Project Environmental Management Plan (PEMP)

North Sydney Public School
Bay Road North Sydney NSW 2060

E-PLAN-03 (October 2021) | Approved by Andrew Andreou
Uncontrolled copy once printed.

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Contents

1. Introduction

1.1 Project Information Table

Project information table		
Project name	North Sydney Public School	
Location	Bay Road North Sydney NSW 2060	
Client	NSW Government Education School Infrastructure	
Duration of contract	12 Months	
Taylor contacts information		
Company name	Taylor Construction Group Pty Ltd	
ABN	25 067 428 344	
Address	Level 13, 157 Walker Street, North Sydney 2060	
Telephone and fax	Ph.: 02 8736 9000 Fax: 02 8736 9090	
Position	**Contact name**	**Phone numbers**
Chief Executive Officer	George Bardas	
General Manager – Refurbishment & Live Environment	Ben Folkard	
Operations Manager	Chris Bellemore	
Project Director	Dean Fondas	
Senior Project Manager	Michael Ettrick	
Site Manager	Andy Payne	0425 314 680
The Head Of WHS&E	Andrew Andreou	
Quality & Compliance Manager	Stephen Player	
Contract Administrator	Daniel Wood	
Graduate Site Engineer	Tom Udovic	
Cadet	Sian Thomas	
CADET	EVAN PISOROUS	

Document control	Name	Position	Signature	Date
Prepared by	Michael Ettrick	Project Manager		**18/01/22**
Prepared by	Andy Payne	Site Manager		24/1/22
Reviewed by:	Andrew Andreou	Head of WHS&E		08/02/2022
Reviewed by:	Chris Bellemore	Operations Manager		08/02/2022
Reviewed by:	Ben Folkard	General Manager	Ben Folkard	04/02/2022

Revised by:	Revision #	Date	Changes made
ME	**#02**	**15/3/22**	**Evan Bicopolous New Starter**

1.2 Project Description

Proposed works to be undertaken within the grounds of existing North Sydney Public School as defined under the contract include as follows:

- Site Establishment incl. perimeter hoardings, removal of heritage wall, establishment of loading zone and tower crane
- Demolition incl. removal of hazardous materials
- Excavation and Ground Works incl. in ground services, piling, footings
- Suspended Concrete Slabs
- Structural Steel and Roofing
- Façade & Windows
- Fitout
- External Works
- Testing & Commissioning

1.3 Purpose of the Project Environmental Management Plan

Taylor Construction Group Pty Ltd has a documented Quality, Health, Safety and Environmental (QSE) Management System. While the management systems are integrated, key documents such as the Project Environmental Management Plan (PEMP), the Project Safety Plan (WHSP) and the Project Management Plan (PMP, overarching plan with Quality provisions) are developed as separate documents to give each area a strong individual focus. The 'hierarchy of system documents' diagram below provides an overview of where the PEMP fits in the management system hierarchy.

This document is a key component of the integrated QSE Management System and sets out the environmental management strategy to be adopted on site by Taylor Construction Group Pty Ltd as the principal contractor for works undertaken on this project. The purpose of this document is to provide guidance on the essential environmental requirements on a project level and reference to other important management system processes and procedures. A Project Environmental Management Plan must be prepared for each project managed by Taylor Construction Group.

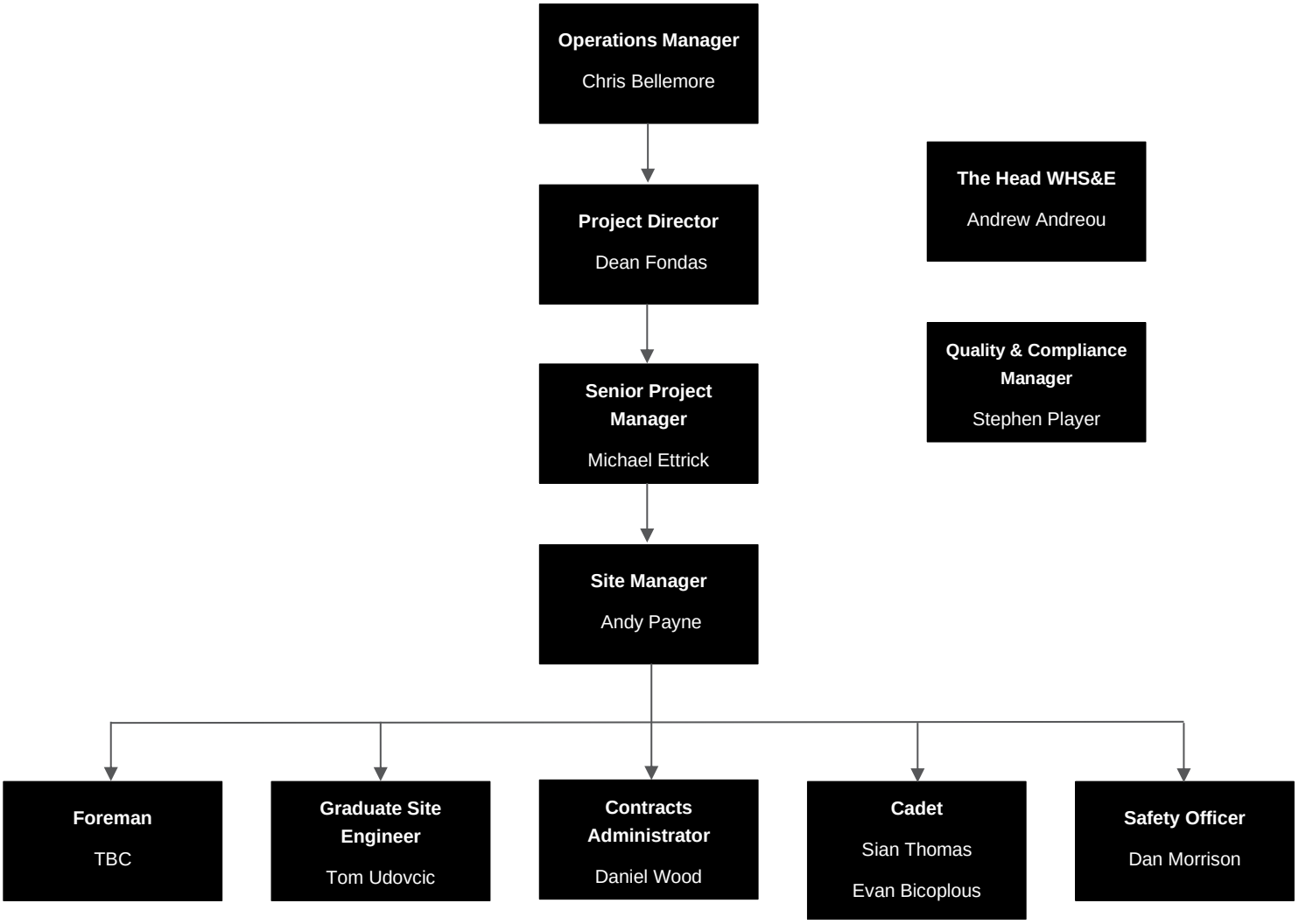
The project-specific Environmental Management Plan is to be read in accordance with Taylor Construction Management Manual, Site Management Plan and Site Safety Plan.

1.4 Satisfaction of SSDA Conditions within this Management Plan

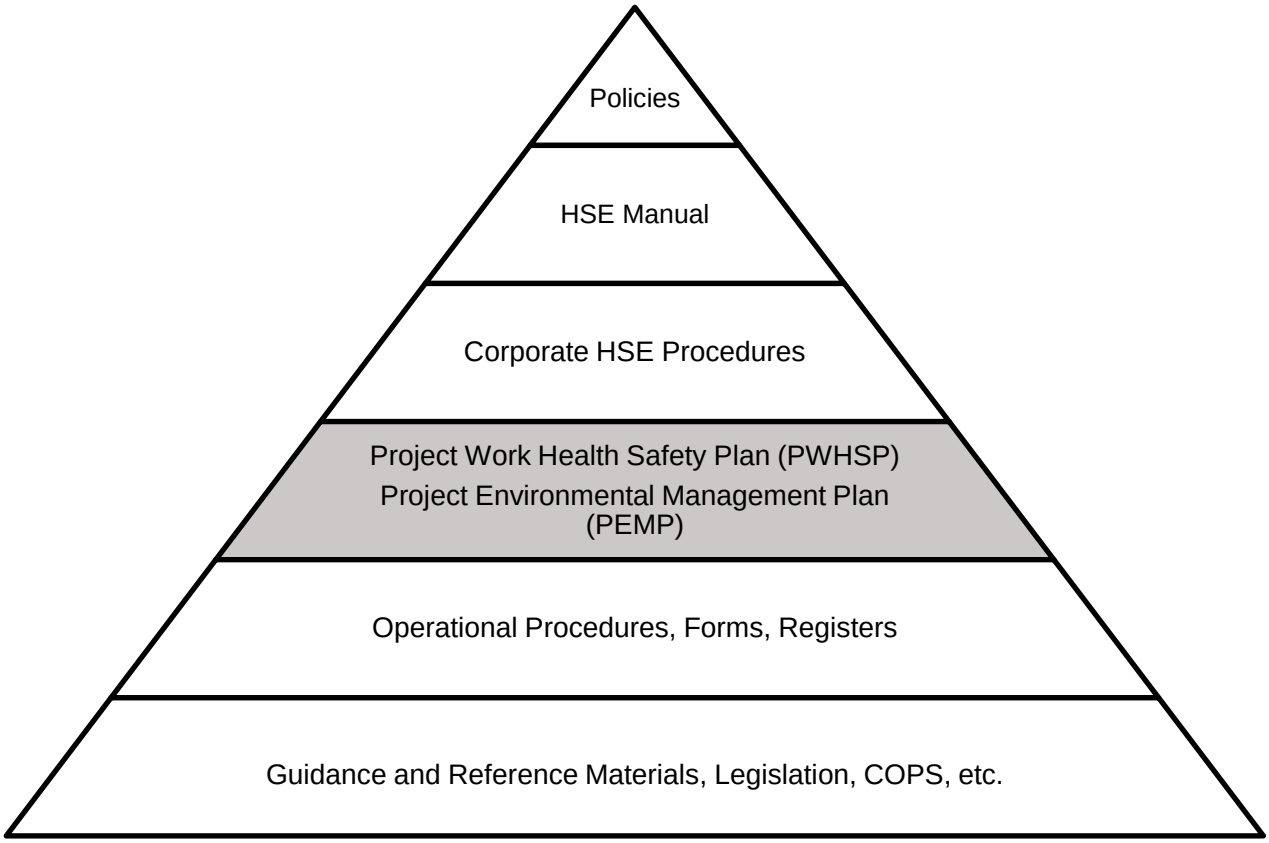
Condition Number	Condition Description	Section
B9	No later than 48 hours before the commencement of construction, a Community Communication Strategy must be submitted to the Planning Secretary for information. The Community Communication Strategy must provide mechanisms to facilitate communication between the Applicant, the relevant council, and the community (including adjoining affected landowners and businesses, and others directly impacted by the development), during the design and construction of the development for a minimum of 12 months following the completion of construction.	Appendix 7

B11	Prior to the commencement of lighting installation, evidence must be submitted to the satisfaction of the Certifier that all outdoor lighting to be installed within the site has been designed to comply with AS 1158.3.1:2005 Lighting for roads and public spaces – Pedestrian area (Category P) lighting – Performance and design requirements and AS 4282-2019 Control of obtrusive effects of outdoor lighting.	Appendix 6
B13	Management plans required under this consent must be prepared having regard to the relevant guidelines, including but not limited to the Environmental Management Plan Guideline: Guideline for Infrastructure Projects (DPIE April 2020)	Entire Document
B14 (a) (i)	Hours of work	3.3
B14 (a) (ii)	24-hour contact details of site manager	1.1
B14 (a) (iii)	Management of dust and odour to protect the amenity of the neighbourhood	3.1
B14 (a) (iv)	External lighting in compliance with AS 4282-2019. Control of the obtrusive effects of outdoor lighting	Appendix 6
B14 (a) (v)	Community consultation and complaints handling as set out in the Community Communication Strategy required by condition B9	Appendix 7
B14 (b)	An unexpected finds protocol for contaminated and associated communications procedure to ensure that potentially contaminated material is appropriately managed	12.4
B14 (c)	An unexpected finds protocol for Aboriginal and non-Aboriginal heritage and associated communications procedure	12.4
B14 (d)	Construction Traffic and Pedestrian Management Sub-Plan	Appendix 8
B14 (e)	Construction Noise and Vibration Management Sub-Plan	Appendix 9
B14 (f)	Construction Waste Management Sub-Plan	Appendix 10
B14 (g)	Construction Soil and Water Management Sub-Plan	Appendix 11
B15	Construction Traffic and Pedestrian Management Sub-Plan	Appendix 8
B16	Construction Noise and Vibration Management Sub-Plan	Appendix 9
B17	Construction Waste Management Sub-Plan	Appendix 10
B18	Construction Soil & Water Management Sub-Plan	Appendix 11
B19	Drive Code of Conduct	Appendix 8
B20	Unexpected Contamination Procedure	10.3.8
B21	Construction Worker Transportation Strategy	Appendix 8

1.5 Project Organisational Structure



2. Hierarchy of HSE System Documents



QSE System documents can be found on SharePoint under the Taylor Management System (TMS), within the 'Quality' and 'HSE' folders.

The management system structure:

- Corporate
- QSE manual
- Corporate policies
- Corporate (system) procedures
- Forms and templates
- Registers and matrices
- Objectives and targets
- Organisational charts
- Certificates/ accreditations
- Training material.

Hammertech is a cloud-based software platform will used to enable teams to manage their processes effectively and maintain uniformly across all projects. This includes the collating and storing of:

- Onboarding and inductions
- Safety plans / SWMS / risk assessment
- Permits
- Pre-start and toolbox talks

- Equipment and maintenance records / schedules
- Personnel training records / competencies / licences
- WHS&E inspections / audits
- Accident and incident
- Attendance (site diaries).

Hammertech can also be used to send out news bulletins and updates to individuals advising of alerts, meetings, industry news and updates to site rules and procedures.

Environmental Policy

Taylor has an Environmental Policy outlining our commitment to protection of the environment. This policy can be found in Appendix 2 of this document. A copy of the Environmental Policy is to be posted on the walls or notice board at the project site.

3. Legal and Other Requirements

The processes for identifying and keeping up to date with legal and other requirements are outlined in the **SE-P-01 Legal and Other Requirements Procedure** Appendix 7

An **Environmental Legal and Other Requirements Register E-R-01** has been prepared and is periodically updated to ensure that it reflects current legal requirements. This register identifies the key relevant legislation and guidelines and should be attached to this plan in Appendix 7.

3.1 Environmental Factors

Factor	Objectives	Requirements
Noise Management*		
Noise/ vibration	Protect the amenity of nearby residents from noise/ vibration impacts resulting from activities associated with the proposed or existing development by ensuring that noise/ vibration levels meet statutory requirements and acceptable standards.	– Identification of sources of noise/ vibration and estimates of project-wide noise. – Ensure that noise and vibration levels meet acceptable standards and that an adequate level of service, safety and public amenity is maintained. – Propose measures to manage and/ or mitigate impacts.
Water Management*		
Surface water quality	Maintain or improve the quality of surface water to ensure that existing and potential uses, including ecosystem maintenance, are protected.	– Details of site drainage, hydrocarbon use, disposal of plant site waste (including sewage), dewatering, and fate of water used/ pumped. – Incorporate measures and/ or operating procedures to ensure that storm water run-off from the site reflects patterns, volumes and quality that exist prior to development, as far as reasonably practicable. – Drainage lines are to be naturalised as much as possible and should enhance the ecological values and recreational opportunities. – Propose measures to manage and/ or mitigate impacts.
Groundwater quality	Maintain or improve the quality of groundwater to ensure that existing and potential uses, including ecosystem maintenance, are protected.	– Describe water requirements for any on-site processing. – Incorporate measures and/ or operating procedures that will minimise the demand of the development on potable water supplies. – Ensure that no contaminated water, including those containing sediments, leaves the site. – Propose measures to manage and/ or mitigate impacts.
Air management		
Air	Ensure that potential air pollutants are contained and that activities do not impact on the natural environment.	– Identify sources of air pollution. – Propose measures to manage and/ or mitigate impacts.
Particulates/ dust	Ensure that particulate/ dust emissions, both individually and cumulatively, meet	– Identification of sources of particulates/ dust and estimates of project-wide emissions.

	appropriate criteria and do not cause an environmental or human health problem.	– Propose measures to manage and/ or mitigate impacts.
Odour	Ensure that operations do not generate odour that causes environmental nuisance.	– Identification of sources of odour and estimates of project-wide emissions. – Propose measures to manage and/ or mitigate impacts.
Waste Management		
Solid/ liquid waste	Ensure that wastes are contained and isolated from land, ground and surface water surrounds and treatment or collection does not result in long-term impacts on the natural environment.	– Identify sources of solid and liquid waste and estimate the proposed amount generated. – Propose measures to manage and/ or mitigate impacts.
Contaminated Land and Water		
Land	Ensure that existing or proposed activities do not discharge to land.	– Identify activities that have the potential to discharge to land. – Propose measures to manage and/ or mitigate impacts.
Surface water	Ensure that existing or proposed activities do not discharge to surface waters.	– Identify activities that have the potential to discharge to surface waters. – Propose measures to manage and/ or mitigate impacts.
Groundwater	Ensure that existing or proposed activities do not discharge to groundwater.	– Identify activities that have the potential to discharge to groundwater. – Propose measures to manage and/ or mitigate impacts.
Hazardous Materials Management		
Scheduled wastes	Ensure scheduled wastes are specially treated for their destruction.	– Identify scheduled wastes and describe treatment of their destruction. – Propose measures to manage and/ or mitigate impacts.
Resource storage	Ensure that chemicals and other potentially harmful resources used in the manufacturing process are stored and disposed of correctly.	– Describe the use and management of chemicals and other potentially harmful resources. – Propose measures to manage and/ or mitigate impacts.
Compressed/ liquid gas	Ensure the suitable storage of compressed/ liquid gas.	– Describe the use and management of compressed/ liquid gas. – Propose measures to manage and/ or mitigate impacts.

3.2 Specific Undertaking from Formal Environmental Impact Assessment

Nil

3.3 Development Consent Conditions

Consent working hours are:

Day	Start Time	Finish Time
Monday to Friday	7am	6pm
Saturday	7am	6pm
Sunday and Public Holidays	8am-6pm	

Obligation to Minimise Harm to the Environment

A1. In addition to meeting the specific performance measures and criteria in this consent, all reasonable and feasible measures must be implemented to prevent, and, if prevention is not reasonable and feasible, minimise any material harm to the environment that may result from the construction and operation of the development.

A22. Any condition of this consent that requires the carrying out of monitoring or an environmental audit, whether directly or by way of a plan, strategy or program, is taken to be a condition requiring monitoring or an environmental audit under Division 9.4 of Part 9 of the EP&A Act. This includes conditions in respect of incident notification, reporting and response, non-compliance notification, Site audit report and independent auditing.

Note: For the purposes of this condition, as set out in the EP&A Act, "monitoring" is monitoring of the development to provide data on compliance with the consent or on the environmental impact of the development, and an "environmental audit" is a periodic or particular documented evaluation of the development to provide information on compliance with the consent or the environmental management or impact of the development.

A23. At least 48 hours before the commencement of construction until the completion of all works under this consent, or such other time as agreed by the Planning Secretary, the Applicant must:

(a) make the following information and documents (as they are obtained or approved) publicly available on its website:

(i) the documents referred to in condition A2 of this consent;

(ii) all current statutory approvals for the development;

(iii) all approved strategies, plans and programs required under the conditions of this consent;

(iv) regular reporting on the environmental performance of the development in accordance with the reporting arrangements in any plans or programs approved under the conditions of this consent;

B13. Management plans required under this consent must be prepared having regard to the relevant guidelines, including but not limited to the *Environmental Management Plan Guideline: Guideline for Infrastructure Projects* (DPIE April 2020).

AN11. The Applicant must consult with SafeWork NSW concerning the handling of any asbestos waste that may be encountered during construction. The requirements of the Protection of the Environment Operations (Waste) Regulation 2014 with particular reference to Part 7 – 'Transportation and management of asbestos waste' must also be complied with.

3.4 Environmental Protection License or Other Approvals

- 'Prune/Remove tree on private land' application
- 'Road occupancy' licence
- 'Public domain works' application

References:

- NSW Environmental Management System Guidelines 2015.
- Legal and Other Requirements Procedure SE-P-01.
- Environmental Legal and Other Requirements Register E-R-01.

4. Environmental Risk Identification and Assessment

Standard ISO 14001 requires that environmental aspects relating to the organisation's activities, products and services are identified and those aspects that can have a significant impact on the environment, determined. At Taylor, the environmental aspects relating to general construction activities have been identified through a risk assessment workshop attended by key project and site managers and an environmental consultant. The aspects, impacts, risk assessment outcomes and generic controls are documented in the **HSE Risk Register HSE-R-01**. Detailed requirements for risk assessments (environmental and OHS) are described in **Risk Assessment Procedure SE-OP-03.**

4.1 Environmental Risk Assessment

The methodology for risk assessments is based on the requirements described AS/NZS 4360 (Risk Assessment) and HB203 (Environmental Risk Assessment).

Taylor's procedure requires an initial Project Risk Assessment to be undertaken at the commencement of each project. The risk assessment is to be conducted in the form of a workshop and is to include the Project / Site Manager, HSE Manager, key members of the project team and, to the extent required, key subcontractors, and is to be recorded on form **HSE-R-01 HSE Risk Register**.

The HSE Risk Register is to be developed to address both legal and other requirements covered in this plan and is to be referenced to implement systems and work practices that will eliminate or minimise the likelihood of injury, illness or incident occurring.

When developing the project HSE Risk Register, members of the workshop will take into consideration available information which is relevant to the works and is contained in any published copies of the below documents:

- HSE acts.
- WHS regulation.
- Australian / National Standards.
- Codes of practice.
- Available internal and external industry bulletins/ alerts.
- Industry reports.

This will ensure members of the workshop identify and document any known or foreseeable hazards associated with that task.

The completed Environmental Risk Assessment can be found in Appendix 11 of the project HSE Plan (**WHS-PLAN-02**).

References:

- SE-P-03 Risk Assessment Procedure.

5. Objective and Targets

Objectives and targets are set at a corporate level. They are monitored and measured to ensure that Taylor continually improves our environmental performance. To ensure that we meet our corporate objectives and targets, key performance indicators (KPIs) are set at a project level and reported to management monthly.

Objectives	Targets
Effective site environmental controls.	– Achieve alignment with Taylors and Client expectations in relation to best practice control measures. – Fulfil environmental obligations.
Increase amount of waste being recycled, reduce waste cost.	– Eighty-five per cent (85%) of waste to be recycled.
Environmental performance.	– Zero major environmental incidents and no breaches. – Zero infringement notices. – All environmental spills to be reported to Taylor Construction within 2 hours of occurrence. – Environmental inspection competed weekly and documented in **SE-F-02 HSE Inspection Checklist** (more often if required).
Reduce the amount of environmental impact our operations have on the environment.	– Environmental issues identified and controlled prior to causing negative impacts on the project or on the environment.
Effective implementation of the environmental system.	– Eighty per cent (80%) or better internal audit results. – Full compliance with planning approval requirements.
Community issues carefully handled.	– Zero valid complaints. All complaints reported to Taylor's representative.

6. Roles and Responsibilities

All persons working for and on behalf of Taylor have responsibilities in relation to ensuring that environmental issues are appropriately managed. Generic WHS and environmental responsibilities are outlined in the **Roles, Responsibilities and Authorities Procedure QSE-P-06.**

Subcontractors

The subcontractor shall be required to comply with all applicable work health, safety and environmental legislation, including any additional Taylor's requirements, whilst engaged on a Taylor-managed project. The subcontractor shall be responsible to communicate any relevant environmental information to their personnel (workers) who are engaged in carrying out the work or providing material to the job site, including any secondary subcontractors or sole traders engaged by them and approved by Taylor.

Subcontractor's minimal environmental requirements:

- Has the subcontractor identified in the SWMS environmental hazards and controls in relation to the work task (where required), i.e., refuelling plant and equipment on site, nuisance dust controls, nuisance noise, waste management (off-cuts), rubbish, concrete wash-out?
- Have hazardous substances or dangerous goods to be used on site by the subcontractor been identified?

  Note: the subcontractor will need to provide copies of relevant Safety Data Sheets (SDS) for all materials and/ or hazardous substances or dangerous goods to be used on site and note reference to training of employees in the SDS prior to first use and controls listed in the SWMS.

Taylor Construction Personnel

For this project, the key roles and specific responsibilities of our managers, supervisors, and site personnel regarding environmental management on site are outlined below. Project-related management and staff are required to sign off that they have read and understood their responsibilities.

6.1 Directors

Directors are responsible for:

- Defining Taylor Construction workplace WHS&E policies and setting their objectives.
- Acquiring and keeping up to date with knowledge of environmental matters relevant to the organisation.
- Gaining an understanding of the nature of the operation of the business or undertaking and general environmental issues associated with those operations.
- Providing leadership that promotes and maintains Taylor's determination to continually improve its performance in workplace health safety and the environment.
- Demonstrating genuine interest in workplace health and safety and the environment; supporting all project teams to encourage incident prevention.
- Ensuring that there is available for use and used by those engaged in the business or undertaking, appropriate resources and processes to eliminate or minimise risks to the environment and non-compliance with licences during the conduct of the business or undertaking.
- Ensuring that people engaged in the business or undertaking have appropriate processes for receiving and considering information regarding environmental incidents, hazards, and risks, and respond in a timely way to that information.
- Ensuring that those engaged in the business or undertaking have in place and implement processes for complying with any duty or obligation of the organisation under the Act, including complying with licence conditions and notices served.

6.2 Chief Executive Officer

The Chief Executive Officer's responsibilities include:

- Informing the board of all events within, or which reasonably should be within, his/her knowledge or awareness, which may or do have a material impact on the organisation's activities or well-being.
- Monitoring and interpreting the external environment in order to continually position the organisation in its markets to best advantage.
- Maintaining awareness of political, governmental, business and industry components of the external environment, on a local, national, and international level.
- Reviewing environmental objectives and targets to ensure compliance with our environmental commitments and achieve continuous improvement in our environmental performance.
- Working proactively with our clients, regulators, and other community stakeholders to enable environmental issues to be addressed at an early stage of development.
- Monitoring the activities which are undertaken by employees and subcontractors are done so in a manner that is consistent with the principles of ecologically sustainable development.
- Overseeing the implementation of company procedures and policies that will prevent pollution and reduce adverse environmental impacts of our activities on the natural, built, and cultural environment.
- Setting realistic environmental objectives and targets at all relevant levels within the company and continually monitor performance.
- Promote the efficient use of natural resources and reduce waste through the use of the waste hierarchy –avoid, reduce, re-use, recycle and finally dispose.
- Identifying alternative, financially viable and sustainable courses of action to minimise environmental impacts.

6.4 General Manager

The General Manager is responsible for:

- Demonstrating genuine interest in workplace health, safety, and environment; supporting all project and site managers to encourage incident prevention and compliance.
- Assessing and allocating appropriate resources and equipment within the company for the effective implementation of the workplace health, safety and environmental management systems and the management of WHS&E related hazard/ risks relevant to the construction projects.
- Being fully briefed of the WHS&E performance and compliance of all current Taylor projects.
- Assisting in the development and implementation of continuous improvement processes for workplace environmental management

Specific roles:

- Ensure the implementation and overall effectiveness of the Taylor environmental, health and safety programs.
- Provide visible commitment to a safe and healthy work environment by ensuring regular reviews are undertaken. Participate in WHS&E meetings and consultation regarding workplace health safety and environmental matters.
- Consider workplace health safety and environment matters with other senior members of the organisation as part of normal business practice and incorporate WHS&E into meeting agendas.
- Allow appropriate budget allocations for WHS&E management and improvement.
- Encourage and promote safety within the company by participating and openly consulting with employees in respect to their health and safety.
- Follow up with the WHS&E Manager and site teams on any compliance breaches or external authority notices issued to projects and or subcontractors.
- Report on critical incidents which then embed lessons learnt and system improvement will demonstrate the board's commitment to environmental responsibility.
- Participate in periodic compliance inspections / audits to review the effectiveness of management structures and risk controls for environmental performance are appropriate and remain effective.

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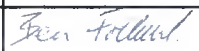
Signed:	
Date:	04/02/2022

6.3 Operations Manager

The Operations Manager is responsible for:

- Defining Taylor Construction WHS&E policies and setting their objectives.
- Ensuring project teams compliance with any licence, permit, notice or order from the EPA. For example, failure to have a monitoring program at a licensed site is a breach of your licence.
- Owning and understanding the key project environmental issues involved.
- Gaining an understanding of the operations of the business and the hazards and risks involved.
- Promoting and overseeing procurement standards for goods and services that help minimise environmental hazards.
- Ensuring information regarding incidents, hazards and risks is received responded to in a timely way.
- Ensuring the PCBU has implemented processes for complying with any legal duty or obligation.
- Being fully briefed of the safety status of all current Taylor Construction projects.
- Supporting and consulting employees and subcontractors on environmental performance.
- Setting targets and allocating priorities for workplace health and safety matters for all Taylor Construction staff.
- Leading by example in all matters concerning workplace health and safety.
- Conducting or participating in periotic environmental compliance inspections and or audits.
- Where required, engaging with the local community to understand their environmental concerns and impacts linked to the organisation's operations.
- Where events or non-compliance occurs, all reasonable and appropriate precautions are reviewed and as necessary, ensure new controls are designed and implemented.
- Examining whether risk management and other environmental compliance / systems requirements have been effectively reported to the general manager.
- Participating in periodic compliance inspections / audits to review the effectiveness of management structures and risk controls for environmental performance are appropriate and remain effective.

Name:	Chris Bellemore
Signed:	08/02/2022
Date:	

6.5 Construction Manager

The Construction Manager is responsible for:

- Demonstrating genuine interest in workplace health and safety; supporting all the project/ site managers to encourage environmental incident prevention.
- Assessing and allocating appropriate resources and equipment within the company for the effective implementation of the workplace health safety and environment management system and the management of WHS&E related hazard/ risks relevant to the construction projects.
- Confirming that legislative obligations are met, and that Taylor's Environmental Policy is effectively implemented throughout all company construction projects under their control.
- Ensuring compliance with Taylor's accredited QSE systems is maintained and implemented across all Taylor managed projects under their control.

Specific roles:

- Provide leadership in the development of project teams to ensure the fostering of the business culture and approach to doing business with our clients, consultants, and subcontractors.
- Attend sites on a regular basis to ensure compliance with workplace environmental and programming requirements of both the head contract and the company' systems.
- Provide visible commitment to a safe and healthy work environment by ensuring regular reviews are undertaken, and by participating in safety and health meetings and consultation regarding WHS&E matters.
- Encourage and promote environmental compliance within the company by participating and openly consulting with employees in respect to their health and wellbeing.
- Ensure that Project / Site Manager have developed and implemented systems, which will ensure subcontractors/ suppliers engaged by the company comply with the health safety management and environmental systems and the relevant HSE legislation.
- Consider workplace health safety and environmental matters with other senior members of the organisation as part of normal business practice and incorporate WHS&E into meeting agendas.
- Support the WHS&E Manager in ensuring Project / Site Managers have developed and implemented systems which will ensure subcontractors and suppliers engaged by the company comply with the WHS&E management systems and the relevant legislation.
- Respond to non-conformance by any member of the company who fails to discharge their duties as set by the Responsibility Statement and actively participate in dispute resolution where required.
- Allow appropriate budget allocations for WHS&E management and improvement.
- Facilitate a systematic approach of workplace health, safety and environment identification, and assessment and facilitate control and monitoring of related risks that may arise through both normal and adverse operating conditions.

Name:	Dean Fondas
Signed:	
Date:	24-1-22

6.6 Project Manager

The Project Manager is responsible for:

- Ensuring that environmental, health and safety obligations are carried out by everyone working in their operations.
- Communicating to employees, workers, and visitors that health and safety and concern for the environment are top priorities on Taylor projects and that everyone shares in the obligation to perform work in a safe, healthful, environmentally protective manner.
- Analysing work procedures to identify hazards; ensure measures are implemented to eliminate or control those hazards.
- Ensuring safe operating procedures are in place and are observed.
- Curtail or stop work being carried out under their authority if they reasonably believe that continuation of the work poses an imminent danger to health or safety. Upon directing that work be curtailed or stopped, if the situation cannot be corrected immediately, the Manager must notify the WHS&E Manager
- Ensuring that self-assessment inspections are performed regularly, that records are retained and that deficiencies identified in any inspection (self-assessment or HSE inspections) are addressed.
- Consulting with Taylor's Construction Manager and HSE Manager to ensure enough resources are allocated to the project to comply with legislative and Taylor's WHS&E requirements.
- Ensuring compliance with safety legislation, regulations, licensing conditions and authorities' requirements relevant to all construction work.
- Ensuring Taylor's site supervision is maintained throughout all hours of operation and those assigned with supervisory roles are competent and authorised to do so (e.g., PM, SM, or foreman).
- Ensuring incidents are investigated and appropriate action taken as required by Taylor's site safety plan requirements in consultation with the WHS&E Manager.
- Providing visible commitment to a safe and healthy work environment by ensuring regular reviews are undertaken, and by participating in health and safety meetings and consultation regarding WHS&E matters.
- Ensure safety notices issued and/ or visits made to the project by industrial representatives and/ or SafeWork NSW are reported to both the Managing Director and WHS&E Manager.
- Selecting appropriate subcontractors, giving due regard to their ability to comply with legislative and Taylor's WHS&E requirements.
- Participating in at least one formal site HSE inspection per month on a project under their control.
- Reporting back to Taylor's senior managers on project HSE incidents, any external authority visits and/ or Notices issued by external authorities.
- Overseeing the development and implementation of a site evacuation and emergency procedures and overseeing at least one spontaneous evacuation drill every six months and assessing the results of that drill.
- Supporting the Site Manager in the management of employee, subcontractor, and supplier's performance in complying with Taylor's environmental plan and the site-specific rules for the project.
- Be familiar with the emergency plan, the emergency assembly area and emergency coordinators for their project and participate in emergency drills.

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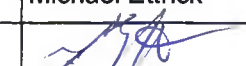
Signed:	
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6.7 The Head Of WHS&E

The Head Of WHS&E is responsible for:

- Overseeing the development and implementation of Taylor policies and procedures related to environmental health and safety and that provide additional support for environmental.
- Developing and maintaining electronic systems and technology solutions related to environmental health and safety.
- Disseminating information and providing guidance regarding compliance with federal, state, and local regulations and Taylor policies and procedures.
- Providing guidance, direction, and oversight to help ensure adherence to federal, state, and local regulations and Taylor policies and procedures instituted to protect the health and safety of employees, workers, visitors, and the environment.
- Overseeing the implementation of Taylor's health, safety and environmental management systems throughout all Taylor activities.
- Ensuring that a systematic internal reporting system exists to guarantee that information about environmental hazards and unsafe practices is promptly conveyed to senior management and acted on.
- Maintaining good relationship with government regulatory authorities.
- Setting targets and allocating priorities within the framework of the QSE System.
- Safeguarding compliance and maintenance of the company's third-party accreditations.
- Planning and delivering training in environmental management and/ or arranging for the appropriate internal or external trainers/ facilitators to conduct the training.
- Researching, developing, and implementing new procedures and forms, and updating the manual as required.
- Reviewing, analysing, and reporting on safety and environment project performance to Taylor's managing director, sector managers and any party as arranged by the managing director.
- Ensuring compliance with environmental legislation, regulations, licensing conditions and authorities' requirements.
- Ensuring Taylor's workplace health safety and environment performance is reviewed on a regular basis (i.e., arranging for internal and external audits).
- Ensuring that periodic audits of the effectiveness of management structures and risk controls for environmental performance are conducted.
- Reviewing internal and external (independent) audit reports and, in consultation with the directors and the project manager, develop appropriate action plans if necessary.
- Identifying environmental hazards, assessing risks and in consultation with project teams select risk control measures for site-specific situations.
- When required, acting as the lead investigator in workplace incidents/ accidents, liaise with external authorities in managing them and report back to managing director and/ or sector managers on outcomes of investigations.
- Ensuring WHS&E policies and procedures are implemented on all projects and that a specific site environmental plan is prepared and implemented for all projects.

Name:	Andrew Andreou
Signed:	
Date:	08/02/2022

6.8 Project Safety Advisor

The Project Safety Advisor is responsible for:

- Providing visible commitment to a safe and healthy work environment by ensuring regular reviews are undertaken, and by participating in safety and health meetings and consultation regarding WHS&E matters.
- Ensuring workplace hazards and environmental, health and safety-related policies and procedures are communicated to employees, workers, and visitors.
- Assisting the WHS&E manager and project teams in implementing Taylor's health, safety and environmental procedures, policies, and project systems in line with best practice and the relevant statutory legislation.
- Reporting any serious environmental incident or near miss and unexpected finds immediately to the WHS&E manager.
- Safeguarding compliance and maintenance of the company's third-party accreditations.
- Assisting project teams and subcontractors in meeting their workplace health safety and environmental obligations.
- Ensuring compliance to this project environmental plan.
- Monitoring subcontractor's compliance with the site environmental plan, and subcontractor compliance to their Safe Work Method Statements by conducting regular task observation/ audits.
- Undertaking regular workplace inspections to identify hazards and unsafe/ unhealthy workplace conditions and practices.
- Being familiar with the emergency plan, the emergency assembly area and emergency coordinators for the project and participate in emergency drills.
- Assisting the Site Manager / Foreman in the supervision of subcontractors.
- Ensuring WHS&E items identified by safety inspections and or audits are rectified within specified timelines in consultation with the Site manager, and subcontractors.
- Reporting incidents and/ or identified environmental hazards and appropriate risk control measures to line managers.
- Ensuring all workplace health and safety and environment documents are maintained and filed in accordance with Taylor's filing requirements.
- Coordinating or conducting site toolbox talks and ensure subcontractors regularly consult with their employees on matters relating to environmental issues.
- Liaising with the Project / Site Manager to implement controls on hazards identified.
- Completing Safe Work Method Statement checklists for the site (task observation).
- Collating completed contractor required forms, authority to work permits and checklists.
- Acting site safety representative for the site (unless another person has been elected to perform this role as per the consultation statement S-F-04 WHS Consultation Statement).
- Other HSE and/ or CW's issues or activities that may require their attention.

If no safety advisor is allocated to the project, the roles and responsibilities mentioned above are to be allocated to alternative Taylor Construction persons engaged on the project who are competent or have been suitably trained to fulfil these duties.

Name:	Dan Morrison
Signed:	
Date:	24-1-22

6.9 Site Manager

The Site Managers are responsible for:

- Providing visible commitment to a safe and healthy work environment by ensuring regular reviews are undertaken, and by participating in safety and health meetings and consultation regarding WHS&E matters.
- Facilitating the process to ensure the project team and the WHS&E manager are consulted and participate in the development of the project specific WHS&E risk assessment. This is to be done prior to such activities commencing.
- Ensuring that prior to the works commencing a formal assessment of the emergency control equipment requirements has been completed and that these remain effective throughout the duration of the project. (e.g., first aid, nurse call, emergency warning alarms, fire extinguishers, spill kits, lighting, and signage)
- Ensuring workplace hazards and environmental, health and safety-related policies and procedures are communicated to employees, workers, and visitors.
- Ensuring individuals working in their operations have the proper safety equipment and personal protective equipment to perform their work safely.
- Leading or participating in formal site safety inspections weekly and record results using **SE-F-02 HSE Inspection Checklist**. Daily informal inspections should be noted in site diary.
- **Unexpected finds** – ensure all unexpected finds are treated, reported, and managed in accordance with Taylor's unexpected finds procedure.
- **Environmental controls** – ensure all environmental controls (sediment and erosion, noise, hours of operation, etc) as mentioned by permits or building approvals are adhered to and workers are advised of these requirements during the site induction process.
- **Emergency Response and Training Plan** – contribute to the development of the ERP, ensure that all employees, workers, and others know about the plan, and communicate the importance of participating in drills and otherwise following procedures set out in the plan.
- **Groundwater protection Program** – report any hazardous materials or other pollutants spilled to or discovered in soil or groundwater to EH&S for appropriate emergency or non-emergency clean up.
- **Hazardous material and waste management** – inform employees and workers that hazardous materials and hazardous waste, except as expressly authorized by regulations, licenses or permits, may not be disposed of via the sewer system, or other unsafe or environmentally damaging routes; and to stress the importance of proper hazardous material/waste management.
- **Training** – ensuring that everyone working in their operations is appropriately trained to identify and mitigate potential hazards. Ensure that work requiring training is performed only by persons who have received the proper training.
- **Hazardous spill response** – upon request, provide assistance in hazardous material spill clean-up, preparing written reports about reportable releases and notifying appropriate persons about reportable spills.
- **Noise monitoring and hearing conservation** – conduct noise surveys to determine exposure levels.
- **Environmental procedures / permits** – ensure activities requiring internal and or external permit or approvals do not commence until permit or approval has been formally granted the user has the responsibility for providing relevant information to obtain permits, meeting permit conditions, and any responsibility. Taylor site management shares in the responsibility to advise those performing the works of Taylors procedure and permit requirements.
- Ensuring WHS&E items identified by safety inspections and or audits are rectified within specified timelines in consultation with the Project Manager, Project Safety Advisor and subcontractors.
- Ensuring that all plant and equipment used on Taylor sites are environmentally safe, correctly maintained and that the operator is appropriately licensed or qualified to operate and or use that equipment.
- Utilising experience and judgement to shut down and/ or evacuate any part of the site if a major health and safety and environmental risk occurs.
- Reviewing, coordinating, and implementing emergency evacuation procedures and participating in drills at specified intervals (quarterly).

Name:	Andy Payne
Signed:	
Date:	24.1.22

6.10 Site Foreman

The Site Forman is responsible for:

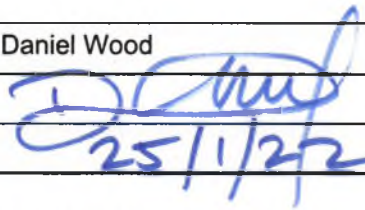
- Implementing, through consultation with the Project Manager, the site environmental plan and procedures in accordance with WHS&E legislation, regulations, codes of practice, Australian Standards and/ or other statutory requirements.
- Ensuring no work is undertaken on site until the relevant SWMS has been reviewed and signed off in accordance with form **SE-F-14 Safe Work Method Statement Review Form**.
- Monitoring subcontractor's compliance with the site environmental plan and subcontractor's compliance to their Safe Work Method Statements by conducting regular task observation /audits.
- Ensuring all workers and, if required, visitors, are site-inducted and aware of any environmental compliance obligations.
- Assisting with implementing and undertaking formal and proactive consultation measures between the project team and subcontractors.
- Ensuring items identified by environmental or system audits findings are rectified and closed out within specified timelines in consultation with the project manager, site manager, site safety advisor and subcontractors.
- Consulting with all persons on environmental issues, including changes to the workplace layouts and access egress points, and encourage the involvement of all personnel in achieving a safe and healthy site.
- First response in managing site-specific workplace environmental issues in the first instance, and discussing these with the project manager, site manager and/ or site safety advisor as required.
- Assisting the site manager with developing, planning, implementing, and reviewing site-specific emergency and evacuation procedures.
- Identifying any environmental hazards and assessing any risks on site and implementing risk control measures.
- Leading or participating in formal site safety inspections weekly using form **SE-F-02 HSE Inspection Checklist**. Note: informal inspections should be noted in site diary.
- In consultation with the Project Manager and Senior Site Manager, and utilising experience and judgement, shut down and/ or evacuate any part of the site if a major environmental risk or situation occurs.
- When requested by the Site Manager participate in any environmental incident and assist with the investigating, recording, and reporting,
- Be familiar with the emergency plan, the emergency assembly area and emergency coordinators for the project and participate in emergency drills.
- Monitoring the use of personal protective equipment (PPE) by site personnel.
- Where requested by the Site Manager, assist with monitoring of environmental issues (e.g., dust, noise, air quality)
- Assist the Site Manager with reviewing, coordinating, and implementing emergency evacuation procedures and participating in drills at specified intervals, minimum every six months.
- Ensuring that all plant and equipment used on Taylor sites are environmentally safe to use, appropriately maintained and that the operator is correctly licensed or qualified for operating that equipment.

Name:	TBC
Signed:	
Date:	

6.11 Contract Administrator / Site Engineer

The Contract Administrator and Site Engineer's responsibilities are to:

- Support the Project Manager and Site Manager in the management of employee, subcontractor, and suppliers' performance in complying with Taylor WHS&E and the site-specific rules for the project.
- Assist the project/ site manager to ensure the site environmental plans and associated documentation, including standard forms, procedures, and templates, remain current and up to date.
- Where required, assist the project and site manager with site inductions.
- Include in subcontract agreement the requirement for subcontractors to carry out their works in accordance with the company's or subcontractor's approved QSE plans.
- Forward to subcontractors a copy of HSE subcontractor requirement, **Contractor's HSE Requirements QSE-F-15.23** (letter template), ensuring this is completed and returned by subcontractor prior to commencing.
- Discuss with the subcontractors, at the tender interview stage, their obligation for managing HSE requirements by issuing to them relevant sections of the tender interview form and ensuring this is completed by subcontractor prior to commencing on site.
- Request and obtain from the subcontractor prior to their arrival to site copies of their Workers Compensation and Public Liability Certificates of Currency, environmental and or council licences and or required permits ensuring they are current and that copies are available on site.
- Ensure that all completed copies of form **Contractor's HSE Requirements QSE-F-15.23** (letter template) are returned and filed in the project files.
- Ensure that the latest copies of project plans and WHS&E risk assessments are uploaded onto project centre, or preferred data control system used, and engaged subcontractors have access to these.
- Ensure all external complaints/ incidents are recorded on **SE-F-21 Incident Report Form** and filed in the external complaints register or Hammertech.
- Assist the Project Manager and Site Manager in the general administration of WHS&E where requested.
- Be familiar with the emergency plan, the emergency assembly area and emergency coordinators for the project and participate in emergency drills.

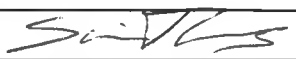
Name:	Daniel Wood
Signed:	
Date:	25/1/22

Name:	Tom Udovic
Signed:	
Date:	7/2/22

6.12 Building Cadet

The Building Cadet's health, safety and environmental responsibilities are to:

- Provide general assistance to management on an assigned project.
- Provide administrative assistance in managing site safety, quality assurance and environmental management systems.
- Maintain project registers and records up to date.
- Where requested, assist with site contract administration and tendering.
- Manage project document control and provide design management assistance.
- Assist the Project / Site Manager to ensure the site QSE plans and associated documentation, including standard forms, procedures, and templates, remain current and up to date.
- Fulfil responsibilities as outlined in the 'Taylor Cadet Program Guidelines', including undertaking an approved course of study at an Australian University.
- Assist Project Manager and Site Manger in the general administration of HSE where requested.
- Monitor the use of personal protective equipment (PPE) by site personnel.
- Complete site diaries as per project administration requirements.

Name:	Sian Thomas
Signed:	
Date:	24.01.2022

6.12 Building Cadet

The Building Cadet's health, safety and environmental responsibilities are to:

- Provide general assistance to management on an assigned project.
- Provide administrative assistance in managing site safety, quality assurance and environmental management systems.
- Maintain project registers and records up to date.
- Where requested, assist with site contract administration and tendering.
- Manage project document control and provide design management assistance.
- Assist the Project / Site Manager to ensure the site QSE plans and associated documentation, including standard forms, procedures, and templates, remain current and up to date.
- Fulfil responsibilities as outlined in the 'Taylor Cadet Program Guidelines', including undertaking an approved course of study at an Australian University.
- Assist Project Manager and Site Manger in the general administration of HSE where requested.
- Monitor the use of personal protective equipment (PPE) by site personnel.
- Complete site diaries as per project administration requirements.

Name:	Sian Thomas / Evan Bicopolous
Signed:	
Date:	15/3/22

6.13 First Aid Officers

It is the job of the trained first aider to provide initial treatment to injured or ill employees, which is consistent with first aider's level of training and competency. Where the treatment required is beyond a first aider's level of competency, they should recommend that the employee seek immediate medical assistance.

The nominated site first aid officers shall possess the required level of competency (Senior First Aid Certificate or Occupational First Aid Certificate) and they shall be responsible for:

- Providing first aid assistance to persons ill or injured on site.
- Recording all such assistance provided.
- Liaising with the site manager and/ or site foreman to achieve first aid obligations.

First Aid Officer Records

The nominated first aider shall be relied upon to exercise a common sense-approach in determining what type of injuries require a first aid report to be completed. First aid/ incident reports shall only be completed for injuries or illnesses for which first aid assistance was sorted **Immediately** following an event. Employees, including subcontractor is, seeking to report an injury or incident for which first aid assistance was not initially sort **shall not** be provided with a copy of the report unless this has been authorised by the Site / Project Manager and/ or Taylor's WHS&E Manager.

Some typical injuries that may require reporting are:

- All injuries requiring off-site medical treatment.
- Impact injuries.
- Head injuries.
- Musculoskeletal injuries.
- Open wounds (cuts).
- Eye injuries.

The first aid officers shall also be responsible for the regular maintenance and replenishment of the first aid kits and equipment. At all times during normal operations there shall be a minimum of one (1) trained first aider on site for every 25 workers.

Name:	Andy Payne
Signed:	
Date:	24.1.22

Name:	Michael Ettrick
Signed:	
Date:	

Name:	Daniel Wood
Signed:	
Date:	25/1/22

Name:	Tom Udovic
Signed:	
Date:	7/2/22

6.14 PCBU and Workers

PCBU and Workers are responsible for:

- Attending Taylor's site-specific induction prior to commencing work on site.
- Taking reasonable care for their individual health and safety and that of others on site, including members of the public.
- Familiarising themselves and adhering to Taylor Construction corporate policies.
- Performing only those works in which they possess the required competencies for or have been suitably trained to perform.
- Taking corrective actions to eliminate hazards within the workplace and /or reporting those hazards they cannot correct.
- Reporting all injuries to a first aid officer or supervisor.
- Cooperating with Taylor management in all requirements imposed in the interest of health, safety the environment and wellbeing.
- Never intentionally or recklessly interfering with, misusing, or removing any items and/ or equipment provided in the interest of health and safety.
- Complying with all site safety instructions and abiding by the procedures and work practices identified in the Workplace Heath Safety Project Plans and/ or as directed or informed by the Site Manager / Foreman.
- Complying with all relevant workplace health and safety legislation, standards, and codes of practice.
- Reporting promptly to a Site Manager / Foreman any unsafe conditions, practices or defects discovered in any control measures, including personal protective equipment.
- Maintaining safe work practices when working with, or near, hazardous substances, so that their own health and safety, and the health and safety of those around them, is maintained.
- Using personal protective equipment (PPE) as required. The equipment should be kept clean and maintained in an appropriate manner.
- Practicing a high-standard personal hygiene in and around all amenity areas such as lunch, change and toilet facilities by washing thoroughly and removing all protective clothing before eating, drinking, and smoking.
- Do not perform any activity or act that endangers or impacts on the environment.

References:

- Roles, Responsibilities and Authorities Procedure QSE-P-06.

7. Induction

Taylor employees, including those workers engaged by or working on behalf of the subcontractors, are required to be site-inducted prior to commencing work on the site. General environmental awareness and specific environmental requirements of this PEMP must be incorporated into the site-specific induction as required.

As a minimum, inductions must include the following environmental information:

- Community issues.
- Hours of operation.
- Noise and vibration.
- Dust management.
- Traffic access.
- Washing requirements for construction plant and equipment.
- Storage and handling of fuels, oils, and other chemicals.
- Waste management: recycling, disposal, litter.
- Soil and water issues: controls, tracking of mud off-site.

Where there are significant environmental issues identified for the project, these must be incorporated into the site-specific induction. These may include but shall not be limited to (where required):

- Environmentally sensitive areas of the site (specify details in this section).
- Contaminated or Acid Sulphate soils.
- Endangered flora and fauna.
- Environmental controls and management.
- Noise emissions.
- Plant emissions.
- Archaeology and heritage management.

References:

- SE-F-11 Site Induction Form and Mandatory Safety Requirements.
- SE-F-11a Induction Register.

8. Training and Competency

All persons undertaking work on the project (employees and subcontractors) must be trained and competent to carry out their work. This includes undertaking tasks in an environmentally sound manner.

Subcontractors shall be responsible to ensure that Taylor's environmental risk management, as prescribed in Section 10.3 of this plan, are adopted and controls, as contained in Taylor's **HSE-R-01 HSE Risk Register,** are implemented when developing their systems of work.

The subcontractor shall be responsible to consult and train workers under their management in agreed environmental system. Evidence of appropriate training shall be made available by the subcontractor to Taylor upon request by a Taylor nominated representative.

The Project / Site Manager, along with relevant members of the project team, must be made aware of the requirements of the Taylor environmental management system and shall be required to attend Environmental Awareness and Due Diligence training sessions when organised by the company.

References:

- QSE-P-19 Training, Competency and Awareness Procedure.
- WHS-PLAN-02 Project Workplace Health and Safety Plan (PWHSP).

9. Communication

The requirements for internal and external communication are outlined in the QSE Management System Manual. The following provides essential information in relation to environmental communication on projects.

9.1 Internal Communications

Essential information relating to project environmental management will be communicated through toolbox talks and inductions.

Environmental alerts will be periodically prepared and sent to sites for posting on notice boards.

Key changes to environmental legislation will be sent by email to all project managers and site managers

9.2 External Communications – Community

Community complaints must be reported as environmental incidents and all correspondence relating to the complaint must be retained and filed on site, including information on how the complaint was resolved.

9.3 Regulator Site Visits and Written Communications

If an authorised officer *(*Council or Department of Planning & Environment representative*)* visits your site, you should contact the HSE Manager or Construction Manager for assistance and advice. While you can request that a higher level of management assists you, you cannot refuse to answer questions. An authorised officer must show their identification on request (ensure you ask for it) and has the right to ask any person on site questions relating to environmental issues. When being enquired, always be polite, discuss only the facts and do not elaborate or provide opinions.

Any Penalty Infringement Notices or official warnings from regulators are to be treated as 'incidents' and reported in the Incident Report Form, investigated and corrective actions assigned and completed to address the root cause of the infringement.

Any communication from a regulator must be notified to the HSE manager. Records of all communications must be retained and appropriately filed.

10. Environmental Risks

10.1 Standard Operating Procedures

Several standard operating procedures have been developed as part of the HSE management system to provide detailed information on the management of site issues in relation to environmental and safety risks. The following procedures have been developed to date and are available on SharePoint:

- SE-OP-01 Hazardous Substances and Dangerous Goods Procedure.
- E-OP-01 Erosion and Sedimentation Controls.
- E-OP-02 Waste and Resource Management.
- QSE-OP-02 Asbestos Management Procedure.
- SE-OP-04 Noise Management (OHS and Environmental).

10.2 Safe Work Method Statements (SWMS)

While SWMS are primarily used in WHS to manage high-risk activities, any relevant or foreseen environmental risk must also be considered in the preparation of the SWMS.

Taylor's site managers or their nominees are responsible for ensuring that subcontractors include environmental issues in their task-specific SWMS by using **SE-F-14**. If environmental issues are not appropriately addressed, the subcontractor should be advised of the requirements. It is recommended that subcontractors are assisted with identifying environmental issues, particularly during the early implementation of Taylor's environmental management system and PEMP.

References:

- SE-F-03 Taylor Construction Group Safe Work Method Statement.
- SE-F-14 Safe Work Method Statement Review Form.
- SE-F-14.1 Contractor's HSE Plan Review.

10.3 Environmental Risk Management and Control

This section provides an overview of environmental issues typically encountered on site based on the generic issues identified in the master Environmental Risk Assessment. When preparing this document, the project manager should add any additional environmental issues that may have been identified through the environmental impact assessment, development consent/ approval, etc.

10.3.1 Project Design – Environmental Considerations

During the planning phase of the project, consideration should be given to the following:

- How will design minimise energy use and allow for and use the natural environment?
- How will materials, products and systems be selected or designed to minimise adverse impacts and/ or benefit the environment?

These questions should be considered prior to commencement of the project and may require the input from the client.

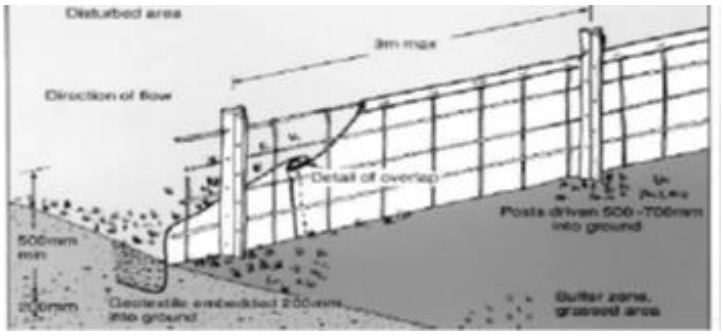
10.3.2 Soil and Water Management / Sedimentation and Erosion Control

Taylor and subcontractors shall plan and carry out works to avoid erosion and prevent sediment leaving the site to the surrounding land, watercourses, water bodies, wetlands and storm water drainage systems. This includes the installation of erosion and sedimentation controls prior to commencing clearing works. Where possible, works should be staged to reduce the areas cleared at the same time to minimize soil disturbance. Where required, prepare erosion and sediment control plans (ESCP), install the controls in accordance with the plan and maintain them regularly. For more detailed information, refer to the procedure and external guidelines listed below.

The following controls will be implemented within Taylor site boundaries to control erosion, sediment and pollution within the site:

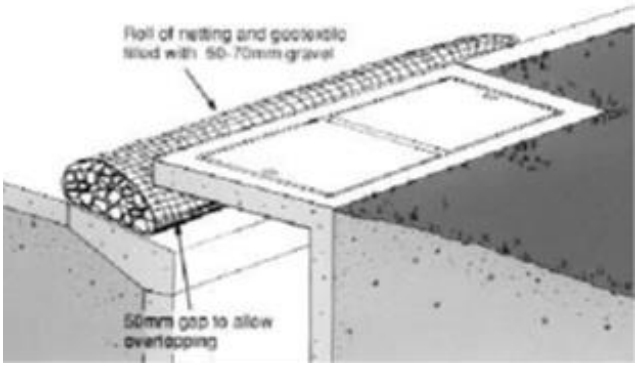
Sediment and erosion control devices – unnecessary disturbance of the site shall not occur, and all cuts are to be stabilised as soon as possible after the completion of site earthworks. Extra care will be taken to prevent sediment run-off into all neighbouring lots and storm water. Any collected silt will be disposed of in accordance with all other relevant codes and standards.

Silt fences – are to be installed to site boundaries as required. Geotextile fabric will be fixed to the temporary construction fencing where 'downhill' boundaries exist. The fabric will be turned down under the existing ground line and secured at regular intervals not exceeding 3m, in accordance with the following diagram:



Vehicle access – will be controlled to prevent sediment being tracked. This will be done by maintaining an all-weather access/ driveway composed of an approved coarse aggregate surface. Moreover, if the need arises, a shaker grid will be installed to the main access by Taylor during the construction works. Any sediment that is tracked onto the surrounding roads will be cleaned off in a timely manner.

Storm water inlets – all storm water inlets are to be covered with geotextile fabric in a roll or other format to ensure that no sediment enters the storm water system. This will be the responsibility of the site manager to enforce. The rolls will not only be placed directly at the inlets as shown below, but also at regular intervals in the gutters 'upstream' from the inlets, creating multiple barriers.



Stockpiles – if appropriate topsoil is to be stockpiled on site, then the following measures will be put in place:

- Stockpiles shall be stored at least 2 metres away from drainage lines, natural watercourse and established trees.

- Stockpiles will have temporary silt fences around it to create an enclosure and, if necessary, they will be covered with shade cloth or tarpaulin to retain the materials inside it. The location of stockpiles will be determined on site.

Monitoring – to maintain the various erosion and sediment control devices, regular inspections, repairs and cleaning will be carried out on the silt fences to the boundaries, stockpiles, waste enclosures and to the stockpile covers.

References:

- E-OP-01 Erosion and Sedimentation Controls Procedure.
- Managing urban stormwater: soils and construction, Volume 1, 4th edition, 2004.

10.3.3 Vegetation Management

Taylor and subcontractors shall plan the works to preserve existing trees, plants and other vegetation, that are to remain within or adjacent to the works. Areas of the site that contain vegetation that must be preserved should be fenced-off, marked or otherwise isolated to ensure they are not inadvertently damaged. If there are any endangered species on site, specific management techniques may be required; these should be addressed in an Environmental Impact Assessment.

On completion of the works, all areas disturbed by construction activities shall be restored to the contract specifications. Where required and practical, efforts will be made to mulch and re-use vegetation on site or send it to a green waste recycling facility.

10.3.4 Waste Management and Resource Recovery

Taylor and subcontractors shall adopt the hierarchy of waste (avoid, reduce, reuse, recycle/ reprocess), dispose to maximise resource recovery and minimise disposal wherever possible and practical. The importance of appropriate waste management practices is to be included in the site induction.

Sites are to be provided with suitable bins and skips for appropriate collection and separation of waste and recyclables, and these are to be collected with appropriately qualified and licensed (where required) waste contractors.

Prior to disposal, waste must be classified in accordance with the DECCW Waste Classification Guidelines (latest version 2014) prior to transporting waste off-site. Excerpts from the waste classification guidelines are contained within appendix B of the **Waste and Resource Management Procedure E-OP-02**. Waste receipts must be kept for legal requirements; details of waste separated and disposed of is to be documented in the **Waste and Recycling Register QSE-R-16**. The information from the register is to be used to complete the waste management section of the KPI Monthly Report Form and forwarded to the HSE manager for tracking of Taylor environmental targets.

References:

- E-OP-02 Waste and Resource Management Procedure.
- SE-F-23 KPI Monthly Report Form.
- QSE-R-16 Waste and Recycling Register.

10.3.5 Noise Management

From an environmental viewpoint, noise can create a nuisance to neighbours and members of the public and is subject to legal requirements. Taylor and subcontractors shall make all practical efforts to comply with statutory requirements for noise management and minimise nuisance to neighbours. Protection of the Environment Operations Act 1997 (sections 139 and 140) and the Department of Environment and Climate Change NSW 'Interim Construction Noise Guideline' risk controls for noise must be incorporated in relevant SWMS, including nuisance to neighbours. Where required by development consent conditions, environmental noise monitoring will be undertaken as per the conditions. Further information on noise management from a WHS and environmental viewpoint is contained within the Noise Management Procedure.

References:

- SE-OP-04 Noise Management Procedure.

10.3.6 Water Quality Management

Taylor and subcontractors shall comply with the requirements of section 120 of the Protection of The Environment Operations Act 1997 (Prohibition of Pollution of Waters). The act prohibits all forms of water pollution unless specifically authorised through and environment protection license (EPL). On most projects undertaken by Taylor, an EPL will not be required.

There are substantial penalties for individuals and the company and controls must be in place to ensure that site activities do not cause water pollution.

Potentially hazardous activities, including washing out of concrete delivery vehicles and washing down of construction plant, are not permitted on site except in specially constructed bays that retain high PH water. Washing out of concrete delivery vehicles off-site is only permitted at locations approved for that purpose by the appropriate authority. Drains will be labelled to reduce likelihood of misuse.

Washing of paint brushes must be undertaken to avoid any paint wash-water entering drains or waterways. Wash-water must be removed from site and appropriately treated and/ or disposed of. The chemicals, acids or residue from any 'wet trades' such as brick cleaning must also be prevented from entering drains and waterways.

All liquids and materials that could cause water pollution must be stored in areas with secondary containment. Also refer to section on hazardous substances, chemicals, oils and other contaminants and the related procedure.

Pumping of storm water – if a sediment basin is required and storm water is required to be pumped out of the site, the pump intake is to be located no more than one metre (1m) below the surface of the collected water to reduce the amount of settled silt being pumped out for further treatment.

Storm water treatment – there are two treatment options for storm water collected on site, flocculation and/ or filtration. For each option, the applicable procedures in their entirety are to be followed.

References:

- SE-OP-01 Hazardous Substances and Dangerous Goods Procedure.
- Storing and Handling Liquids - Environmental Protection (DECCW).

10.3.7 Air Quality Management

Taylor and subcontractors shall comply with all statutory requirements governing air quality management, i.e., Protection of The Environment Operations (POEO) Act 1997, section 124, and the POEO Clean Air Regulation 2010.

The Project / Site Manager will ensure that all construction facilities erected at the site are designed and operated to minimise the emission of smoke, dust, cement dust, plant and vehicle exhausts and other substances into the atmosphere.

Taylor and subcontractors shall employ construction methods that will keep the air pollution to a minimum and apply measures such as those listed below to ensure that airborne pollutants do not cause pollution and nuisance near the works:

- The spraying of disturbed soil and roads with water whilst under construction as required.
- The removal of mud from the wheels and bodies of plant and vehicles before it enters public roads or other sealed pavements. This could be rumble grids, dry brushing, wheel wash, etc., depending on the nature of the site.
- The removal of mud or dirt spilt by construction equipment onto public roads or other sealed pavements.
- The provision of coverings or stabilisation of topsoil stockpiles.
- Covering all loads leaving the site.
- Stabilisation of ground likely to be exposed for significant time periods (e.g., using sterile seed).
- Fitting power tools with dust collection devices where practical.
- Keeping all plant and equipment well maintained and not leaving them idling while not being used.
- Reporting excess air emissions from plant and arranging for a service to fix the problem.

On-site burning of any materials is not permitted on Taylor sites.

Dust Including Crystalline Silica Dust

Dust containing respirable crystalline silica particles is commonly called silica dust. Activities such as cutting, grinding, sanding, drilling, loading or demolishing products that contain silica can generate respirable particles of crystalline silica dust that are small enough to breathe into your lungs. Crystalline silica dust can be harmful when it is inhaled into your lungs over a long period of time at low to moderate levels, or short periods at high levels.

From the **1st of July 2020** in NSW dry cutting will be an offence and for those who choose to ignore the law and put their employees a risk, SafeWork inspectors will issue tough new fines for noncompliance.

All subcontractors working on a Taylor project that are using, drilling, cutting, sanding or grinding products that are known to contain silica will need to have a system in place that will allow their workers to either wet cut or drill, or will be required to use dust extraction systems on portable tools, or adopt other methods that eliminate or minimise the generation of silica dust.

10.3.8 Hazardous Substances, Chemicals, Oils and Other Contaminants

Prior to commencing work on site, an assessment of the quantities and locations of hazardous substances, chemicals, etc. likely to be held on site must be undertaken. The location of hazardous substances and other contaminants must be marked on a site map (refer to appendix 5). The Site Manager will use the assessment when planning the works to minimise the potential for pollution. This includes providing appropriate storage, separation of incompatible materials and bunding, and ensuring that all activities that use or handle these substances are undertaken in an area that will not cause water pollution or land contamination.

Spill kits will be provided wherever substances that could potentially cause pollution are stored and handled. Relevant site personnel will be trained in spill response and will be familiar with the contents and function of the spill kit materials on site. All spills, no matter how small, must be cleaned up immediately and be 0reported as an environmental incident.

Refuelling or maintenance of plant and equipment, or any other activity which may result in the spillage of a chemical, fuel or lubricant on the site, is not permitted without appropriate temporary controls measures.

The use and storage of any hazardous substances or other chemicals will be made strictly in accordance with the manufacturer's instructions and the relevant materials safety data sheets (MSDS).

References:

- SE-OP-01 Hazardous Substances and Dangerous Goods Procedure.
- Storing and Handling Liquids - Environmental Protection (DECCW).

Spill Response

Major spillages must be notified immediately, and all efforts made to contain the spill and prevent escape into storm water drains and waterways, provided it is safe to do so. If the spill is beyond the capacity of the site personnel to contain and clean up, specialist services must be employed.

Minor spillages must be cleaned up immediately. If soil or ground is contaminated, the soil is to be removed and placed into a bag or designated waste drum and disposed of appropriately.

If the spill enters drains or waterways, the incident may be required to be reported to the appropriate regulatory authority (local council) as soon as practicable, in accordance with the duty to report under the POEO Act. The decision to report must be discussed with the HSE Manager or a Director prior to making the report.

Spill response procedures for this project are:

- Provide site map showing location of all hazardous substances, chemicals, fuels, oils, spill kits, storm water drains and natural waterways (Appendix 5).
- Spill Response Procedure flow chart (Appendix 3).
- Call emergency services (fire, hazmat): call 000.
- Local council phone number: 9936 8100
- MSDSS are located at Site Office

10.3.9 Pesticide Use and Storage

If pesticides are used at the site, they must be stored appropriately as per 'hazardous substances' section (11.3.8 above) and used in accordance with the manufacturer's requirements and the NSW Pesticides Management Act and Regulations. The act and regulations have strict record keeping requirements for the use of more than 20 litres of product.

Taylor Construction Group general policy on the use of pesticides is that they should only be applied by suitably qualified pest control contractors.

10.3.10 Contaminated Land

Prior to commencing project work, checks should be made on the potential for the site to be contaminated. This should generally be identified by the client and addressed in an Environmental Impact Assessment. If the site is found to be contaminated, the recommendations for management of the contaminated soils from the assessment and other reports should be incorporated into this PEMP below.

Should contamination be suspected once working on the site (e.g., unusual odours, visual indications of soil or water pollution, etc.) work should cease immediately and the Taylor's project/ site manager contacted. Where relevant, the client should be notified by Taylor's project manager and investigations undertaken into the nature of the contamination. Work should not recommence until the nature and extent of the contamination is established and can be safely managed without environmental risk.

Taylor and subcontractors shall comply with relevant statutory requirements of Contaminated Land Management Act and the POEO Act (NSW) in relation to disturbance or treatment of potentially contaminated ground.

The company shall install any control measures needed to divert surface run-off away from contaminated ground and to treat any surface run-off contaminated by exposure to contaminated ground. Contaminated material removed from site must be recorded on the **Waste and Recycling Register QSE-R-16**.

References:

- Waste and Recycling Register QSE-R-16.

10.3.11 Acid Sulphate Soils (ASS)

Acid sulphate soils are naturally occurring soils generally found in estuarine areas. When exposed to air, they can oxidise and cause run-off of highly acid water. Acid sulphate soils require specialist management techniques.

The client should be aware of any potential for encountering acid sulphate soils and, if there is a potential, it should be addressed in the Environmental Impact Assessment undertaken for the project.

10.3.12 Community Complaints

Community complaints should be treated as incidents. They must be reported to the HSE Manager, be thoroughly investigated and reported on SharePoint. Reference to these must also be documented and included in site diary entries. The project or site manager should try to resolve the issue with the community member in a conciliatory manner.

References:

- SE-F-21 Incident Report Form.
- SE-F-22 Incident Investigation Form (report on SharePoint – forms are back-up only).
- SE-F-23 KPI Monthly Report (as above).

10.3.13 Archaeology and Heritage Management

If any unexpected heritage item is discovered during maintenance and construction works, the following must be taken into consideration:

Indigenous heritage – all Aboriginal and Torres Strait Islander, regardless of significance, are protected under law. Should any deposit, artefact or material evidence (including skeletal remains) of Aboriginal and Torres Strait Islander origin be found, Taylor and subcontractors shall cease all construction works that might disturb or damage the deposit, artefact or material. The Project Manager will notify the client immediately, who will then consult the relevant government department (i.e., Department of Planning & Environment - National Parks and Wildlife Services). Examples of Aboriginal and Torres Strait Islander objects include stone tool artefacts, shell middens, axe grinding groves, pigment or engraved rock art, burials, and scarred trees.

Historic heritage – historic (non-Aboriginal) heritage items may include archaeological 'relics and other historical items such as works, structures, buildings or moving objects. Should any item which is suspected to be of historical heritage value be encountered, Taylor and subcontractors shall cease all construction works that might disturb or damage the item. The Project Manager will notify the client immediately, who will arrange for an officer from the relevant government heritage department to be consulted. A 'relic' is 'any deposit, artefact, object or material evidence that relates to the settlement of the area, not being Aboriginal and Torres Strait Islander settlement; and is of State or local heritage significance'. It can include bottles, remnants of clothing, pottery, building materials and general refuse.

References:

- Heritage Act 1977.
- National Park and Wildlife Act 1974.
- Unexpected Heritage Items Procedure – Roads and Maritime Services, 2015.

11. Incident and Emergency Management

11.1 Emergency Response

The Emergency Response Plan for this site has been developed based on a template provided in the **SE-P-07 Project Emergency Control Management Plan**. Additional information for the management and control of emergency situations can be found in the Project Safety Plan (**WHS-PLAN-02**) but a Spill Response Procedure Flow Chart is contained in appendix 3 of this plan. For additional information on response to a spill, refer to section 10.3.8.

Emergency response posters and flow charts are to be posted in the site and induction office, WHS notice boards, in crib rooms and other areas of the site as required.

References:

- SE-P-07 Project Emergency Control Management Plan.
- QSE-F-10.1 Pre-Start Site QSE Checklist.
- SE-F-31 Emergency Evacuation Rehearsal Register.
- SE-F-05 Site Layout Evacuation Plan.
- SE-F-06 On-Site Emergency Control Plan.

11.2 Incident Reporting and Investigation Reporting

Site environmental incidents must be reported to the Project / Site Manager as soon as practically possible. In addition, any major environmental incidents must also be reported to the HSE Manager in accordance with the **Incident Reporting and Investigation Procedure QSE-OP-05**. The priority is to ensure that the situation is controlled as soon as possible and to avoid further pollution or other adverse environmental consequences. Reporting of the incident should not delay any immediate responses to the incident.

Incident Reports must be completed and forwarded to the HSE manager within 24 hours and must be kept for a minimum of five (5) years.

Environmental incidents that cause, or threaten to cause, material environmental harm must be reported to the Appropriate Regulatory Authority (ARA, the local council in which the project is located) as soon as practicable following the incident. This would include any spillage or leak of substances that cause water or land pollution. Material environmental harm generally means that the harm is not trivial and/ or costs more than $10,000 to clean up. The phone number of the ARA should be included in the Emergency Response Plan.

If the Site Manager believes that the incident may be reportable to the ARA, contact the WHS Manager for further advice prior to making an investigation report.

All environmental incidents that cause, or could potentially result, in an environmental harm are to be investigated, and corrective actions implemented following the investigation. Depending on the seriousness of the incident, key site personnel, the HSE Manager, witnesses, etc. should be consulted on the investigation and in determining appropriate corrective or preventive actions.

References:

QSE-OP-05 Incident Reporting and Investigation Procedure.

SE-F-21 Incident Report Form (report on SharePoint – forms are back-up only).

SE-F-22 Incident Investigation Form (as above).

12. Environmental Monitoring and Inspections

12.1 Site Environmental Inspections

Site environmental inspections are to be undertaken weekly using **SE-F-02 HSE Inspection Checklist** to ensure that environmental hazards are recognised and can be promptly rectified. Additional environmental issues may be added to the site HSE inspection form as required.

12.2 Physical Monitoring

For many projects undertaken by Taylor, physical environmental monitoring is not typically required (e.g., dust, water quality, noise levels and air quality). Should the Environmental Impact Assessment specify that environmental monitoring is required, the project manager will arrange for appropriately qualified consultants to undertake that monitoring. All equipment used to measure environmental parameters will be calibrated in accordance with manufacturer's instructions.

12.3 Monitoring of Project Environmental Targets

Objectives and targets for the project are specified under 'Objectives and Targets' section of the PEMP. Data relating to these targets will be documented daily using site diaries, reviewed by Project / Site Managers monthly and forwarded to the HSE Manager for reporting to senior management.

The KPI monthly report captures information on lag and lead indicators. The current indicators are:

Lag indicators:

- Number of environmental incidents.
- Number of penalty infringement notices (pins) or clean-up notices.
- Number of community complaints.

Lead indicators:

- Number of toolbox talks (combined with WHS and environmental issues).
- Number of environmental inspections undertaken.
- Waste and recycling volumes (initially to set benchmark, then track improvement)

Add any additional KPIs that may be set from Environmental Impact Assessments, conditions of consent and client requirements, etc.

12.4 Unexpected Contamination Procedure

The Remediation Action Plan & Asbestos Management Procedure provide actions following the discover of unexpected contamination. This procedure is to be followed and contact the required stakeholders as detailed in the communication section of this plan.

Residual hazards that may exist at the site would generally be expected to the detectable through visual or olfactory means. At this site, these types of hazards may include suspected friable types of asbestos in soil, and odorous or stained hydrocarbon impacted soils.

The procedure to be followed in the event of an unexpected find is presented below:

1. In the event of an unexpected find, all work in the immediate vicinity should cease
2. The following parties should be contacted immediately:
    a. Validation Consultant
    b. Site Auditors
    c. Turner & Townsend (Client Project Manager)
    d. SINSW (Client Representative)

e. Planning Secretary

3. Temporary barricades should be erected to isolate the area from access to the public workers
4. In the even suspected friable asbestos material is encountered, a qualified occupational hygienist and/or asbestos consultant should be contacted.
5. An additional sampling and analytical rationale should be established by the validation consultant, the subsequently reviewed by the site auditor, and then implemented with reference to the relevant guideline documents
6. In the event remediation is required outside the purview of the RAP or the addendum RAP, and additional addendum RAP or Remedial Works Plan should be prepared and submitted to the Site Auditor, client and consent authority for approval; and
7. Appropriate validation sampling should be undertaken by the validation consultant and the result should be included within the validation report

13. Non-Conformity, Corrective and Preventive Actions

Taylor has a non-conformance and corrective action process in place to address all non-conformities across the business, regardless of the source. The process is defined in the **Reporting Non-Conformance, Corrective and Preventive Actions Procedure QSE-OP-29**. Typically, environmental non-conformances would result from audits, inspections and from observations by the site manager of poor environmental practices, including incorrect waste disposal/ recycling (liquid waste, poor storage of hazardous substances, oils, chemicals and damage to existing environmental controls such as sediment fencing, etc.). Non-conformances may be issued for serious breaches or repeated minor breaches.

References:

- QSE-OP-29 Reporting Non-Conformance, Corrective and Preventive Actions Procedure.
- Notices (electronic) raising of non-conformances (internal).
- Notices (printable) for raising NCRS on subcontractors.

14. Purchasing / Procurement

Purchasing and procurement includes the purchase of goods and the supply of services of contractors. When purchasing goods, the following environmental considerations should be considered:

- Is there a less toxic, less harmful alternative (e.g., chemicals, paints, solvents, etc.)?
- How much do we need? Will anything be wasted? Precise ordering will minimise wastage of resources and money.
- Can the product be purchased locally to reduce transport impacts?
- Are there any opportunities to use ‘green’ products in construction to improve the efficiency of the building in terms of energy and water usage (design issue – may need client input)?
- S-F-18.1 Pre-Hire Purchasing Assessment Form

When engaging contractors, the following should be taken into consideration:

- Has the environmental capability been assessed and signed-off through contract administration?
- Has the contractor attended a pre-award interview and assessed Taylor Construction Group environmental requirements?
- Has **Subcontractor Tender Interview and Assessment Form QSE-F-15.6** been completed?

References:

- QSE-OP-15 Subcontracting, Purchasing and Hiring Procedure
- QSE-F-15.6 Subcontractor Tender Interview and Assessment Form.

15. Contractor Management

Taylor, as the principal contractor, will ensure that contractors performing work on site are aware of the environmental requirements and enforce compliance to requirements.

Prior to commencing on site, contractors are to be inducted to the site as part of the HSE requirements. Inductions will include an environmental component to ensure all contractors are aware of the environmental risks on the project.

Contractors are required to submit Safe Work Method Statements (SWMS*)* prior to commencement of work as part of the WHS requirements. SWMS must also address the environmental risks for the tasks and will be reviewed and checked-off on **SE-F-14 Safe Work Method Statement Review Form** by the site manager to ensure that all environmental risks are appropriately identified, and controls documented.

Environmental inspections will be undertaken at least once monthly. This will include an inspection of the contractor's work area and checking that all environmental controls are in place. Serious breaches or repeated minor breaches will result in the issue of a Non-Conformance Report, and the issue must be resolved within designated time frames.

16. Environmental Audit

Audits of the Environmental Management System will be conducted regularly to ensure the system is appropriately in place and implemented. As part of the audit program, audits will also be undertaken on project sites for compliance to the requirements of the Project Environmental Management Plans. Audits should be undertaken by suitably experienced auditors.

Projects that have duration of more than six months will have at least one audit against the PEMP and, after the six months, will be audited at least once per year. This will generally be undertaken as an integrated audit in conjunction with the Project Safety Plan and Project Management Plan (Quality). Projects with high-risk activities or that performed poorly at the initial audit may be audited at a higher frequency. The HSE Manager is responsible for coordinating project audits.

17. Review of This Plan

This Environmental Management Plan must be reviewed by the project manager in consultation with the project team and HSE manager whenever any major change occurs on the site that may have an impact on the environment, or at least twice (every six months) during construction.

Appendix 1 – Global Mark Accreditation

Certificate of Approval

This certificate confirms that the company below complies with the following standard:

Company Name	**Taylor Construction Group**
Company Other Name	
Client ID	**101009**
Scheme	**Environmental Management Systems Scheme**
Certification Standard	**AS/NZS ISO 14001-2016: Environmental management systems - Requirements with guidance for use**
Scope of Certification	**Design, construction, project management and property development services**
Type of Certification	**Management System**

The control set source for controls applied in the Statement of Applicability (referenced above) does not imply these controls are certified by Global-Mark.

CERTIFICATE DATES:

Original / Initial	**19/11/2009**	*Last Certificate update*	**13/05/2021**
Certification / Re Certification	**4/05/2021**	*Expiry*	**7/05/2024**
Last Certification Decision	**13/05/2021**		

APPROVED COMPANY/SITE ADDRESS(ES):

Level 13, 157 Walker Street North Sydney NSW 2060 Australia

The use of the Accreditation Mark indicates accreditation by the Joint Accreditation System of Australia and New Zealand in respect to those activities covered by JAS-ANZ accreditation. Refer to www.jas-anz.org/register for verification.

This certification remains valid until the above mentioned expiry date and subject to the organisation's continued compliance with the certification standard, and Global-Mark's Terms and Conditions.

This Certificate of Approval remains the property of Global-Mark Pty Ltd, Company Number: ACN 108-087-654

Certification Manager

Unique Certificate Code: E1SD2CE263BF3E6CCA2586CF0001C4EF

Appendix 2 – Environmental Policy

Environmental Policy

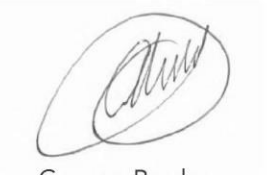
Taylor regards appropriate management of environmental issues as integral to our business. We are committed to the protection of the environment and ecologically sustainable practices in all aspects of our operations.

We will comply with all relevant legislation governing the protection of the environment. Our environmental management systems will address all aspects of the International Standard, ISO 14001:2016: "Environmental Management Systems – Requirements with guidance for use".

In managing our business, we make a commitment to:

- Work pro-actively with our clients, regulators, and other community stakeholders to enable environmental issues to be addressed at an early stage of development.
- Take local community views into consideration and ensure that we inform, listen to and respond to reasonable concerns relating to our projects.
- Undertake our activities in a manner that is consistent with the principles of ecologically sustainable development.
- Prevent pollution and reduce adverse environmental impacts of our activities on the natural, built and cultural environment.
- Promote the efficient use of natural resources and reduce waste through the use of the waste hierarchy – avoid, reduce, re-use, recycle and finally dispose.
- Set realistic environmental objectives and targets at all relevant levels within the company and continually monitor performance.
- Promote environmental awareness among all employees and subcontractors to achieve our environmental objectives.
- Continually improve our environmental performance through periodic review and evaluation of our policy and management systems to ensure they remain suitable, adequate and effective.
- Encourage a sense of personal responsibility for environmental issues amongst employees and subcontractors through effective communication, training and positive organisational culture.

This policy will be reviewed in December 2021.

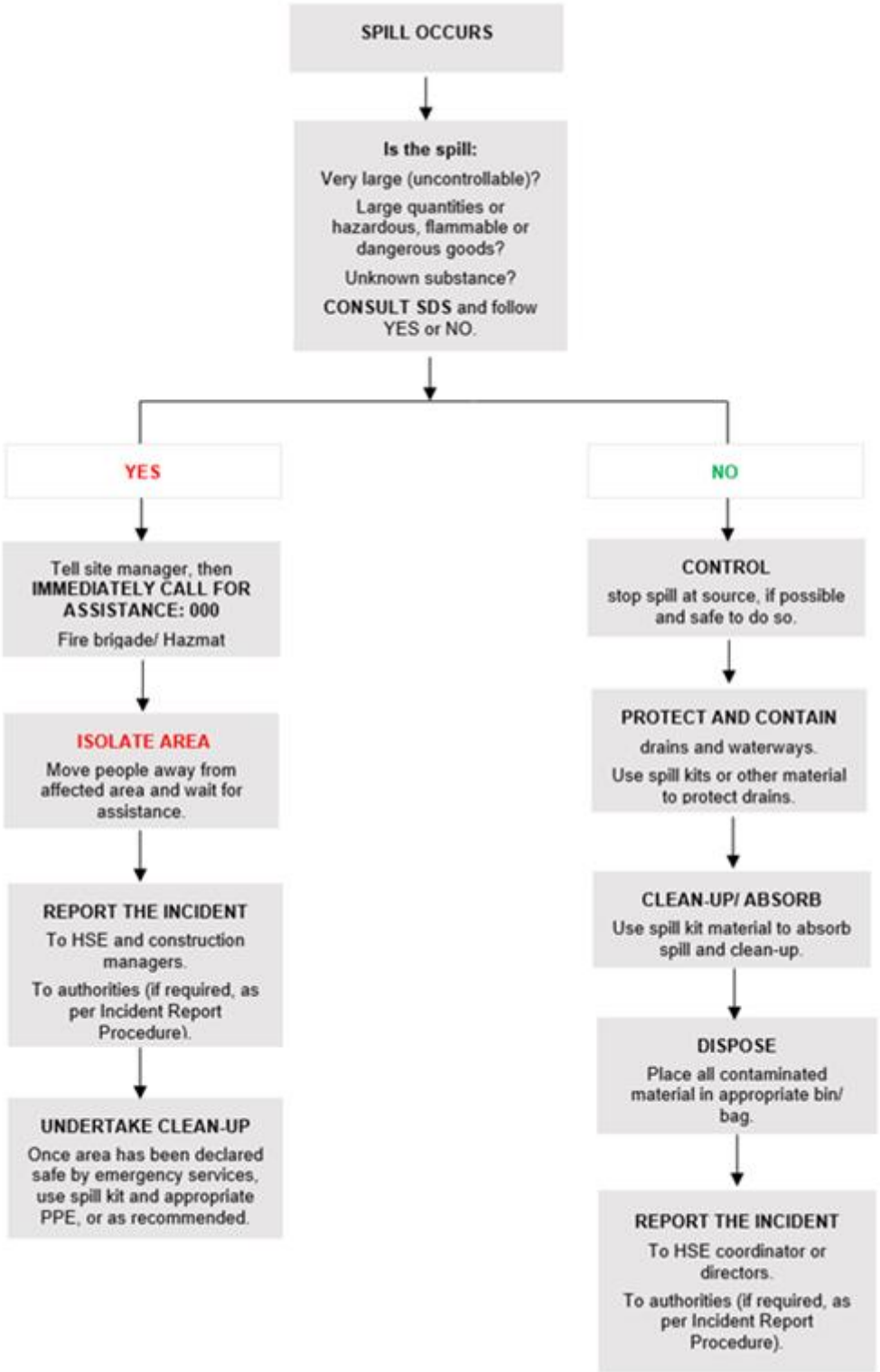


George Bardas
Chief Executive Officer

Environmental Management · ISO14001
Global-Mark.com.au®

Appendix 3 – Taylor's Construction Spill Reponse Procedure Flow Chart

Taylor's Construction Spill Reponse Procedure Flow Chart



Appendix 4 – Site Environmental Emergency Reponse Plans

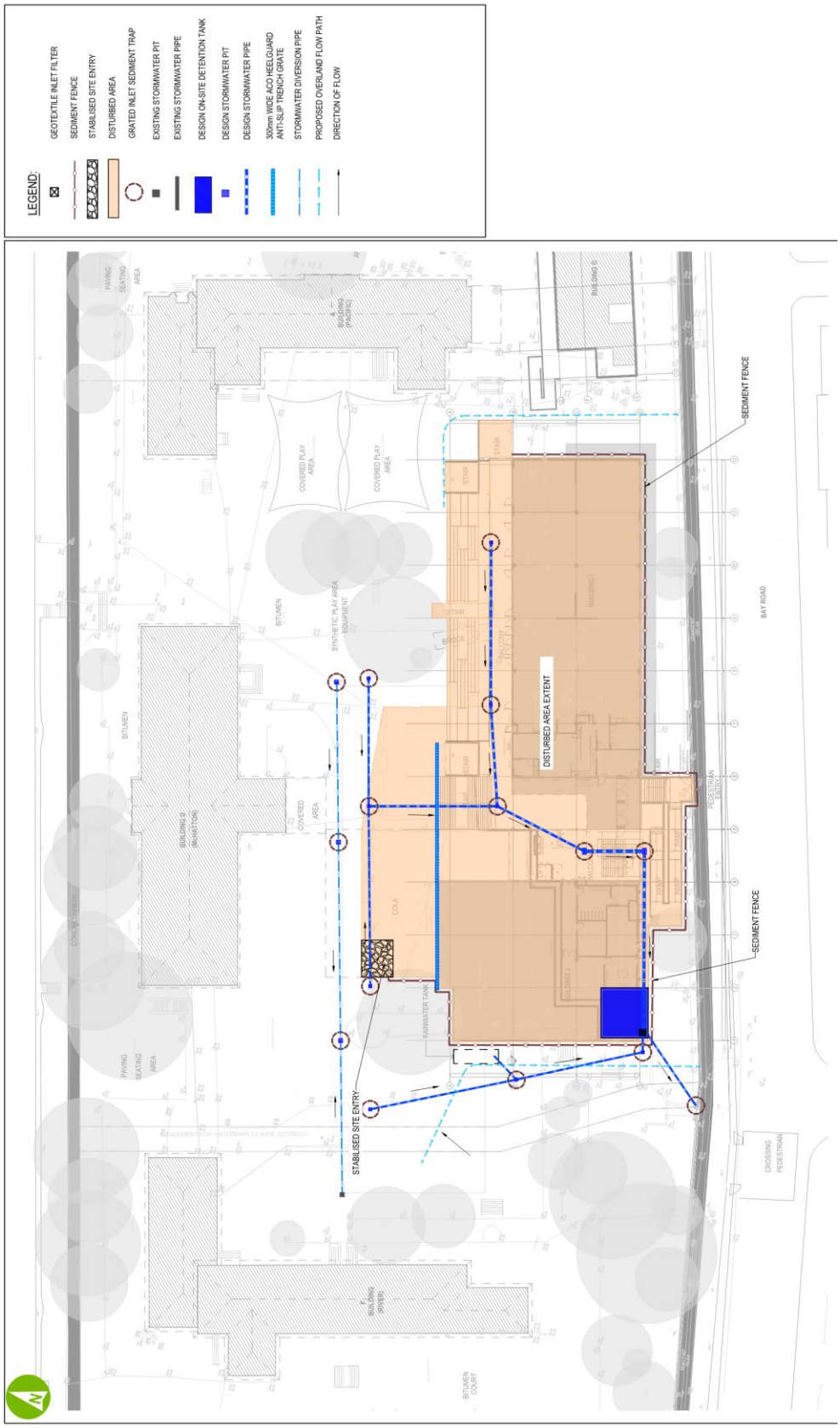
Site Environmental Emergency Reponse Plans

Potential emergency	What to do?	Relevant authorities and persons
Injury caused by: – Fire – Explosion – Machinery accidents – Minor injuries	– For serious injuries, call an ambulance. You should also have the contact details of the nearest doctor, medical centre and hospital. – Immediately inform the site first aid officer. – Follow the procedures as detailed in the Site Safety Plan. – For major injuries, contact the site manager or project manager.	– Emergency services – Nearest doctor – Medical centre – Site Manager – Project Manager
Fire **Fire at the diesel tank** **Fire at any of the machineries** **Fire caused by vandalism**	– Evacuate all personnel to a safe area immediately. – Call the fire brigade (emergency services). – If the fire is likely to damage neighbouring property, inform the adjacent residents. – Follow the procedures as detailed in the Site Safety Plan. – For major fire emergencies, contact the site manager or project manager. – Inform terminal security. **Note:** fire extinguishers are located throughout the site as detailed in the Emergency Evacuation Map.	– Emergency services – Site Manager – Project Manager – Adjacent residents
Spills management and contaminated soils. **Major spills:** – Spill or release of diesel fuel or oil – Spill or release of other hazardous chemicals or material.	For major spills (defined as a spill that is likely to have direct environmental consequences): – Immediately call the Fire Brigade and notify the project manager. – Identify the source of the spill. – Refer to the Material Safety Data Sheet (MSDS) and evaluate the hazards of the material.	– Emergency services (fire brigade) – HSE Manager – Site Manager and Project Manager – EPA
Minor site spills **Acid sulphate soils**	– If the material is dangerous, evacuate the site immediately and notify all neighbours. – If it is safe to do so, halt the source of the spill immediately. – Contain the spill and control its flow. – Block storm water drains downstream of the spill. – EPA and local council must be notified about any spills that are likely to threaten the environment. – Minor spills (defined as spills which can be contained and rectified correctly without the need of external services), shall be contained and rectified with the site spill kit and disposed of correctly. Superintendent to be notified via incident report. – Reported to the Site Manager.	– Emergency services (fire brigade) – HSE Manager – Site Manager and Project Manager – EPA

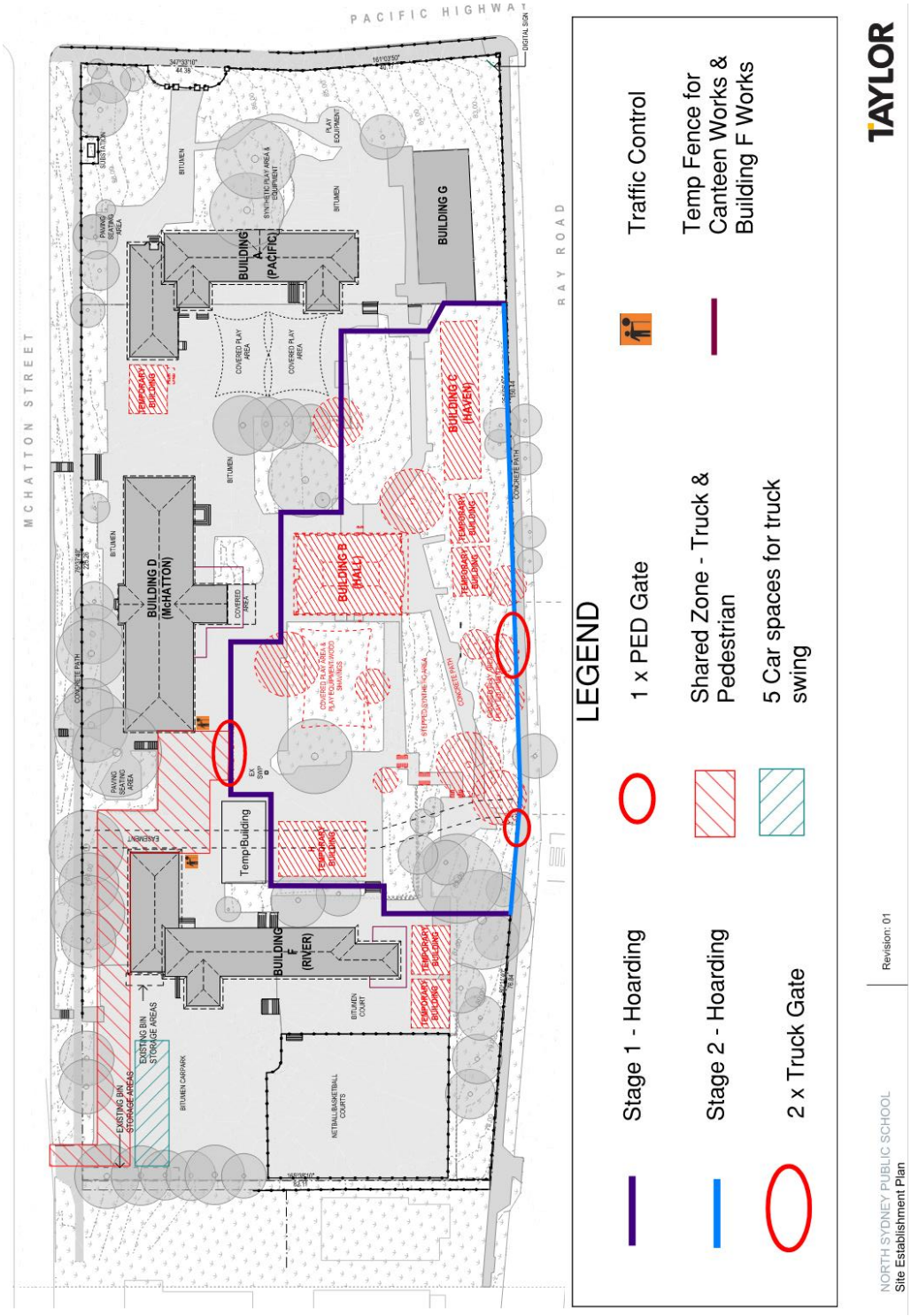
Potential emergency	What to do?	Relevant authorities and persons
	– Where acid sulphate soils are discovered, the spoil shall not be removed from site; subsequent notification and testing will follow.	
Heavy rainstorm and flood beyond the capacity of the sediment and erosion controls on-site or failure of the sedimentation control measures.	– Contain/ minimise the flow. – Contact council immediately. – Investigate reasons for failure and prepare an incident report. – Contact the Project Manager.	– Council – Site manager – Project manager
Discovery of items of conservation value (e.g., flora and fauna, heritage).	Fence-off the area as 'no go' zone and contact the site manager or project manager immediately for further action.	– Site Manager – Project Manager
Discovery of contaminated material on site (e.g., underground fuel storage tanks).	Fence-off the area as 'no go' zone and contact the site manager or project manager immediately for further action.	– Site Manager – Project Manager

Appendix 5 – Site Map: Environmental Requirements incl. Sediment & Erosion Control + Site Establishment Plan (for reference)

SEDIMENT & EROSION CONTROL PLAN



SITE ESTABLISHMENT PLAN



Appendix 6 – External Lighting Compliance

Refer to [Condition 11] External Lighting Report

Appendix 7 – Community Consultation & Complaints

Refer to [Condition 9] Community Communication Strategy

Appendix 8 – Construction Traffic & Pedestrian Management Sub-Plan

Refer to [Condition B15, B19 & B21] CTPMSP + Driver Code of Conduct

Appendix 9 – Construction Noise & Vibration Management Sub-Plan

Refer to [Condition B16] Construction Noise & Vibration Management Sub Plan

Appendix 10 – Construction Waste Management Sub-Plan

Refer to [Condition B17] Construction Waste Management Plan

Appendix 11 – Construction Soil & Water Management Sub-Plan

THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL RELEVANT NOTES ON DRAWING NSPS-TTW-0XX-XX-DR-0002

EASEMENT FOR WATERMAIN 3.5 WIDE (DP579301)

1 DP183591

PROVIDE GEOTEXTILE PIT FILTER REFER TO DETAIL ON THIS DRAWING. (TYP)

PROVIDE SILT FENCE REFER TO DETAIL ON THIS DRAWING

PROVIDE CATCH DRAIN REFER TO DETAIL ON THIS DRAWING

PROPOSED PIT PROVIDE GEOTEXTILE PIT SURROUND (TYP)

PROVIDE SEDIMENTATION BASIN VOLUME = 170m³ MIN.

PROVIDE TEMPORARY CONSTRUCTION EXIT 2, LOCATION TBC BY CONTRACTOR

PROVIDE HAY BALE SEDIMENT FILTER REFER TO DETAIL ON THIS DRAWING (TYP)

PROVIDE SEDIMENTATION TRAP REFER TO DETAIL ON THIS DRAWING

DRAIN CREST

80°11'40" 76.84

254°06'40" 150.44

8.50

14.30

BAY ROAD

EROSION AND SEDIMENT CONTROL LEGEND

- Batter
- Siltation fence
- Stormwater pit with Geotextile filter surround
- Hay bale barriers
- Catch drain

THIS DRAWING HAS BEEN PREPARED USING COLOUR

0 2 4 6 8 10 12 14 16m

1:200 A1 1:400 A3

FileName: NSPS-TTW-0ZZ-ZZ-DR-C-0001.dwg - USER: jlheh - Plot File Created: Feb 23, 2022 - 3:48pm

Rev	Description	Eng	Draft	Date
P1	ISSUE FOR 50% DD	WB	JH	23.02.22

Architect
fulton trotter ARCHITECTS
SYDNEY
Level 5, 35 Spring Street
PO Box 1669
Bondi Junction, NSW 2022
t. (02) 8383 5151
e. sydney@fultontrotter.com.au
BRISBANE
SYDNEY

Engineer
TTW Structural Civil Traffic Façade
612 9439 7288 | Level 6, 73 Miller Street, North Sydney, NSW 2060

Project
NORTH SYDNEY PUBLIC SCHOOL
Job No
211019

Sheet Subject
EROSION & SEDIMENT CONTROL PLAN

Scale : A1	Drawn	Authorised
1:200	JH	NB

Drawing No: NSPS-TTW-0ZZ-ZZ-DR-C-0001 Revision: P1

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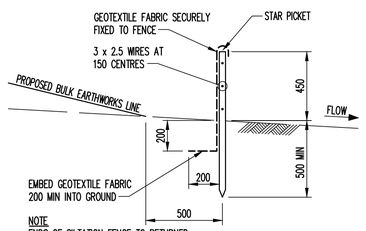
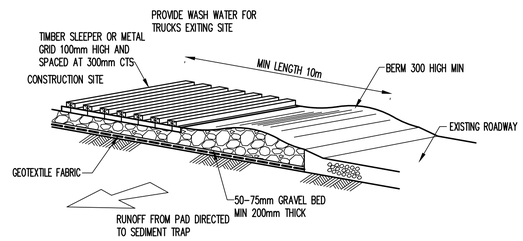
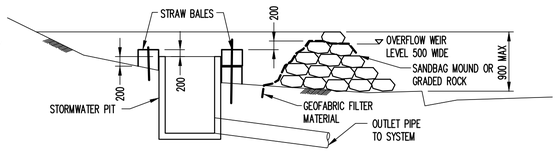
NSPS-TTW-0XX-XX-DR-0002



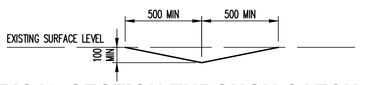
SILTATION FENCE DETAIL
SCALE 1: 20



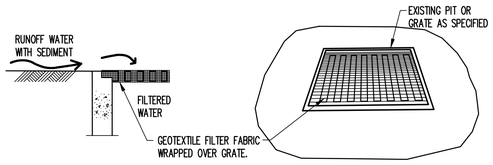
TEMPORARY CONSTRUCTION VEHICLE EXIT
NTS



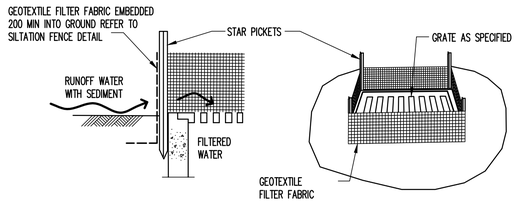
SEDIMENTATION TRAP
NTS



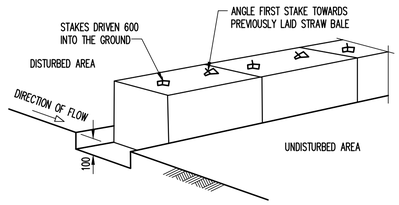
TYPICAL SECTION THROUGH CATCH DRAIN
SCALE 1: 20



GEOTEXTILE PIT FILTER
NTS



GEOTEXTILE FILTER PIT SURROUND
NTS



HAY BALE SEDIMENT FILTER
NTS
NOTE: STAKE TO BE EITHER TAR COATED STAR OR 50 x 50 HARDWOOD

EROSION AND SEDIMENT CONTROL NOTES

1. All work shall be generally carried out in accordance with
   (A) Local authority requirements,
   (B) EPA – Pollution control manual for urban stormwater,
   (C) LANDCOM NSW – Managing Urban Stormwater: Soils and Construction ("Blue Book").
2. Erosion and sediment control **drawings and notes are** provided for the whole of the works. Should the Contractor stage these works then the design may be required to be modified. Variation to these details may require approval by the relevant authorities.
   The erosion and sediment control **plan** shall be implemented and adapted to meet the varying situations as work on site progresses.
3. Maintain all erosion and sediment control devices to the satisfaction of the superintendent and the local authority.
4. When stormwater pits are constructed prevent site runoff entering the pits unless silt fences are erected around pits.
5. Minimise the area of site being disturbed at any one time.
6. Protect all stockpiles of materials from scour and erosion. Do not stockpile loose material in roadways, near drainage pits or in watercourses.
7. All soil and water control measures are to be put back in place at the end of each working day, and modified to best suit site conditions.
8. Control water from upstream of the site such that it does not enter the disturbed site.
9. All construction vehicles shall enter and exit the site via the temporary construction entry/exit.
10. All vehicles leaving the site shall be cleaned and inspected before leaving.
11. Maintain all stormwater pipes and pits clear of debris and sediment. Inspect stormwater system and clean out after each storm event.
12. Clean out all erosion and sediment control devices after each storm event.

Sequence Of Works

1. Prior to commencement of excavation the following soil management devices must be installed.
1.1. Construct silt fences below the site and across all potential runoff sites.
1.2. Construct temporary construction entry/exit and divert runoff to suitable control systems.
1.3. Construct measures to divert upstream flows into existing stormwater system.
1.4. Construct sedimentation traps/basin including outlet control and overflow.
1.5. Construct turf lined swales.
1.6. Provide sandbag sediment traps upstream of existing pits.
2. Construct geotextile filter pit surround around all proposed pits as they are constructed.
3. On completion of pavement provide sand bag kerb inlet sediment traps around pits.
4. Provide and maintain a strip of turf on both sides of all roads after the construction of kerbs.

WATER QUALITY TESTING REQUIREMENTS

Prior to discharge of site stormwater, groundwater and seepage water into council's stormwater system, contractors must undertake water quality tests in conjunction with a suitably qualified environment consultant outlining the following:

- Compliance with the criteria of the Australian and New Zealand Guidelines for Fresh and Marine Water Quality (2000)
- If required subject to the environmental consultants advice, provide remedial measures to improve the quality of water that is to be discharged into Councils storm water drainage system.This should include comments from a suitably qualified environmental consultant confirming the suitability of these remedial measures to manage the water discharged from the site into Councils storm water drainage system. Outlining the proposed, ongoing monitoring, contingency plans and validation program that will be in place to continually monitor the quality of water discharged from this site. This should outline the frequency of water quality testing that will be undertaken by a suitably qualified environmental consultant.

FileName: NSPS-TTW-0ZZ-ZZ-DR-C-0002.dwg - USER: jheath - Plot File Created: Feb 23, 2022 - 4:02pm

0 2 4 6 8 10 12 14 16m
1:200 A1 1:400 A3

THIS DRAWING HAS BEEN PREPARED USING COLOUR

Rev	Description	Eng	Draft	Date
P1	ISSUE FOR 50% DD	WB	JH	23.02.22

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Project
NORTH SYDNEY PUBLIC SCHOOL
Job No
211019

Sheet Subject
EROSION & SEDIMENT CONTROL DETAILS SHEET

Scale : A1: AS SHOWN
Drawn: JH
Authorised: NB
Drawing No: NSPS-TTW-0ZZ-ZZ-DR-C-0002
Revision: P1
Plot File Created: Feb 23, 2022 - 4:02pm

THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL RELEVANT NOTES ON DRAWING NSPS-TTW-0XX-XX-DR-0002

SITEWORKS LEGEND

- F22.20 — Finished surface level
- Stormwater pit, flow direction and line with
  - IL10.00
  - 600 ø 'Z'
  - 1.25%
  - Q=345 L/s
  - IL9.65
  - GD
- Grated drain
- Subsoil drainage line (100 dia) – refer detail sheets
- IR — Intermediate riser with subsoil drainage line (100 dia)
- FP — Flushing point with subsoil drainage line (100 dia)
- DP — Down pipe
- Water flow path
- SW — Existing stormwater pipe
- X SW X — Existing stormwater to be removed

PIT SCHEDULE

Note: Grate size does not necessarily reflect pit size, refer pit type details, shown on detail sheets – **DR-C-4000**
Final internal pit dimensions are to comply with AS3500

Type	Description	Cover (Clear Opening)	Number
A	Kerb inlet pit 1800 lintel	450 x 900 Class D galvanised mild steel grate hinged to frame	–
B	Surface inlet pit	600 x 900 Class D galvanised mild steel grate hinged to frame	–
C	Junction pit	600 x 900 Class D cast iron cover with concrete infill	–
D		Existing pit to be demolished and removed	–
E		Existing pit to remain	–

EASEMENT FOR WATERMAIN 3.5 WIDE (DP579301)

BUILDING D (McHATTON)

BUILDING A (PACIFIC)

BUILDING J
FFL(L1) 82.80
FFL(L2) 86.40

BUILDING I
FFL(L1) 82.80
FFL(L2) 86.40

BUILDING G

EXISTING DOWNPIPES FROM BUILDING D TOWARDS BAY ROAD. ACTUAL LOCATION UNKNOWN, TO BE CONFIRMED ONSITE.

EXISTING INGROUND STORMWATER LINES WILL REQUIRED DIVERSION AROUND THE NEW BUILDING. EXISTING INGROUND PIPES LOCATION/EXTENT UNKNOWN. TBC BY CCTV SURVEY

INGROUND DIVERSION STORMWATER PIPE TO DIVERT ANY EXISTING INGROUND PIPE FROM THE NORTH

INGROUND DIVERSION STORMWATER PIPE TO DIVERT ANY EXISTING INGROUND PIPE FROM THE NORTH.

RAINWATER TANK

ROOF DRAINAGE CONNECTION. REFER TO HYDRAULIC ENG FOR DETAILS.

OVERFLOW LINE FROM RWT TO OSD

OSD TANK REFER TO DETAIL ON DRAWING DR-C-4001.

EXISTING 500mm WATER MAIN REQUIRES TRACING TO EVALUATE LOCATION AND LEVELS

WATER QUALITY FILTER UNITS. TOTAL NUMBERS TO BE CONFIRMED.

IL=
ø300 'Z'
1.0%
Q= L/sec
IL=

MAIN ENTRY DRAINAGE CHANNEL BELOW TO BE LOWERED

8.50

14.30

254°06'40"
150.44

KERB DRAINS HOLE ø100

CREST OF DRAINAGE CHANNEL INV 82.94

ENTRY FORECOURT #0039 268.0m²

DP183591

BAY ROAD

THIS DRAWING HAS BEEN PREPARED USING COLOUR

0 2 4 6 8 10 12 14 16m

1:200 A1 1:400 A3

FileName: NSPS-TTW-0ZZ-ZZ-DR-C-2000.dwg - USER: jheath - Plot File Created: Feb 23, 2022 - 4:43pm

Rev	Description	Eng	Draft	Date
P1	ISSUE FOR 50% DD	WB	JH	23.02.22

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Project
NORTH SYDNEY PUBLIC SCHOOL
Job No 211019

Sheet Subject
STORMWATER MANAGEMENT PLAN

Scale : A1 1:200
Drawn JH
Authorised NB
Drawing No NSPS-TTW-0ZZ-ZZ-DR-C-2000
Revision P1
Plot File Created: Feb 23, 2022 - 4:43pm

Appendix 12 – Environmental Risk Assessment

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HSE RISK REGISTER

HSE-R-01

Hazard Identification Risk Assessment and Control (HIRAC)

The project/ site manager, in consultation with the project team, any relevant stakeholders and the HSE manager, shall develop a site-specific safety HSE Risk Assessment for major tasks prior to the commencement of the project using Taylor Construction **HSE-R-01 HSE Risk Register.** The Risk Assessment shall be regularly reviewed and, if required, updated to include any new work processes or hazards. Once completed, this Risk Assessment is to be included in **appendix 13** of the **WHS-PLAN-02 Project Workplace Health and Safety Plan**.

Under the WHS Regulations, a Risk Assessment is not mandatory for construction work. However, it is required for specific situations. A Risk Assessment is not necessary if the risk and how to control it is already known. The project/ site manager shall be responsible for ensuring that relevant sections of the Risk Assessment are made available to the successful subcontractor performing the nominated works and uploaded onto the preferred document management system for access by engaged subcontractors. Controls nominated in the risk assessment need to be considered and adopted by the subcontractors

- Building element/ location

This column nominates typical activities that may be relevant to each project.

- Project hazards identified

The first step in the risk management process is for the project team and stakeholders to identify the hazards associated with construction work. Examples of hazards include: the construction workplace itself, including its location, layout, condition and accessibility; the use of ladders; incorrectly erected equipment; unguarded holes, penetrations and voids; unguarded excavations, trenches, shafts and lift wells; unstable structures such as incomplete scaffolding or mobile platforms; fragile and brittle surfaces such as cement sheet roofs, fibreglass roofs, skylights and unprotected formwork decks; falling objects such as tools, debris and equipment; collapse of trenches; structural collapse; the handling, use, storage, transport or disposal of hazardous chemicals; the presence of asbestos and asbestos-containing materials; welding fumes, gases and arcs; hazardous manual tasks; the interface with other works or trade activities; the physical working environment, for example the potential for electric shock, immersion or engulfment, fire or explosion, slips, trips, falls, people being struck by moving plant, exposure to noise, heat, cold, vibration, radiation, static electricity or a contaminated atmosphere, and the presence of a confined space.

- Applicable to the project

Each building element is to be reviewed by the project manager in consultation with the site manager, foreman, leading hand and the HSE manager. Choose either '**Y' or 'N'** on 'Applicable to project' column in grey. If at the time of first review the listed building elements are not relevant to the project, do not delete rows.

- Assess the risks

Assessing the risks includes considering the severity of any injury or illness that could occur -for example, is it a small, isolated hazard that could result in a minor injury or is it a significant hazard that could have wide ranging and severe effects? - and the likelihood or chance that someone will suffer an illness or injury - for example, consider the number of people exposed to the hazard.

- The hierarchy of control measures: **eliminating the risk> substitution> isolation> engineering controls> administrative controls> (PPE)**

In this column there are nominated controls that need to be implemented by Taylor Construction and/ or the subcontractor performing the tasks to eliminate, control or minimise risks. Prior project experiences, industry knowledge and resources are to be considered. Project-specific controls may be added to this column.

- Combination of control measures

In many cases, a combination of control measures may be implemented to control a risk. When selecting and implementing a combination of control measures, it is important to consider whether any new risks might be introduced as a result and, if so, whether the combination of the control measures should be reviewed.

- Responsibility

In the final column, the persons who shall be responsible for implementing these controls must be nominated. SWMS need to nominate person/s who will be responsible to monitor and supervise the work

Project information		Information/ reports provided	
Project name	North Sydney Public School 2208	■ **Monthly HSE Report** ■ **LTI Reports** ■ **KPI Reports**	■ **Industry Safety Alerts (e-mail and server)** ■ **External / Internal alerts** ■ **New/ amended acts, standards, regulations, COP (where applicable)**
Project address	Corner Bay Rd and Pacific Hwy, Waverton, Nth Syd		
Date of review	07/02/2022		
Version number			

Project description:

Risk review	DIRECTLY INVOLVED IN THE DEVELOPMENT OR REVIEWED ONLY				Reference documents
POSITION	**NAME**	**TICK**	**SIGNATURE**	Review	Project Workplace Health and Safety Plan
General Manager	Ben Folkard	☐		☐	Workplace Health and Safety Act 2011
Operations Man'	Chris Bellemore	☐		☐	Workplace Health and Safety Regulation 2017
Constr' Manager	Dean Fondas	☐		☐	Australian standards **(refer for those applicable contained in HSE plan)**
Project Manager	Michael Ettrick	☒		☒	Industry approved codes of practice **(refer to HSE plan)**
Site Manager	Andy Payne	☒	*Andy Payne*	☒	National codes of practice (**refer for those applicable contained in the plan**
Foreman	TBA	☐		☐	SafeWork NSW publications and safety alerts
HSE Manager	Andrew Andreou	☐		☐	Safety in Design Risk Assessment
Safety advisor	Dan Morrison	☒	*Dan Morrison*	☒	Annual reports, LTI and MTI frequency rates (internal/ industry)

When undertaking the Risk Assessment, the assessor should follow the guidelines of the matrix below:

***S= safety**

Likelihood / Consequence	5 Almost certain (50 times per year)	4 Likely (10 times per year)	3 Possible (1 per year)	2 Unlikely (1 every ten years)	1 Rare (> 1 every ten years)
5: Catastrophic **S*:** Fatality, long-term illness **E*:** Long-term perm. damage	Extreme (EXT) **25**	Extreme (EXT) **20**	High (H) **15**	Moderate (M) **10**	Moderate (M) **5**
4: Major **S**: Extensive injury **E**: Medium effect/ off-site release	Extreme (EXT) **20**	High (H) **16**	Moderate (M) **12**	Moderate (M) **8**	Low (L) **4**
3: Moderate **S**: Medical treatment **E**: Moderate effect/ off-site emission	High (H) **15**	Moderate (M) **12**	Moderate (M) **9**	Moderate (M) **6**	Low (L) **3**
2: Minor **S**: First Aid **E**: Min off-site impact	Moderate (M) **10**	Moderate (M) **8**	Moderate (M) **6**	Low (L) **4**	Very low (VL) **2**
1: Insignificant **S**: Pain, inconvenience **E**: No off-site impact	Moderate (M) **5**	Low (L) **4**	Low (L) **3**	Very low (VL) **2**	Very low (VL) **1**

E= environmental

Risk Score	Description of risk	Management action
20 - 25	**Extreme**	Immediate action required. Stop work or process if possible and/ or introduce immediate risk controls. Must not continue without robust controls in place.
13 -16	**High**	Actions required to further mitigate the risk. Additional management attention may be required including detailed research and planning at senior levels to reduce or manage risk.
5 -12	**Moderate**	Manage using standard controls and SWMS/ JSEA. May require specific attention or allocation of resources.
< 5	**Low/ very low**	Follow routine procedures or normal work practices. Unlikely to require specific allocation of resources. Accept risk where adequate controls are in place.

Project - Hazard Identification Risk Assessment and control (HIRAC) considered:

Identification				Untreated risk ranking			Risk mitigation controls	Residual risk ranking			Responsibility
#	Building element/ location	Project hazards identified	Applicable to project	Likelihood	Consequence	Risk ranking		Likelihood	Consequence	Risk ranking	1. Taylor 2. Subcontractor (nominate by name) 3. Architect/ other
Section A – Site establishment/ general											
1	**Design and build ability**	Hazards are to be identified on a project-by-project basis in consultation with the project manager, HSE manager and project stakeholders (client, architect, consultants).	Y	2	3	5	• A Project Management Plan has been developed. • The project team, including any stakeholders required, have completed a **Safety in Design Risk Assessment** using **QSE-F-03b**. • A method has been nominated to communicate changes in design during the construction phase. • The project manager is to be responsible for obtaining the Safety in Design Risk Assessment from the designer. • No input into the design for 'construct only' project review and make documented comments on the Safety in Design Risk Assessment.	2	3	5	1
2	**Establish a site-specific HSE Plan** **Establish an OHS consultation process**	Potential site risks not identified. Failure to comply with legal requirements. Not complying with legislative requirements.	Y	3	3	9	• Prepare site-specific HSE Plans, including: – **QSE-PLAN-01** Project Management Plan (PMP) – **WHS-PLAN-02** Project Workplace Health and Safety Plan (PWHSP) – **E-PLAN-03** Project Environmental Management Plan (PEMP) – **SE-P-07** Project Emergency Control Management Plan – Traffic Plans • Revisions are to be undertaken as the need arises, not exceeding six (6) months.	2	2	4	1

							• Establish a WHS consultation process using **S-F-04 WHS Consultation Statement** as soon as practically possible.				
3	**Site-specific induction**	Site personnel unaware of site-specific requirements.	Y	4	Y	14	• All personnel to work on site are to attend the site-specific induction prior to commencing work. • **Site specific induction is not to commence until the employees has uploaded required information and registered their details on Hammertech** • Visual checks are to be made of individual's qualifications. • All workers must have a valid construction induction card. • Taylor Construction site induction to our system: – Site rules and safety/ emergency requirements. – Consultation arrangements on site. – Location of amenities. – Location of first aid facilities. – Reporting procedures. – Any site-specific hazards. • All workers are to be inducted by their respective supervisor into their site-specific SWMS. Employees must read, understand and, where possible, give inputs to add value to their task/ site specific SWMS prior to commencing works. • All personnel attending site-specific induction are to provide photo identification • Workers to have site rules made available to them. • Workers identification and qualifications to be registered. • An induction sticker/ card that gives evidence to their site-specific induction to be on the worker always.	3	3	9	1 & 2

Project - Hazard Identification Risk Assessment and control (HIRAC) considered:

Identification				Untreated risk ranking			Risk mitigation controls	Residual risk ranking			Responsibility
#	Building element/ location	Project hazards identified	Applicable to project	Likelihood	Consequence	Risk ranking		Likelihood	Consequence	Risk ranking	**1. Taylor** **2. Subcontractor** (nominate by name) **3. Architect/ other**
Section A – Site establishment/ general											
4	**Subcontractors to provide site-specific high-risk SWMS for review**	Subcontractors' SWMS fails to meet the site-specific requirements. Subcontractor not inducting employees into the requirements of the employer's Safety Plan.	Y	16	1 2	16	• All subcontractors to be made aware of HSE requirements prior to commencing work. • Contract administrator to issue all successful tenderers form **QSE 15.23 Contractor's HSE Requirements** for completion and sign-off. • Site-specific SWMS submitted 5-7 days prior by the subcontractor and reviewed by Taylor Construction prior to subcontractor commencing. • SWMS is to be reviewed by and signed off by Taylor Construction site management prior to the subcontractor commencing on site. • All employees are to receive site induction, industry induction and SWMS. • Taylor Construction is to provide subcontractors with access to site HSE Plan; • Employees are to be inducted by their respective supervisors into their company's Site Safety Plan, and task-specific SWMS prior to commencing work on site; • Taylor Construction is to provide subcontractors access to relevant sections of the project Risk Register.	8	5	5	1 & 2

5	**Location, layout, condition and accessibility**	QSE concerns with neighbours and members of the public. Interaction with members of the public, tenant, visitors, trespassers, school children, etc. Impact with construction processes inside boundary fencing.	Y	4	4	16	• Ensure public safety through securing the boundary of the site with security fencing. Fencing to be erected and maintained by competent contractor; • All mandatory signage to be prominently displayed at all access/ egress points. Contact details of project manager to be identified; • Erect signage directing unauthorised personnel to keep out; • Where the risk has been identified, drop zones will be barricaded off within public areas, using physical barriers and/ or spotters engaged; • Taylor Construction is to maintain regular consultation with neighbours, adjacent sites in relation to protection of their staff, visitors and assets; a Complaints Register; • All works that may have an impact on neighbouring sites/ public areas must have controls nominated in specific SWMS; • Taylor Construction is to notify neighbours that may be impacted by major works on sites close to their homes prior to works commencing and to ensure that the impact of site works on the public are kept to a minimum; • Erect signage directing unauthorised personnel to keep out; • Boundary fence to be maintained and inspected during safety walks; • Gates to be closed and locked at the end of each day and kept locked during no work on site; • Traffic and/ or pedestrian control may be required during periods of heavy traffic or pedestrian flow.	3	4	12	1
6	**Emergency preparedness evacuations**	Site Emergency Control Management Plan not developed.	Y	3	4	12	• **Emergency Control Management Plan SE-P-07** to be established and those assigned with responsibilities to be trained in its contents and their role. Procedures to be outlined for: • . **Medical** emergencies. • Contaminated material. • Recovery using crane • Breach of utility/ service • **Chemical**, biological or radiological emergency • Any applicable wildlife issues. • Fire or explosions. • Bomb threat • **Structural** collapse, including collapses during earthworks. • Plant failure or collapse • Natural disasters	2	3	6	1
Section A – Site establishment/ general											
							• Emergency equipment to be tested at regular intervals and details recorded; • Evacuation drills to be held at least once every six (6) months with details recorded; • Include details in site induction; • Display emergency signage and names of key roles; • Training is to be provided in accordance with AS 3745:2010 ‘Planning for emergencies in facilities’; • The Emergency Control Management Plan must be reviewed and, where applicable, updated after any major incident and/ or as a result of six (6) monthly evacuation drill results.				
7	**Inground services**	Damage to utilities Personnel injuries Plant damage Core drill Saw cutting	Y	12	16	12	**Gas/ water/ electricity/ data/ storm water sewage:** • Identify power supply and source; • Have power turned off by energy supply authority; • Complete services search, i.e. Dial Before You Dig; • Isolate services where possible when working around or within close proximity; • Induct employees (site and industry inductions); Safe Work Method Statements for work around inground services; • All temp inground HV to be signposted and concrete encased; • Spotter required where earthmoving machinery is used and whilst services are uncovered;	12	8	8	1,2,3

							• Hand excavate and expose services that may be affected; • Underground services: subcontractor carrying out the work should allow for inaccuracies and the possibility of other unknown or hidden services; • Dial before you dig documents to be kept on file for reference and use by subcontractors; • If Dial Before You Dig are not clear or available for areas of concern, ground penetrating radar may be required to locate any known services.				
8	**Temporary services**	Contact temporary services: electrical, fire Contact temporary services: water, sewer	Y	5	5	16	• No live work permitted to electrical services; • Subcontractors to verify electrical works are performed and comply with all relevant sections of the applicable AS/NZS 3000:2018, AS/ NZS 3012:2019 and electrical requirements applicable to the state/ area where works are being performed; • Sufficient task lighting to all work areas is to be provided; • All temporary electrical installs to have identifiable signposting; • All temporary wiring to be protected from mechanical damage by use of protective shroud and/ or other means; • Temporary services to be located in areas that do not interfere with construction works; • Fire extinguishers to be located at each temporary power board; • All temporary water and sewer services to be located away from high traffic areas; • Temporary boards to be certified and signed off by subcontractor.	3	4	12	1 1,2

Project - Hazard Identification Risk Assessment and control (HIRAC) considered:

Identification				Untreated risk ranking			Risk mitigation controls	Residual risk ranking			Responsibility
#	Building element/ location	Project hazards identified	Applicable to project	Likelihood	Consequence	Risk ranking		Likelihood	Consequence	Risk ranking	**1. Taylor** **2. Subcontractor** (nominate by name) **3. Architect/ other**
Section A – Site establishment/ general											
9	**First aid**	Insufficient or inappropriate first aid facilities Communication/ contacting first aiders Insufficient number of trained first aid personnel on site during working hours, which can result in further injuries to worker due to sudden movement and/ or					• **First aid requirements and facilities established need to comply with local requirements SafeWork NSW Code of Practice 'First aid in the workplace' 2019** • At the commencement of the project a suitably trained first aid, in consultation with the PM, SM and/ or safety officer, will conduct an assessment using **SE-F-04 Site Emergency Preparation Checklist** • First aid equipment and facilities should be located at convenient areas and where there is a higher risk of an injury or illness occurring. At the commencement of the high-risk construction, an industry compliant first aid kit must be available. • All projects in which 25 or more workers are engaged shall also have available a soft pack mobile kit that can be easily transported on site if required. • Primary first aider is to conduct regular inspections of each kit to ensure the contents are current and available. • Access to first aid kits must remain clear of any obstruction. • All first aid kits must remain unlocked during hours of operation. • The primary first aider attending to the injured worker needs to assess the situation, determine the extent of injuries and what first response treatment is required. He or she needs to determine if the injury is of a nature that will require off-site treatment or if emergency services must be called.				1, 2

		transport to first aid facility for further treatment Working at height or on uneven or slippery surfaces Electricity Machinery and equipment Hazardous chemicals Extreme Temperatures	Y	4	4	16	• If the injury is of a nature that the injured workers are unable to leave the area without any major assistance and will need to be carried from the location, then the emergency services will be immediately called to take over the treatment and removal of worker from the incident location. • Taylor Construction first aiders will only remove the injured workers from the location if they are in immediate danger. • In accordance with Appendix C- 'First aid facilities' of the 'First aid in the workplace' code of practice, a **first aid room is recommended for high-risk workplaces with one hundred (100) workers or more**. If a first aid facility is established on site, then the following items need to be included in the room: – A first aid kit appropriate for the workplace. – Hygienic hand cleanser and disposable paper towels. – A cupboard for storage. – A container with disposable lining for soiled waste. – A container for the safe disposal of sharps. – A bowl or bucket with a minimum of two (2) litres capacity. – Electric power points. – A chair and a table or desk. – Access to a telephone and/ or emergency call system. – The names and contact details of first aiders and emergency organisations. – A sink with hot and cold water. First aid room needs to be well lit and ventilated, have an entrance that is clearly marked with first aid signage and maintained clean and free from any unrelated construction material. The PM/ SM, in consultation and/ or HSE committee, needs to consider if the following items are required when establishing a first aid facility: • Automated external defibrillator Adequately trained first aid personnel to be always on site whilst construction work is in being carried out. High-risk workplaces: **one first aider for every 25 workers**. • The person nominated to maintain the first aid room should be an occupational first aider. All additional first aiders need to hold a nationally recognised statement issued by a registered training organisation (RTO); • It's a requirement that a first aider holds a current 'provide first aid' certificate, as a minimum. • First aid treatment and reporting must be included in site induction and regularly covered in toolbox talks. • All incident reports must only be documented if reported by the worker on the day of incident. • An effective communication system needs to be adopted on site so workers can advise of injuries. This may include any combination of a nurse call system, alarm, two-way radios or air horns. The system adopted and locations must be discussed with workers during site induction. • Name, photo and contact number of each Taylor Construction first aider must be displayed adjacent to the first aid kit, induction room and notice board if available.	3	3	9	

Project - Hazard Identification Risk Assessment and control (HIRAC) considered:

Identification				Untreated risk ranking			Risk mitigation controls	Residual risk ranking			Responsibility
#	Building element/ location	Project hazards identified	Applicable to project	Likelihood	Consequence	Risk ranking		Likelihood	Consequence	Risk ranking	1. Taylor 2. Subcontractor (nominate by name) 3. Architect/ other
Section B – General construction activities/ conditions											
1	**Construction vehicle, site access, vehicle movements to and from site**	Vehicles/ mobile equipment/ machinery collision Unauthorised access to site Impact with pedestrians Collision with workers	Y	3	5	15	• A Traffic Management Plan is to be developed by an accredited and authorised person prior to commencement on site and, where required by DA, consent conditions submitted to the relevant authorities for review; • The requirements of the **Traffic Management Plan Procedure QSE-OP-39** must be adopted and adhered to by those responsible when setting up and removing traffic management devices and equipment; • **Traffic Control Set-Up Check Sheet S-F-21** to be completed where traffic and/ or pedestrian management is required to minimise the impact on the public; • High-visibility clothing to be worn by all site personnel during all works; • Site map showing gates, roads, unloading and storage areas to be communicated at site induction. TMP to be signposted in an applicable area (i.e., at main entrance and induction and meeting room). • Prior to commencing any work on site which involves the interface of mobile powered plant, vehicle, and pedestrian traffic, including deliveries and the removal of materials from site, a suitable ON-SITE TRAFFIC / PEDESTRIAN MANAGEMENT PLAN shall be developed by Taylor and implemented to reduce the likelihood of conflict between either or all the above, plan must be displayed and communicated to all those that may be impacted by this. • High-visibility vests to be worn when controlling traffic. • Vehicles to travel only on approved roadways, loads secured and covered; • Plant and equipment are not to be floated on/ off site, unless a Taylor Construction management representative is present; • Pedestrians to have the right of way always; • Plant movements to be controlled by competent personnel only; • Spotters to be used in areas of compromised visibility (i.e. reversing); • Plant delivered to site to be inspected by Taylor Construction management and registered to site. All mobile plant delivered to site is to be used only when it has been established that the plant is compliant to Taylor's legislative maintenance and inspections requirements; • Access gates to be securely closed when not in use and locked when site is not operational; • TMP to be signposted in applicable areas (i.e. at main entrance and induction/ meeting room); • Where possible, traffic to enter and leave from designated access and egress points in a forward motion; • All drivers are to remain with vehicles always, unless they are escorted by a site inducted person.	2	5	12	1,2
2	**Flammable liquid**	Fire/ explosion Spills Chemical dust Contaminated soil	Y	4	4	16	• Flammable material not to be stored on site, if possible; • All flammable liquids are to be identified and relevant notification and SDS to be issued to Taylor Construction prior to products being brought to site; • Fire extinguisher to be kept in close proximity to storage area; • All containers to be clearly labelled. No storage of flammable liquids in non-ventilated containers and lunch shed; • Store oxygen and acetylene cylinders separately, at least four (4) metres apart; • Flashback arresters to be installed on all oxy/ acetylene equipment; • Restrain cylinders upright by the use of chain or other suitable means; • SDS to be available and accessible to the first aid persons and the users of products; • Flammable storage to be located away from high traffic areas;	3	3	12	1,2

							• Warning signage to be displayed prominently. • Storage of hazardous substances and flammable materials to be kept to a minimum.					
Section B – General construction activities/ conditions												
	Hazardous goods **(use, handling and storage)**	Fire/ explosion Personal contamination Public exposed to chemicals	Y	4	4	16	• Hazardous substances to be substituted with less hazardous items where possible; • All hazardous items to be isolated and signposted; • All hazardous substances and dangerous goods are to be identified and relevant notification and SDS to be issued to Taylor Construction prior to products being brought to site; • Where required, a Risk Assessment is to be completed or provided by the user on the hazards associated with the handling of product/ chemicals; • All hazardous substances and dangerous goods to be stored as per local statutory authority requirements and AS1940 (e.g. lockable cages, bunds with appropriate signage displayed); • Designated storage area to be defined and shown on site map where required; • A hazardous substance/ dangerous goods/ MSDS register is to be established and located where they can be easily accessible to the first aiders; • Spill kits to be available on site and persons trained in their application; • Control measures must be nominated in the products. SDS are to be implemented and monitored; subcontractor employees are to be familiar with the SDS, their location and application to their task; • Keep others away from hazard, install barricades and warning signs	3	3	12	1,2
3	**Hot works**	Fire Explosion Property damage Personnel hazards, including burns Eye damage Chemical hazards	Y	5	5	20	• Where possible, hot works are be completed off-site; • Isolate hot work activities from other trades and public; • Hot works activities to be signposted; • SWMS to be task-specific and incorporate the immediate environment; • Hot works permits to be used (site-specific requirements); • Keep flammable materials away from other worker's and work activities; • Maintain good housekeeping; • Sparks/ slags to be contained to the same level that task is being completed on. If working near a drop area, ensure barricades, spotter and signage is installed; • Provide fire extinguishers and ensure they are within easy reach of users; • Welding works to have screens erected; • Work areas to be adequately ventilated; • Good ventilation to be maintained throughout the activity.	4	4	12	1,2

Project - Hazard Identification Risk Assessment and control (HIRAC) considered:

Identification				Untreated risk ranking			Risk mitigation controls	Residual risk ranking			Responsibility
#	Building element/ location	Project hazards identified	Applicable to project	Likelihood	Consequence	Risk ranking		Likelihood	Consequence	Risk ranking	**1. Taylor** **2. Subcontractor** (nominate by name) **3. Architect/ other**
Section B – General construction activities/ conditions											

4	**Housekeeping and working environment**	Slips, trips, falls Emergency control Property damage Material falling from heights Materials becoming airborne Inclement weather conditions Adverse temperatures Rain, dust, wind, lightning, thunder Flooding Exposure to UV rays Noise, vibration Dehydration, heat stress Exposure to cold environments	Y	5	5	20	• Materials that have no packaging or waste material to be selected for use on site where possible; • Regular removal of material to be coordinated; • All materials to be stacked and stored in a secure manner that will have minimal impact on other trades; • Access ways to be kept clear and well lit; lighting to be adequate so as not to create excessive glare or reflection, allowing employees to work safely; • Lighting is adequate to allow persons who are not employees to move safely within the place of work and facilitates safe access to and egress from the place of work, including emergency exits; • Regular safety walks to highlight any problem areas and ensure responsible parties to remedy; • Regular clean-up and removal of trade debris and excess material on site; • Placement of waste and construction debris to be kept clear of all designated access and egress points of the project. This includes site entry, exit and emergency points and all completed levels of the project; • Excess concrete is not to be lifted by reo; stressing cable, etc. put into it and lifted by crane; • No material to be stored on scaffold or building edge; • Conduct regular formal and informal inspection of work areas; • No mobile scaffold or free-standing ladders to be used during periods of extreme conditions (i.e. strong winds, lightning heavy rain); • Penetrations to be covered over and highlighted; • Intermediate and temporary handrails to be progressively installed; • Vertical protruding reo bars to have bar caps fitted and maintained; • Appropriate PPE to be issued to personnel dewatering (i.e. gum boots, raincoats); • Materials to be secured (tied down) from windy conditions; • Taylor Construction management and/ or site WHS consultative process have the authority to close works areas due to the impact of rain/ weather; • Works to be staged in a manner that will minimise the impact of weather on workers where possible; • Regular inspection of work areas during inclement weather; • Pumps, squeegees and brooms to be used to remove water; appropriate PPE to be issued to personnel dewatering; • Works to be staged in a manner that will minimise the likelihood of flooding and adverse weather on workers where possible; • Works to be rotated to minimise exposure to high UV hours (middle of the day) wherever possible; • SPF 30+, safety helmet brims, sleeved shirts, pants, tinted eyewear and gloves to be provided by employers; • Where there is a potential for exposure to noise in excess of 85 dB continuously for eight hours, or a daily noise dose of 1.0, or where there is a potential for exposure to vibration to arms and hands from tools for greater than 4 hours in a 24-hour period, or where there is a potential for whole body vibration in excess of exposure levels	4	4	12	1,2

Section B – General construction activities/ conditions												
5							nominated for machinery or plant by the manufacturer, documented procedures outlining the control are to be provided; • Appropriate ear protection must be worn; take note of signage and restricted areas; • Subcontractor's SWMS to address the control of noise during their activities; • Plant and equipment to be maintained (i.e. exhausts); • Community complaints register to be maintained by Taylor Construction; • Use methods to suppress dust such as water spray, dust barriers, etc.; • Subcontractor's SWMS to identify the requirements for frequent clean-ups; • Subcontractors to control the dust created during their tasks in SWMS; • Cool drinking water to be provided at work areas where strenuous activities are being completed; • Provision of site amenities with air conditioning; • Contractor's SWMS to identify and control heat stress exposure in their activities where applicable and control accordingly; • Provision of amenities that are of sound construction and weatherproof;				

							• Provision of heating equipment for food; • PPE and the staging of works that will reduce or eliminate the exposure of workers to cold environments.					
6	**Manual handling**	Personal injury	Y	4	5	20	• Activities requiring prolonged manual handling tasks to be eliminated in work procedures where possible; • Mechanical aids to be used where possible; • SWMS to nominate the use of mechanical aids available to be utilised on site (i.e. site tower crane, hoist, and forklift); • Materials to be selected that minimise the use of manual handling; • Materials over 20kg are not to be carried by one person. Items such as tiles (25kg) to be carried via team lifting techniques; • Material storage to be staged in a manner that reduces the amount of manual handling whenever possible; • All SWMS are to address the task-specific manual handling needs in their tasks; • All employees to be educated in the correct manual handling techniques by their employer. Evidence of which is to be made available by subcontractor upon request; • Personnel required to perform tasks that require prolonged periods of manual handling should be consulted in this requirement; • Manual handling tasks to be completed in a manner that reduces the likelihood of repetitive strain; • All workers to be encouraged to only lift within a person's capacity.	3	4	9	1,2

Project - Hazard Identification Risk Assessment and control (HIRAC) considered:

Identification				Untreated risk ranking			Risk mitigation controls	Residual risk ranking			Responsibility
#	Building element/ location	Project hazards identified	Applicable to project	Likelihood	Consequence	Risk ranking		Likelihood	Consequence	Risk ranking	**1. Taylor** **2. Subcontractor** (nominate by name) **3. Architect/ other**
Section B – General construction activities/ conditions											
7	**Handling materials**	Manual handling Use of mechanical devices Use of loading platforms Crush, collision	Y	4	5	20	• Stage and coordinate works that will eliminate the requirement for repetitive material handling. Reduce the amount and distance that material will need to be handled. • Isolate areas around movements. • Modes of mechanical use implemented by the subcontractor are to be nominated and effectively controlled in SWMS. Options include, but are not limited to: forklifts, pallet trolleys, telehandlers, mobile cranes and hoists; • SWMS reviewed for installation and use of scaffold loading platforms. SWL signage to be displayed. • All loads to be secured. • Inspection and maintenance of plant to be nominated in SWMS. • Applicable tickets and licenses to be provided at induction. • Site HSE Plan to identify the inspections to be completed by Taylor Construction upon delivery. • SWMS to state that loading platforms are to be kept free of rubbish and trip materials. • Subcontractor's SWMS to identify the safe working load of platforms and ensure material is less than the prescribed. • Signpost and clearly isolate movement corridors.	3	4	12	1,2

							• Loads to have designated lift points with current engineer's certificate. • Loads to be rigged by appropriately certified and competent persons only. • High-vis clothing to be worn by everyone on site.				
8	**Deliveries to and from site,** **Chain of Responsibility** **(CoR)**	Breach of National Heavy Vehicle Law (HVNL) Fatigue Overloading Speed Material Roll off	Y	4	4	16	**Operator/manager/scheduler responsibilities** as an operator, manager, or scheduler of a business involved in road transport, your responsibilities also include ensuring that ■ rosters and schedules do not require drivers to exceed driving hours regulations or speed limits ■ you keep records of your drivers' activities, including work and rest times ■ you take all reasonable steps to ensure drivers do not work while impaired by fatigue or drive-in breach of their work or rest options ■ vehicles are regularly maintained, and if speed limiters are fitted, they are functioning properly ■ vehicles are not loaded in a way which exceeds mass or dimension limits ■ drivers moving freight containers have a valid Container Weight Declaration ■ loads are appropriately restrained with appropriate restraint equipment (see the Load restraint guide for more information) **Consignor/consignee responsibilities (allocator)** As consignor or consignee your responsibilities include ensuring that: ■ loads do not exceed vehicle mass or dimension limits ■ goods carried on your behalf are able to be appropriately secured ■ operators carrying freight containers have a valid Container Weight Declaration ■ your delivery requirements do not require or encourage drivers to: ■ exceed the speed limits ■ exceed regulated driving hours ■ fail to meet the minimum rest requirements ■ allow a driver to drive while impaired by fatigue **Loading manager/loader/packer responsibilities** Loading managers, loaders and packers must ensure that loading a fatigue-regulated heavy vehicle will not cause or contribute to the driver driving while impaired by fatigue or in contravention of road transport laws. **Loading manager responsibilities include:** ■ working with other off-road parties to make reasonable arrangements to manage loading/unloading time slots ■ ensuring vehicles are loaded/unloaded as quickly and efficiently as possible ■ putting systems in place for unexpected jobs – for example where there have been unexpected road delays. ■ Loader responsibilities include ensuring a vehicle's load: ■ does not exceed vehicle mass or dimension limits ■ does not cause the vehicle to exceed mass limits ■ is placed in a way so it does not become unstable, move or fall off the vehicle. ■ documentation about the vehicle's load is not false or misleading	3	5	15	1 & 2

9	**Mobile plant**	Crush, collision Poor condition of plant Unauthorised use of plant Fumes, noise Rollover Structural collapse Cross contamination Mobile plant coming into contact with overhead power lines Electrocution	Y	5	5	25	• Isolate plant movements from other pieces of plant and persons; • SWMS to outline and address controls for when mobile plant will be used on suspended slabs. SWMS to provide documented evidence that the total gross weight of the plant will not exceed that of the engineered weight to be carried by the structure; • The keys must not be left in the cabin or item of plant if the machine is unattended; • Taylor Construction project/ site manager or nominated site representative will conduct a review of plant and required documents using **S-F-18 Plant Pre-Start Assessment** prior to the plant has been permitted on site. This shall be conducted irrespective of the duration or frequency the mobile plant is to be operated on site; • Taylor Construction project/ site manager or nominated site representative will register all items of mobile plant brought to site using **S-F-12 Plant Register**; • Subcontractor/ sole trader is to provide a register of mobile plant to Taylor Construction prior to operating the plant; • SWMS to identify and control when works are to be completed in the vicinity of mobile plant; • Plant maintenance records to be submitted prior to use; • **S-F-18 Plant Pre-Start Assessment** to be available prior to plant use. Must be current (<5 years old); • SWMS to acknowledge the inspections that will be carried out by Taylor Construction management upon delivery to site; • Mobile plant is to be used in well-ventilated areas; if this is not possible, extractor fans are to be used to manage any toxic emissions, or the plant be replaced with gas/ electric powered version;	3	5	15	1,2

Project - Hazard Identification Risk Assessment and control (HIRAC) considered:

Identification				Untreated risk ranking			Risk mitigation controls	Residual risk ranking			Responsibility
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Section B – General construction activities/ conditions											
10							• All mobile plant operators shall be responsible for inspecting the area that they are to operate to ensure that the plant is suited for the purpose, location and stability of ground its working in; • If plant is working in enclosed area with excessive toxic emissions, air monitoring may be required; • If mobile plant is required to be used on a suspended slab, permissions must be obtained by the operator from a Taylor Construction site manager on the load capacity of the slab. Engineers confirmation may be required in certain circumstances and at no stage is the load capacity to be exceeded without the prior written consent of an engineer; • If operations of mobile plant are emitting prolonged elevated noise levels, the project manager will be responsible for real time monitoring of noise to be conducted and recorded using **QSE-F-21 Noise Map and Register**; • Daily pre-use inspection to be carried out and documented on all mobile plant by operator • Subcontractors to have task-specific SWMS for use of mobile plant; • Operators of mobile plant to have appropriate certification issued by a statutory authority or training records acceptable to Taylor Construction. Subcontractors to complete relevant section of **Site Induction Form and Mandatory Safety Requirements SE-F-11** for each employed operator;				

							• All operators of EWP to be trained and have a certificate issued by an RTO. This is a minimum requirement for the use and operation of any EWP where a certificate of competency (over 11 metres) issued by a statutory authority is not necessary. Operators require a certificate of competency for booms over 11 metres; • Full safety harness to be worn in all boom lifts; • Access to and from mobile plant whilst it is in motion or elevated is prohibited unless in the event of an emergency; • Certificate issued for a scissor lift type EWP is not acceptable for use of a boom type EWP under 11m or vice versa; • Check mobile plant does not operate in proximity of overhead power lines; refer to local requirements; • SWMS to nominate the location of any overhead power lines located on site; • SWMS to adequately nominate who is completing the works, the controls and minimum distance that must be obtained during the activity and training achieved by persons completing the task; • Subcontractors to have task-specific SWMS for use of mobile plant; • If mobile plant has been operated in a contaminated area of the project, it must be cleaned and washed prior to leaving that area.				
11	**Penetrations and wall openings**	Penetration covers not adequate to take loads imposed Persons, materials or plant falling through penetrations Persons, material or plant falling through wall penetrations	Y	4	4	16	• Design to minimise the need for penetrations where possible. • All floor penetrations to have fixed, suitable coverings. • All penetrations are to be constructed or protected in such a manner that it eliminates the risk of man and material falling through. • Penetrations over 150mm in diameter to have mesh cast in the concrete and covered in accordance with industry practice; • Columns, beams and penetrations in formwork to be covered and secured with F81 mesh or handrails. • Large mechanical penetrations to have temp handrail fitted, completed with mesh and kickboards; • Signpost penetrations and coverings. • Penetration coverings to be monitored during site inspections;	3	5	15	1,2
Section B – General construction activities/ conditions												
12							• Penetration coverings in high traffic areas to be constructed in a manner that will hold the gross weight of the plant and be securely fixed. • Trades who can remove penetration coverings and the controls implemented to ensure the safety of oneself and other trades on site (i.e. replacing covers, cutting minimum space out of mesh to put their services through, etc.) are nominated in their respective SWMS; • Large wall penetrations to have temp handrail fitted, completed with mesh and kickboards. • Lift openings to be securely covered until such times as lockable lift gates are fitted. • Lift cages to be inspected during safety walks. • Lift cages to display applicable signage.				
13	**Supply and use of personal protective clothing and equipment (PPE)**	PPE not complying to applicable Australian Standard Personal injury due to inappropriate PPE being provided	Y	4	4	16	• Work activities that could eliminate the requirement for workers to be reliant on PPE to be employed. • PPE used to comply with appropriate Australian Standard. • Engineering solutions to be employed wherever possible (i.e., guards on machinery, extraction vacuums, etc.) • Mandatory PPE requirements to be signposted in common areas and at main entrance. • Taylor Construction and subcontractors to monitor PPE usage and application. • PPE that does not limit or hinder the operator from performing the task safely to be selected. • Provide sunscreen, safety helmet and brims as required.	3	4	12	1,2
14	**Stairs and access condition and accessibility**	Slips, trips and falls Insufficient lighting	Y	4	4	16	• Ramps and low-risk access methods to be incorporated in the build; • Designated access ways to be identified on the site plan; • Isolate plant from pedestrian movements; • Access ways to be well illuminated; • Access/ egress ways/ directions to be signposted and enforced by Taylor Construction management; • Materials not to be stored along designated access ways; • Access ways to be maintained and inspected on a regular basis;	3	4	12	1,2

							• Handrails to be fitted to stairs prior to stripping of formwork; • Ladders to be used only as a last resort and for access only. Ladders can only be worked from where it is not reasonably practicable to use other means, as covered in the site HSE Plan; • Where ladders are to be used, they must be tied off at the top, footed at the bottom with a minimum one (1) m past platform step-off; • Lighting to be fitted to stairs and access/ egress ways as work proceeds; • Subcontractors to provide task lighting; • Emergency lights to be fitted to areas where safe access/ egress is necessary in the event of power loss and insufficient day light.				

Project - Hazard Identification Risk Assessment and control (HIRAC) considered:											
Identification				Untreated risk ranking			Risk mitigation controls	Residual risk ranking			Responsibility
#	Building element/ location	Project hazards identified	Applicable to project	Likelihood	Consequence	Risk ranking		Likelihood	Consequence	Risk ranking	1. Taylor 2. Subcontractor (nominate by name) 3. Architect/ other
Section B – General construction activities/ conditions											
15	**Structural collapse**	Personal injury Collapse of structure	Y	4	4	16	• Engineer or geo technician to sign off structural elements, including load bearing capacity of any existing concrete slabs or load bearing surface; • Engineer to inspect formwork in accordance with AS 3610.1:2018 requirements; • Temporary structures such as formwork to be isolated from other trades access whilst under construction; • Temporary supporting structures to be signposted (i.e. temporary columns, props, frames, beams); • Subcontractor erecting temporary structure to have the isolation procedures nominated in SWMS; • Engineer sign-off for all structural elements; • Engineer to inspect and sign off crane base prior to pouring of the concrete pad; • Engineers documentation showing formwork setup required (i.e. table form, bondek, conventional, etc); • Concrete strength at time of stripping for both conventional and post tension slabs required; • Taylor Construction, in consultation with the concreter, is to agree on the pouring techniques that will be used and the sequencing requirements (pump, kibble). The engineer is to be consulted prior to the pour to determine the suitability of bracing and/ or back propping already installed and if additional supports are required; • Bracing required for raking formwork; • Engineers report not to be issued more than two working days prior to pour; • Engineer to inspect formwork in accordance with AS 3610.1:2018 requirements. A certificate to clearly state that formwork meets the requirements of this Australian Standard is required.	3	4	12	1,2
16	**Use of/ working with electrical equipment and installations**	Electrocution Damage to supply boards Poor or damaged wiring Access to boards Fire	Y	4	16	16	• Substitute electrical power tools with battery operated tools where possible; • All temporary electrical installs to have adequate warning signage displayed; • All temporary distribution boards to be tested upon installation and periodically tested thereafter as required by local legislation; • Temporary boards to have compliance certificate issued by licenced contractor prior to use; • Live power supply to main switchboards not covered by earth leakage protection should be adequately protected and signposted; • Works undertaken after permanent power supply has been installed and ELCB does not exist will require persons to use portable earth leakage devices; • Temporary electrical installations carried out in accordance with AS/NZS 3012:2018 and local legislative requirements. Permanent electrical installations to be carried out in accordance with AS/NZS 3000:2018; • Switchboards to be fitted with class 2RCDs; • All electrical equipment to be inspected shall be tested and tagged prior to use in accordance local and Taylor's requirements, i.e. regulations and codes of practice; • Distribution boards to be located where extension leads when used they do not exceed the maximum lengths specified by the local statutory authority; • Extension leads to be elevated on insulated hooks or stands. Leads to be set up leaving clear access and not to be trip hazards;	3	4	12	1,2

Project - Hazard Identification Risk Assessment and control (HIRAC) considered:											
Identification				**Untreated risk ranking**			**Risk mitigation controls**	**Residual risk ranking**			**Responsibility**
#	**Building element/ location**	**Project hazards identified**	**Applicable to project**	**Likelihood**	**Consequence**	**Risk ranking**		**Likelihood**	**Consequence**	**Risk ranking**	**1. Taylor** **2. Subcontractor** (nominate by name) **3. Architect/ other**
Section B – General construction activities/ conditions											
							• Working on live power is not permitted unless process is signed off by Taylor Construction project manager and is performed in accordance with electrical requirements applicable to the local statutory authority; • Power to be supplied from the same level as it used. Form workers only to use power from level below.				
17	**Working above other people**	People struck by falling objects, material or tools	Y	4	5	20	• Unrelated work is not to be completed above others without suitable and effective controls being implemented; • Areas below workers need to be cordoned off with barrier tape and appropriate signage; • Kick boards or equivalent to be erected along perimeter or slab edges; • No loose materials to be used or created in areas of work that are above others; • Protective barriers or 'catch' decks to be erected; • Perimeter scaffolding to be erected; • Mesh and shade cloth to be installed around perimeters; • Installation of fencing to prevent objects falling; • Hand tools and equipment to be fitted with approved lanyards if personnel working directly below (i.e. roof works, cladding) • Safety helmets to be worn; • Access ways to be diverted away from workers above; • Hoarding or overhead protection is to be erected where public is exposed to workers above.	2	5	10	1,2
18	**Working at heights**	Workers fall from heights Incomplete scaffolding Fragile and brittle surfaces Fragile fibreglass roofs and skylight openings Mobile scaffold use	Y	5	5	25	• Safe Work Method Statement that addresses the specific task and the risks associated with the work where a person is exposed to a fall from height above 2 metres is required to be submitted by the subcontractor and employees trained prior to commencement of the activity; • Fall restraint/ arrest equipment (i.e. safety harnesses) are only to be used as a last resort and only after consultation with Taylor Construction site management and a permit has been issued, except where it is a legislative requirement (i.e. boom lift); • Subcontractors are to ensure that works are sequenced in a manner that eliminates or reduces employees' exposure to a fall from heights; • Perimeter of building to be protected using scaffolding, fencing or screens; • Protection from fall from heights must be in place at all times. Trades working at 'live' edges are to nominate their controls of the risk in SWMS; • Site manager, in consultation with the subcontractor, will access the integrity of existing roof sheets prior to works commencing on the roof. Workers to be instructed where possible to walk on beams or purlins. If doubt exist on the integrity of the roof sheets, alternative fall protection measures are to be adopted prior to the works commencing (i.e. harness, catch scaffold, works to be conducted off EWP); • As per site rules, no person is to alter, remove or erect any part of the perimeter scaffold unless directed by Taylor Construction and has suitable scaffolding accreditation;	2	5	10	1,2

							• Handrails to be installed as soon as possible after concrete floor slab has been poured, and prior to stripping formwork where possible;				
Section B – General construction activities/ conditions											
19							• Handrails erected as fall protection are to meet Australian Standard specifications and be nominated by the trade erecting the protection; • Penetrations over 150mm in diameter to have mesh cast in and covered in accordance with best industry practice; • Column, beam and penetrations in formwork to be covered and secured with mesh or handrails; • Large mechanical penetrations to have temp handrail fitted, completed with mesh and kickboards; • Perimeter scaffolding is to be inspected by a suitably certified scaffolder and the inspection to be registered and repeated monthly or after alterations is made; • Lift openings to be fully meshed, until such times as lockable lift gates are fitted; • Access to the working platform of the mobile scaffold may be by means of a temporary stairway, scaffold stairs or ladders.				
20	**Use of safety harnesses and attachments**	Fall from heights Product failure	Y	5	5	25	• All safety harnesses and attachments used on site shall comply with the requirements of AS/NZS 1891.4:2009 'Industrial fall-arrest systems and devices, part 4: selection, use and maintenance'; • All fixing points are to be approved; • All safety harnesses and attachments used on site must be inspected and certified by an authorised person at periods **not exceeding six (6) months**; • Harness Register to be issued to Taylor Construction nominating all harnesses and attachments to be used and date of last maintenance inspection; • Employees required to use a safety harness shall be required to have successfully completed a registered training course 'Working at heights'; • SWMS for works using harness shall be issued to Taylor Construction; • **S-F-07 Safety Harness Permit** to be completed and signed off prior to use of harnesses and attachments; • Proposed height rescue method to be documented in SWMS if use of safety harness is required as a control. SWMS is to include a step by step procedure, equipment and training required for performing a height rescue; • **All fixed static points to be signed off by competent persons prior to use.**	2	5	10	1, 2
21	**Contaminated soil and water**	Conducting works in areas of unidentified contamination	Y	5	5	25	• Preliminary Contamination Assessment (PCA) performed for work areas; • Contaminated areas identified, segregated and appropriate control measures and safeguards adopted; • Correct contamination soil and water handling/ storage and disposal procedures followed; • All contaminated groundwater entering service trenches or excavation to be removed, treated and re-used/ disposed of appropriately.	2	5	5	1 , 2

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Section B – General construction activities/ conditions											
22	**Asbestos and hazardous building materials**	Damage or works to buildings or structures containing asbestos, PCBs in lights and/ or lead-based paints Disposal of asbestos and other hazardous building waste	Y	4	20	16	• Works will be conducted in accordance with **QSE-OP-02 Asbestos Management Procedure**; • All hazardous materials removed by licensed contractor prior to demolition commencing; • Independent clearance survey performed on areas following removal of hazardous materials; • Contractor to provide SWMS for removal works and be appropriately licensed; • Real time air monitoring to be conducted and reports made available to the project manager and communicated to site employees; • If real time monitoring has highlighted that employees have been exposed to above recommended levels, medical surveillance may be required. The project manager, in consultation with the HSE manager and a senior manager, will be consulted and the requirements of **SE-OP-35 Health Monitoring Procedure** will be implemented; • Unexpected finds protocol to be included in site plan and site induction; • Any wastes removed to be segregated and stored in a safe manner pending disposal; • Hazardous materials transported and disposed off-site in an appropriate manner by licensed contractor prior to demolition; • Employees involved in the removal and management process to adhere to PPE requirements; • Areas affected to be signposted and barricaded warning other workers and members of the public of potential dangers; • All hazardous materials disposed off-site to DECC licensed landfill; • All waste dockets (both truck and tip) are to be retained.	4	12	12	1,2
23	**Confined space entry**	No training Drowning Sprains and strains Falling unconscious Entrapment; collapse of structure, excavation or trench Unauthorised entry by others Falling down open penetration	Y	4	12	16	A confined space is identified when the following criteria are met: 1. Is the space enclosed or partly enclosed? 2. Is the space at atmospheric pressure during occupancy? 3. Is the space designed primarily as a place of work? If questions 1 and 2 are answered YES, and question 3 NO, determine if the space may at any time: 4. Have an oxygen deficiency or excess; 5. Have an atmosphere which contains potentially harmful levels of contaminants ; 6. Cause engulfment. If any one of the items from 4 to 6 is answered YES, then it is a confined space. Assessments that answer YES to questions 1 and 2 and NO to questions 3 will be kept in a register maintained by the relevant Taylor Construction site employee. • All confined spaces will be clearly signposted and secured at all times; • All employees required to enter any area deemed a 'confined space' shall be required to inform Taylor Construction site manager and confined space entry permit must be issued; • Testing of atmospheric gases within confined spaces must be conducted by suitably qualified persons prior to permit being issued and employees permitted to enter area; • Monitors used to test for atmospheric cases to be calibrated and included in calibration register	4	12	12	1,2

							• All employees entering the confined space must be trained and hold the relevant competency requirements; • SWMS shall be developed, and employees consulted prior to any entry; • Stand-by person must be available always whilst persons are within confined space; • Confined space rescue kit must be available always. • **Spotter must be in place always whilst employees are working in a confined space or if a danger of entrapment exist from excavation or trench.**				
24	**Saw cutting and coring / drilling / piling**	Unknow live services Others working in the vicinity of works or below	Y	5	5	25	**Saw cutting and or coring activities shall not commence until the following has been completed** ▪ Drawings, instructions, specifications etc have been relayed to the responsible person and they are is clearly understood. ▪ area has been scanned (sure search) and or surveyed for the presence of any known services, gas, water, electricity, data (IF NOT SURE DON'T START) ▪ Taylor concrete cutting / Core hole permit has been issued prior to commencing, and it has been signed off the relevant parties. (must be issued by a Taylor representative) ▪ Safe Work Method statement and or work procedure has been read / understood and signed off by operator before commencing ▪ Area has been barricaded and signposted and all other employees are clear of the immediate work area and cleared from area directly below. ▪ Controls are adopted to reduce exposure to airborne dust and reduce sediment leaving construction areas, wet sawing, grinding, and drilling/coring techniques are preferred for brick, stone, asphalt, concrete and other hard materials and surfaces. ▪ Control are in place to not allow wet sawing, grinding, and drilling/coring generated wastewater to enter storm drains or watercourses without first being filtered. In addition, the sediment shall not be allowed to remain behind after the operation has ceased. Sweep up or shovel and dispose of residual sediment trapped behind control measures. ▪ S-F-39 Cutting, Coring and Drilling Permit, has been completed and issued by a Taylor Representative	2	5	10	1,2
	Covid-19 site requirements	Plant Operators Work areas Site Portaloo's Tool requirements Unable to carry out social distancing	Y	12	9	12	▪ Protocols adopted that will monitor that site mobile plant is only operated by a single designated operator and regularly cleaned where practicable. Where shared use is unavoidable, regularly clean the inside of vehicle cabs and between use where practicable. Note: this may not be applicable for small sites. ▪ The Controls that have been proposed/ adopted will limit the number of people in any indoor areas, including indoor meal areas, to one person per 4 square metres of space where it is safe to do so ▪ All work areas / rooms have been segregated and signage installed to work within the NSW Health Guidelines (and Social distancing Markup document) ▪ Cleaning of site portaloo's will be happening daily and will be monitored as the workforce increases ▪ If sharing tools and equipment is unavoidable controls in place to ensure cleaning with a detergent solution or disinfectant wipes in between use, where practicable ▪ Whereby workers are unable to carry out social distancing due to heavy materials / products / equipment the construction process is to be reviewed to see if there is an alternate method for the works (i.e separate EWP's / working after hours / Plant used for heavy lifting etc) ▪ Whereby the above is not possible workers are to ensure that they are wearing correct PPE and MASKS to be ALWAYS worn. Disinfecting of tools etc to be completed ▪	8	4	5	1,2,3

Project - Hazard Identification Risk Assessment and control (HIRAC) considered:												
Identification				Untreated risk ranking			Risk mitigation controls	Residual risk ranking			Responsibility	
#	Building element/ location	Project hazards identified	Applicable to project	Likelihood	Consequence	Risk ranking		Likelihood	Consequence	Risk ranking	1. Taylor 2. Subcontractor (nominate by name) 3. Architect/ other	
Section C – Construction workplace												
1	**Crane operation, including mobile cranes**	Cranes not operated and/ or directed by qualified, authorised personnel Cranes not maintained in accordance with manufacturers and/ or supplier's specifications Injury to persons from impact with crane or suspended load Insufficient sole plates for outriggers on mobile cranes Unstable base for cranes	Y Y	5 5	5 5	25 25	**Australian Standards AS 2550, AS 1418, AS 1353.2, AS 3775.1:2014** • Cranes, including mobile cranes, to have current Risk Assessment available; • All craneage is to be of adequate size and type to safely complete the given tasks. Expert advice to be obtained if required to ensure compliance; • Adequate areas are to be zoned off as deemed necessary for the safe execution of the works; • All crane drivers and dogmen are to hold relevant certificates of competency which are to be sighted and recorded by Taylor Construction prior to operating the crane on site; • Crane maintenance to comply with the requirements contained in Australian standards 2550.1 and 2550.4; • All workers are to be inducted to the specific work procedures for the tasks to be undertaken; • SWMS must identify all site-specific hazards and their controls for lifts completed on site; • Crane crew to conduct toolbox talks with operators of any other plant that may impact on their lifting area (i.e. concrete boom pumps); • Cranes are to carry maintenance logs and must comply with **QSE-OP-17 Plant and Equipment Procedure** prior to use on site; • Crane sitting sub-base strength to be determined if on suspended slab or made-up ground. • Routine lifting operations may be performed after a Risk Assessment and a Safe Work Method Statement has been completed, and all people involved have been consulted and trained into these documents. • A non-routine may also be completed using similar documents but will require greater detail. Prior to any lifting operation commencing, a review of the lift plan must be conducted. • All lifting equipment to be inspected and tested as per Australian Standard; maintenance records to be supplied to Taylor Construction upon delivery and each scheduled inspection thereafter. • Demarcation of walkways around mobile crane operations; • SWMS must identify all site-specific hazards and their controls for lifts completed on site; • All loads to be secured (i.e. timber bundles strapped); • The SWL of the crane and chains/ slings used not to be exceeded; • Crane not to be used during lightning or storms. Fire extinguisher to be installed on cranes; • Crane to cease operation when wind loads exceed recommended standards; • If mobile cranes are used, ensure where possible that set-up is in a well-ventilated area and that any exhaust fumes are not drifting back towards other site employees; • If a mobile crane is to be used for prolonged periods of the day and is located within close proximity to other site employees, ensure that the noise level generated is at an acceptable recommended level. Monitoring may need to be conducted to verify compliance; • Traffic controls and road closures to be in place where required.	2 2	5 5	10 10	1,2	

Project - Hazard Identification Risk Assessment and control (HIRAC) considered:											
Identification				**Untreated risk ranking**			**Risk mitigation controls**	**Residual risk ranking**			**Responsibility**
#	**Building element/ location**	**Project hazards identified**	**Applicable to project**	**Likelihood**	**Consequence**	**Risk ranking**		**Likelihood**	**Consequence**	**Risk ranking**	**1. Taylor** **2. Subcontractor** (nominate by name) **3. Architect/ other**
Section C – Construction workplace											
2	**Concrete placement and finishing**	Impact with mobile plant or machinery Flying objects Environmental: storms, lightning, wind, dust, noise, fumes Cutting existing services/ stressing tendons Others working below	Y	4	4	16	• SafeWork NSW registration of pump to be verified by Taylor Construction site management prior to commencing; • Mobile Plant Risk assessment to be provided to Taylor Construction prior to use on mobile boom pump; • Subcontractor to submit SWMS which nominates the use **of other mobile** plant on site (i.e. tower crane, excavation equipment, etc.) and the controls to be implemented to eliminate the risk of collision with concrete placement equipment; • **Required plant inspections and pipe testing to be undertaken monthly. A receipt of which is to be provided to TCG upon delivery. Pipes inspected are to be clearly marked and referenced in the engineer's inspection;** • Static line delivery line to be installed by appropriately ticketed personnel; • Only trained, competent or appropriately ticketed personnel to operate concrete boom pump; • Exclusion zones to be erected and maintained around concrete placement boom and agitators; • Contractor's SWMS to nominate the use of spotters being required for backing up agitators to pump; • Rubber final delivery hose is not to have metal coupling on end; • Concrete washout area to be established or waste tray removal; • When setting up pump, ensure where possible that set-up is in a well-ventilated area and that any exhaust fumes are not drifting back towards other site employees; • If pump is to be used for prolonged periods of the day and is located within close proximity to other site employees that the noise level generated is at an acceptable recommended level. Monitoring may need to be conducted to verify compliance; • Area-specific SWMS to outline the barricading and isolation procedures that will eliminate the risk of persons being hit by cores is to be documented and applied on site; • Slurry to be cleaned up immediately by subcontractor; • Spotter may be required, or area below works to be barricaded off • Coordinate with Taylor Construction and trades on site to ensure there are no existing services; • Sign-off to confirm services have been terminated or isolated; • Spotter may be required, or area below works barricaded off; • If concrete saw cutter or core hole drill is to be operated for prolonged periods of the day or in enclosed areas of the project and is located within proximity to other site employees, ensure that the noise level generated is at an acceptable recommended level. Monitoring may need to be conducted and documented using **QSE-F-21 Noise Map and Register**.	3	4	1 2	1,2
3	**Demolition**	Hazardous substances Line services					• Demolition works are not to commence until attachment A of Taylor procedure QSE-OP-41 has been completed and signed off by responsible PCBU. • Demolition Plan, including SWMS, to be prepared by the PCBU and reviewed by the Taylor Construction site manager prior to commencement.				

		Structural collapse Noise, fumes	Y	5	5	25	• All demolition works to be carried out in accordance with AS 2601 and the Code of Practice for Demolition Work 2016; • Subcontractor to provide Taylor Construction with sequence and methodology that will be implemented during demolition phase. • Where the potential exists that the stability of adjoining buildings, walls or other structures may be impacted or compromised by the proposed demolition operations, works will not commence until such time that the PCBU has commissioned licensed professional to determine that surrounding structures are sufficiently removed from the demolition influence zone and, as such, will be unaffected by the demolition activity. • Barricades and signage to be installed around areas under demolition or entire area is to be isolated from other workers and the public. • Asbestos clearance certificate to be provided by certified person. • Contractor to provide Taylor Construction with all relevant licences and permits required prior to commencement. • Obtain a copy of the Asbestos Register for the workplace before demolition work is carried out; • If asbestos is found to be present prior or during the demolition process, it is to be removed by a licensed subcontractor (where quantity is above 10 m^2 or any friable quantity). Ensure removal compliance with all authority, codes, and SWMS requirements. • If there is no Asbestos Register, works must not be carried out until the structure or plant has been inspected to determine whether asbestos or asbestos-containing materials (ACM) are fixed to or installed in the structure or plant. • Before starting any demolition work, the PCBU is to conduct a walk-through inspection of all areas of the workplace, including basements for evidence of any hazardous substances that have been stored or are present on site. If present, remove or organise for the safe removal prior to demolition work commencing. • Ensure that the demolition is undertaken by competent persons; • All plant and equipment are to be inspected and recorded in **S-F-12 Plant and Equipment Register** and regularly inspected during the works; • Only trained, competent or appropriately ticketed personnel to operate mobile plant; • All services to be disconnected and verified as isolated prior to commencement; • All employees must be inducted (site, industry and task-specific SWMS); • Use PPE: hard hat, high-vis clothing, safety boots, appropriate eye protection; • Excessive dust generated from demolition is to be managed by way of wetting down area; The noise level generated must be at an acceptable recommended level. Monitoring may need to be conducted and documented using **QSE-F-21 Noise Map and Register**.	3	4	1 2	1,2

Project - Hazard Identification Risk Assessment and control (HIRAC) considered:

Identification				Untreated risk ranking			Risk mitigation controls	Residual risk ranking			Responsibility
#	Building element/ location	Project hazards identified	Applicable to project	Likelihood	Consequence	Risk ranking		Likelihood	Consequence	Risk ranking	**1. Taylor** **2. Subcontractor** (nominate by name) **3. Architect/ other**

Section C – Construction workplace

4	**Erection, dismantling, altering and use of hoists**	Use of incomplete or inadequate hoist Structural integrity for ties Falls Overloading of hoist System failure Operation of hoist	N/A				• Hoist to be erected in accordance with Australian Standards requirements; • Documented information written in plain English shall be provided on the hoist equipment. The documentation shall include: – Supplier and the means of product identification; – A list of all components with descriptions from which they can be identified; – Instructions for erection, dismantling, use, transportation and storage; – Guidance for servicing and inspection of the equipment and the rejection of damaged components; – Nominal weight in kilograms; – Details giving sufficient information to determine duty loadings, max heights and max location of ties; • Handover certificate to be issued by the company installing hoist prior to hoist being used; • Hoist to have daily pre-use inspection completed by a competent person with details recorded in Daily Logbook; • Periodic inspections in accordance with manufacturers/ supplier's specifications; • SWL to be clearly displayed; • All landings to be secured by lockable gates. Gate is not to open until hoist cart is at the same level; • All hoists erected, altered and/ or dismantled by licensed riggers; • Hoist to be installed as per reviewed drawings and modified and maintained in a safe manner; • The location and tie systems shall be in accordance with the engineer's requirements; • Hoist enclosure to be installed in accordance with AS 2550.7 and AS 1418; • Steel fixing wire shall not be used to secure the enclosure; • Regular visual inspections to be completed by Taylor Construction foreman and site WHS consultative process; • Incomplete hoists are to display appropriate signage and have measures erected or in place that will stop unauthorised use; • Hoist to only be operated by a competent person (ticketed); • Hoist operator to continually lookout for obstructions and notify supervisor of any foreseeable problems; • Operator to secure hoist to prevent unauthorised use.	N/A			N/A

Project - Hazard Identification Risk Assessment and control (HIRAC) considered:

Identification				Untreated risk ranking			Risk mitigation controls	Residual risk ranking			Responsibility
#	Building element/ location	Project hazards identified	Applicable to project	Likelihood	Consequence	Risk ranking		Likelihood	Consequence	Risk ranking	1. Taylor 2. Subcontractor (nominate by name) 3. Architect/ other
Section C – Construction workplace											
5	**Erection, dismantling and altering scaffolding**	Use of incomplete or inadequate scaffold by site employees Poor design of scaffold	Y	5	5	25	• Scaffolds must be erected in accordance with Australian Standards requirements; • Documented Scaffold Plan written in plain English shall be provided on the scaffolding system/ equipment; • **The Scaffold Plan should include a Site Layout Plan, detail the elevations and sections of the scaffold** and **address the following issues:** – Basis of design and the type of scaffold required;	3	5	15	1,2

		Mix and match components Unauthorised removal of scaffold ties Overloading of planks Scaffold collapse Impact or effects to scaffold by mobile plant used on site Stability of ground surface Overhead or underground assets Erection or dismantling by unauthorised persons					– Foundations (including ground conditions required); – The weight bearing capacity of the surface where the scaffold is to be erected; – Size and weight of the scaffold (for example: dead, live and environmental loads); – Supporting structure and any bracing required; – Access and egress; – Tying and anchors (that is, where anchors will be placed on the supporting structure; and types of anchors to be used) ; – The type of edge protection to be used; – Details giving sufficient information to determine: duty loadings, max heights and max number of working platforms. • Handover certificate issued by scaffolding contractor prior to scaffold being used and/ or after each 30-day inspection or when scaffold is altered (raised/ lowered); • Scaffold is to be categorised by the scaffolder as 'light', 'medium' or 'heavy duty'; • All scaffolds where item and/ or object can fall four (4) m or more to be erected by licensed scaffolders. Scaffold to be installed as per design drawings and modified and maintained in a safe manner; • The location and tie systems shall not obstruct clear access along the full length of any working platform or access way; • All platforms shall be capable of supporting their design loads; • Steel fixing wire shall not be used to secure planks; • The minimum unobstructed access of any working bay shall not be less than 450mm, regardless of the shape; • Edge protection shall be provided at the open ends and sides of all platforms, landings and along temporary stairways from which a person or object could fall a distance exceeding two (2) m; • Guardrails shall be set at a height of not less than 900mm above the platform and no greater than 100mm outside the edge of the platform; • Toe boards shall not extend less than 150mm above the working platform surface; • Edge protection shall be comprised of one of the following: – Guardrails, mid rails and toe boards; – Guardrail and infill panels.				
5							• The clear width of an access platform shall not be less than: – 450 mm for persons and hand tools only; – 675 mm for persons and materials; – 900 mm for emergency access. • Safe work procedures and/ or training for trades utilising the scaffold to access their activity are to nominate that no scaffold is to be altered or erected unless it is completed by a certified scaffolder with applicable training for the task and with permission given from Taylor Construction management; • Regular inspections to be completed by Taylor Construction foreman and site WHS consultative process. • Base of scaffold that may be potentially exposed to impact by mobile plant or construction vehicles is to be guarded using physical barriers or barricades are to be installed, keeping plant and vehicles at a safe distance from base of scaffold; • Incomplete scaffolds are to display appropriate signage and have measures erected or in place that will stop unauthorised use; • Handrails, mid rails and kickboards to be in place; • Ladders to be inspected regularly for defects and clearly labelled for industrial use; • Handover certificate issued by scaffolding contractor prior to scaffold being used; • Scaffold to be installed as per reviewed drawings and modified and maintained in a safe manner; • Scaffold to be adequately tied or racked as per engineers design; • Scaffold to be set on firm footing and protected from plant movements;				1,2

							• Incomplete scaffolds are to display appropriate signage; • Engineer's design is to be followed on site for the erection and dismantle of scaffold; • Loading bays to be signposted with the engineered safe working loads and is not to be exceeded.				
6	**Excavation and trenching**	Contamination of land and surrounding environment Mobile plant Collapse of existing buildings or excavation Collapse of trench Injury to persons	Y	5	5	25	• Site Safety Plan including SWMS reviewed prior to commencement; • Obtain Geotech report on ground conditions. • Where the stability of adjoining buildings, walls or other structures is endangered by excavation trenching operations, works are not to commence until a competent person approves works; • Project Workplace Health and Safety Plan and Emergency Control Management Plan to include procedures for managing emergency situations caused by a collapse of excavation or trench. All parties involved in this process are to be made aware of this and include controls in work practices; • Contractors performing excavation works on site are to submit SWMS that incorporate the information outlined in the project HSE Risk register; • Obtain Dial before You Dig report. If unsure of locations, ground searches to be conducted using ground penetrating radar;	3	4	12	1,2

Project - Hazard Identification Risk Assessment and control (HIRAC) considered:											
Identification				**Untreated risk ranking**			**Risk mitigation controls**	**Residual risk ranking**			**Responsibility**
#	**Building element/ location**	**Project hazards identified**	**Applicable to project**	**Likelihood**	**Consequence**	**Risk ranking**		**Likelihood**	**Consequence**	**Risk ranking**	**1. Taylor** **2. Subcontractor** (nominate by name) **3. Architect/ other**
Section C – Construction workplace											
7							• Traffic Management Plan must be reviewed, ensuring it reduces the frequency of plant movements impacting on other trades and the public; plant movements should also be away from excavations and persons who are designated as observers during excavations; • Taylor Construction project/ site manager or nominated site representative will conduct a review of plant and required documents using **S-F-18 Plant Pre-Start Assessment** prior to the plant being permitted on site. This shall be conducted irrespective of the duration or frequency the mobile plant is to be operated on site; • When mobile equipment is operated adjacent to an excavation or trench, a warning system such as barricades, hand or mechanical signals or wheel stops blocks shall be utilized. If possible, the grade should be away from the excavation/ trench; • Measures to be implemented to minimise noise and dust. Suppression techniques to be nominated in contractor's SWMS and implemented as required; • Effective sediment controls to be in place and maintained throughout the works; • Barriers that will control excavation material on site are to be installed and star pickets to have bar caps; • Air quality and noise monitoring to be undertaken as required; • Stormwater treated and released in line with statutory authority requirements and guidelines; • Wheel wash or cattle grid/ shaker to be installed in order to minimise mud and slurry being transported on surrounding roads; • All pits, pier holes and manholes to be highlighted and barricaded to prevent persons and/ or plant falls into excavation;				1,2

							• All trenches deeper than 1.5 m to be battered, stepped or raked in accordance with local statutory authority and/ or code requirements; • Suitable access shall be established to allow safe egress of plant and workers into and out of the excavation or trench; • Ladder access to be provided in accordance with local requirements; • All temporary supporting structures to be provided with engineer's certificate for the application on site; • Stormwater to be collected and diverted away from excavations; • SWMS to nominate the selected controls to be undertaken during activity; • Flooding to be controlled in subcontractor's SWMS.				
8	**Formwork erection and removal**	Collapse of structure Falls from heights Unauthorised entry to formwork decks	Y	5	5	25	• Prior to the commencing of works and the installation of any support for suspended formwork decks, an engineer (such as a suitably qualified civil engineer experienced in structural design) is to be responsible for overseeing the safe design and certification of the complete formwork structure. This includes the design of the formwork support structure, the formwork deck and connection details, and certification that the formwork drawings and other formwork documentation have been completed; • High-Risk Activity SWMS are required to cover formwork methods and controls for convention formwork, decks, walls, columns, stairs, lift or stair cores and stripping formwork; • Formwork erected above two (2) frames to have full-catch deck installed;	2	4	8	1,2,3

Project - Hazard Identification Risk Assessment and control (HIRAC) considered:

Identification				Untreated risk ranking			Risk mitigation controls	Residual risk ranking			Responsibility
#	Building element/ location	Project hazards identified	Applicable to project	Likelihood	Consequence	Risk ranking		Likelihood	Consequence	Risk ranking	1. Taylor 2. Subcontractor (nominate by name) 3. Architect/ other
Section C – Construction workplace											
9		Incomplete formwork decks					• Lazy joist to extend a minimum of 1.5 m in each direction if these are to be used to control persons and materials from falling below; • Formworker to perform as much of the erection from the ground as possible, minimising the risk of falls from leading edges; • Leading edges to be maintained to a minimum. Do not open up multiple work faces; • Joist to be placed at 450 mm centres and secured in place; • Barricades, fencing, signage and bunting to be progressively installed to restrict access by others; • Access and egress to new deck walls, lift or stair shafts should be adequate and acceptable and secured in place; • Temporary handrails to be installed progressively and be constructed in an industry approved manner; • All formwork to be erected and removed/ stripped to the requirements of the local statutory authority and AS 3610 as a minimum standard, and Taylor Construction requirements; • Penetrations and deck openings to be covered and secured progressively; • Engineer's report is not to be issued more than two (2) working days prior to pour. Not to pour without certificate being available on site; • SWMS to be periodically reviewed for suitability as per risk categorisation; • Secure all materials against possible windy conditions; • Suitable and correctly constructed work platforms are to be used by workers working on columns, blade walls and lift shafts, etc. at all times;				

							• Taylor Construction, with the assistance of the relevant subcontractor, is to monitor unauthorised entry to decks under construction; • All timber/ ply to be strapped before being craned.				1,2
10 A	**Structural steel erection**	Falls Structural collapse Inclement weather Transport Mobile equipment/ machinery Tools Manual handling Temperature	Y	3	5	15	– Safe methods of installation to prevent falls are to be established, including the use of mobile cranes, scissor lifts and boom lifts; – Safety harness permit to be issued by Taylor Construction; – Footings for support of columns during erection should be checked by a competent person to ensure adequate structural capacity for the erection conditions, such as wind loadings on columns to prevent rotation of column in the footing; – During erection, the stability of the structure should be verified by a certified engineer or a competent person who has been nominated in the Safety Plan, in the following circumstances: – At the end of the workday or during temporary cessations of work. The effectiveness of temporary guys, bracing and supports should also be inspected at the beginning of each shift; – When fastenings may be incomplete, for example, during lining-up and adjustment of level procedures; – During high winds or when high winds are forecast; – When the structure or parts of it may be subject to construction loads, for example, the stacking of parts and lifting or freeing of components which may have become inadvertently wedged in position; • Where required by design, erection should start in a nominated braced bay in order that the structure can be plumbed and made self-supporting. • Loadings of concrete slabs to be approved prior to landing plant or equipment; • All plant and equipment are to be inspected and recorded in **S-F-12 Plant and Equipment Register** and regularly inspected during the works; • Only trained, competent and appropriately ticketed personnel to operate mobile plant; • Lifting gear to be inspected and certified and listed on register; • Area below to be barricaded off and warning signage displayed; • Ticketed riggers to erect and install; • Welding masks, screens to be used; • All employees inducted into site induction, industry induction and SWMS; • MSDS to be submitted for all products and chemical substances; • All roofs to have restricted access.	2	4	8	1,2
		Fire/ explosion Electrical									
10 B	**Post-tensioning**	Dead/ live end failure during stressing Mechanical failure Overloading of deck Hazards to other trades working in the vicinity Falls from heights	Y	12	16	15	• SWMS to be completed by contractor controlling the isolation procedure for tensioning; • Stressor foreman to check with Taylor Construction site manager prior to landing new coil and bri-pack onto deck under construction; • All workers to remain two (2) metres back from leading edge or perimeters if fall protection is not in place (i.e. scaffold, temporary handrails, etc.); • Jacks to be calibrated, cable pushers, grout pumps to be tested and tagged; • Only trained/ competent personnel to operate jacks/ strand pusher; • Backing board to be in place when final stressing; • Stressor foreman to obtain confirmation from Taylor Construction site manager that concrete has reached required strength prior to initial and finals stress commencing; • Area to be barricaded while stressing or installing; • Stressing cable to run through separate ducting/ conduit where it is not possible to set coil up in close proximity to cable pusher to minimise whipping when passing through other work areas; • Exposed cable ends to have bar caps taped on; • Where possible, use mechanical lifting device; • Install safety signage to inform workers of risks and dangers; • References: SafeWork NSW Code of Practice ‘Mono-strand post-tensioning of concrete buildings’;	6	12	12	1,2

Project - Hazard Identification Risk Assessment and control (HIRAC) considered:											
Identification				**Untreated risk ranking**			**Risk mitigation controls**	**Residual risk ranking**			**Responsibility**
#	**Building element/ location**	**Project hazards identified**	**Applicable to project**	**Likelihood**	**Consequence**	**Risk ranking**		**Likelihood**	**Consequence**	**Risk ranking**	**1. Taylor** **2. Subcontractor** (nominate by name) **3. Architect/ other**
Section C – Construction workplace											
10 C	**Reinforcement**	Falls Access Manual handling Temperature Electrical Noise Environmental: wind, rain, lightning, dust Equipment/ machinery Tools Waste minimisation	Y	3	5	15	• Site Safety Plan, including SWMS, reviewed prior to commencement; • Access to area of works or new decks shall only be allowed through designated access ways or scaffold stairs; • Safety mesh to cover deep beams once reo is in place in beam thickenings; • Works to be monitored during extreme conditions, and employees transferred to unaffected areas of the project during inclement weather conditions; • Reo required to be scheduled and placed on area of slab or new deck, which shall minimise the requirement for employees to carry and transport required reo to desired location; • Steel fixer not to access new deck until perimeter scaffold and/ or temporary handrails are installed; • SWMS to detail access requirements and systems required to be used when tying steel to walls, columns and stairs; • Bar caps to be installed to all starter bars or bars cranked; • All column penetrations to be covered if left unattended; • Power tools to be tested and tagged monthly, use only RCD protected supply; • MSDS for epoxy; • All employees inducted into site Induction, industry induction and SWMS; • PPE to be used: safety helmet, high-vis clothing, safety footwear, hearing protection, gloves and sunscreen.	2	5	10	1,2
11	**Precast installation (AFS)**	Panel failure Crane lifting failure Fall from heights (man and material) Panels falling, causing personal injury and property damage Unauthorised entry to area	N/A				• Site Safety Plan, including SWMS, reviewed prior to commencement; • All precast-tilt up panels and erection requirements to comply with the requirements contained in the National Code of Practice 'Precast, tilt-up and concrete elements in building construction' 2008; • Taylor Construction precast hold point to be completed prior to any precast installation; • Engineer to certify ground bearing capacity prior to erection of any precast panel; • All lifting chains, shackles, lifting clutches and lifting inserts to be certified prior to any lifting of panels; • Crane crew to be trained and competent in the erection of precast panels; • Methods of fixing and positioning of panels to be identified in contractor's SWMS; • No work to take place below panel erection areas; • Ensure crane operator is made aware of panel weight and crane load limit is not exceeded; • **Barricading and warning signage to be in place;** • Bracing installed as required and locked in place; • All required engineer's certification and sign-off to be available prior to commencement; • Installers exposed to falls of greater than two (2) metres are to be trained in working at heights and secured by safety harness; • Bracing plan to be signed off by engineer prior to commencement of installation.	N/A			N/A

Project - Hazard Identification Risk Assessment and control (HIRAC) considered:												
Identification				Untreated risk ranking			Risk mitigation controls	Residual risk ranking			Responsibility	
#	Building element/ location	Project hazards identified	Applicable to project	Likelihood	Consequence	Risk ranking		Likelihood	Consequence	Risk ranking	1. Taylor 2. Subcontractor (nominate by name) 3. Architect/ other	
Section C – Construction workplace												
12	**Installation of tower crane, including self-erecting cranes**	Legal requirements not met Crane failure, including support base Personnel falling whilst installing, relocating, and/ or removing Hazard to unrelated trades and public Overhead hazards Material falling Poor servicing of tower crane	Y Y	12 12	16 16	16 16	**Before selecting a crane for a particular application, the PM shall obtain the following prior to determining the type of crane**: • The rated capacity of the crane; • Classification of the crane considering the application, including: – Type of loads to be lifted; – Mass of loads to be lifted; – Frequency of lifts. • The project/ site manager shall ensure that, prior to the erection of the crane, a competent person shall design, inspect and certify that the loads imposed by the crane can be sustained by the crane base in piles and capping beam, ground or any other means of support relied upon; • Tower crane erection permit to be obtained from Taylor Construction and council. **Erection, commissioning and dismantling**: • Provide name and competency of the person assigned to supervise the erection, commissioning or dismantling of the crane; • Any special transport conditions (permits) or project access or loading requirements for the delivery, storing and dismantling of the crane; • Copies of procedures, policy and SWMS for the assembly or dismantling of the crane also required for any additional mobile plant, equipment and tools that may be used as part of the erection or dismantle of the crane; • Provide evidence or written statement confirming that all parts and components used on the crane comply with the manufacturer's performance and strength requirements; • Nominate persons responsible for obtaining statutory or council permits required for the erection operation or dismantling of the crane; • Traffic control requirements. **Maintenance and thorough examination:** Prior to installation and operation of the crane, the supplier shall provide to Taylor Construction: • Evidence that the crane has undergone a periodic third-party inspection to provide independent advice on whether the level of maintenance and repairs are in accordance with **AS 2550.1:2011 (mandatory)** . • Evidence that the crane has been thoroughly examined by a competent person before being commissioned for the first time and after any substantial alteration or repair; • Evidence that the crane has been maintained in accordance with the manufacturer's instructions at intervals which consider the intensity of use and operating environment; • Once the crane has been erected and is certified by a third-party for use, it is not to be operated until such time as the **HSE/ construction manager** has issued approval for its operation to the site team.	8 8	16 16	12 12	1,2	

Project - Hazard Identification Risk Assessment and control (HIRAC) considered:											
Identification				**Untreated risk ranking**			**Risk mitigation controls**	**Residual risk ranking**			**Responsibility**
#	**Building element/ location**	**Project hazards identified**	**Applicable to project**	**Likelihood**	**Consequence**	**Risk ranking**		**Likelihood**	**Consequence**	**Risk ranking**	**1. Taylor** **2. Subcontractor** (nominate by name) **3. Architect/ other**
Section C – Construction workplace											
13	**Piling**	Falls Vehicles, mobile equipment, machinery Tools Manual handling Electrical Chemical substances Noise Temperature Striking underground assets	Y	15	16	16	• Prior to piling, a geotechnical report of ground conditions needs to be included in Risk Assessment to ensure: – Ground stability when machinery is on top of surface; – Stability of surrounding structures, including walkways and roadways; – Sufficient compaction to take load of equipment on the surface. • All plant and equipment are to be inspected and recorded in **S-F-12 Plant and Equipment Register** and be regularly inspected during the works; • Only trained, competent and appropriately ticketed personnel to operate mobile plant; • Prior to commencing any piling works, contractor is to ensure **no live services** are located directly below on in close proximity of the impact zone; • Subcontractor is to provide to Taylor Construction a detailed SWMS for activity five (5) days prior to commencing works. SWMS is to include details of plant to be used, list of equipment to be used and types of training required by workers performing the task; • Barrier to be in place around auger when boring pile; • All bore holes to be immediately covered over if not immediately filled in.	12	15	12	1,2
14	**Roof installation including soffit, services, installation and metal roof sheeting, box gutters, roof access and fall-protection system**	Falls Manual handling Temperature Electrical Noise Equipment, machinery Tools Waste minimisation Chemical substances	Y	16	16	16	• Deck and guardrail roofing edge protection to be installed prior to lifting roof sheets into place; • Minimum two square lap (300mm) on roof safety mesh and stapled as per Taylor Construction requirements and tied off as per code; • Roof installation safety sign-off to be developed by subcontractor; • Height Mitigation Plan to be issued to subcontractor; • All plant and equipment are to be inspected and recorded in **S-F-12 Plant and Equipment Register** and regularly inspected during the works; • Only trained, competent and appropriately ticketed personnel to operate mobile plant; • Installation of permanent roof access/ fall-protection system to be undertaken prior to guardrail being removed; • All workers are to be inducted to reviewed work procedures prior to commencing work on site; • Harnesses only to be used as a last resort and only after consultation and approval from Taylor Construction; • Taylor Construction harness permits to be obtained and signed off; • Working in fall restraint where possible; • Welding masks and screens to be used and fire extinguisher to be nearby; • All employees inducted into site induction, industry induction and SWMS; • SDS to be submitted for all products and chemical substances.	12	12	12	1,2

Project - Hazard Identification Risk Assessment and control (HIRAC) considered:												
Identification				Untreated risk ranking			Risk mitigation controls	Residual risk ranking			Responsibility	
#	Building element/ location	Project hazards identified	Applicable to project	Likelihood	Consequence	Risk ranking		Likelihood	Consequence	Risk ranking	1. Taylor 2. Subcontractor (nominate by name) 3. Architect/ other	
Section C – Construction workplace												
15	**Hydraulic installation and drainage**	Falls Manual handling Temperature Electrical Noise Kinetic Equipment, machinery Tools Waste minimisation Chemical substances Pollution to land/ water/ air	Y	4	4	16	• Site Safety Plan, including SWMS, reviewed prior to commencement; • All plant and equipment are to be inspected and recorded in **S-F-12 Plant and Equipment Register** and regularly inspected during the works; • Only trained, competent and appropriately ticketed personnel to operate mobile plant; • Use only earth leakage protected supply; • Use insulated lead stands or hooks to elevate leads. Inspect, test and tag monthly; • All employees inducted into site induction, industry induction and SWMS; • PPE to be used: safety helmet, high-vis clothing, safety boots, appropriate safety hearing protection and sunscreen; • MSDS to be submitted for all products and chemical substances; • All waste to be placed in appropriate bins.	2	4	8	1,2	
16	**Mechanical installation**	Falls Vehicles, mobile equipment, machinery Tools Manual handling Temperature Fire/ explosion Electrical Chemicals Noise	Y	4	4	16	• Site Safety Plan, including SWMS, reviewed prior to commencement; • All plant and equipment are to be inspected and recorded in **S-F-12 Plant and Equipment Register** and regularly inspected during the works; • Only trained, competent and appropriately ticketed personnel to operate mobile plant; • Use only earth leakage protected supply; • Use insulated lead stands or hooks to elevate leads. Inspect, test and tag monthly; • Lifting equipment to be regularly inspected; • All employees inducted into site induction, industry induction and SWMS; • SDS to be submitted for all chemical/ hazardous substances; • PPE to be used: safety helmet, high-vis clothing, safety boots, appropriate safety hearing protection and sunscreen.	2	5	10	1,2	
17	**1. Plasterboard** **2. Cladding** **3. Façade installation/ louvres** **Fire system installation** **Rendering**	Falls Material falling Manual handling Cuts and abrasions Mobile equipment, machinery Tools Temperature Electrical	Y	4	5	20	• All plant and equipment are to be inspected and recorded in the plant and equipment register and regularly inspected during the works; • Only trained, competent and appropriately ticketed personnel to operate mobile plant; • Mobile platform to be erected in accordance to manufactures requirements (above 4 metres scaffolder); • All employees inducted into site induction, industry induction and SWMS; • Laser in use signage to be displayed; • All brickies scaffold erected to be braced and sitting on stable surface; • Only experienced operators to use brick saw; • Brick saw to be set up in a manner to avoid run-off, and guarded against unauthorised use by others;	2	5	10	1,2	

							• Exclusion zones to be installed in areas around and below work zones. Mobile scaffold and/ or scissor lifts to be used when working at heights;				

Project - Hazard Identification Risk Assessment and control (HIRAC) considered:											
Identification				**Untreated risk ranking**			**Risk mitigation controls**	**Residual risk ranking**			**Responsibility**
#	**Building element/ location**	**Project hazards identified**	**Applicable to project**	**Likelihood**	**Consequence**	**Risk ranking**		**Likelihood**	**Consequence**	**Risk ranking**	**1. Taylor** **2. Subcontractor** (nominate by name) **3. Architect/ other**
Section C – Construction workplace											
18	**Tiling (wall, floor) and terrazzo paving** **Painting** **Joinery/ fit-out**	Chemical substances Noise Working in confined spaces Heat Use of ladders Use of mobile plant Poor aces to work face Storage of materials and dangerous goods Environmental hazards	Y	4	5	20	• Employees competent in use of mobile plant only to operate plant; • Only platform ladders to be used for working-off. Extension ladders for access use only. If step ladders are to be used, ladder permit to be issued by Taylor Construction; • If painting on roof or painting work on split levels requiring the use of a step ladder, a platform ladder must be used. Ladders shall not be used within two (2) metres of fall areas or open penetrations; • Work in well-ventilated areas. If natural ventilation is not possible, use artificial ventilation or required PPE; • Paints and any chemicals required are to be stored in lockable, well-ventilated area; • When washing rollers and paint brushes do not allow water run-off into stormwater of site drainage system; • SDS to be submitted for all chemical/ hazardous substances; • Mechanical lifting devices and trolleys to be utilised; • PPE to be used: safety helmet, high-vis clothing, safety boots, appropriate safety hearing protection and sunscreen; • Mixing buckets/ mixer wash-out to be disposed of appropriately; • **Woking platforms, scaffold and EWP to be installed and operated by competent persons only;** • Taylor's preference is not to have any MDF particle boards cut on site. If minor cuts are required, all cutting must be done in well-ventilated and isolated room using a saw fitted with vacuum, away from other trades or members of the public; • Mechanical lifting devices to be utilised to move heavy material; • Suitable industrial strength working platforms to be used at all times.	2	5	10	1,2

Section D - Environmental aspects. Environmental Risk Matrix

When it is not reasonably practicable to eliminate the risk, workplace health and safety legislation requires the hierarchy of controls to be implemented

Hierarchy of controls	The measure of what is reasonably practicable
1. Eliminate the hazard altogether (e.g. design change)	Something is 'practicable' if it's capable of being done. Whether it is also 'reasonable', the following must be considered: • The severity of any injury or harm to health or the environment that may occur; • The predictability of the risk and the likelihood of the injury or harm occurring as a result; • How much is known about the risk and the methods of reducing, eliminating or controlling the risk; and the availability, suitability and cost of the safeguards. The risk and its potential severity of injury or environmental harm must be weighed against the overall cost and feasibility of the controls needed to remove it. Common practice and knowledge throughout a relevant industry is to be considered when determining whether a control is 'reasonably practicable'. Individual employers could not claim that they did not know what to do about certain hazards if those hazards are well known and documented for their industrial sector and controls are readily available. While cost is a factor, it is not an excuse for failure to provide appropriate controls, particularly where there is risk of serious, or frequent but less severe, injury or environmental harm.
2. Substitute the hazard with a safer alternative (e.g. use alternate materials or substances)	
3. Isolate the hazard from anyone who could be harmed (e.g. provide an enclosure or fencing)	
4. Use engineering controls to reduce the risk (e.g. provide guards to machinery)	
5. Use administrative controls to reduce the risk (e.g. provide adequate training and documented procedures)	
6. Use PPE (personal protective clothing and equipment), e.g. provide hand, ear and eye protection	

Likelihood / Consequence	5 **Almost certain** (50 times per year)	4 **Likely** (10 times per year)	3 **Possible** (1 per year)	2 **Unlikely** (1 every ten years)	1 **Rare** (> 1 every ten years)
5: Catastrophic S*: fatality, long term illness E*: long-term perm damage	Extreme (EXT) **25**	Extreme (EXT) **20**	High (H) **15**	Moderate (M) **10**	Moderate (M) **5**
4: Major **S**: Extensive injury **E**: Medium effect/ off-site release	Extreme (EXT) **20**	High (H) **16**	Moderate (M) **12**	Moderate (M) **8**	Low (L) **4**
3: Moderate **S**: Medical treatment **E**: Moderate effect/ off-site emission	High (H) **15**	Moderate (M) **12**	Moderate (M) **9**	Moderate (M) **6**	Low (L) **3**
2: Minor **S**: First Aid **E**: Min off site impact	Moderate (M) **10**	Moderate (M) **8**	Moderate (M) **6**	Low (L) **4**	Very low (VL) **2**
1: Insignificant **S**: Pain, inconvenience **E**: No off-site impact	Moderate (M) **5**	Low (L) **4**	Low (L) **3**	Very low (VL) **2**	Very low (VL) **1**

*S= safety; E= environmental

Environmental significance

Each environmental aspect shall be assessed and given an impact status

E = Significant in emergency situations
S = Significant in routine operations
M = Minor significance in routine operations
N = No significant impact in routine operations

Section D - Environmental aspects

E = Significant in emergency situations **S** = Significant in routine operations **M** = Minor significance in routine operations **N** = No significant impact in routine operations

Activity	Environmental aspect	Environmental impact	Legal requirements	Environmental actions, controls and criteria	Risk rating	Significance	Monitoring required			
							Resp.	Type	Freq.	Record
Demolition Excavation Construction	Dust generation Particulate emissions (general)	Air pollution	NSW POEO Act 1997 (Protection of the Environment Operations Act), sections 124-126	• Install shade cloth on perimeter fencing; • Vehicle corridors will be clearly identified and restricted to control vehicle access onsite; • Limit vehicle speed onsite to 40km/h; • Fixed and mobile (water tanker) water sprays; • Reduce work activities/ stop work during moderate to high wind velocity periods; • Maintain equipment. Smokey plant to be stopped until repair works completed.	12	M	SM	Visual inspection	Daily Weekly	Diary Site Inspection Checklist
Demolition	Dust generation (demolition)	Air pollution	NSW POEO Act 1997, sections 124-126	• Breakers and crushing equipment to be fitted with dust filtration equipment or water sprays to control dust emissions.	12	M	SM	Visual inspection	Daily Weekly	Diary Site Inspection Checklist
Construction Excavation	Dust generation (construction)	Air pollution	NSW POEO Act 1997, sections 124-126	• Minimise areas of site to be excavated and stage works where possible; • Dust suppression strategies to be used, i.e. water sprays, soil binders, hydro mulching, controlled speed onsite, road base, shaker grids; • Stockpiled topsoils and rubble will be restricted to 4m high; Stabilise if in situ for >4-6months; • On site drilling or coring operations will be undertaken by equipment fitted with air filtration equipment.	9	M	SM	Visual inspection	Daily Weekly	Diary Site Inspection Checklist
Demolition Excavation Construction	Odour	Air pollution Odour	NSW POEO Act 1997, section 129; Local Government Act 1993, section 125	• If odorous materials uncovered, recover immediately; • Seek advice from consultant regarding soil/ materials management.	1	N	SM	Visual	Daily	Diary
Demolition Excavation Construction	Emissions to Air	Air pollution	NSW POEO Act 1997, sections 124, 125, 139	• Ensure machinery is maintained correctly.	6	M	SM	Visual inspection	Daily Weekly	Diary Site Inspection Checklist
Construction Fit-out	Greenhouse	Resource use Air pollution Global warming	AGBR Greenstar	• Ensure purchased electrical products/ whitegoods products comply with specification for CFCS and energy ratings; • Low solvent paints to be used as a priority; • Building to conform to AGBR or Green Star performance criteria; • Deliveries/ transport from site effectively planned to limit inefficient transport, assist back loading, etc.	4	N	SM			
Demolition Excavation Construction	Stormwater (discharge from sedimentation basins, flooding)	Water contamination	NSW POEO Act 1997, sections 120,122 Protection of the Environment Operations (General) Regulation 1998, clause 55	• Water quality to meet ANZECC Water Quality Guidelines: **PH 6.5-8.5, Turbidity <50NTU, No visible oil or grease;** • Obtain advice for use of flocculants to settle sediment from water; • Sedimentation pond to be maintained at low levels to ensure capacity during rainfall event; • **Do not discharge if contaminants suspected**. Obtain advice.	99	M	SM	Visual inspection	Daily Weekly	Diary Site Inspection Checklist

Section D - Environmental aspects

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Activity	Environmental aspect	Environmental impact	Legal requirements	Environmental actions, controls and criteria	Risk rating	Significance	Monitoring required			
							Resp.	Type	Freq.	Record
			Local Government Act 1993, section 638 ANZECC Water Quality Guidelines NSW Office of Environment & Heritage 'Managing Urban Stormwater' 2004							
Demolition Excavation Construction	Adjoining waterways (dewatering, soil erosion and run-off)	Water contamination Erosion	NSW POEO Act 1997, sections 120, 122 POEO (General) Regulation 1998, clause 55 Local Government Act 1993, section 638 ANZECC Water Quality Guidelines NSW Office of Environment & Heritage 'Managing Urban Stormwater' 2004	• Temporary drainage systems will be established to divert clean waters around the land development areas as appropriate; • Erect silt fences, bunds and construct swale drains; • Inspect at least weekly and after rainfall; • Maintain and/ or replace as required; • Street sweepers will be employed on a regular basis; • Install erosion and sediment controls before work starts; • Leave as much vegetation as possible; • Install temporary fences to define 'no go' areas in those areas that are not to be disturbed. Include the area under the canopy of trees so that tree roots will not be damaged by soil compaction; • Divert run-off from upslope away from the site but ensure that you do not flood your neighbours. For example, dig drainage channels (catch drains sized to accommodate the upslope catchment); • Install sediment controls downslope of the site to catch sediment. • Leave or lay a kerbside turf strip (for example, the nature strip) to slow the speed of water flows and to trap sediment; • Limit vehicle entry and exit to one point, and lay geotextile and blue metal to stabilise it for all-weather access; • Clearly mark the access points and give an access map to all suppliers; • Protect all drains with a gravel sausage made from geotextile filled with blue metal; • Save the topsoil and stockpile it for use later in revegetation. Never place it around trees as this will kill them; • Store all stockpiles and building materials behind sediment fences. Cover them with plastic to prevent erosion by wind; • Get council approval before placing stockpiles or other materials on the nature strip or footpath; • Connect downpipes from the guttering to the stormwater drain as soon as the roof goes on; • Surround the wash-out area with a sediment fence that slows down the water flow. Site this area upslope of another sediment control; • Fill in all trenches immediately after services have been laid; • Spread the topsoil back when the work is finished and revegetate the site as soon as possible to control erosion; • Remove the sediment and erosion controls only after this is done;	9	M	SM	Visual Inspection	Daily Weekly	Diary Site Inspection Checklist

Section D - Environmental aspects

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Activity	Environmental aspect	Environmental impact	Legal requirements	Environmental actions, controls and criteria	Risk rating	Significance	Monitoring required			
							Resp.	Type	Freq.	Record
				• Sweep the road and footpath regularly. Washing down is not a preferred method; • Never place any materials in the gutter or on the road. You will be fined for this; • Filter or settle-out all water pumped off the site. The water must be clear before it enters the stormwater system or creeks. Gypsum can be applied to muddy (turbid) water to help clay particles settle.						
Construction Fit-out	Sewer (trade waste)	Water pollution	NSW POEO (General) Regulation 1998, clause 55 Sydney Water Act 1994, section 49 Hunter Water Act 1991, section 31 Local Government Act 1993, section 68 (clause 4 of Part C of the Table) Sydney Water 'Consent to Discharge Industrial Trade Wastewater', Special Conditions Schedule 6 paragraphs 1-2	• No paints or other chemical to be poured down drains; • If required, obtain trade waste licence for discharge or local council approval.	4	N	SM	Visual inspection	Daily Weekly	Diary Site Inspection Checklist
Excavation	Land (acid sulphate soils, contaminated soils, imported fill)	Contaminated waterways Soil contamination	NSW Contaminated Land Management Act 1997, section 60 Contaminated Land Management Regulation 2013 Acid Sulphate Soils Management Advisory Committee	• Potential for **acid sulphate soils** will be assessed based on the sites proximity to low-lying coastal areas, e.g. coastal plains, wetlands and mangroves where the surface elevation is less than five metres above mean sea level; • Stop work if unexpected potentially **contaminated soils** are encountered; • Obtain waste classification from consultant in accordance with DECC Environmental Guidelines: Assessment, Classification & Management of Liquid & Non-Liquid Wastes (June 2004) www.environment.nsw.gov.au/waste/envguidlns/index.htm. • Where required, a Remediation Action Plan will be developed and implemented; • Sign-off by site auditor may be required to validate clean-up; • Any groundwater or ponded rainwater will be tested and classified by consultants prior to disposal; • Check Geotech requirements. Ensure soil classification suitable for land use, i.e. schools, residential, commercial, etc.	9	M	SM			
Demolition Excavation Construction	Land	Contaminated waterways Soil contamination	NSW Contaminated Land Management Act 1997, section 60; Contaminated Land Management Regulation 2013 POEO Act 1997, section 142A-E ANZECC publication: Organochlorin Pesticides Waste Management Plan (1999)	• If odorous soils (rotten egg gas) or grey/ yellowed mottled soils encountered, stop work; • If suspected, consultant to prepare Acid Sulphate Soil Management Plan (ASSMP); • Excavation and neutralisation to be supervised by consultants as per ASSMP; • The requirements to **import fill** will be minimised by utilising on site cut material wherever possible; • All analysis certificates shall be handed over as part of the completion documents to the client;	4	N	SM	Visual inspection	Daily Weekly	Diary Site Inspection Checklist

Section D - Environmental aspects

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Activity	Environmental aspect	Environmental impact	Legal requirements	Environmental actions, controls and criteria	Risk rating	Significance	Monitoring required			
							Resp.	Type	Freq.	Record
				• Mark up locations where fill compacted in site plan. Survey if required.						
Design procurement	Resources: water, materials, energy	Resource use Landfill Air pollution		• For 'design and construct' jobs, refer to the design specification for ESD requirements and product choices; • Buy local wherever possible to reduce impacts of transport on environment.	4	N	SM	Design review	As per review schedule	Design meeting minutes, purchase orders/ contracts
Demolition Excavation Construction	Noise	Community complaints	NSW POEO Act 1997, sections 139, 140	• Refer to DA for noise restrictions and working hours; • Use hoarding or acoustic mats as required. • Situate generators and plant away from sensitive receivers; • Turn off machinery. Maintain equipment and stop noisy plant until repaired; • No early deliveries.	6	N	SM	Visual inspection	Daily Weekly	Diary Site Inspection Checklist
Demolition Excavation Construction	Vibration	Community complaints, Damage to structures	NSW POEO Act 1997, sections 139, 140	• Conduct Dilapidation Report prior to work starting; • Limit the use of vibratory rollers, rock breakers, impact piling, etc. adjacent to buildings (>7m); • Regenerated noise may also transfer through bedrock and building structures; • Obtain advice if required.	9	M	SM	Visual inspection	Daily Weekly	Diary Site Inspection Checklist
Demolition Excavation Construction	Community	Community concerns Noise restricted access		• Provide information (e.g. signage, letterbox drops) to community on programmed works; • Provide contact name for inquires; • Advise locals of 'noisy' work; • If required in noise sensitive areas and/ or in response to complaints, engage consultants to undertake monitoring at nominated receivers; • Vehicles will not be permitted to queue outside the site or in residential areas unless a defined area is established which does not adversely impact on neighbours.	9	M	SM	Visual inspection	Daily	Diary Community Feedback Form Non-Conformance Report
Demolition Excavation Construction	Flora	Destruction of flora Erosion	NSW State Environmental Planning Policy No 14 - Coastal Wetlands, section 7(1, 5), 7A Native Vegetation Act 2003, section 12 Forestry Act 2012, section 27(1) National Parks and Wildlife Act 1974, sections 117(1), 118(1)	• Review planning documentation to determine the presence of any protected, threatened or significant flora. Obtain approvals as required; • Engage arborist to develop tree management plan or refer DA and arborist reports; • Education and training at site toolbox meetings and induction; • Report all sightings to the site manager. • Fence or barricade protected flora at the drip zone. Erect 'Keep Out' signage; • Do not stack materials under or against trees; • The potential for reuse of vegetative wastes by mulching, chipping or on-site placement of trunks or limbs shall be reviewed for each project.	6	M	SM	Visual inspection	Daily Weekly	Diary Site Inspection Checklist

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Activity	Environmental aspect	Environmental impact	Legal requirements	Environmental actions, controls and criteria	Risk rating	Significance	Monitoring required			
							Resp.	Type	Freq.	Record
Demolition Excavation Construction	Fauna	Destruction of fauna	NSW Environmental Planning and Assessment Act 1979, sections 5A, 8A, 8B, 79B, 111, 112-112E Threatened Species Conservation Act NSW 1995 National Parks and Wildlife Act 1974, Part 8A	• All native animals protected; • Review planning documentation to determine the presence of any protected, threatened or significant fauna. Obtain approvals as required; • Site rules and induction to include information regarding fauna protection; • For injured animals, call WIRES to relocate.	6	M	SM	Visual inspection	Daily Weekly	Diary Site Inspection Checklist
Demolition Construction	Waste Litter	Landfill Contamination of waterways Soil contamination	NSW POEO Act 1997, sections 116, 142, 143, 144-146 NSW Waste Avoidance and Resource Recovery Act 2001 Crown Land Management Act 2016 Marine Safety Act 1998 POEO (Waste) Regulation 2014, clause 4,9, 12, 16, 17, 23	• Hazardous materials surveys to be completed; • Materials to be removed prior to demolition; • Registers and waste disposal requirements as per SafeWork NSE and DECC/EPA requirements for removal, storage, transport and disposal. • General site wastes: use one bin system and sort in contractor's yard to produce quantities of material for recycling, reuse, disposal, etc.; • Empty drums are to be taken off-site for disposal; • Do not overfill skip bins and provide plenty for use. Cover where potential for windblown litter.	6	M	SM	Visual inspection	Daily Weekly	Diary Site Inspection Checklist
Pre-construction	Landfilling	Landfill Contamination of waterways Soil contamination	NSW POEO Act 1997, sections 116, 142	• Reduce, reuse and then dispose. • Dispose of hard construction wastes for recycled gravels and sands; • Do not send soil to landfill until alternatives for beneficial reuse have been explored as per consultants advice; • Consideration should be given to chipping of the vegetation and reuse; • Reuse packaging to protect works.	6	M	SM	Visual inspection	Daily Weekly	Diary Site Inspection Checklist
Construction	Chemicals	Contamination of waterways Soil contamination Fumes Worker's safety	NSW POEO Act 1997, sections 116,142 NSW Workplace Health and Safety Regulation 2017 Sydney Water 'Consent to Discharge Industrial Trade Wastewater', Special Conditions Schedule 6, paragraphs 1-2	• Chemicals to be **stored** in bunded areas (impervious + 110% of largest container) away from stormwater drains and pits; • Refer to SafeWork NSW Code of Practice for Storage and Handling of Dangerous Goods, DECC Guidelines for Bunding and Spill Management. Appropriate chemicals storage is in conformance with: – AS 1940 The Storage and Handling of Flammable and Combustible Liquids – Storage and Handling of Dangerous Goods SafeWork NSW Code of Practice – DEC requirements • Ponded water within **bunds** will not be discharged to stormwater; • **Fuel and hydraulic leaks** to be cleaned up immediately; • **Drilling muds** to be contained within bunds and reused; • **Liquid paints not to be poured down drains**. Spread on waste cardboard or similar and leave to dry. Paint brushes to be rinsed and paint solids allowed to settle. Container of paint solids to be disposed to liquid waste facility; • Construct **concrete washout** pit for washout, away from stormwater drains. Send back to batch plant where possible;	6	M	SM	Visual inspection	Daily Weekly	Diary Site Inspection Checklist

Section D - Environmental aspects

E = Significant in emergency situations **S** = Significant in routine operations **M** = Minor significance in routine operations **N** = No significant impact in routine operations

Activity	Environmental aspect	Environmental impact	Legal requirements	Environmental actions, controls and criteria	Risk rating	Significance	Monitoring required			
							Resp.	Type	Freq.	Record
				• **Concrete cuttings** to be contained and wet vac to prevent run-off into stormwater drains; • Storage of **bulk fuels** (>200L) on site is prohibited. All refuelling shall be undertaken by a mobile facility with appropriate spill control and containment control equipment; • SDS must be provided to the foreman prior to a chemical being received on site and by subcontractors using chemicals/ products.						
Demolition Excavation Construction	Traffic	Site access restrictions Community safety Pollution	Local government requirements	• Develop and implement Traffic Management Plans. Submit to local council as required; • Signage and notices regarding disruptions; • Use crushed concrete, mulches, etc. along site access roads; • Install shakers and wheel wash as required; • Organise regular street sweeping; • Haulage routes and rules will be provided to subcontractors prior to commencing on site; • All loads of soil, demolition wastes, general wastes, etc. are to be tarped.	6	M	SM	Visual inspection	Daily Weekly	Diary Site Inspection Checklist
Demolition Refurbishment	Hazardous materials (lead paint)	Air contamination Contaminated waterways Soil contamination	NSW POEO Act 1997, section 142	• If disturbing or removing dust or paint that could contain lead, wear a respirator or dust mask and protective clothing; • Seal the rooms with plastic; • Do not use open-flame torches on lead paint, as they create lead fumes. If you must use a heat gun, use it on the lower setting to keep the paint temperature below 370 degrees centigrade; • Avoid using dry-sanding techniques: keep the surface wet to minimise dust; • Don't sweep or use a domestic vacuum cleaner to clean up; lead dust will pass right through it. Use a high-efficiency particulate air (HEPA) vacuum cleaner. These can be hired; • When finished, wipe all surfaces with a damp cloth and high-phosphate detergent; • Wash face and hands before eating, drinking or smoking; • Refer to 'Lead Safe: A Renovator's Guide to the Dangers of Lead' and AS4361.2:1998 'Guide to Lead Paint Management: Part 2 Residential and Commercial Buildings'.	6	M	SM			
Demolition Fit-out	Hazardous materials (asbestos)	Workers health Air contamination Contaminated waterways Soil contamination	NSW POEO Act 1997, section 142 NSW PEO (Waste) Regulation 2014, part 7 NSW Code of Practice 'How to Safely Remove Asbestos'	• A licence subcontractor must be used to demolish, remove, repair or disturb asbestos; • A SafeWork NSW asbestos licence is required to remove 10 square metres or more of bonded asbestos; • A SafeWork NSW licence is required to remove, repair or disturb friable asbestos.	9	M	SM			
Demolition Excavation Construction	Aboriginal heritage	Destruction of heritage items	NSW Heritage Act 1977, section 146 National Parks and Wildlife Act 1974, sections 90-91	• Education and training at site toolbox meetings and induction; • **It is illegal to destroy heritage items;** • Review local or regional environmental plans, or the State Heritage Register is to be consulted prior to work starting onsite;	6	M	SM	Visual inspection	Daily Weekly	Diary Site Inspection Checklist

Section D - Environmental aspects

E = Significant in emergency situations **S** = Significant in routine operations **M** = Minor significance in routine operations **N** = No significant impact in routine operations

Activity	Environmental aspect	Environmental impact	Legal requirements	Environmental actions, controls and criteria	Risk rating	Significance	Monitoring required			
							Resp.	Type	Freq.	Record
				• Obtain excavation permit issued by the Heritage Council of NSW if required; • Any heritage relics or sites discovered during construction shall be reported to the NSW Heritage Office; • Work in the subject area to cease until specialist advice is obtained; • The area will be fenced, and signs erected to restrict access; • Heritage consultants may be required to provide advice on demolition/ construction processes and finishes.						
Demolition Excavation Construction	European heritage	Destruction of heritage items	NSW Heritage Act 1977	• Education and training at site toolbox meetings and induction; • **It is illegal to destroy heritage items.** • Check the DECC Aboriginal Heritage Information Management System (AHIMS); • Also check the register of the National Estate; • Obtain approval from NPWS (Section 90 consent); • Any evidence of Aboriginal relics discovered during construction shall be reported to the National Parks and Wildlife Service; • Local land council representatives may be required to monitor stripping/ excavation; • Work in the subject area to cease until specialist advice is obtained; • The area will be fenced, and signs erected to restrict access.	4	N	SM	Visual inspection	Daily Weekly	Diary Site Inspection Checklist
Demolition Excavation Construction	Emergency preparedness	Workers health Air contamination Contaminated waterways Soil contamination		• Spill kit on site; • Refer to the SDS for advice and procedures; • All spills must be reported to the site manager and cleaned up. **Complete TCG Accident/ Incident Report;** • Sediment pond pumped out regularly to maintain capacity in case of emergency; • Ensure you know where stormwater drains are and have materials to block them in case of a fire.	6	M	SM	Inspection	Weekly	Site Inspection Checklist
Demolition Excavation Construction	Notifiable pests - fire ants	Destruction of native species		• Notify a DPI inspector within 24 hours if you see a fire ant (a notifiable pest).	6	M	SM	Inspection	Monthly	Site Inspection Checklist

Appendix 13 – Environmental Legal and Other Requirements Register

SE-P-01 Legal and Other Requirements Procedure

E-R-01 Environmental Legal and Other Reqts Register

Thank you

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