic Supervisors and Controllers

KPI Services (NSW) will appoint a Site Supervisor/Traffic Supervisor who shall undertake a review of the erected signage to ensure compliance with the approved TGS and shall maintain detailed daily records. This person shall be qualified in RIIWHS302D or equivalent Implement Traffic Management Plans, or Traffic Guidance Scheme record keeping will be undertaken.

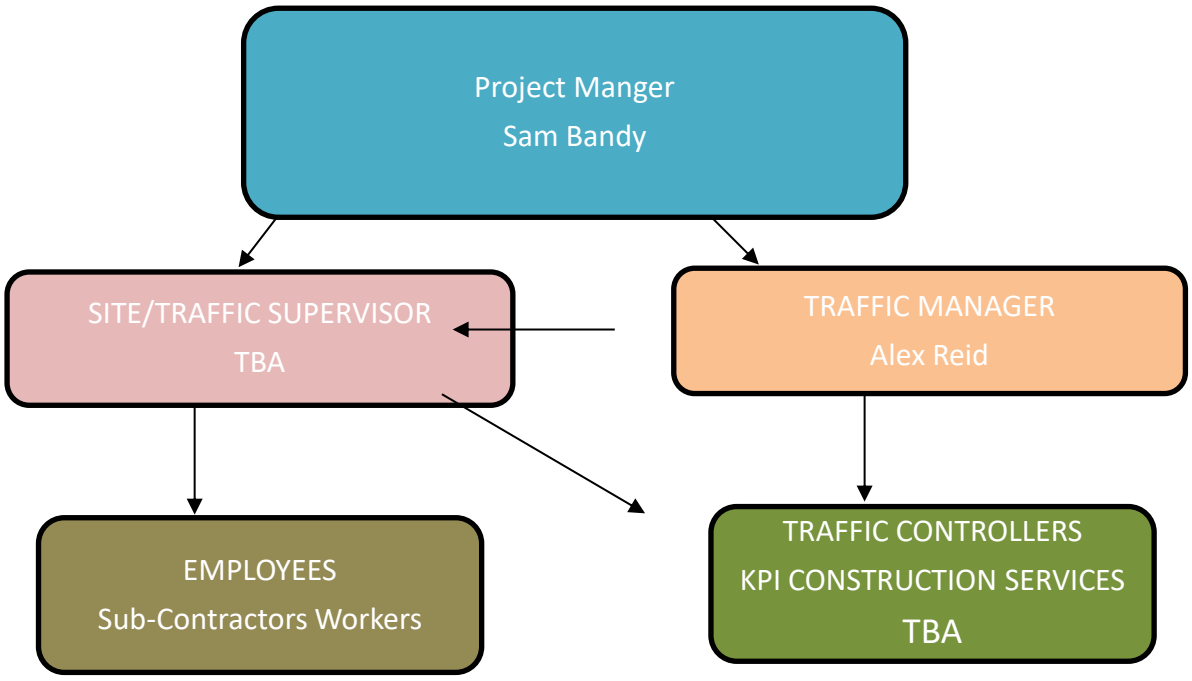
14.7 The Traffic Manager

For the duration of the project the registered traffic management company will be KPI Services (NSW) Pty Ltd. They will be providing Alex Reid as the Traffic Manager for the duration of the project. The traffic Managers details are contained in Appendix B.

14.8 Traffic Control

Hutchinson Builders will engage a registered traffic control company to undertake any traffic control duties. Registration details of KPI Services (NSW) Pty Ltd are contained in Appendix A.

Project Hierarchy



15 Incident or Accident Procedures

Emergency Services are ultimately responsible for the control and management of responses to all incidents that occur on the road network. Notwithstanding. The Project recognizes the importance of cooperation between all agencies involved in the road occupation to clear incidents quickly.

15.1 Accidents or Incidents

In the event of an incident or accident, including immediately adjacent to or passing through the road occupation, the Site Supervisor will inform NSW Police, TMC and the local authorities and the Traffic Manager of the event. Where possible, the TGS will be removed from the road. The Project commits the available traffic guidance resources to assist the respective agencies in the speedy clearance of the incident. 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. Any traffic crash resulting in non-life-threatening injury shall immediately be reported to the NSW Police Service.

15.2 Delays in Queuing

In the unlikely event of delays exceeding 5 minutes on Meares St or 10 minutes at all other locations or excessive queuing in greater than 100m of length, the Site Supervisor will remove the traffic impingement until traffic has returned to acceptable levels. The Site Supervisor will also notify the Traffic Management Centre if required. Traffic Controllers are to monitor congestion at all times when performing Hold & Release, Hold & Release shall be kept to a minimum during high traffic volumes. Hutchinson Constructions should be mindful when scheduling the type of deliveries at specific times will be effective and minimize the impact to the public.

15.3 New South Wales Police Service

NSW Police Service enforces any speed restrictions approved by TMC or Council and have the authority to control the traffic flow on site. Therefore, a ROL or Council permit is required and must be available on site to present to any officers requesting to sight the permit. ROL Submissions should be made by a registered traffic management consultant or provider.

15.4 Remedies

All non-conformances will be remedied within two hours of receipt of a written notice of the non-conformance.

15.5 Damage to Services

In the event that services are damaged, all work shall cease immediately, machinery and vehicles stopped 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 relevant road authority 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.

Workplace Health and Safety

Hutchinson Builders, employers and personas in control of workplaces have a statutory duty of care to provide a safe workplace for all personnel working at the site, accessing the site or impacted by the construction activity including employees, contractors, sub-contractors, visitors to the site and the general public.

This TMP forms part of the overall project Construction Traffic Management Plan (CTMP) and provides details on how all road users (considered likely to travel through, past or around the worksite and those impacted by the works) will be safely and efficiently managed for the full duration of the site occupancy and works.

16.1 Safe Work Method Statement

Prior to the commencement of this activity, KPI Services (NSW) will compile a Safe Work Method Statement (SWMS) for this project. KPI Services (NSW) traffic management practices require that the Traffic Controller's evaluate all traffic arrangements before they are open to traffic, immediately following the opening to traffic and periodically throughout the activity. Adjustments are recorded in the SWMS, and are documented on the TCP including reasons for the changes and are lodged with the Principal Contractor. New hazards that arise throughout the work will be subject to risk assessment and incorporated into the SWMS.

Works on Roads

The Traffic Guidance Schemes (TGS) for each stage have been designed by KPI Services (NSW) Pty Ltd. The devices shall be inspected periodically throughout the day in accordance with Appendix A of the TC@WS and aftercare considerations will be implemented including the covering or the removal of Workers Symbolic Signs, where they are not necessary. Traffic shall be controlled at all times, during construction, in accordance with the TC@WS

Site Personnel Vehicle Management Plant

17.1 Parking

An average of 50 construction personnel are expected to work on the site per day with peak of 280 for the major stages of construction, lasting approximately 18 months.

KPI Services (NSW) encourages the following to be adhered to

- Construction worker parking onsite.
- The site has made provisions internally for staff and visitor parking.
- Hutchinson Constructions encourages workers to utilize public transport and will lessen the impact the site has on the public.
- Note: A bus station is located on Church St adjacent to the project
- Worker access in and out of site is maintained through gate 1

17.2 Traffic Documentation

Traffic Management and Control documentation will be issued, collected and saved in accordance with Hutchinson Builders quality system. Documents will conform to The Code, TC@WS and Workcover and will consist of at least the following:

17.2.1 Daily Tool Box Minutes/induction notes or diary entries.
17.2.2 Daily sign on of SWMS.
17.2.3 Daily signage checks or Form M994m and
17.2.4 Incident Report forms as required.

17.3 Traffic Control Devices

Traffic control devices and their use shall conform to the requirements of the TC@WS and AS1742.3 and shall also be in compliance with Australian Standards. All traffic control devices shall be securely fixed in the correct position and maintained in an effective and clean condition suitable for day and night operations, whilst employed on the work under the Contract. Devices which are damaged or worn, or which do not conform to the above requirements shall not be used.

17.4 Traffic Controllers

Traffic control shall be undertaken in accordance with the Traffic Controller Accreditation Scheme. Approved Traffic Controllers issued by New South Wales Authorized Training Providers (ATO). The Traffic controller shall have a copy of their Qualification certificate available on the Site at all times during which traffic control operations are being undertaken.

Where Traffic Controllers are used to control or to stop and direct traffic, Traffic Controller shall:

17.4.1 Operate in accordance with the TC@WS and The Code
17.4.2 Hold a current Construction Industry White and Traffic Control Blue card
17.4.3 Hold a current Traffic Controller's accreditation in New South Wales
17.4.4 Take appropriate breaks as required by the legislation and The Code
17.4.5 Traffic Controllers will be relieved from duty whilst actively guiding traffic every two hours for at least 15 minutes or undertake a change of Position on the worksite
17.4.6 Traffic controllers, when utilized, shall be in constant communications with the Site Supervisor and Project Directors / Site Foreman via two-way radios.

17.5 Implementing Traffic Guidance Schemes

As detailed by the TC@WS and The Code, all personnel who install or dismantle TGS (Refer to TC@WS Section 3.4 or AS1742.3 CL2.5.3), shall hold a current implement Traffic Control Plan qualification (yellow ticket).

17.5.1 Temporary Signage

All traffic will comply with the AS1742.3 and will be installed.

17.5.2 *Long Term*

Long term signage associated with the TCP will be installed in accordance with TC@WS Section 3.1.3 or AS 1742.3 CL 1.4.15 and 1.4.5

Long term signage that is unable to be installed in accordance with the above clause, due to site restraints, will be mounted 200mm high from the shoulder surface to the bottom edge of the sign and installed within the signage described on the TCP. These signs are to be uncovered during worksite hours and covered up when not required

17.5.3 *Short Term*

Mountings for short-term operations should be arranged so that the signs are prominently displayed to traffic and will command attention. The sign should be mounted so that it is clear of the ground and free of obstruction. The minimum height from the shoulder surface to the bottom edge of the sign is 200mm.

17.5.4 *Personnel Symbolic Signs*

Personnel symbolic signs (workman and Flagman Symbolic) shall be removed or covered when those specific personnel are not visible to road users.

17.5.5 Speeds

No temporary speed reduction will be applicable to these works. If an unforeseen event occurs that requires a speed reduction for the site a Speed Zone Authorization (SZA) will be obtained from RMS TMC or Local Council.

17.5.6 Prohibition Notice

The principal is subject to a Prohibition Notice which restricts personnel from crossing high speed multilane divided roads with posted speed limit of 100kph or greater. The Contractor is to conform to the requirements of this Prohibition Notice and at all times refrain from crossing these roads without the use of lane closures or speed reduction.

17.5.7 Acceptable Traffic Impacts L.O.S.

This is not a RMS road therefore an Acceptance Traffic Impact L.O.S. is not required.

17.5.8 Traffic Lane Availability and Configuration

Traffic Patterns are Monday to Friday inbound peak periods predicted are 06:00-09:00am along Church St and outbound from 15:00-1630hrs.

Road Lane	**Configuration**	
Meares St	Single Lane Each way, Parking lanes both sides of roadway	50km/h regulatory speed
Church St	Single lane each way, Parking lanes both sides or roadway	50km/h regulatory speed
Lewis St	Single lane each way, Parking lanes both sides or roadway	50km/h regulatory speed

17.5.9 Changed Road Configuration

No Changed Road Configurations form apart of this TMP.

17.5.10 Times of Operations

Construction hours are from 06:30hrs – 18:30hrs as per Development Application.

17.5.11 Speed Choices

The regulatory speed on all adjacent Streets is 50km/h and shall be.

17.5.12 Provision for Police Control

It is not envisioned that Police assistance will be utilized.

17.5.13 Barriers

It is not envisaged that safety barrier systems will be required.

17.5.14 Anti- Gawking Screens

Anti-Gawking Screens will not be applicable on this work site

17.5.15 Protection and Delineation at Excavations

Hutchinson Builders will undertake a protection and delineation risk assessment during the commencement of any excavation works, and will install and dismantle protection screens when required under the Construction Management Plan

17.5.16 Detours

It is not envisaged that Detours will be required on this project

17.5.17 Side Tracks

It is not envisaged that side tracks will be required on this project.

Other Works in the Area

18 Adjacent Works

There is no evidence of adjacent works or building constructions that will cause confliction with this project.

Community

19.1 Public Consultation

Hutchinson Builders will inform all affected residence and businesses of any planned traffic impacts as require. This will be undertaken by letter box drop delivered by a KPI Representative by individual door knocks or mail drop.

19.2 Complaints

Hutchinson Builders shall keep a register of all complaints received and actions taken to address each complaint. The complaints register shall be forwarded to the Administrator on a weekly basis. Hutchinson Builders shall similarly keep a register of requests for information from the public. This public information request register shall also be forwarded to the Administrator on a weekly basis.

19.3 Variable Message Signs

It is envisioned that variable message signs will be required in two (2) weeks in advance of any scheduled road closure or long term roadwork Traffic Changes. When used they shall be compliant with AS 4852.2-2009, positioned and programmed such that they do not create a distraction to drivers, do not obstruct line of sight and only display information that is relevant to current or forthcoming conditions.

19.4 Pedestrian and Bicycle and Access

Pedestrian and bicycle traffic will be managed in accordance with the TC@WS. At all times pedestrians shall be separated from excavation throughout this project.

19.5 Entry into Private Properties

It is not envisaged that entry into private properties will be required on this project.

19.6 Public Transport

Public transport routes will not be affected.

19.7 Emergency Vehicle Access

Emergency vehicles will have continuous access throughout the duration of the project.

19.8 Night Works

No night works are scheduled for this project.

19.9 Dates

Start Date: February 2019
Project Completion: (approx. construction time 20 months)

19.10 Times

Monday – Friday	0630 – 1830
Saturday	0630 – 1830
Sunday	N/A

20. Version 4 Amendments

KPI Services (NSW) Pty Ltd has considered the implications for traffic controllers' duties (Refer p23 Clause 17.3.1.) operating within the regulatory requirements of TCAS approved procedures Clause 4.3.17 documentation. After considering all options (including safety and cost effectiveness) and having presented the prevailing circumstances (refer TGS's pages 34-37) of this site and the TC's control stations with the existing permanent signage to TMR Engineers and having the circumstance supported by a Risk Assessment it has been decided to continue the present station location and method of traffic control including with the new permanent signage design on P38 Appendix C.

21. Standards, Rules & Policies Community

KPI Services (NSW) Pty Ltd has strong emphasis on zero harm and its working relationship with its client and strives to achieve this through communication, certification and relevant documentation

POSITION	NAME	Email	CONTACT
Construction Manager	Corey Weston	Corey.weston@hutchinsonbuilders.com.au	0437588203
Project Manager	Sam Bandy	Sam.bandy@hutchinsonbuilders.com.au	0408115760
OHS Safety Rep.	Paul Schuster	paul.shuster@hutchinsonbuilders.com.au	0408069033
Community Relations Officer	Sam Bandy	Sam.bandy@hutchinsonbuilders.com.au	0408115760
Environment Officer	Paul Schuster	paul.shuster@hutchinsonbuilders.com.au	0408069033
Site Supervisor	Nick Maher	Nick.maher@hutchinsonbuilders.com.au	0466451310
Community Liaisons Officer	Sam Bandy	Sam.bandy@hutchinsonbuilders.com.au	0408115760

Traffic Management – KPI Services (NSW) Pty Ltd
After Hours Contact / 24 HR emergencies 0491 278 904
NSW Operations Manager: Alex Reid 0491 278 904
Site Traffic Supervisor: TBA
Traffic Management Design: Alex Reid Orange Ticket 0043630869

Traffic Management – Hutchinson Builders.
Hutchinson Builders (Toowoomba Office) – Sam Bandy 0408 115 760

Appendix A:

Tuan Tran
Tel (02) 9482 6587
SF2017/091427

Transport Roads & Maritime Services

KPI Services Pty Ltd
22/74 Thomsons Road
Keilor Park VIC 3042

Attn: Angela Jarvis
Financial Controller
Tel: (03) 9326 7795
Mob: 0433 699 324
Fax: (03) 9326 5778
Email: finance@kpiconstruction.com.au

REGISTRATION OF CONTRACTORS

Dear Madam,

I refer to your application for category G under the RMS Registration Scheme.

After the assessment, I would like to advise that your company has been registered for:

Category G Provision of Traffic Control

The registration is valid for 3 years from the date of this letter and it will expire on 14 May 2020.

Yours faithfully,

Shalendra Ranasinghe
General Manager Commercial Services
Technical & Project Services Division
15 May 2017

Roads and Maritime Services
20-44 Ennis Road, Milsons Point NSW 2061| Locked Bag 928 North Sydney NSW 2059 DX10516 | www.rms.nsw.gov.au | 131 782

Appendix B: Traffic Manager Evidence

Experience Summary: Alex Reid.

Alex has over 10 year's experience in Senior Traffic Management roles including Civil works, Major road upgrades, Major Events and large scale Sporting Events, Major Music Concerts and festivals, bridgeworks, highways, railway stations, construction developments including Commercial, residential and new suburb - estate developments and various local council works from Crookwell to Newcastle City Council and from City of Sydney to Lithgow Council. Alex began working with Traffic Management Australia in July 2007, and since then has worked projects like Pitt St mall upgrade Sydney CBD, Leighton Tower, North Sydney. Water and power utility upgrades, NBN contracts, Multi-Story Skyrise Constructions and new estate constructions within Sydney CBD and surrounding Council districts.

Alex is a current member of AITPM (Australian Institute of Traffic Planning and Management) and ARCS (National Australian Road Safety Conference) and has attended multiple Counter Terrorism seminars and Police training days for major events and is well adept at handling all situations where safety and common sense are crucial and his practical knowledge of emergency situations and training of TC@WS requirements make him an asset to KPI Services (NSW) Pty Ltd and our clients.

2007-2009 Various roadwork and Civil projects for Traffic Management Australia

2009 -2013 Various Highway upgrades for Traffic Logistics, Highway Projects managed include Great Western Hwy, Bullaburra West, Great western Hwy Hazelbrook, Great western Hwy Bullaburra East project. Sydney Water emergency patrol.

2009-2013 Joined Vigilant Group as Project and Events Manager, site manager of large scale Special Events and sporting projects, include Music festivals, concerts, marathons and sporting events.

2013- 2015 Joined Roadworx Group as Traffic Operations Manager, delivering Civil and Road projects on behalf of Local council and state Governments, worked closely in delivering multi story constructions inside the CBD and surrounding Suburbs, Train station Upgrades, undertaking roadside Audits and inspections, traffic consulting and reporting, TMP and CTMP development.

2013- 2017 Promoted to Traffic Manager – Events and Roadside Division at Vigilant Group, undertaken all planning and management of major events, including Vivid Sydney, Future Music, Defqon 1, Sydney half and full marathons, City to Surf, Blackmoores running festivals, Tough Mudder, NRL sporting Events, V8 Supercar race days, NYE CBD events.

2017 Joined AITPM and ARSC.

2017-2018 Joined CBD Traffic Control as Traffic Manager, undertaking road planning and consulting, Traffic Data Collections and Analytics, new suburb estate development and approvals, civil construction and skyrise building developments, Railworks (RISI and RIW).

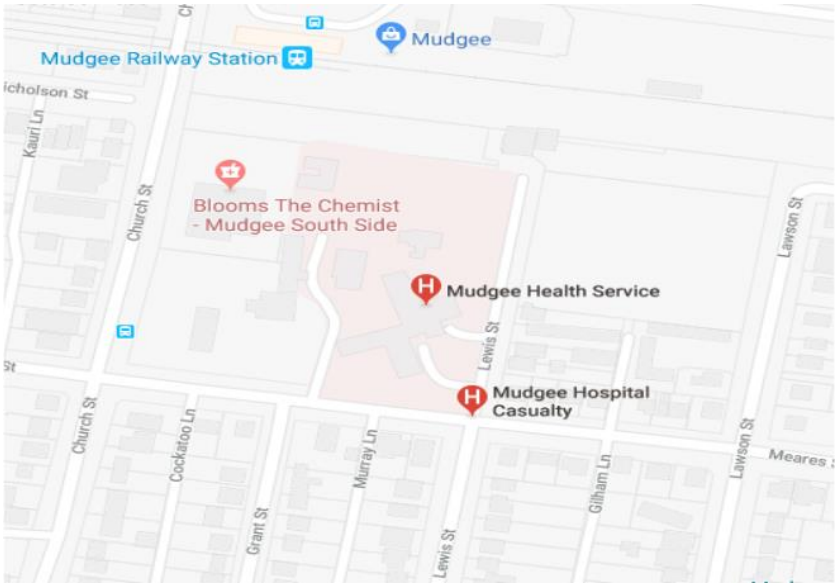
October 2018 KPI Services (NSW) Pty Ltd employed as NSW Operations Manager.

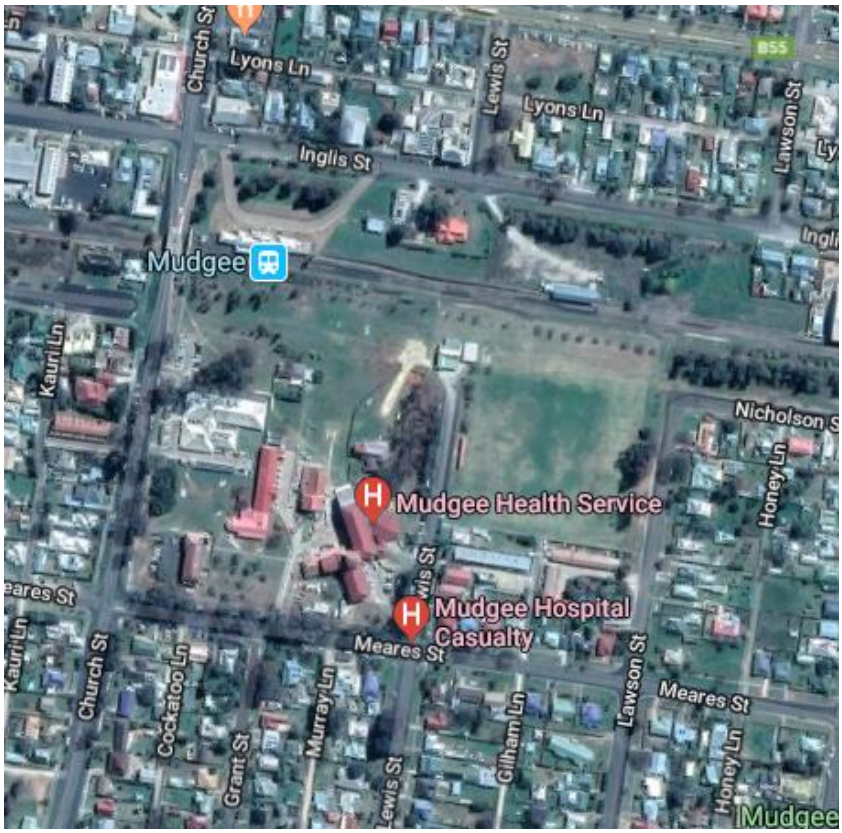
Appendix C: Traffic Guidance Schemes

See P27-38 for Traffic Control Plans / Traffic Guidance Schemes

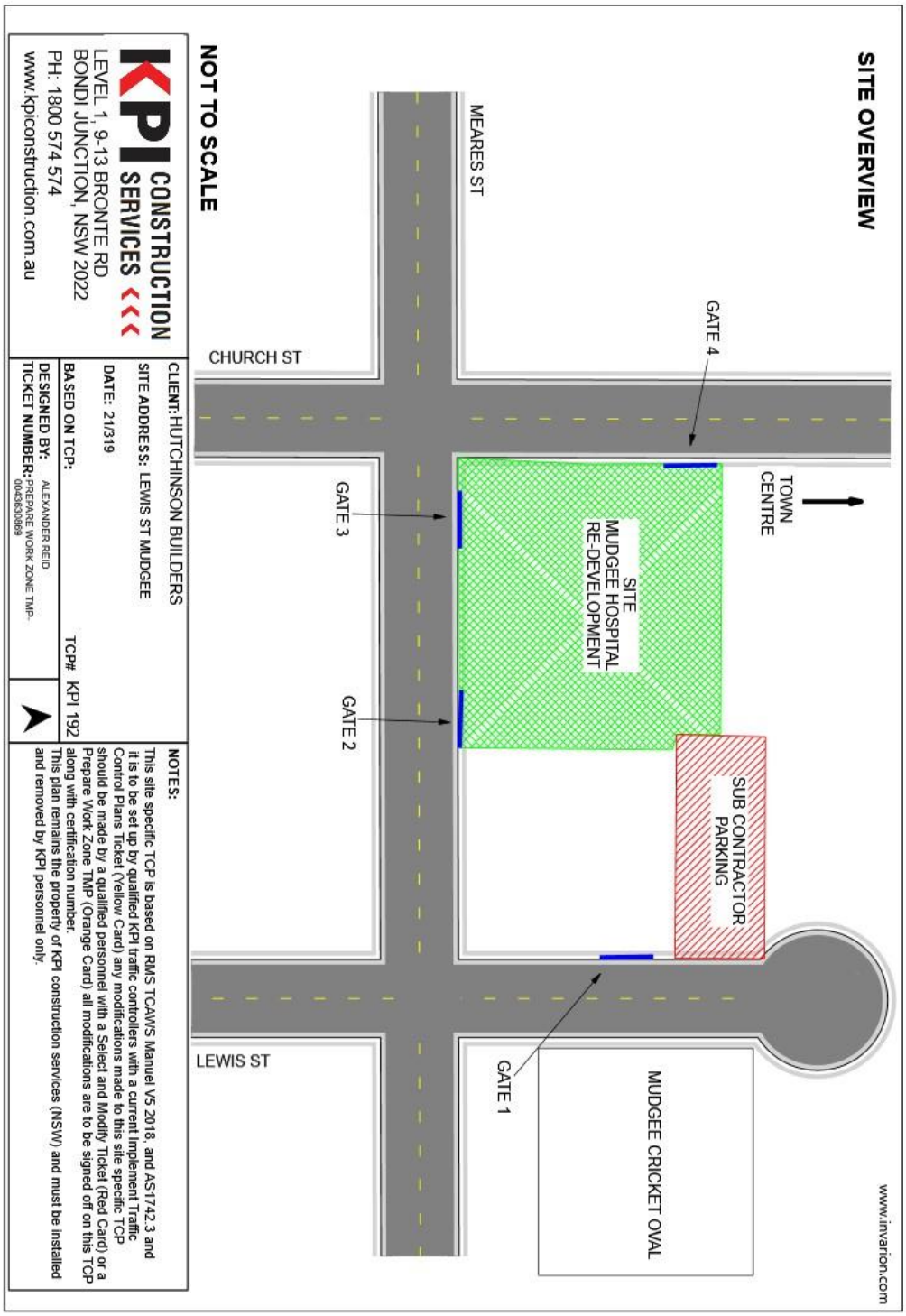
Location of works

Meares St Mudgee





TCP 192 – SITE OVERVIEW



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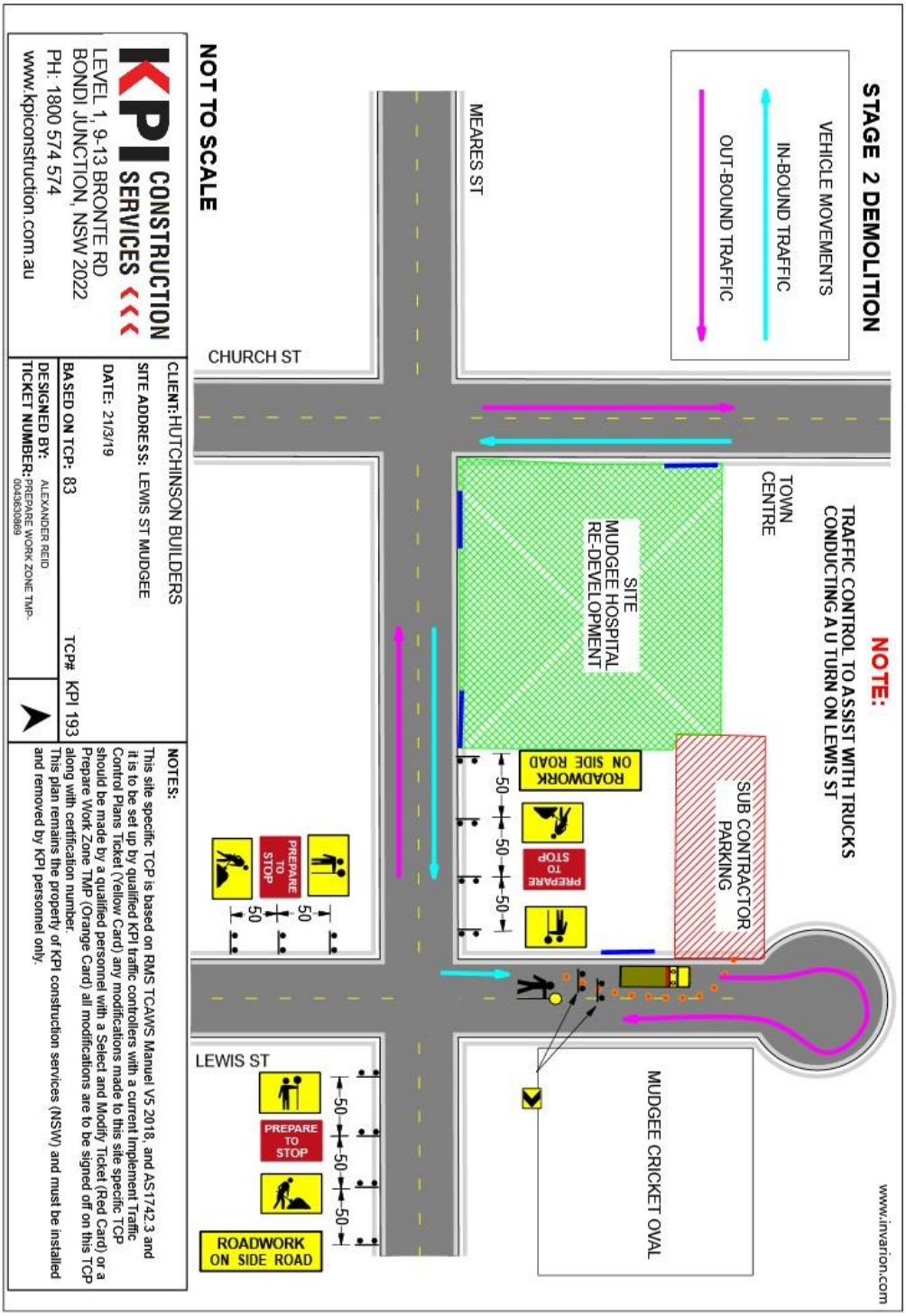
TCP 193 – STAGE 1 (PLANT DELIVERIES)



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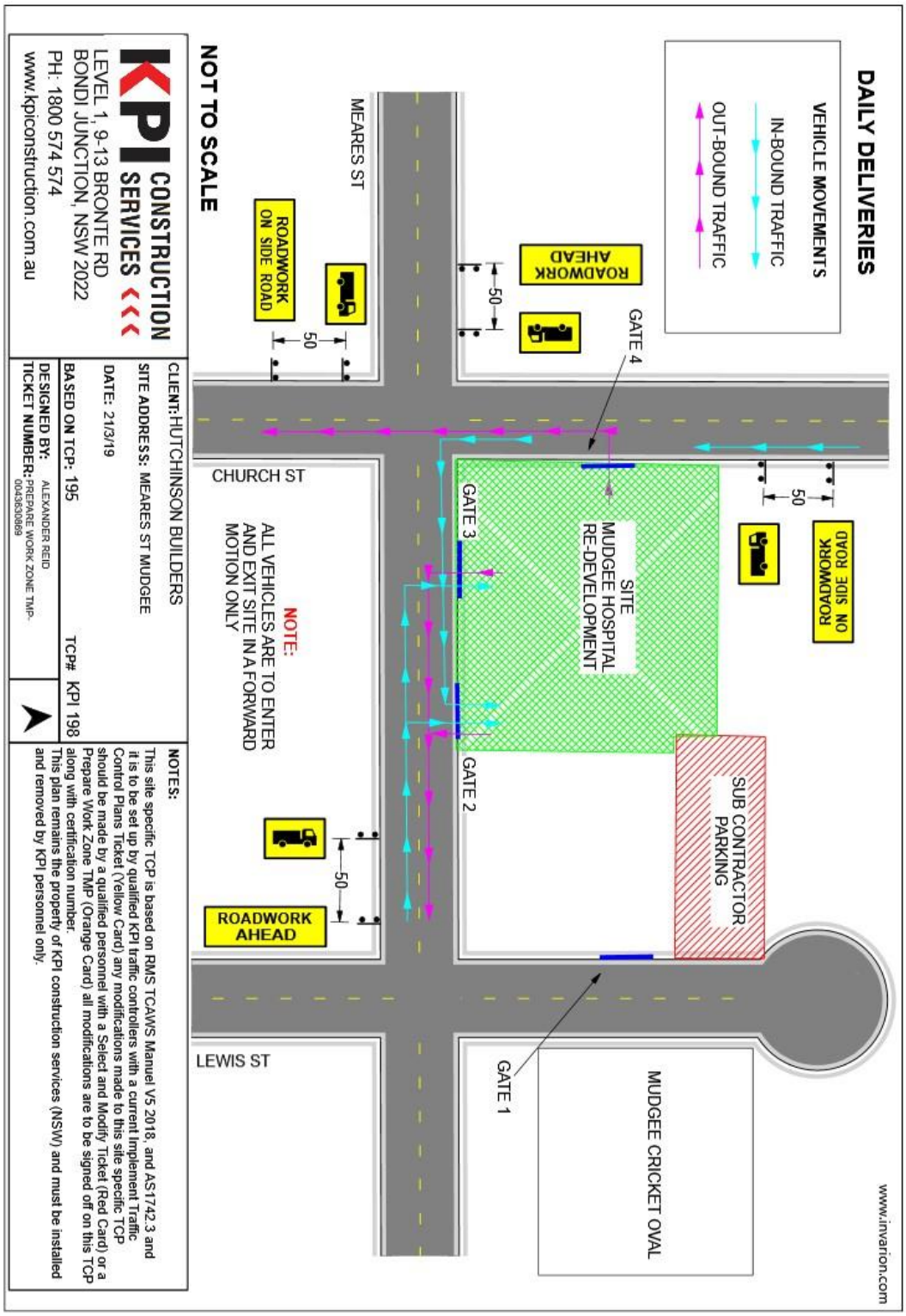
TCP 198 – SITE DAILY DELIVERIES



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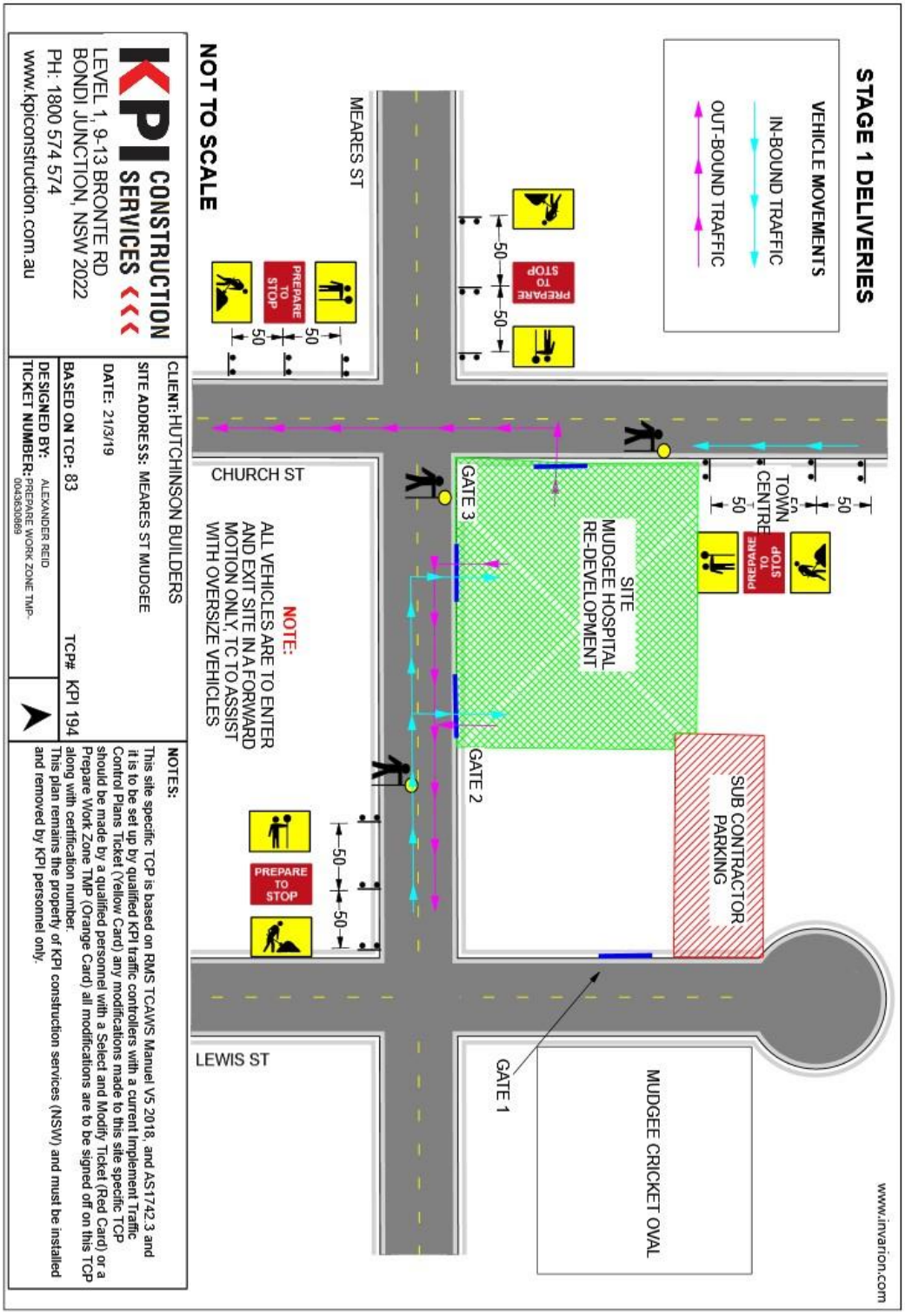
TCP 194 – VEHICLE MOVEMENT PLAN STAGE 2 -3 (OVERSIZE VEHICLES)



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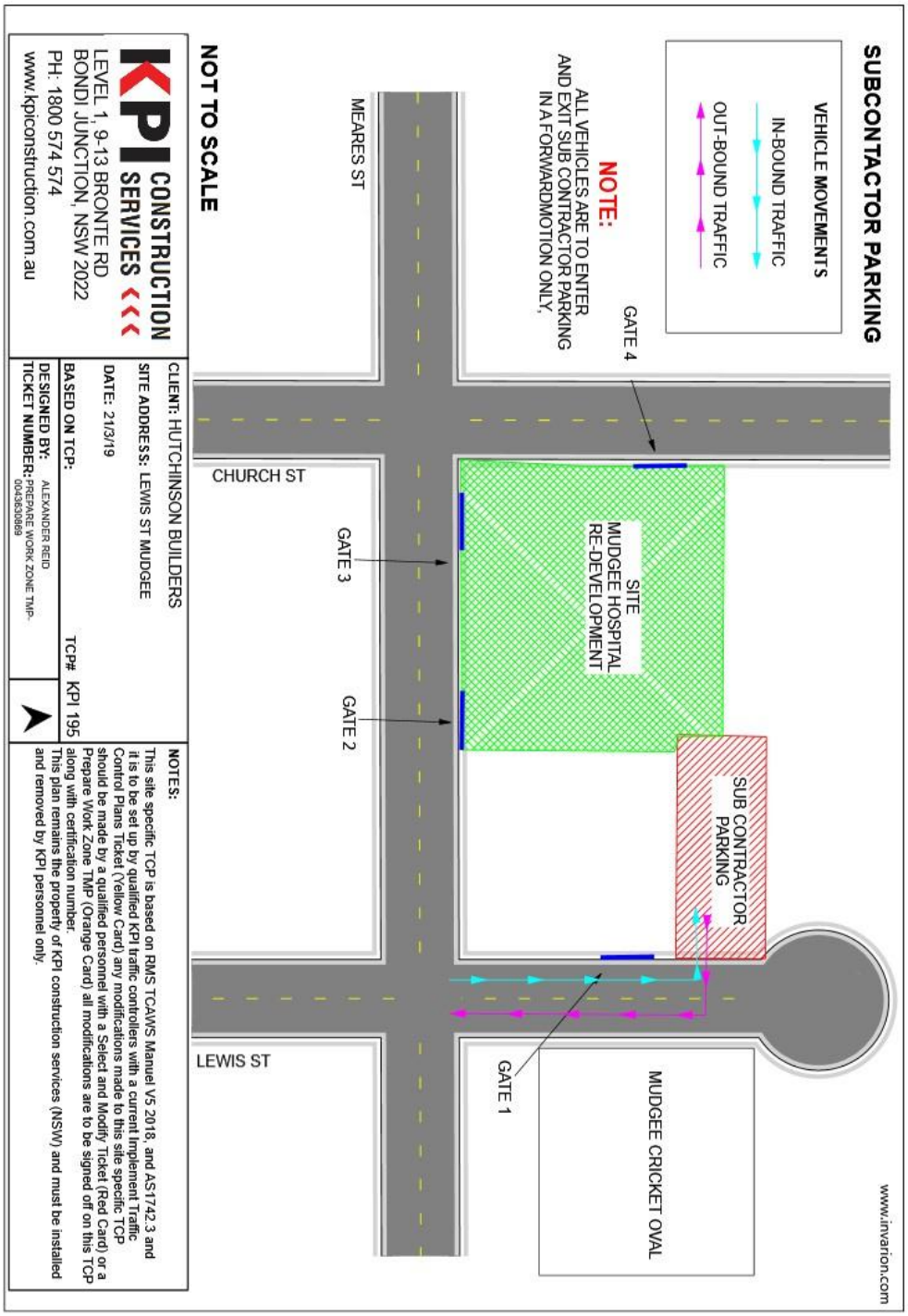
TCP 195 – SUBCONTRACTOR PARKING



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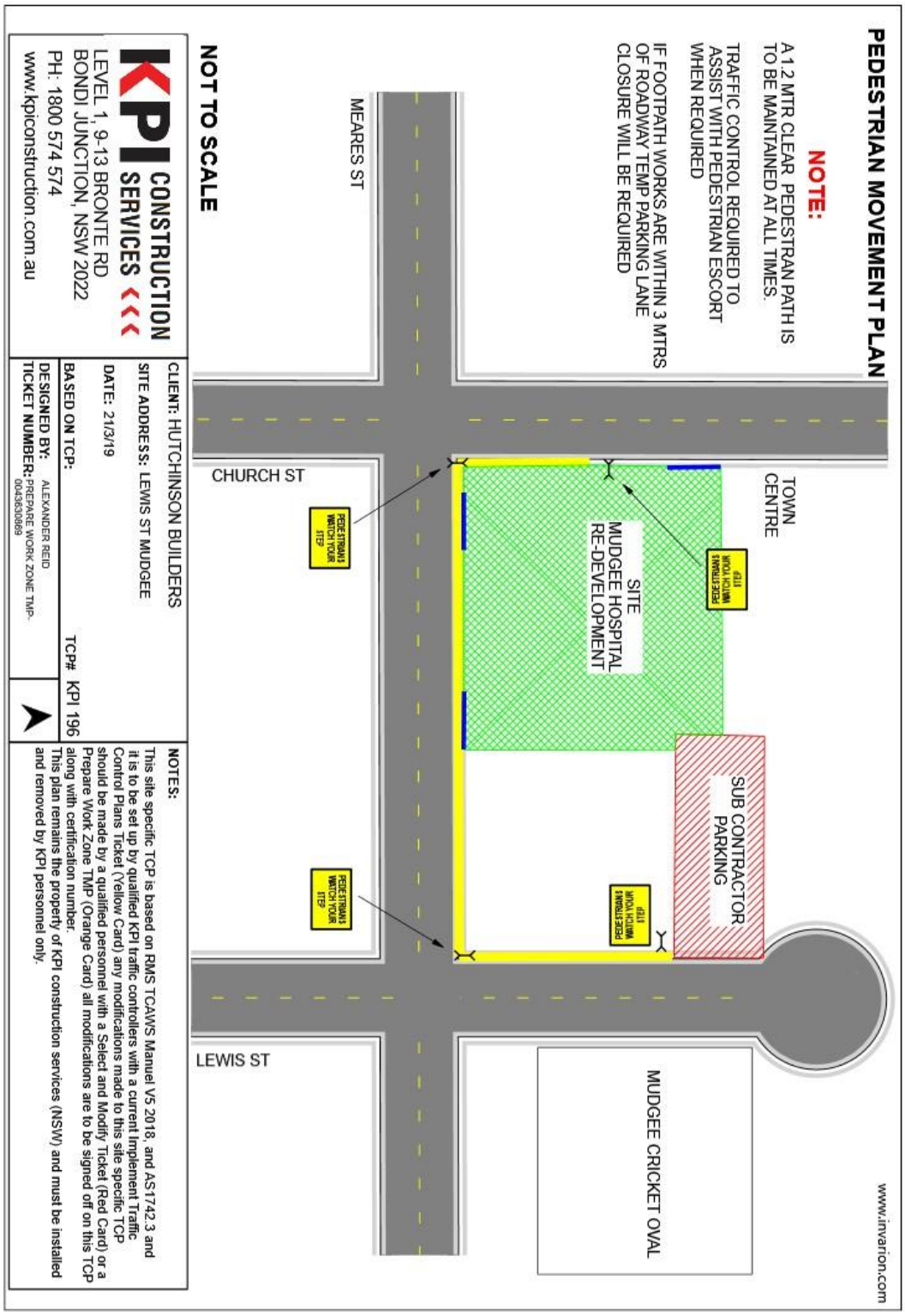
TCP 196 – PEDESTRIAN MOVEMENT PLAN



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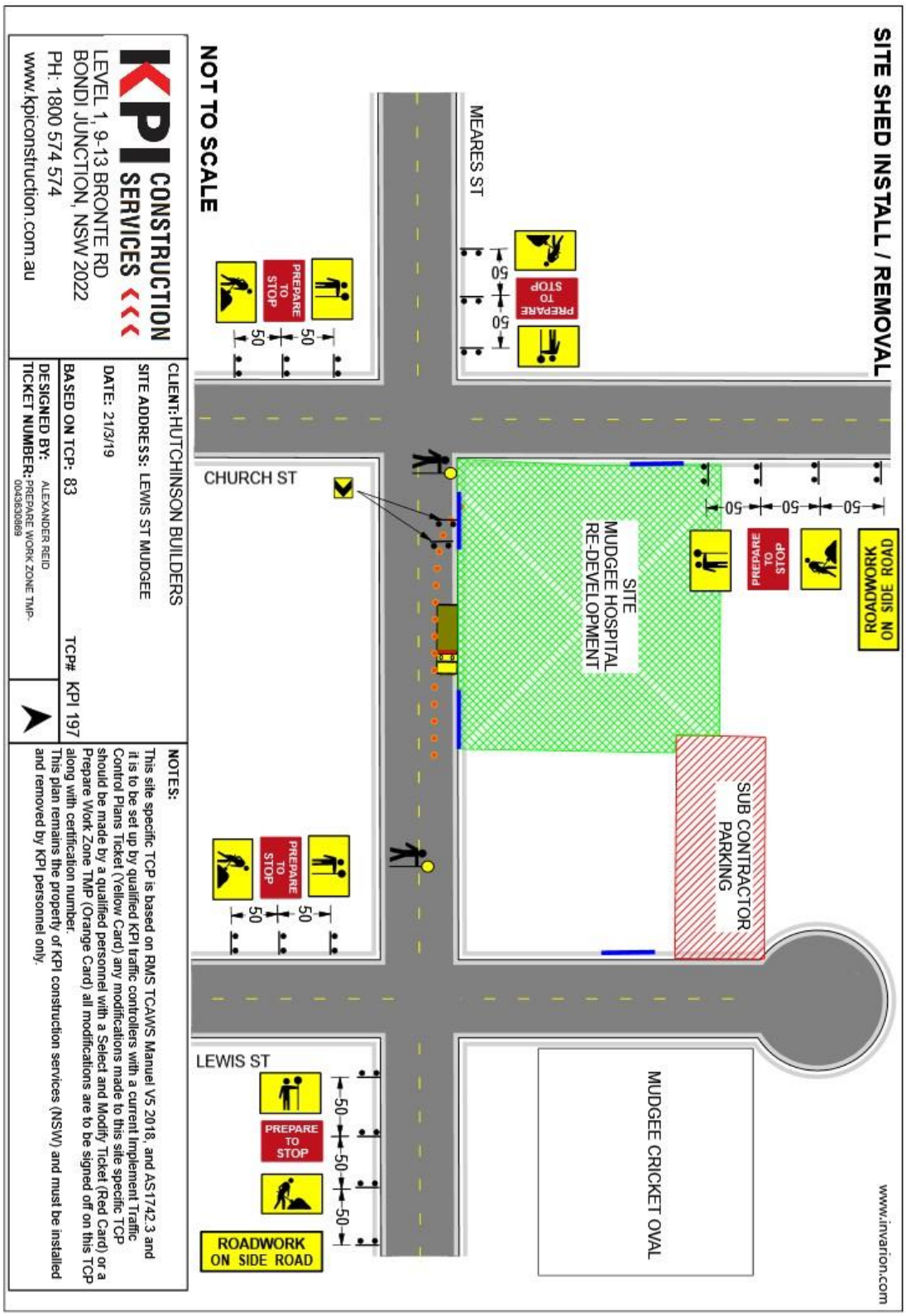
TCP 197 – SITE SHED INSTALLATION / LANDSCAPING WORKS



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INTERNAL SITE ACCESS PLAN