

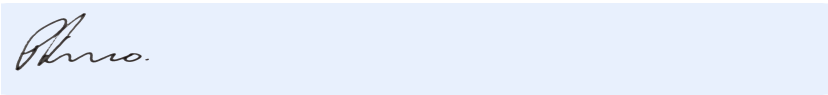
BSBPMG517

MANAGE PROJECT RISK

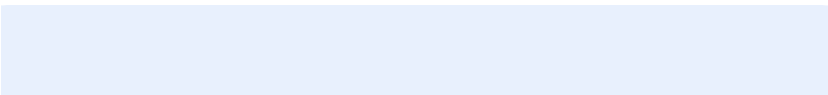
PRACTICAL ASSESSMENT INSTRUCTIONS

- The following practical assessment will require the participant to complete work related activities.
- Observations will be conducted of the participant's work to determine whether they display sufficient practical skills and knowledge.
- Please fill in the details below, providing your name, signature and date of assessment.
 - Your signature acknowledges that the assessor provided clear instructions and the participant understood what was required to complete this assessment.
- The assessor may substitute a Practical Task with another task of equal value.
 - Alternate tasks must be fully documented by the assessor.

Participant name Paul Russo

Participant signature 

Assessor name _____

Assessor signature 

Date 29/11/2021

Number of tasks	Number of tasks completed	Satisfactory?	
		Yes	No
1		☐	☐

ASSESSOR COMMENTS

BSBPMG517 MANAGE PROJECT RISK

Practical Task 1		
Description of task: A suitable observer is to verify the participant's ability to identify, analyse and refine project costs to produce a budget and use it and the principal mechanism to control project cost. These tasks may be simulated or real. The participant is to gather evidence of how they have completed each component of the Practical Task, which is to be submitted with this Practical Assessment sheet. The observer is to provide detailed comments on the tasks completed by the participant. The assessor is to verify the observer's comments in the Assessor Comments section, and provide the Practical Assessment outcome on the front cover of this document.		
Resources required: Workplace risk management documentation (including risk register and risk management plan).		
Assessment of task		
Name of participant:	Paul Russo	
Name of observer:	Nick Brockhurst	
Role of observer (Confirm suitability to sign)	Project Engineer	
Email address of observer	Nick.brockhurst@cbgujv.com.au	
Signature of observer:		
Date:	29/11/2021	
When completing the task, did the participant:	Tick if satisfactorily completed. Provide comments if left unticked.	
1 Identify project risks		
1.1A. Determine project risk objectives, standards and context, with input from stakeholders.	☒	
1.1B. Identify project risks using valid and reliable risk identification methods.	☒	
1.1C. Classify project risks within agreed risk categories.	☒	
2 Analyse project risks		
1.2A. Determine risk analysis classification criteria and apply to agreed risk ranking system.	☒	
1.2B. Use risk analysis processes, within delegated authority, to analyse and qualify risks, threats and opportunities.	☒	
1.2C. Determine risk priorities in agreement with project client and other stakeholders.	☒	
1.2D. Document risk analysis outcomes for inclusion in risk register and risk management plan.	☒	
3 Establish risk treatments and controls		
1.3A. Identify and document existing risk controls.	☒	

Appendix A

Appendix B

Appendix C

Appendix C

1.3B.	Consider and determine risk treatment options using agreed consultative methods.	☒
1.3C.	Record and implement agreed risk treatments.	☒
1.3D.	Update risk plans and allocate risk responsibilities to project team members.	☒

4 Monitor and control project risks

Appendix D

1.4A.	Establish regular risk review processes to: - Maintain currency of risk plans - Monitor risk environment to identify changed circumstances impacting project risks	☒
1.4B.	Determine risk responses to changed environment.	☒
1.4C.	Implement agreed risk responses and modify plans to maintain currency of risk treatments and controls.	☒

5 Assess risk management outcomes

Appendix E

1.5A.	Review project outcomes to determine effectiveness of risk-management processes and procedures.	☒
1.5B.	Identify and document risk management issues and recommended improvements for application to future projects.	☒

The participant's performance was: ☒ Satisfactory ☐ Not Satisfactory

OBSERVER COMMENTS

1.1A – 1.1C

Paul has signed off on a safe work method statement checklist which is proof that a review of the risks & controls included in the safe work method statement that the checklist is attached too are compliant with the project procedures.

1.2A – 1.2D

The temporary works risk register is a collation of all the tasks on site which require the use of temporary works. As the responsible engineer, it is the responsibility of Paul to ensure that each of these tasks are analysed and rated in accordance with the classification criteria which gives a risk ranking for each task. This register is regularly shared with project stakeholders.

1.3A – 1.3D

The work pack risk assessment meeting was chaired by Paul. This was a meeting with relevant stakeholders which documented specific risks, treatments & controls for a task (in this case, stage 1 FRP base slabs). The sign on sheet is a record that the risks & controls were agreed amongst the wider team.

1.4A – 1.4C

The activity schedule for November 2021 shows that Paul is a regular participant in risk & control reviews in the form of safety inspection. The action plan in the following page is evidence that Paul has actively identified a risk & implemented an action plan.

1.5A – 1.5B

Paul has completed a 'work pack close out form' which is a document which summarises the lessons learnt from a particular task which is covered by a work pack (a work pack is a lengthy document which summarises the methodology and associated safety & risk documentation for a particular task). This close out document is utilised for future tasks to ensure that the lessons learnt are applied.

Safe Work Method Statement (SWMS) Review Checklist

SECTION 1 – Safe Work Method Statement (SWMS) DETAILS

Site/Location:	Woolloongabba Station	Contract Package:	Q80379
Contractor:	Rocktown	Work Pack Reference No:	400005
Date Submitted:	17/9/20	Submitted By:	John McCaughey
SWMS Title:	FRP		
SWMS Ref No:	410-000001	Revision No:	0
Business Defined High Risk Construction Work Task (HRCW)		A risk of a worker or an object falling more than 2m, work where there is movement of powered mobile plant, work in or near a contaminated or flammable atmosphere, work in or near a shaft or trench deeper than 1.5m, work carried out in or near energised electrical installations, structural alterations or repairs that require temporary support	

Date Reviewed:	17/9/2020	Date of Next Review:	17/09/2021
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SECTION 2 – SWMS REVIEW STATUS (Note: PM or Authorised delegate must sign off)

1 st Review: PE or SPE (Management System Compliance)	Name:	Paul Russo	Signed:		Date:	17/9/20
2 nd Review: SHE Review (Safety Essentials & Legislative Compliance)	Name:	Justin O'Neill	Signed:		Date:	17/09/2020

3rd Review: Project Manager

SWMS Reviewed ☒	- This SWMS has been reviewed against the Management System criteria. - All workers must read this SWMS and understand what controls are. - Records including any alterations to this SWMS must be maintained on the SWMS.
SWMS Rejected ☐	- Please review actions / comments detailed in Section 5 below, revise accordingly and re-submit. - If clarification is needed regarding any of the comments raised, contact the reviewer(s).
Systems Connect has no objection to work commencing	
Project Manager (Or Authorised Delegate)	Name: <u>Joe Purcell</u> Signed:  Date: <u>18/9/20</u>

SECTION 3 – SWMS REVIEW REFERENCE

List the Safety Essentials, Management System and Client or Legislative requirements documentation that this SWMS has been reviewed against.

Safety Essential/s	Management System Compliance	Other (Client or Legislation)

Manage Work at Height Manage Work in and Around Mobile Plant Construct, Maintain and Remove Temporary Works Manage Work Near Live Services	Respirable Crystalline Silica Shafts and Trenches	WHS Act 2011, WHS Reg 2011 Managing the risk of falls at workplaces COP 2018 Formwork COP 2016
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SECTION 4 – REVIEW CHECKLIST

NOTE 1: To assist with the development and review of SWMS ensure the Construction Area Risk Register and Work Pack Risk Assessment are used.

NOTE 2: Where the items above marked with a ** are marked as No, then the SWMS MUST be rejected.

Does the SWMS comply with the following? * Where No has been ticked, Provide details in Section 5.

1	Identifies the specific Site/Location	☒	Yes	☐	No**
2	Identifies the SWMS specific title	☒	Yes	☐	No**
3	Identifies the date of issue	☒	Yes	☐	No**
4	Identifies the subcontractors name and telephone contact details (if applicable)	☒	Yes	☐	No**
5	Subcontractor SWMS is authorised by the Subcontractor Principal (if applicable)	☒	Yes	☐	No**
6	Identifies the worker(s) responsible for ensuring compliance to the SWMS	☒	Yes	☐	No**
7	Identifies how the controls measures will be reviewed and who will review the measures	☒	Yes	☐	No**
8	Identifies the Business defined high risk construction work (HRCW) task/s	☒	Yes	☐	No**
9	Identifies the specific hazards and risks related to the HRCW	☒	Yes	☐	No**
10	Uses the Hierarchy of Control to determine the most appropriate control to reduce the risks where reasonably practicable, (Elimination, Substitution, Isolation, Engineering Controls, Administrative Controls and Personal Protective Equipment). 'Above the Line' controls are included in the SWMS in accordance with Safety Essentials. Refer to the Work Pack Risk Assessment (WPRA) to ensure where applicable 'Above the Line' controls & High-Risk hazard classifications from the WPRA have been transferred to the SWMS.	☒	Yes	☐	No**
11	Identifies that the SWMS has been developed with involvement with workers or their health and safety representatives	☒	Yes	☐	No**
12	The SWMS is free from statements that require a decision to be made by supervisor or workers wherever possible (i.e. "use appropriate PPE" - what is appropriate PPE)	☒	Yes	☐	No*
13	Records what changes or alterations have been made to the SWMS	☒	Yes	☐	No*

SECTION 5 – DETAIL ACTIONS REQUIRED / GENERAL COMMENTS

Item No.	Comments

TEMPORARY WORKS RISK IDENTIFICATION



CBGU D&C JV

Step 1 - What is the Most Credible Consequence?

Consequence Rating	Negligible	Minor	Moderate	Major	Substantial
Safety and Health	First Aid Treatment (or No treatment)	Medical Treatment Injury	Lost Time Injury	Permanent Injury (Paraplegia, Amputation)	Fatality (Single or multiple)
Environment and Heritage	Small, contained localised impact / Low level repairable damage	Short lived, well contained environmental impact / Minor remedial action required	Medium term, contained impact / Significant remedial action required	Impacts extend off-site / external ecosystem. Considerable remediation required	Long Term irreversible damage / Long Term Remediation required
Plant Damage	Little or No Damage	Damage less than \$15,000	Damage between \$15,000 and \$50,000	Damage between \$50,000 and \$100,000	Damage greater than \$100,000
Reputation	Brief local negative media coverage.	Local negative media coverage. Site or project problem.	Regional/short negative media coverage. Loss of Client / project.	Sustained national negative media coverage. Loss of long term key client.	International negative media coverage. Loss of business from key sector.
Time	Delay / Business interruption <1% of program days	Delay / Business interruption between 1%-3% of program days	Delay / Business interruption between 4%-6% of program days	Delay / Business interruption between 7%-10% of program days	Delay / Business interruption >10% of program days
Cost	Additional cost to the business / project <1% revenue	Additional cost to the business / project between 1%-3% revenue	Additional cost to the business / project between 4%-6% of revenue	Additional cost to the business / project between 7%-10% of revenue	Additional cost to the business / project >10% of revenue

Step 2 - What is the likelihood of that Consequence occurring in the circumstances?

Probability Ranking			
	Description	Probability	Expected Frequency
Almost Certain	Common / Frequent Occurrence	Can be expected to occur 75% - 99%	More than 1 event per month
Likely	Is known to occur or "It has happened regularly"	Can quite commonly occur 50% - 75%	More than 1 event per year
Possible	Could occur or "I've heard of it happening"	May occasionally occur 25% - 50%	1 event per 1 to 10 years
Unlikely	Not likely to occur very often	May infrequently occur 10% - 25%	1 event per 10 to 100 years
Rare	Conceivable but only in exceptional circumstances	May occur in exceptional circumstances 0% - 10%	Less than 1 event per 100 years

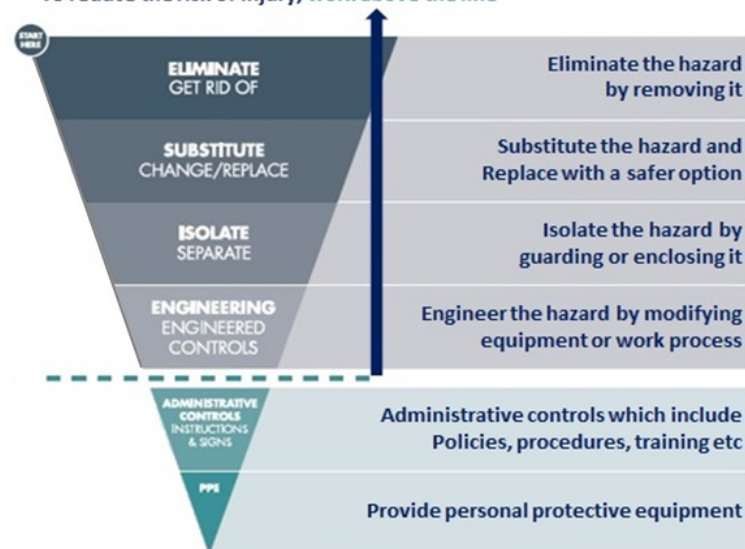
Step 3 - Determine the Risk Level

Determine the risk level by combining probability with highest impact

Consequence \ Probability	Negligible	Minor	Moderate	Major	Substantial
Almost Certain	Low	Moderate	High	High	High
Likely	Low	Moderate	High	High	High
Possible	Low	Moderate	Moderate	High	High
Unlikely	Low	Low	Moderate	Moderate	High
Rare	Low	Low	Moderate	Moderate	Moderate

Hierarchy of Controls

To reduce the risk of injury, work above the line



CAP Reference:

WP Reference: 430001

[illegible]

Appendix C

Appendix C

Project Name : Cross River Rail - TSD - WPRA 400005											
		Discipline WHS, ENV, QA, IR, ST	Risk Source/ Hazard **	Cause	Potential Consequences	Control Measures - So Far As Is Reasonably Practicable(SFAIRP) Controls/Actions **			Risk		Risk Owner**
Hazard ID			Define the source of potential harm	State the different causes	What is the most likely consequence	List Management System controls	Most Credible Consequence	Probability	Risk Score		
SE 1	WHS		A risk of a worker or an object falling more than 2m including batters exceeding 45degrees	Unprotected edges	Injury to Workers Fatality	Above the line: *Use compliant fixed edge protection - proprietary handrail system. *Install fixed covers over penetrations, signpost with Safe Work Load (over sump) - Less than 200mm x 200mm must be covered with material of adequate strength to prevent objects falling through them; and - Greater than 200mm x 200mm must be protected by a cover with perimeter guardrail around (if not engineered) or engineered purpose designed cover. * Use of platform ladder when required - greater than 2m must have functional back bar. *Handheld tools, equipment and materials must be secured to prevent them falling. *Exclusion zones erected below the work area if containment or tool lanyards are not possible with one of the above options.	Major	Unlikely	15 (High)	Project Area / Manager	
				Working at heights	Injury to Workers Fatality	Above the line: *The need to work at heights without hard controls should be eliminated where reasonably practicable *Use compliant fixed edge protection - proprietary handrail system. *Handheld tools, equipment and materials must be secured to prevent them falling. *Exclusion zones erected below the work area if containment or tool lanyards are not possible with one of the above options.	Major	Unlikely	15 (High)	Project Area / Manager	
				Unsecured tools	Injury to Workers	Above the line: *Handheld tools, equipment and materials must be secured to prevent them falling. *Exclusion zones erected below the work area if containment or tool lanyards are not possible.	Moderate	Unlikely	12 (High)	Project Area / Manager	
SE1.1	WHS		A risk of a worker or an object falling more than 2m including batters exceeding 45degrees - use of work box	Failure of rigging equipment	Injury to Workers Fatality	*Inspection of work box / first aid box and rigging equipment including records prior to use to ensure it is in good condition- if not tag out of service and do not use. *Certified rigging equipment used – must be tagged in accordance with RBY system. *Safety sling to be fitted where a risk exists of work box rigging rolling out of the crane hook	Major	Unlikely	15 (High)	Project Area / Manager	
				Incorrect rigging	Injury to Workers Fatality	*Competent dogman to rig man box or first aid box *Must always follow lift study and use correct rigging equipment in accordance with this *All connecting hardware like shackles are to be suitably mouised	Major	Unlikely	15 (High)	Project Area / Manager	
				Uncontrolled load	Injury to Workers Fatality	*UHF comms to be maintained between crane operator and dogman *Dogman in work box or first aid box always directing *No lifting in wind speeds greater than 25km/hr. *Crane must not travel while suspending man box or first aid box *The crane must not be used to simultaneously raise, lower or suspend any other load at the same time. *Crane operator must always remain at controls of crane *Movements of the work box /first aid box must be at slow speeds with a minimum acceleration and deceleration	Major	Unlikely	15 (High)	Project Area / Manager	
				Falls from heights	Injury to Workers Fatality	*Workers must remain inside man box or first aid box at all times while suspended *Workers in man box must wear full body harness and lanyard attached to certified anchor point	Major	Unlikely	15 (High)	Project Area / Manager	
				Dropped ojects	Injury to Workers Fatality	*Exclusion zone must be established below any work at height activities *Only use/have required items inside man box or first aid box	Major	Unlikely	15 (High)	Project Area / Manager	
				Failure of work box	Injury to Workers Fatality	*The rated capacity of the work box or first aid box must not be exceeded. SWL of the crane box is to be displayed. *Inspection of man box / first aid box prior to use *Crane box certification (3rd party engineering certificate) in place	Major	Unlikely	15 (High)	Project Area / Manager	
				Crane failure / component failure	Injury to Workers Fatality	Crane must be fitted with backup system to prevent the load from falling if primary lifting device fails *Crane must have minimum rated capacity of at least twice the total load of the workbox and its contents at the maximum radius for task to be performed and not less than 1000kg. *The Crane suspending the Workbox has and uses 'drive up' and 'drive down' controls on both the hoisting and luffing motions and are NOT be capable of free fall; *The Crane operator remains at the controls while the Workbox is suspended *A Workbox must not be used unless the crane lifting the Workbox is fitted with the means to safely lower it in an emergency or a power supply failure;	Major	Unlikely	15 (High)	Project Area / Manager	
SE 2	WHS		Work that involves Mobile Cranes and Lifting Operations - Franna, Manitou and Gantry Crane	Dropped load	Fatality Property damage Plant damage Injury to Workers	Above the line: *No person to work under a suspended load. Unauthorised access is to be managed through appropriate measures - exclusion zones and restricted zones established as required. *All crane hooks must be fitted with a self-closing spring-loaded latch or a positive-locking (self-locking) mechanism in compliance with Australian Standard 2550. Below the line: *Refer to Safety Essential Crane Lift Risk Classification matrix for details on required lifting documentation. *A pre-lift start card is to be completed as a minimum for each series of lifts (completed for the worst case lift in that series.) *Lifting points on prefabricated elements such as precast concrete or prefabricated reinforcement cages and waste bins are to be certified and clearly identified. * Dogman or above to inspect lifting points and lifting gear for suitability prior to use. Ensure correct lifting equipment is used on lifting points * All lifting gear to be inspected and tagged as per RBY system. *A lift coordinator and lift supervisor are to be appointed for each new construction zone. * Resources, industry and infrastructure (excavation) qualification is the minimum requirement for operators using an excavator in crane mode. *For lifts 75% and above, or where there is doubt about ground conditions a written engineer's report relevant to the surface that the Mobile Crane will lift from, must be obtained *Only dogman or rigger permitted to rig loads. Dogman to ensure choking or slinging loads is suitable for the lift and load is stable for the duration of the lift. * A supervisor observation must be carried out for all operators using an excavator in crane mode as this is considered lifting operations. * Delivery drivers are not permitted to unload with VLC's unless they are inducted, have correct competency and supervisor observation, have an approved SWMS in place and the plant is approved for use on site through the projects Plant Department. *Stillages and other lifting devices must be stamped with SWL's *All articulated mobile cranes are to be fitted with a dynamic de-rating system (Dynamic Load Moment Indicator).	Major	Unlikely	15 (High)	Project Area / Manager	
				Uncontrolled load	Fatality Property damage Plant damage Injury to Workers	Above the line: *No person to work under a suspended load. Unauthorised access is to be managed through appropriate measures - exclusion zones and restricted zones established as required. *All articulated mobile cranes are to be fitted with a dynamic de-rating system (Dynamic Load Moment Indicator). Below the line: *Refer to Safety Essential Crane Lift Risk Classification matrix for details on required lifting documentation. *A SEER is required for loads above 90%. *A pre-lift start card is to be completed as a minimum for each series of lifts (completed for the worst case lift in that series.) * All lifting gear to be inspected and tagged as per RBY system. *A lift coordinator and lift supervisor are to be appointed for each new construction zone. * Resources, industry and infrastructure (excavation) qualification is the minimum requirement for operators using an excavator in crane mode. *For lifts 75% and above, or where there is doubt about ground conditions a written engineer's report relevant to the surface that the Mobile Crane will lift from, must be obtained *Only dogman or rigger permitted to rig loads. Dogman to ensure choking or slinging loads is suitable for the lift and load is stable for the duration of the lift. * A supervisor observation must be carried out for all operators using an excavator in crane mode as this is considered lifting operations. * Delivery drivers are not permitted to unload with VLC's unless they are inducted, have correct competency and supervisor observation, have an approved SWMS in place and the plant is approved for use on site through the projects Plant Department. *Stillages and other lifting devices must be stamped with SWL's.	Major	Unlikely	15 (High)	Project Area / Manager	

Appendix C

		Discipline	Risk Source/ Hazard **	Cause	Potential Consequences	Control Measures - So Far As Is Reasonably Practicable(SFAIRP)				Risk Owner**
Hazard ID		WHS, ENV, QA, IR, ST	Define the source of potential harm	State the different causes	What is the most likely consequence	Controls/Actions **	Most Credible Consequence	Probability	Risk Score	
				Crane collapse / rollover	Fatality Property damage Plant damage Injury to Workers	Above the line: *No person to work under a suspended load. Unauthorised access is to be managed through appropriate measures - exclusion zones and restricted zones established as required. * All articulated mobile cranes are to be fitted with a dynamic de-rating system (Dynamic Load Moment Indicator). *Outriggers must be extended and supported as per manufacturer and /or engineer recommendations and protected against impact from passing traffic or disturbance. Below the line: *Refer to Safety Essential Crane Lift Risk Classification matrix for details on required lifting documentation. *A SEER is required for loads above 90%. *A pre-lift start card is to be completed as a minimum for each series of lifts (completed for the worst case lift in that series.) *A lift coordinator and lift supervisor are to be appointed for each new construction zone. * Resources, industry and infrastructure (excavation) qualification is the minimum requirement for operators using an excavator in crane mode. *For lifts 75% and above, or where there is doubt about ground conditions a written engineer's report relevant to the surface that the Mobile Crane will lift from, must be obtained *Only dogman or rigger permitted to rig loads. Dogman to ensure choking or slinging loads is suitable for the lift and load is stable for the duration of the lift. * A supervisor observation must be carried out for all operators using an excavator in crane mode as this is considered lifting operations. * Delivery drivers are not permitted to unload with VLC's unless they are inducted, have correct competency and supervisor observation, have an approved SWMS in place and the plant is approved for use on site through the projects Plant Department. *Stillages and other lifting devices must be stamped with SWL's *Certified crane pads to be in place for designated lifts as per Safety Essential Crane Lift Classification matrix	Major	Unlikely	15 (High)	Project Area / Manager
SE 4		WHS	Temporary Works	Insufficient TW design, installation, verification, prior to loading impacting TW	Fatality Property damage Plant damage Injury to Workers	Above the line: *Ensure TW is protected from plant and vehicles by appropriate barriers. * Any temporary structural support system required to be lifted by a crane must have engineer designed lift points and meet relevant AS/NZS Below the line: * Ensure the appointment of a Temporary Works Coordinator for each construction area * Ensure that all temporary work is designed, verified, certified and inspected by appropriately competent persons, in accordance with Temporary Works Classification Matrix. * For work tasks involving the construction, maintenance or removal of temporary works, ensure that the construction methodology specified for the installation, use and maintenance of the temporary works item is suitably risk assessed with control measures captured in a Safe Work Method Statement (SWMS) and incorporated into the relevant Work Pack. * Ensure that all testing, inspection, and hold point requirements specified by the temporary Works Design for the installation, use and maintenance of the temporary works item are captured within an Inspection and Test Plan and followed. * Confirm prior to loading that the construction of the temporary works meets and complies with all of the requirements of the design, and where required issue a permit to load/unload. * Checking of bolts for crane cast in * Ensure TC base design certification is in place	Major	Unlikely	15 (High)	Project Area / Manager
SE 5		WHS	Work in an area where there is any movement of powered mobile plant	People/Plant collision	Fatality Injury to Workers	Above the line: *Delineation between personnel and plant is to be undertaken where there is a potential of personnel entering the POZ - Concrete, Steel, Water or Earth barriers are to be installed to stop plant from encroaching within areas of personnel, to so far is reasonably practicable. *Where there is a risk of workers entering a POZ, delineation must be installed as noted above or positive communication must be established (see below). *Dedicated pedestrian crossing where workforce cross plant paths, gate access where plant and workers share access points Below the line: *Vehicle Movement Plan (VMP) developed and communicated * For activities that require personnel to interact with plant they must be clear of the POZ at all times any only enter as per above controls. *Positive communication must be established between personnel and plant operators prior to entering the POZ, communication will temporarily halt the operation of mobile plant and will require GET lowered and controls disengaged (and hands removed from controls).	Major	Unlikely	15 (High)	Project Area / Manager
				Damage to property & services/infrastructure	Property damage Plant damage	Above the line: *Appropriate barriers need to be established around property/services/infrastructure to prevent contact from moving plant. Below the line: *Vehicle Movement Plan (VMP) developed and communicated	Major	Unlikely	15 (High)	Project Area / Manager
				Plant/Plant Collision	Fatality Injury to Workers Plant Damage	Above the line: *Delineation between multiple mobile plant is to be undertaken where there is a potential of plant encroaching on established POZ - Concrete, Steel, Water or Earth barriers are to be installed, to so far is reasonably practicable. *Where there is a requirement or potential of other plant entering a POZ, delineation must be installed as noted above or positive communication must be established (see below). Below the line: *Vehicle Movement Plan (VMP) developed and communicated *Positive communication must be established between plant operators prior to entering or passing through the POZ; communication will temporarily halt the operation of mobile plant and will require GET lowered and controls disengaged (and hands removed from controls).	Major	Unlikely	15 (High)	Project Area / Manager
SE 5.1		WHS	Work in an area where there is any movement of powered mobile plant - Plant Rollover	Uncontrolled movement of plant Uneven ground	Plant damage Injury to Workers	Above the line: *Where reasonably practicable areas where plant may roll should have bunds that prevent plant reaching the edge. *If working within the zone of influence of a trench ground support system must be installed or approval from a geotechnical engineer * Excavations and trenches must be protected by physical means where reasonably practicable. *Certified ROPS on earth moving equipment Below the line: *All Plant is to keep a safe distance away from any embankments or areas where rollover is possible. No closer than 1m to edge of batter. Where 1m distance is not reasonably achievable: controls such as: bunds; "kicking up edges", operating at 45 degrees to the edge, spotter or other delineation must be installed where plant may rollover, including in those instances where plant is reversing. *Inform drivers of ramp access into area	Major	Unlikely	15 (High)	Project Area / Manager
SE 5.3		WHS	Work in an area where there is any movement of powered mobile plant - Plant not left secure	Plant left unsecure	Property damage Plant damage Injury to Workers Public disturbance/ security risk	Above the line: *If fitted, isolator is to be turned off at the end of the shift. Below the line: *No machine to be left unattended with the keys in the ignition. *At the end of the shift hydraulic equipment is to be lowered, keys removed and cabins locked. *Plant must be parked in a manner that does not allow for inadvertent movement once the operator aligns from the plant by such means as: parking on the designated Go Line in V drains, chocks and/or bunds, lowering hydraulic and ground engaging tools. *Designated parking for LVs, and up to date VMP. *So far as is reasonably practicable, plant must be parked in a manner that allows for the forwards movement when first moving off.	Major	Unlikely	15 (High)	Project Area / Manager
				Uncontrolled movement of plant	Property damage Plant damage Fatality Injury to Workers	Above the line: *Barrier (concrete, water filled or steel) or earth bund to be used in designated reverse park-ups to prevent vehicles reversing into other plant/equipment/pedestrians. Below the line: * Vehicle Movement Plan (VMP) developed and communicated *No reversing out of gates without appropriate traffic controls (e.g. spotter) *Spotters need to be used for reversing activities on-site, if reasonably able to do so. *Where reasonably practicable, light vehicle park-up areas will be reverse parking. The area will be clearly marked and visible to drivers and people (including public and workers). *All mobile plant shall be approved for site in accordance with site mobilisation requirements – this includes the requirement for a reverse beeper and flashing light * Designated park areas if possible	Major	Unlikely	15 (High)	Project Area / Manager

Appendix C

						Control Measures - So Far As Is Reasonably Practicable(SFAIRP)				Risk Owner**	
		Discipline	Risk Source/ Hazard **	Cause	Potential Consequences	Controls/Actions **		Risk			
Hazard ID		WHS, ENV, QA, IR, ST	Define the source of potential harm	State the different causes	What is the most likely consequence	List Management System controls		Most Credible Consequence	Probability	Risk Score	
SE 5.5	WHS		Reversing of vehicles	People/Plant collision	Fatality Injury to Workers	Above the line: *Barrier (concrete, water field or steel) or earth bund to be used in designated reverse park-ups to prevent vehicles reversing into other plant/equipment/pedestrians. Below the line: * Vehicle Movement Plan (VMP) developed and communicated *No reversing out of gates without appropriate traffic controls (e.g. spotter) *Spotters need to be used for reversing activities on-site, if reasonably able to do so. *Where reasonably practicable, light vehicle park-up areas will be reverse parking. The area will be clearly marked and visible to drivers and people (including public and workers). *Method of Positive Communication to be established i.e. UHF, hand signals, verbal *All mobile plant shall be approved for site in accordance with site mobilisation requirements – this includes the requirement for a reverse beeper and flashing light		Major	Unlikely	15 (High)	Project Area / Manager
				Damage to property & services/infrastructure	Property damage Plant damage	Above the line: *Barrier (concrete, water field or steel) or earth bund to be used in designated reverse park-ups to prevent vehicles reversing into other plant/equipment/pedestrians. Below the line: * Vehicle Movement Plan (VMP) developed and communicated *No reversing out of gates without appropriate traffic controls (e.g. spotter) *Spotters need to be used for reversing activities on-site, if reasonably able to do so. *Where reasonably practicable, light vehicle park-up areas will be reverse parking. The area will be clearly marked and visible to drivers and people (including public and workers). *Method of Positive Communication to be established i.e. UHF, hand signals, verbal *All mobile plant shall be approved for site in accordance with site mobilisation requirements – this includes the requirement for a reverse beeper and flashing light		Major	Unlikely	15 (High)	Project Area / Manager
				Plant/Plant Collision	Fatality Injury to Workers Plant Damage	Above the line: *Barrier (concrete, water field or steel) or earth bund to be used in designated reverse park-ups to prevent vehicles reversing into other plant/equipment/pedestrians. Below the line: * Vehicle Movement Plan (VMP) developed and communicated *No reversing out of gates without appropriate traffic controls (e.g. spotter) *Spotters need to be used for reversing activities on-site, if reasonably able to do so. *Where reasonably practicable, light vehicle park-up areas will be reverse parking. The area will be clearly marked and visible to drivers and people (including public and workers). *Method of Positive Communication to be established i.e. UHF, hand signals, verbal *All mobile plant shall be approved for site in accordance with site mobilisation requirements – this includes the requirement for a reverse beeper and flashing light		Major	Unlikely	15 (High)	Project Area / Manager
SE 5.6	WHS		Plant Maintenance	Uncontrolled movement of plant	Injury to Workers Fatality	Above the line: *Maintenance works to be undertaken off site unless breakdown/urgent. * Isolation process to be followed as per SWMS including red lock out and keys removed. Below the line: If maintenance to occur on-site - *Vehicles and plant to be parked on stable level ground. *Servicing to be undertaken outside of plant operating zones. If not possible i.e. flat tyre etc, earth bund, barrier or similar must be implemented. *Qualified fitter only allowed to undertake maintenance works.		Major	Unlikely	15 (High)	Project Area / Manager
				Uncontrolled movement of plant	Injury to Workers Fatality Plant damage Property damage	Above the line: *Delivery hose fitting secured by safety chain, sling or another retaining device * A wheel stop must in place when reversing trucks onto the pump truck. *Restricted zone established with signage stating 'Danger – Concrete Pumping Area – Authorised Persons Only'. Below the line: *Compliance with Concrete Pumping COP 2019 *The concrete pump operator must have a visual of the concrete flow at all times, be in reasonable distance to shut down the pump in an emergency and maintain a visual with the line hand at all times. *If not achievable to have a visual of the flow at all times, another worker who is trained and competent in the process and emergency shut down procedure can perform this activity and be in visual and communication range of the pump operator. *Worker spotting must be positioned outside the line of fire until the truck has ceased movement *Concrete pumping checklist is to be completed		Major	Unlikely	15 (High)	Project Area / Manager
				People and plant collision	Injury to Workers Fatality	Above the line: *Delivery hose fitting secured by safety chain, sling or another retaining device *Restricted zone established with signage stating 'Danger – Concrete Pumping Area – Authorised Persons Only'. Below the line: * Vehicle Movement Plan (VMP) developed and communicated *Worker spotting must be positioned outside the line of fire until the truck has ceased movement *Concrete pumping checklist is to be completed		Major	Unlikely	15 (High)	Project Area / Manager
				Blocking of pump	Injury to Workers Fatality Plant damage Property damage	Above the line: *Pump outriggers to be protected when in trafficable areas by appropriate hard barriers. *Delivery hose fitting secured by safety chain, sling or another retaining device * A wheel stop must in place when reversing trucks onto the pump truck. *Restricted zone established with signage stating 'Danger – Concrete Pumping Area – Authorised Persons Only'. Below the line: *Compliance with Concrete Pumping COP 2019 * Vehicle Movement Plan (VMP) developed and communicated *The concrete pump operator must have a visual of the concrete flow at all times, be in reasonable distance to shut down the pump in an emergency and maintain a visual with the line hand at all times. *If not achievable to have a visual of the flow at all times, another worker who is trained and competent in the process and emergency shut down procedure can perform this activity and be in visual and communication range of the pump operator. *Worker spotting must be positioned outside the line of fire until the truck has ceased movement *Concrete pumping checklist is to be completed		Major	Unlikely	15 (High)	Project Area / Manager
				Plant and plant collision	Injury to Workers Fatality Plant Damage	Above the line: *Pump outriggers to be protected when in trafficable areas by appropriate hard barriers. * A wheel stop must in place when reversing trucks onto the pump truck. Below the line: *Compliance with Concrete Pumping COP 2019 *Worker spotting must be positioned outside the line of fire until the truck has ceased movement *Concrete pumping checklist is to be completed		Major	Unlikely	15 (High)	Project Area / Manager
				A worker falling into a shaft or trench	Injury to worker	Above the line: * A worker must not enter a trench that has an excavated depth of 1.5m of more unless adequate control measures are in place (benching, battering, shoring or geotechnical sign off). *Place barricading when required to prevent workers accessing top of shaft or trench Below the line: *Plant, equipment and spoil must not be located in an area within 1000mm of the zone of influence. * Material and plant not to be stacked next to excavation - ensure loading zones are clearly marked on site. *Permits to Work managed in accordance with CBGU's Manage Work Permits Procedure - Permit to Excavate or Penetrate / Temporary Works		Major	Unlikely	15 (High)	Project Area / Manager

Appendix C

			Risk Source/ Hazard **	Cause	Potential Consequences	Control Measures - So Far As Is Reasonably Practicable(SFAIRP)			Risk Owner**	
	Discipline					Controls/Actions **		Risk		
Hazard ID	WHS, ENV, QA, IR, ST		Define the source of potential harm	State the different causes	What is the most likely consequence	List Management System controls	Most Credible Consequence	Probability	Risk Score	
HRA 004	WHS		Work in excavation or trench greater than 1.5m	A worker being trapped by the collapse of a shaft or trench	Fatality Injury to Workers	Above the line: * A worker must not enter a trench that has an excavated depth of 1.5m of more unless adequate control measures are in place (benching, battering, shoring, shotcreting or geotechnical sign off). *Place barricading when required to prevent workers accessing top of shaft or trench Below the line: * During shaft excavation - approved design package and geotechnical inspections to be completed for each lift to enable safe access * Note: Shoring must be designed and verified in accordance with the Temporary procedure and installed by competent personnel *When benching or battering the walls of a shaft or trench, an angle of repose of 45 degrees must not be exceeded unless it has been designed by a competent person, certified in writing and inspected to ensure conformity to the design *Plant, equipment and spoil must not be located in an area within 1000mm of the zone of influence. * Material and plant not to be stacked next to excavation - ensure loading zones are clearly marked on site. *Permits to Work managed in accordance with CBGU's Manage Work Permits Procedure - Permit to Excavate or Penetrate / Temporary Works	Major	Unlikely	15 (High)	Project Area / Manager
				A worker working in a shaft or trench being struck by a falling thing	Fatality Injury to Workers	Above the line: * A worker must not enter a trench that has an excavated depth of 1.5m of more unless adequate control measures are in place (benching, battering, shoring or geotechnical sign off). *Place barricading when required to prevent workers accessing top of shaft or trench Below the line: *Plant, equipment and spoil must not be located in an area within 1000mm of the zone of influence. * Material and plant not to be stacked next to excavation - ensure loading zones are clearly marked on site. *Permits to Work managed in accordance with CBGU's Manage Work Permits Procedure - Permit to Excavate or Penetrate / Temporary Works	Major	Unlikely	15 (High)	Project Area / Manager
				Plant/Vehicle falling into shaft or trench	Plant Damage Injury to Workers	Above the line: *Place barricading when required to prevent workers accessing top of shaft or trench Below the line: *Plant, equipment and spoil must not be located in an area within 1000mm of the zone of influence. * Material and plant not to be stacked next to excavation - ensure loading zones are clearly marked on site. *Permits to Work managed in accordance with CBGU's Manage Work Permits Procedure - Permit to Excavate or Penetrate / Temporary Works	Major	Unlikely	15 (High)	Project Area / Manager
HRA 7.1	WHS		Work in an area that may have a contaminated atmosphere	Silica dust	Illness to worker	Above the line: * Wet down methods to be used in combination with fit tested masks * Closed cabin mobile plant, with windows closed, where SILICA may be present. Below the line: *Fit Test training for those people exposed to SILICA * RPE to be worn	Major	Unlikely	15 (High)	Project Area / Manager
OR001	WHS/ENV/Community		Severe weather event - Flooding	Severe weather	Injury to worker Damage to Plant	Above the line: *Pumps to be used for dewatering Below the line:	Major	Unlikely	15 (High)	Project Area / Manager
			Pile Break Back	Silica dust	Illness to worker	Above the line: * Wet down methods to be used in combination with fit tested masks * Closed cabin mobile plant, with windows closed, where SILICA may be present. Below the line: *Fit Test training for those people exposed to SILICA * RPE to be worn				
				Excessive Vibration		Above the line *Job rotation *Excavator to assist with breaker where possible * Piles broken back in stages such that a level working surface is provided Above the line: *Restricted work zones using barriers and signage established to limit personnel in areas where they may be exposed to high noise levels.				
OH2	OH		Exposure to noise	Exposure to excessive noise while working with or near noisy plant, motors or fixed and mobile equipment, working with noisy handheld tools and equipment	Temporary threshold shift, rupture of ear drum, pain in ears Stress, fatigue, annoyance, interference with communication and alarms Tinnitus (ringing in the ears) Noise induced hearing loss Chronic effects are irreversible	Above the line: *Restricted work zones established to remove non-required personnel *Mobile plant with sealed cabins *Dust suppression Below the line controls: *RPE - when sealed cabins are not available *Fit testing of all workers required to wear RPE *Clean shaven policy *Education of workers - toolbox talks and pre-start meetings. *Plant maintenance as per OEM	Moderate	Possible	13 (High)	Project Area / Manager
OH3	OH		Exposure to dust	Construction works, clearing works, generated during dry and windy conditions and traffic	Respiratory problems, eye irritation/injury, conjunctivitis Prolonged exposure may lead to lung diseases	Above the line: *Restricted work zones established to remove non-required personnel *Mobile plant with sealed cabins *Dust suppression Below the line controls: *RPE - when sealed cabins are not available *Fit testing of all workers required to wear RPE *Clean shaven policy *Education of workers - toolbox talks and pre-start meetings. *Plant maintenance as per OEM	Moderate	Unlikely	12 (High)	Project Area / Manager
OH4	OH		Exposure to extreme temperatures	Working in hot weather, high humidity, working in direct sunlight, high metabolic load, working in mobile plant	Heat stress, heat exhaustion, dehydration, muscle cramps, nausea, vomiting, fainting & collapse, increased risk of physical injury Dehydration	Above the line: *Airconditioned cabins (enclosed) for mobile plant operators Below the line: *Monitor current weather conditions and provide appropriate facilities and amenities for rest and hydration. * Conducting education and training for working in extreme temperatures. *Suitable use of PPE	Minor	Unlikely	7 (Low)	Project Area / Manager
OH5	OH		Poor Air Quality	Vehicle emissions	Respiratory problems, eye irritation/injury, aggravation to existing asthma and respiratory illnesses Long term	Below the line: * Visual inspection of area which is close to a refuelling station	Major	Unlikely	15 (High)	Project Area / Manager

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		Discipline WHS, ENV, QA, IR, ST	Risk Source/ Hazard **	Cause	Potential Consequences What is the most likely consequence	Control Measures - So Far As Is Reasonably Practicable(SFAIRP) Controls/Actions **	Risk			Risk Owner**
Hazard ID			Define the source of potential harm	State the different causes	What is the most likely consequence	List Management System controls	Most Credible Consequence	Probability	Risk Score	
OH6	OH		Exposure to Manual Tasks	Incorrect lifting techniques, incorrect use of tools and equipment.	Musculoskeletal injuries / Long term injuries	Above the line: *Use of mechanical aids for lifting, separation of loads to decrease weight Below the line: *2-persons lifts, training and education in safe lifting methods	Moderate	Possible	13 (High)	Project Area / Manager
OH8	OH		Hazardous Gases and Chemicals	Storage and handling of materials	Respiratory issues Eye Irritation/Injury Skin reactions Illness	Above the line: *Minimal storage of quantities onsite *Ensure correct segregation and storage of HAZCHEM and Substances in accordance with SDS - bunds, ventilation *Hazardous chemicals must be stored in a bunded area with a minimum holding capacity of 110% of the largest container within the bund or 25% of the total capacity of all containers within it, whichever is the greatest Below the line: *Ensure correct handling in accordance with SDS *Eye wash facilities available	Minor	Possible	8 (Moderate)	Project Area / Manager
				Incompatible materials and substance storage	Respiratory issues Eye Irritation/Injury Skin reactions Illness	Above the line: *Ensure all chemicals are clearly and accurately labelled *Ensure correct segregation and storage of HAZCHEM and Substances in accordance with SDS - bunds, ventilation *Minimal storage of quantities on site Below the line: *Labels and signage to ensure correct communication for segregation of incompatible substances	Minor	Possible	8 (Moderate)	Project Area / Manager
				Refuelling of plant	Respiratory issues Eye Irritation/Injury Skin reactions Illness	Above the line: *Spill kits available which should include absorbent material *Workcrew inducted in reporting procedures Below the line: *Spill kits available	Minor	Possible	8 (Moderate)	Project Area / Manager
				Exposure to spilt chemicals	Respiratory issues Eye Irritation/Injury Skin reactions Illness	Above the line: *Spill tray in place when decanting Below the line: *Where appropriate PPE in accordance with SDS *Spill kits available	Minor	Possible	8 (Moderate)	Project Area / Manager
				Leaking containers in storage	Respiratory issues Eye Irritation/Injury Skin reactions Illness	Above the line: *Ensure correct segregation and storage of HAZCHEM and Substances in accordance with SDS - bunds, ventilation. *Hazardous chemicals must be stored in a bunded area with a minimum holding capacity of 110% of the largest container within the bund or 25% of the total capacity of all containers within it, whichever is the greatest Below the line: *Awareness and education programs for; - Mental Health Wellbeing; - Fatigue Management; *Adherence to Project Fatigue Management Plan including max hours and breaks. *Nightshift hours monitored in accordance with plan *Monitoring of workers on nightshift by supervisor *Ensure the Project Fitness for Work Program requirements are communicated to all workers, including the Employee Assistance Program (EAP) *Ensure records associated with the awareness and education program are retained in accordance with the Projects record retention requirements;	Minor	Possible	8 (Moderate)	Project Area / Manager
OH9	OH		Fitness For Work - Mental Health Wellbeing - Alcohol and Drugs - Fatigue Management	Working at night / Lack of rest between shifts	Sleepiness / Increase of at risk behaviour, complacency, lapse in decision making, injuries Plant and equipment damage Lack of efficiency	Above the line: *Awareness and education programs for; - Mental Health Wellbeing; - Fatigue Management; *Adherence to Project Fatigue Management Plan including max hours and breaks. *Nightshift hours monitored in accordance with plan *Monitoring of workers on nightshift by supervisor *Ensure the Project Fitness for Work Program requirements are communicated to all workers, including the Employee Assistance Program (EAP) *Ensure records associated with the awareness and education program are retained in accordance with the Projects record retention requirements;	Moderate	Unlikely	12 (High)	Project Area / Manager
				Lack of sleep / Lifestyle	Sleepiness / Increase of at risk behaviour, complacency, lapse in decision making, injuries Plant and equipment damage Lack of efficiency	Above the line: *Daily alcohol testing prior to commencing work onsite *Random drug and alcohol testing *For cause alcohol and drug testing *Targeted drug and alcohol testing (Note: COVID requirements may affect these schedules – monitor Project requirements and COVID Management documentation) Below the line: *Awareness and education programs for; - Mental Health Wellbeing; - Alcohol and Other Drugs; - Fatigue Management; *Adherence to Project Fatigue Management Plan including max hours and breaks. *Nightshift hours monitored in accordance with plan *Monitoring of workers on nightshift by supervisor *Ensure the Project Fitness for Work Program requirements are communicated to all workers, including the Employee Assistance Program (EAP) *Ensure records associated with the awareness and education program are retained in accordance with the Projects record retention requirements;	Moderate	Unlikely	12 (High)	Project Area / Manager
				Personal choices	Sleepiness / Increase of at risk behaviour, complacency, lapse in decision making, injuries Plant and equipment damage Lack of efficiency	Above the line: *Daily alcohol testing prior to commencing work onsite *Random drug and alcohol testing *For cause alcohol and drug testing *Targeted drug and alcohol testing (Note: COVID requirements may affect these schedules – monitor Project requirements and COVID Management documentation) Below the line: *Awareness and education programs for; - Mental Health Wellbeing; - Alcohol and Other Drugs; - Fatigue Management; *Monitoring of workers on nightshift by supervisor *Ensure the Project Fitness for Work Program requirements are communicated to all workers, including the Employee Assistance Program (EAP) *Ensure records associated with the awareness and education program are retained in accordance with the Projects record retention requirements;	Moderate	Unlikely	12 (High)	Project Area / Manager

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						Control Measures - So Far As Is Reasonably Practicable(SFAIRP)							
		Discipline	Risk Source/ Hazard **	Cause	Potential Consequences	Controls/Actions **			Risk			Risk Owner**	
Hazard ID		WHS, ENV, QA, IR, ST	Define the source of potential harm	State the different causes	What is the most likely consequence				Most Credible Consequence	Probability	Risk Score		
OH11	OH	Covid-19 (Coronavirus)		Close contact with a person while they are infectious	Physical illness Respiratory illness	Above the line: * Physical distancing (staggering breaks, work roster arrangements) Below the line: *CPB Procedure - Manage Risks Associated with Covid-19 *CPB Mandatory Health Declaration Process *Personal hygiene practices *Cleaning of shared tools, plant and equipment *Workplace cleaning protocols *Provision of appropriate personal protective equipment to at risk workers *Workplace inspections to ensure compliance with protocols *Restricted travel arrangement *General communication (toolbox talks) on the virus and the controls *Identification of vulnerable workers *Toolbox talks educating staff on latest government and corporate advice relating to transmission control. *Procedures to manage personnel who report symptoms or close/casual exposure. *Restrict the sharing of tools/machines /plant and if required all tools/machines /plant to be cleaned			Moderate	Possible	13 (High)	Project Area / Manager	
				Poor personal hygiene practices	Physical illness Respiratory illness	Above the line: *Physical distancing (staggering breaks, work roster arrangements) Below the line: *CPB Procedure - Manage Risks Associated with Covid-19 *Personal hygiene practices *Display of posters on hygiene practices *Availability and maintenance of hand washing facilities and sanitiser *Cleaning of shared tools, plant and equipment *Workplace cleaning protocols *Workplace inspections to ensure compliance with protocols *General communication (toolbox talks) on the virus and the controls *Toolbox talks educating staff on latest government and corporate advice relating to transmission control. *Restrict the sharing of tools/machines /plant and if required all tools/machines /plant to be cleaned			Moderate	Possible	13 (High)	Project Area / Manager	
				Inadequate workplace cleaning practices	Physical illness Respiratory illness	Above the line: *Physical distancing (staggering breaks, work roster arrangements) Below the line: *CPB Procedure - Manage Risks Associated with Covid-19 *CPB Mandatory Health Declaration Process *Personal hygiene practices *Cleaning of shared tools, plant and equipment *Provision of appropriate personal protective equipment to at risk workers *Workplace inspections to ensure compliance with protocols *Restricted travel arrangement *General communication (toolbox talks) on the virus and the controls *Identification of vulnerable workers *Toolbox talks educating staff on latest government and corporate advice relating to transmission control. *Procedures to manage personnel who report symptoms or close/casual exposure. *Restrict the sharing of tools/machines /plant and if required all tools/machines /plant to be cleaned			Moderate	Possible	13 (High)	Project Area / Manager	
				Inadequate social distancing practices	Physical illness Respiratory illness	Above the line: *Physical distancing (staggering breaks, work roster arrangements) Below the line: *CPB Procedure - Manage Risks Associated with Covid-19 *Provision of appropriate personal protective equipment to at risk workers *Workplace inspections to ensure compliance with protocols *General communication (toolbox talks) on the virus and the controls *Identification of vulnerable workers *Toolbox talks educating staff on latest government and corporate advice relating to transmission control. *Procedures to manage personnel who report symptoms or close/casual exposure. *Restrict the sharing of tools/machines /plant and if required all tools/machines /plant to be cleaned			Moderate	Possible	13 (High)	Project Area / Manager	
OH12	OH	Exposure to Blood Borne Pathogens, Fungi and Mould related illnesses, HIV and HBV & HCV		Failure to wear PPE	Injury / Illness to worker	Above the line: *Physical distancing (staggering breaks, work roster arrangements) Below the line: *CPB Procedure - Manage Risks Associated with Covid-19 *Provision of appropriate personal protective equipment to at risk workers *Workplace inspections to ensure compliance with protocols *General communication (toolbox talks) on the virus and the controls *Identification of vulnerable workers *Toolbox talks educating staff on latest government and corporate advice relating to transmission control. *Procedures to manage personnel who report symptoms or close/casual exposure. *Restrict the sharing of tools/machines /plant and if required all tools/machines /plant to be cleaned			Minor	Rare	6 (Low)	Project Area / Manager	
				Failure to wear gloves when performing first aid	Injury / Illness to worker	Below the line: *First aid practices on site to include use of gloves *Gloves to be available in all first aid kits			Minor	Rare	6 (Low)	Project Area / Manager	
				Poor maintenance of site facilities	Injury / Illness to worker	Below the line: * Cleaning subcontractor engaged for Project * Monthly inspections of first aid kits and first aid room; - gloves are included in contents list.			Minor	Rare	6 (Low)	Project Area / Manager	
OH13	OH	Transmission of communicable disease		Poor personal hygiene leading to a viral outbreak due to epidemic and/or pandemic	Psychological illness Illness	Above the line: *Implementation of social distancing measures. *Reduction and limitation of meeting/gathering sizes. Operational personnel working remotely where possible. Below the line: *Communication of personal hygiene practices. *EAP support services available for all workers. *Personal PPE availability. *Sanitisation, cleaning and hand washing supplies to be made available. *Toolbox talks educating staff on latest government and corporate advice relating to transmission control. *Procedures to manage personnel who report symptoms or close/casual exposure.			Minor	Possible	8 (Moderate)	Project Area / Manager	
				Stone & Cement cutting/grinding/ drilling	Short term irritation of airways (increased risk for asthmatic persons) Long term risk of chronic illness (fibrosis, silicosis) to respiratory system	Above the line: *Wet cutting methods Below the line controls: *RPE - when sealed cabins are not available of where workers on ground are exposed. *Fit testing of all workers required to wear RPE *Clean shaven policy *Education of workers - toolbox talks and pre-start meetings.			Major	Rare	14 (High)	Project Area / Manager	

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		Discipline	Risk Source/ Hazard **	Cause	Potential Consequences	Control Measures - So Far As Is Reasonably Practicable(SFAIRP)				Risk Owner**		
Hazard ID		WHS, ENV, QA, IR, ST	Define the source of potential harm	State the different causes	What is the most likely consequence	Controls/Actions **			Most Credible Consequence	Probability	Risk Score	
OH14	OH		Exposure to Hazardous Dust, Particulates - Stone, cement or silica dust	Cleaning activities	Short term irritation of airways (increased risk for asthmatic persons) Long term risk of chronic illness (fibrosis, silicosis) to respiratory system	Above the line: * Use of water to hose down/suppress Below the line: * Prohibition of sweeping of RCS * Education of workers - toolbox talks and pre-start meetings. * RPE * Fit testing of all workers required to wear RPE * Clean shaven policy			Major	Rare	14 (High)	Project Area / Manager
				Excavation	Short term irritation of airways (increased risk for asthmatic persons) Long term risk of chronic illness (fibrosis, silicosis) to respiratory system	Above the line: *Mobile plant with sealed cabins *Water supression using hoses Below the line controls: RPE - when sealed cabins not availbale of where workers on ground are exposed. *Fit testing of all workers required to wear RPE *Clean shaven policy *Education of workers - toolbox talks and pre-start meetings			Major	Rare	14 (High)	Project Area / Manager
ENV 1	ENV		Generation of dust leading to amenity, community nuisance	Lack of dust suppression	Affects on local community / disturbance Community complaints Consistent / ongoing exceedance of obligations resulting in regulatory scrutiny / action Reputational loss	Above the line: *Water suppression via hose *Cover loads leaving site Below the line: *Undertake regular monitoring of ambient air quality (TSP, PM10 and deposited dust) against the air quality goals for each of the construction worksites in operation *Weather and wind to be monitored and dust suppression to adapt and change as necessary			Minor	Unlikely	7 (Low)	Project Area / Manager
ENV 2	ENV		Excessive Noise, and/or Vibration (including Out of Hours Work)	Using improper equipment (e.g. oversized plant for type activity)	Community complaints Breach of obligations resulting in regulatory scrutiny / action Project delay Additional mitigation measures required Reputational loss	Above the line: *Use of smaller equipment if possible *Maintained equipment fitted with noise suppression *Noise mitigation measures such as mats/barricades used if required Below the lines: *CEMP * Ongoing monitoring to occur in Roma Street Area. * Complaints management - review controls measures when required. * Vibration monitoring to be undertaken * Adhere to the to OOHWS protocol * Dilapidation survey prior to works *Community notifications			Minor	Unlikely	7 (Low)	Project Area / Manager
				Absent or inadequate mitigation	Community complaints Breach of obligations resulting in regulatory scrutiny / action Project delay Additional mitigation measures required Reputational loss	Above the line: *Use of smaller equipment if possible *Maintained equipment fitted with noise suppression *Noise mitigation measures such as mats/barricades used if required Below the lines: *CEMP *Complaints management - review controls measures when required. *Vibration monitoring to be undertaken *Adhere to the to OOHWS protocol *Dilapidation survey prior to works			Minor	Unlikely	7 (Low)	Project Area / Manager
ENV7	ENV		Hazardous substance spills - including when refuelling	Use of chemicals	Environmental impact Remedial costs Reputational loss Project delay	Above the line: *Designated refuelling station to be implemented Below the line: *Spill kits *Education of workers in how to manage spills *Spill trays to be used when decanting *Ensure correct storage and handling of Hazardous Substances and Dangerous goods - bunds, ventilation and in accordance with SDS			Minor	Unlikely	7 (Low)	Project Area / Manager
				Damage to plant - hydraulic line failures	Environmental impact Remedial costs Reputational loss Project delay	Below the line: * Spill kits * Prestart inspections of plant and equipment * Regular maintenance as per OEM * Education of workers in how to manage spills * Spill trays to be used when refuelling			Minor	Unlikely	7 (Low)	Project Area / Manager
ENV 8	ENV		Concrete wash out	Wash down of concrete trucks/pump post works leading to contamination	Environmental impact Remedial costs Reputational loss Project delay	Above the line: *Concrete waste bins to be set up and removed once set.			Minor	Unlikely	7 (Low)	Project Area / Manager
Q1	QA		Material supply concrete	Poor scheduling of deliveries	Delays to project	Below the line: *Planning and communication - Pre-Start communication to workers			Minor	Unlikely	7 (Low)	Project Area / Manager
				Failure to trial and test mixes	Rework - additional costs Delays to project	Above the line: *Approved mixes to be used only Below the line: *Early age indicative testing *On site compliance testing in accordance with Client Specifications *Monthly statistical analysis			Moderate	Unlikely	12 (High)	Project Area / Manager
				Lack of understanding of specifications	Rework - additional costs Delays to project	Above the line: *Approved mixes to be used only Below the line: *Client Specifications *Monthly statistical analysis *Project TNA and qualified concrete testers			Moderate	Unlikely	12 (High)	Project Area / Manager
Q3	QA		Material fabricated offsite	Supplier failure to follow specifications	Rework Delays to project	Below the line: *Incoming product inspections *Certification of JASO base *Supply of material data to CBUGU as required.			Minor	Unlikely	7 (Low)	Project Area / Manager
				Failure to perform surveillance inspections	Rework Delays to project	Below the line: *Quality dashboards and reviews			Minor	Unlikely	7 (Low)	Project Area / Manager

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			Risk Source/ Hazard **	Cause	Potential Consequences	Control Measures - So Far As Is Reasonably Practicable(SFAIRP)				Risk Owner**
	Discipline					Controls/Actions **			Risk	
Hazard ID	WHS, ENV, QA, IR, ST		Define the source of potential harm	State the different causes	What is the most likely consequence	List Management System controls	Most Credible Consequence	Probability	Risk Score	
Q4	QA		Completion deliverables are not delivered in the correct timeframe	Failure to close out lots on time - includes poor planning for close out where walk downs not completed, rectifications not completed.	Rework Delays to project Additional costs outside of planned budget	Below the line: *Continual reviews of design methodologies, and planning documentation *Quality dashboards - monthly.	Moderate	Unlikely	12 (High)	Project Area / Manager
CO1	Community		Communication: damage to corporate reputation caused by environmental, socio-economic or regulatory issues	Non-compliance or general issues with contract, legal or socio-econcmial obligations	Stakeholder dissatisfaction Reputational damage Delays to project	Below the line: * Relationship building with local community members and regular meetings with stakeholders *Media relations protocol (especially social media) - Through Communications and Stakeholder Engagement Management Plan * Community relations section in project induction. * Ensure all employees and contractors are aware of the CPB/CIMIC policies. * Follow SMP and General Conditions of Contract * Ensure correspondence is logged and recorded * Toolbox talks	Minor	Unlikely	7 (Low)	Project Area / Manager
ER2	Emergency Response		Worker missing from project	High risk construction work, Work involving safety essential activities, Work being conducted in isolated locations	1) Injury/Fatality 2) Disruption 3) Stakeholder reputational damage	*All works to be managed in accordance with the Plan for Emergencies Procedure. *TSD Emergency Response Plan (ERP) developed and approved. *Emergency requirements adopted into Emergency Action Plans Note - all lone work or work in isolated areas need to be risk assessed and adequate communication and supervision requirements identified.	Major	Unlikely	15 (High)	Project Area / Manager
ER6	Emergency Response		Mobile Plant, interaction, rollover, bogging etc	High risk construction work, Work involving safety essential activities	1) Injury/Fatality 2) Disruption 3) Stakeholder reputational damage	* Where required recovery plan to be developed with Site Manager and/or Emergency Services *Work to be conducted in accordance with CBGU's Manage Work in and Around Mobile Plant Safety Essential. *Emergency response equipment requirements specific to the activity will be in the Work Pack *All works to be managed in accordance with the Work Pack and SWMS. *All works to be managed in accordance with the Plan for Emergencies Procedure. *TSD Emergency Response Plan (ERP) developed and approved. * Emergency requirements adopted into Emergency Action Plans	Major	Unlikely	15 (High)	Project Area / Manager
ER8	Emergency Response		Collapse of temporary works - formwork, scaffolding, tilt-up or pre-cast concrete	High risk construction work, Work involving safety essential activities	1) Injury/Fatality 2) Disruption 3) Stakeholder reputational damage	* Structural Engineer engaged for the Project and /or Subcontractor * Recovery plan to be developed based on advice from Structural Engineer and/or Emergency Services where applicable *Manage work in accordance with Safety Essential - Temporary Works *First aid equipment and first aider competency in accordance with the CPB First Aid Assessment. *First Aider to provide support until external emergency services arrive. *All works to be managed in accordance with the Work Pack and SWMS. *TSD Emergency Response Plan (ERP) developed and approved. *Emergency requirements adopted into Emergency Action Plans	Major	Unlikely	15 (High)	Project Area / Manager
ER9	Emergency Response		Mobile cranes and lifting operations	High risk construction work, Work involving safety essential activities	1) Injury/Fatality 2) Disruption 3) Stakeholder reputational damage	* Where required recovery plan to be developed with Lift Study Approver and/or Emergency Services *First aid equipment and first aider competency in accordance with the CPB First Aid Assessment. * First Aider to provide support until external emergency services arrive. *All works to be managed in accordance with the Plan for Emergencies Procedure. *TSD Emergency Response Plan (ERP) developed and approved. * Emergency requirements adopted into Emergency Action Plans * Emergency response process to be developed for works involving personnel and materials hoist and Tower Cranes and documented in SWMS.	Major	Unlikely	15 (High)	Project Area / Manager
ER10	Emergency Response		Exposure to hazardous substances, including Asbestos, SILCA or contaminated material	High risk construction work, Work involving safety essential activities	1) Injury/Fatality 2) Disruption 3) Stakeholder reputational damage	*All hazardous chemicals must have a Safety Data Sheet and a Hazardous Chemical Risk Assessment conducted. *All hazardous chemicals must be recorded on the Hazardous Chemicals Register in accordance with CBGU's Manage Hazardous Chemicals procedure. * When using a high risk chemical any emergency response equipment requirements specific to the activity and Safety Data Sheets will be in the Work Pack or SWMS. *All works to be managed in accordance with the Plan for Emergencies Procedure. *TSD Emergency Response Plan (ERP) developed and approved. *Emergency requirements adopted into Emergency Action Plans	Major	Unlikely	15 (High)	Project Area / Manager
ER12	Emergency Response		A shaft or trench that is deeper than 1.5 metres	High risk construction work, Work involving high risk activities	1) Injury/Fatality 2) Disruption 3) Stakeholder reputational damage	*Works to be conducted in accordance with CBGU's Manage Work in or near Shafts and Trenches procedure including benching, battering and shoring requirements; and access available within 9m of where work is being undertaken. *Emergency response equipment requirements specific to the activity and Safety Data Sheets will be in the Work Pack. *All works to be managed in accordance with the Plan for Emergencies Procedure. *TSD Emergency Response Plan (ERP) developed and approved. *Emergency requirements adopted into Emergency Action Plans	Major	Unlikely	15 (High)	Project Area / Manager
ER14	Emergency Response		Medical Emergency / Serious Injury Workers sustains injury requiring offsite transfer (e.g. ambulance, helicopter), including mental health emergency.	High risk construction work, Work involving safety essential activities	1) Injury/Fatality 2) Disruption 3) Stakeholder reputational damage	*In accordance with the CPB First Aid Assessment: * CBGU and Subcontractors Light Vehicles will have a portable first aid kit. * TSD precincts will have a First Aid Room including an automatic defibrillator, portable eye wash and equipment in accordance with section 3.4 of the First aid in the workplace – Code of Practice 2014 * Additional substantial first aid kits will be placed in locations as identified through risk assessment. * First Aiders will be identified with a green "certified first aid" industrial helmet sticker *All works to be managed in accordance with the Plan for Emergencies Procedure. *TSD Emergency Response Plan (ERP) developed and approved. *Emergency requirements adopted into Emergency Action Plans	Major	Unlikely	15 (High)	Project Area / Manager
ER15	Emergency Response		Occupational Hygiene	High risk construction work, Work involving safety essential activities.	1) Injury/Fatality 2) Disruption 3) Stakeholder reputational damage	*All works to be managed in accordance with the: CMS, Plan for Emergencies Procedure and Work Pack and SWMS. *TSD Emergency Response Plan (ERP) developed and approved. * Emergency requirements adopted into Emergency Action Plans	Major	Unlikely	15 (High)	Project Area / Manager
ER16	Emergency Response		Fire (including building fire, bushfire) or evacuation	High risk construction work, Work involving safety essential activities, Combustibles in buildings	1) Injury/Fatality 2) Disruption 3) Stakeholder reputational damage	*First aid equipment and first aider competency in accordance with the CBGU First Aid Assessment. *First Aider to provide support until external emergency services arrive. Evacuate to a safe place. *All works to be managed in accordance with the Plan for Emergencies Procedure. *TSD Emergency Response Plan (ERP) developed and approved. * Emergency requirements adopted into Emergency Action Plans	Major	Unlikely	15 (High)	Project Area / Manager

GABBA STATION - ACTIVITIES SCHEDULE

NOVEMBER 2021

Activity / Area Inspections

WEEK 1 01/11/2021 – 07/11/2021	WEEK 2 08/11/2021 – 14/11/2021	WEEK 3 15/11/2021 – 21/11/2021	WEEK 4 22/11/2021 – 30/11/2021
Workplace Inspection - Exclusion & Restricted Zones Jess Montgomery Ben Walker	Safety Essential – Temp Works Aaron Ivory Nick Brockhurst	Safety Essential – Work @ Heights Mark Wiese Joseph Donnelly	Safety Essential – Mobile Plant Todd Waite Rhys Tennant
Safety Essential – Electrical Works Warren Tresider Andrew Taylor	Safety Essential – Mobile Plant Matt Russell Sophie Clark	Workplace Inspection - Exclusion & Restricted Zones Leo Polestico Pat Rykiert	Safety Essential – Work @ Height Justin O’Neill Dwayne Sneath
Safety Essential – Work @ Heights Paul Russo Wade McHarg	Workplace Inspection - Exclusion & Restricted Zones Annabelle Kissane David Eustace	Safety Essential – Temp Works Joel Purcell Rebecca Tait	Safety Essential – Temp Works Dave Hollett Phillip Pettet

Planned Vs Actual

WEEK 1 01/11/2021 – 07/11/2021		WEEK 2 08/11/2021 – 14/11/2021		WEEK 3 15/11/2021 – 21/11/2021		WEEK 4 22/11/2021 – 30/11/2021	
No. Planned	No. Completed	No. Planned	No. Completed	No. Planned	No. Completed	No. Planned	No. Completed
3		3		3		3	

Task Observations

WEEK 1 01/11/2021 – 07/11/2021	WEEK 2 08/11/2021 – 14/11/2021	WEEK 3 15/11/2021 – 21/11/2021	WEEK 4 22/11/2021 – 30/11/2021
Lifting Loads – Tower/Mobile Crane Joel Purcell Todd Waite	Pour Concrete Leo Polestico Ben Walker	Load & Unload Trucks - HVNL Matt Russell Andrew Taylor	MEWP Operations Paul Russo Rebecca Tait
Temp Works – Scaffolding Dave Hollett Phil Pettet	MEWP Operations Justin O’Neill David Eustace	Temp Works - Formwork Warren Tresider Mark Wiese	Permit to Work (Any activity requiring a Permit) Jess Montgomery Sophie Clark
Use Hazardous Materials Annabelle Kissane Joseph Donnelly	Lifting Loads – Tower/Mobile Crane Nick Brockhurst Dwayne Sneath	Steel Fixing Wade McHarg Rhys Tennant	Temp Works – Formwork Aaron Ivory Pat Rykiert

Planned Vs Actual

WEEK 1 01/11/2021 – 07/11/2021		WEEK 2 08/11/2021 – 14/11/2021		WEEK 3 15/11/2021 – 21/11/2021		WEEK 4 22/11/2021 – 30/11/2021	
No. Planned	No. Completed	No. Planned	No. Completed	No. Planned	No. Completed	No. Planned	No. Completed
3		3		3		3	

PM CRR (Critical Risk Review)

PM	No. Planned	No. Completed
Chris Russell	4	
Joel Purcell	1	
Warren Tresider	1	
Justin O’Neill	1	

IF YOU ARE UNABLE TO COMPLETE YOUR ASSIGNED SAFETY ESSENTIAL INSPECTION, CHOOSE ANOTHER SAFETY ESSENTIAL THAT YOU CAN COMPLETE AND LET SARAH KNOW

Appendix D

Action Plans

Filter:

Assigned To = Paul Russo - CPB - Employee

Origin & Scope

Entity TSD - Woolloongabba Station [Area]

Sources Inspection

Observation Housekeeping/access egress 4. CPB Workplace Inspection - Housekeeping, Access and Egress, Deliveries 111,600

Identification

Action Plan Title Steel should disposed of in the correct bin

Action Plan ID 247239

Type Corrective

Priority Medium

Category Inspection (H&S)

Timeline

Status

Workflow Status

✓

Created Date (Searchable) 26/11/21

Initial Due Date (Searchable) 01/12/21

Revised Due Date (Searchable) Due Date Revisions 0

Revised Due Date Comment

Completion Date (Searchable) 01/12/21

Historically Overdue? No

Number of Days Overdue (all time) 0

Team Members

Assigned To Paul Russo - CPB - Employee

Assigned By Paul Russo - CPB - Employee

Details

Action Required Bin to be removed from sit

Actions Taken Bin has been removed from site (emptied)

Hierarchy of Control NA - Mobility Record

Attachments

Overdue? No

Number of days overdue 0

Rejection Reason

Rejection Comment



Created by **Paul Russo - CPB {Main}** on **26/11/21 10:31:00**
Last modified by **Paul Russo - CPB {Main}** on **01/12/21 14:52:00**

Subscription Status: (On / **Off**)

Tasks

There are no results.

Appendix D

Work Pack

Project:	Cross River Rail Woolloongabba Station	Project No.	
Work Pack:	Woolloongabba Station – Tower Crane Base Installation	Doc No.	CRRSTD-CS-WPK-CBGU-400005
		Rev:	A

ACTIVITY SCOPE & LOCATION (ANNEX D 4.7.1(a))

Scope of Work: The following explains the location and extent of the works to be covered by this WORK PACK.

This work pack details the construction of the temporary crane base pile caps. It covers the excavation & pile break back (TC2 only), reinforcement installation, formwork installation, crane base placement & concrete placement of the pile cap. Basic sequencing of the works covered in this workpack is as follows:

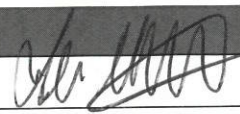
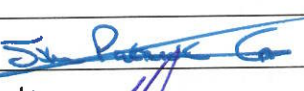
1. Excavation (TC2 only)
2. Shotcreting of Walls (if required on TC2)
3. Pile Break Back (TC2 only)
4. Establishment of access
5. Placement of concrete blinding layer to base
6. Installation of steel reinforcement
7. Placement & levelling of crane base cast in
8. Placement of concrete to pile cap



SCHEDULE		
Start Date: 14/9/20	Planned Completion Date:	Programed Duration:
ACTUAL Start Date:	ACTUAL Completion Date:	Actual Duration:
COST CODES		
COST TYPE	COST CODE	ELEMENT OF ACTIVITY (ALL or PART)
1404	Q80379.530	Site Establishment – FRP Crane Bases

DOCUMENT REVIEW AND APPROVAL

PREPARED BY (Project Engineer or nominated SE, Foreman):			
Acknowledgement that we have consulted with the project's functional managers in the development of this Work Pack.			
Name:	Paul Russo	Signature:	 Date: 16/9/20
Position:	Project Engineer	Company:	CBG JV
Mobile:			
Name:	James Maher	Signature:	Date:
Position:	Senior Supervisor	Company:	
Mobile:			

REVIEWED BY (minimum to be Project SHEQ Manager/s)			
Name:	Justin O'Neill	Signature:	 Date: 18/9/2020
Position Title:	Health and Safety Director, or delegate		
Name:	Michael Bertelsen	Signature:	 Date: 18.09.20
Position Title:	Quality Manager or delegate		
Name:	JP Carey	Signature:	 Date: 15/9/20
Position Title:	Environmental Manager or delegate		
Name:	Rory Church	Signature:	 Date: 19/9/2020
Position Title:	Senior Project Engineer		

SUBCONTRACTOR ACKNOWLEDGEMENT (where required)			
Acknowledgement that I have been consulted in the development of this Work Pack and agree to perform works in accordance with this Work Pack.			
Name:	Tiernan McHugh	Signature:	Date:
Position:	Project Engineer	Company:	

AUTHORISATION / APPROVAL			
Line Manager Approval			
Name:	Joel Purcell	Signature:	 Date: 18/9/20
Project Position Title	Construction Manager		

ACCEPTANCE			
Acceptance of Work Pack by Responsible Supervisor in control of works under this Work Pack.			
Name:		Signature:	Date:

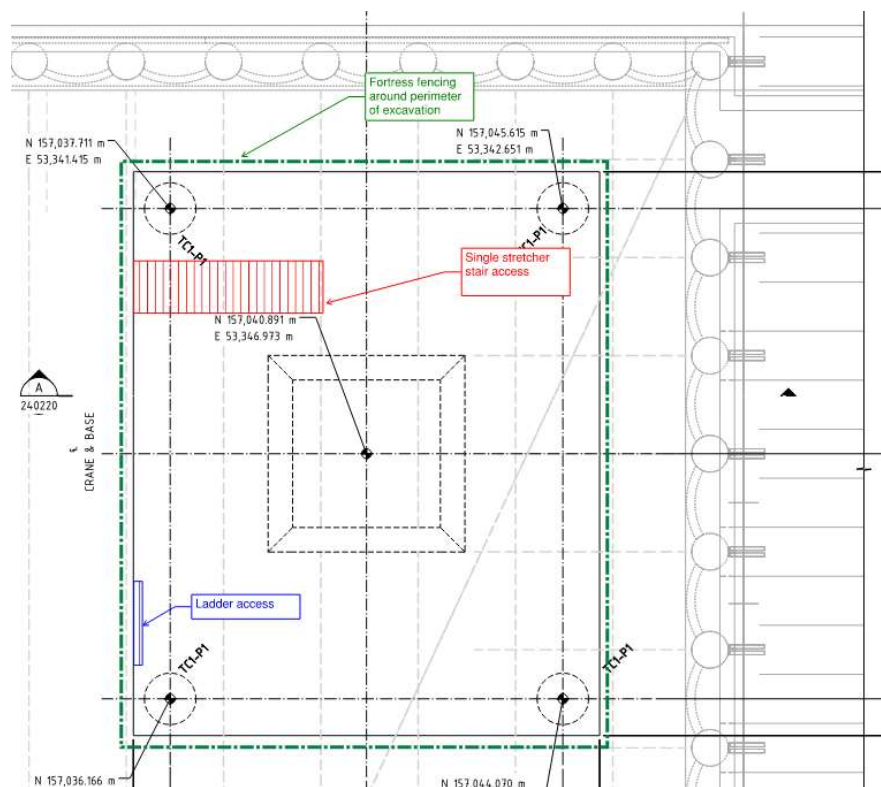
Part A

WORK METHOD / SEQUENCING (Annex D 4.7.1(g))

The following table should detail step-by-step the tasks required to complete construction activities associated with this Work Pack. A construction program extract / look ahead specific to this Work Pack can be used as a guide when detailing the requirements in a sequential order, i.e. duration of the nominated works, roster, productivity, milestones, etc. All relevant controls identified in the Work Pack risk assessment must be associated with tasks below. Note: Controls nominating reference documents (e.g. ITPs, SWMS, Site Environment Plan/s, Permits, Welding Procedures etc. must be included as attachments to this Work Pack).

	Task	Control
1.	PRELIMINARIES	
1.1	Site Preliminaries and Constraints - Project Induction - Site Induction - Daily Pre-start - VMP / TMP - Site specific excavation permit to be developed - Site Access / Egress - All personnel to read and comprehend the task activities in the work pack before signing onto it. - Relevant Safe Work Method Statement (SWMS) has been signed and approved by CBGU JV and subcontractor representatives All personnel to sign onto SWMS prior to starting work. Supervisor competencies to be completed by all persons operating mobile plant/high risk equipment - All plant to be inspected prior to arrival on site by plant department and have an inspection sticker placed on before starting (i.e. all plant to be plant packed prior to arriving onsite). - Main site entry and exit at gate L1 at Leopard St. Concrete Can Not be delivered and must be off-site between the hours of 7am-9am and 4.30pm-6.30pm (Peak Traffic Periods)	Plant onboarding and induction Set up Restricted Work Area Erect warning signs
2.	GENERAL SPECIFICATIONS	
2.1	Site Preparation - Ensure site access is adequate for concrete agitator Trucks. - Establish work area and Restricted zone. - Concrete barriers implemented to eliminate the potential for mobile plant to enter the work area - The primary means of fall protection is fortress fencing erected at the top of the excavation around the perimeter. - XT barrier panels to be utilised as fall protection 2.4m long x 1.0m high panels 4mm – 50 x 50mm mesh - Compliant to AS/NZS 4576-1995 - Access in & out of the excavation via a ladder & a set of aluminium stairs 1.2m wide (stretcher accommodating)	VMP, site address Start Cards Concrete barriers

Given the tight footprint available to construct the pile cap, the stairs will need to be removed at a certain point to allow the completion of the steel reinforcement. Below is the access arrangement shown for TC1 (TC2 similar). Note the points of access shown below are indicative only and may be relocated at the contractors discretion.



- Clearly define access and egress for personnel to and from work areas.
- Engineer/supervisor/competent person to inspect the excavation each morning prior to the days activities
- Geotechnical/suitably experience person to reinspect the excavation after any major weather event prior to people/plant getting back into the excavation
- Site specific hazard cards are to be completed prior to starting work.

2.2

Survey Set-Out

- Survey and set out for the lines and levels required for the ground preparation / concrete works will be in accordance with the requirements specified in the drawings and specifications.

VMP, site address

Start Cards

Detailed Excavation

- Footprint of excavation is to be saw cut back, allowing an additional 100mm around the perimeter for any potential shoring of the excavated wall (i.e. shotcrete). The concrete will be saw cut to aid in removal/breaking of the concrete hardstand. Excess concrete will be loaded into truck and disposed off site

CRRTSD-SH-SWMS-CBGU-415-000034

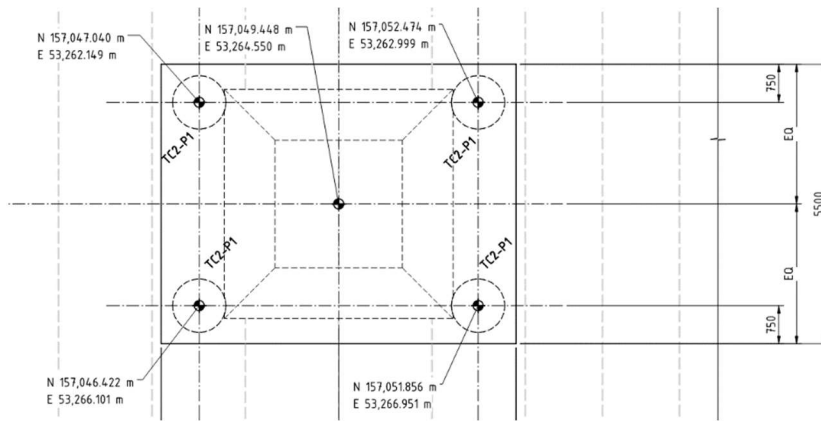
Excavator Operations

VMP, site address

Start Cards

Exclusion Zone around the plant operating zone

Geotechnical sign off



- The pile cap is to be excavated down to the underside of the 50mm (minimum) blinding layer stipulated on the drawing
- The excavation shall be inspected by an RPEQ geotechnical engineer who shall determine whether further shoring/retention of the excavated walls is required
- If shotcreting of the walls is required, the following methodology will be adopted
 - Removal of all loose soil & other foreign material from the trimmed surface
 - Installation of the deformed N12 bars as per the approved detail
 - Installation of thickness pins to confirm level
 - Pre-wet the surface prior to shotcrete application
 - Nozzle man to be experienced in application techniques
 - The shotcrete pump is to be set up in a suitable location in a delineated area. Spotter to be used to back concrete agitator trucks

Pile Break Back

- Area will be barricaded off and signage erected because workers will be wearing hearing protection while using the pneumatic saw and jack hammer.
- Water spray will be administered to suppress the debris/dust, slurry will be captured in the detailed excavation.
- The pile will be saw cut off to a 50mm protrusion into the pile cap (i.e. 50mm above underside of pile cap RL)
- The concrete between the surface of the pile and the reinforcing will be broken back using hand-held breakers (jackhammer). The concrete will be progressively cleared away. The work will progress from the top of the pile toward the cut off level. Jackhammers to be pointed away from body & others.
- Where a pile does not protrude 50mm into the pile cap, the FRP subcontractor will scabble the concrete to prepare the construction joint as per MRTS70.
- The pile cap shall be excavated in stages such that the piles can be broken back from a level working surface at a manageable height
- Reinforcement bars shall be exposed to the required development length of 1875mm

CRRTSD-SH-SWMS-
CBGU-410-000001
FRP Works

Fit Test Certificates

Pre-lift Start Card

Wet down method

Restricted zone
established

	RL 11.000 TOP OF PILE CAP TO BE CONFIRMED PRIOR TO PILE INSTALLATION TC1 PILE CAP BASE, REFER TO GENERAL ARRANGEMENT PLAN BORED PILE REINFORCEMENT TO EXTEND TO THE TOP REINFORCEMENT LAYER OF THE TOWER CRANE BASE AND COGGED RL 9.050 TOP BE CONFIRMED ON SITE 15MPa BLINDING LAYER 50mm MIN THICKNESS 2000 DEEP CRANE BASE 1875 50 REFER SECTION FOR REINFORCEMENT HELIX TIES	
2.3	Blinding Concrete - Blinding to be minimum 50mm thick. Geotechnical assessor to confirm if thicker blinding is required where required for bearing capacity 15 mm thick FIBRECRETE PROTECTION LAYER 15 mm thick fibrecrete JASO TSP20-5.6 TOWER TYP LOCALLY DISPLACE REINFORCEMENT AS REQUIRED N12 D Spaced EXCAVATE AT LEAST 0.5M OF EXISTING SUBGRADE, AND BACKFILL WITH CONCRETE Section - Blinding does not require testing and sampling in accordance with MRTS70. - Survey to set an RL base point. FRP subcontractor to either use dual grade laser for top of blinding RL or to set height pins to establish the finished level of the blinding concrete . - A concrete line pump will be used to place the concrete	CRRTSD-SH-SWMS- CBGU-410-000001 FRP Works CRRTSD-SH-SWMS- CBGU-410-000002 Mobile Plant CRRTSD-SH-SWMS- CBGU-410-000003 General Lifting Operations SDS, appropriate onsite storage Concrete Pumping checklist Designated area for Agi truck to reverse Spotter for reversing Agi truck
...	Steel Reinforcement Installation - Steel reinforcement will be supplied by a TMR approved supplier (Mesh & Bar) - Steel shall be placed on chocks and free from any debris.	VMP, site address CRRTSD-SH-SWMS- CBGU-410-000001 FRP Works

	• If steel will be exposed to the weather conditions for an extended period, it shall be covered and protected. • Steel shall be lifted off the delivery truck with an articulated truck crane Steel Placement/Crane Base Cast in • Steel shall be free from any loose materials prior to placing. • Ensure reinforcement orientation alignment with anchor bolts and install temporary sleeves to ensure rebar is missed during post drilling where required. • Ensure lap lengths are as per the lap chart given in the note sheet of the drawings. • Concrete Aspro spacers or equivalent will be used to ensure required cover on vertical face and horizontal face. • Plastic bar chairs or equivalent shall be placed at intervals to maintain cover as per design drawings for mesh. 1m spacings is recommended for slabs to ensure cover is not compromised. • Cutting of rebar is not permitted without prior approval of the project engineer. • Bending of rebar is not permitted without prior approval of the engineer. • Steel hurdles/top hats shall be scheduled & fabricated to provide support between the top & bottom mats of reinforcement • Steel reinforcement is to be placed to accommodate the positioning of the crane base cast in (JASO TSP20-5.6). The following sequence shall be adopted: ○ Installation of "A" & 'B' layer reinforcement mat ○ Survey to pin centreline of crane base cast in ○ Drop in of crane base cast in with an articulated crane truck. The tower crane supplier (Titan Cranes) will undertake the levelling and final positioning of the cast in ○ Installation of "C" & "D" layers	CRRTSD-SH-SWMS-CBGU-410-000002 Mobile Plant CRRTSD-SH-SWMS-CBGU-410-000003 General Lifting Operations Lifting procedures Pre-Lift Start Card Lifting Register
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Formwork

- Given the tight footprint available, the pile cap will be excavated to the dimensions required of the pile cap
 - TC1 – 9.5m x 11.5m
 - TC2 – 5.5m x 7m
- Concrete shall be poured against the walls of the excavation/shotcrete wall

Supply and Placement of Concrete

- Confirm approved concrete mix design
 - Blinding – N32
 - Shotcrete – N40 fibrecrete
 - Pile Cap – S50
- Complete pre-pour Slump testing and cylinders as per MRTS70. **(HOLD POINT)**
- Slump shall comply with MRTS70 requirements.
- Blinding shall be clean and free of any debris, tie wire and loose items. A compressor is advised to remove all loose material.
- A pre-pour inspection shall be completed prior to placement of any concrete. **(HOLD POINT)**
- A concrete pump will be used to place the concrete. The concrete pump outriggers will sit on hardwood timbers bearing on a concrete hardstand.
- Once concrete truck has dispensed the load, the chute will be brushed and cleaned, and the truck will wash chute in the nominated wash out bay.

CRRTSD-SH-SWMS-
CBGU-410-000001
FRP Works

CRRTSD-SH-SWMS-
CBGU-410-000002
Mobile Plant

CRRTSD-SH-SWMS-
CBGU-410-000003
General Lifting
Operations

ITP – In-situ concrete
Plant inspections

SDS, appropriate onsite
storage

Concrete Pumping
checklist

VMP

Designated area for Agi
truck to reverse

Spotter for reversing Agi
truck

	- All exposed concrete surfaces shall be cured using approved curing compound (Fosroc A99 or equivalent). Curing compound to be stored onsite as per SDS. - All concrete shall be vibrated whilst placing the concrete. - Concrete shall be distributed and raised evenly & in a continuous manner - Fresh concrete shall not be placed against concrete which has taken its initial set (initial set is defined for this purpose only as the concrete surface not being able to be easily penetrated with a 12mm bar). If an interruption to pouring greater than 45 minutes or initial set has occurred, a construction joint approved by the Administrator shall be placed, or the laid concrete rejected. - Slabs that will be foot trafficked shall have a broom finish. Post Pour - Any exposed faces of concrete shall comply with Class B2 finished concrete, if not stated other on the drawings. - Loading requirements: - No early loading is permitted - Concrete strength to reach 40Mpa prior to tower crane erection	Mix design MRTS 70 Cl. 15.6.3

NOTE: Should works or conditions CHANGE in the execution of the works, the works MUST STOP and the process and controls re-assessed and recorded using the pre-start briefing, and/or this work pack.

RESOURCE REQUIREMENTS (Annex D 4.7.1(b))
Subcontract Resources: Rocktown
CBGUJV Labour: Nil
Plant: Excavator, Articulated dump truck, shotcrete pump, concrete trucks, manitou, 25t Franna, water cart, concrete boom pump
Equipment: Generators, Water Pressure Washer, Small Tools, Power Pack, Nips, floats, Tie bolt anchors, Vibrators, Air compressor, Bolt cutters, Oxy sets, Lasers, Screeds, Jackhammer, Concrete saw
Materials: Concrete, Grout, Curing Compound, Duct Tape, Reinforcement, Spray Paint, Builders Plastic, Spacers, Formwork, Tie wire
Transportation of Materials/Personnel
Method of Refuelling Requirements, Tunnel/Rail: N/A
Rail Requirements: N/A

Tunnel Requirements

Comments: [Note special training/competency requirements, e.g. Confined Space Competency, surface protection processes or refer to separate document managing welding and other highly skilled works.]

ROLES, RESPONSIBILITIES AND COMPETENCIES (ANNEX D 4.7.1(c))

ROLE	RESPONSIBILITIES	COMPETENCIES
Foreman	Monitor safety Waste disposal management	Relevant industry experience and approved by the Construction Manager
Leading Hand	Manage work force and allocate tasks	Relevant industry experience and approved by the Superintendent
Plant Operator	Operate plant / machinery	Relevant RII or VOC issued by RTO
Crane Operator	Operate crane	High Risk Work Licence
Dogman	Slings the load.	High Risk Work Licence
Electrician	Connection of ablation block to temporary generator	Electrical Work Licence
Labourer	Assist operators with tasks	Relevant industry experience or Traineeship

INDUCTION REQUIREMENTS (Annex D 4.7.1(d))

The following induction requirements are to be completed prior to being able to work on site:

Type	Scope
General Construction Industry Induction (White Card or other State equivalent)	For people undertaking defined construction work
CBGU JV Project Induction	For all people working on any site, including: site assessments, audits, testing and defined construction work – (Must have completed a General Construction Industry Induction).
Precinct Induction/Site Familiarisation	For all people working on a Precinct, including: site assessments, audits, testing and defined construction work – (Must have completed a CBGU JV Project Induction).
Visitor's induction	For those people attending site but not working in the construction area – completed with CBGUJV responsible person. Must be escorted at all times by fully inducted person.
Delivery Drivers Induction	For delivery drivers who make infrequent deliveries to site – such as float drivers.
Work activity induction (SWMS/Work Pack)	For those people authorised for site access who are undertaking a high-risk activity, or construction work with a risk ranking of HIGH – SWMS must be reviewed and authorised by a CBGU JV representative.

PERMITS / APPROVALS REQUIRED (Annex D 4.7.1(e))

Permits	✓ / ✗	Permit	✓ / ✗
Safety Essentials Exception	☐	Isolation	☐
Hot Work	☒	Excavation	☒
Dewater	☒	Confined Space	☐
Disturb Land	☐	Enter No-Go Zone	☐
Permit to Penetrate	☐	Other (specify)	☐

Permit to Work Near OHW (Rail)	☐	Traffic Control Permits	☐
Add any other activity requiring a permit.			
Other: e.g. Environmental Permit/Approvals – Out of hours works, Planning Permits, EPA license. <i>[Attach Permits and Approvals as applicable]</i>			

CONSTRUCTION VERIFICATION (Annex D 4.7.1(f))	
ITP Doc. No.	Inspection and Test Plan Title
CRRTSD-CS-ITP-000004	ITP – Insitu Concrete (DTMR Works) (Excluding Cast-In-Place Piles)

Part B – For Internal Use Only - Construction

SAFE WORK METHOD STATEMENTS (SWMS)

A SWMS must be developed for all activities that may involve a Business defined High Risk Construction Work task/s.

List the SWMS required to be prepared under this work pack (Activity based)

SWMS ID	SWMS Title	CBGUJV or Subcontractor
CRRTSD-SH-SWMS-CBGU-410-000001	FRP	Subcontractor (Jemna)
CRRTSD-SH-SWMS-CBGU-410-000002	Mobile Plant	Subcontractor (Rocktown)
CRRTSD-SH-SWMS-CBGU-410-000003	General Lifting Operations	Subcontractor (Rocktown)
CRRTSD-SH-SWMS-CBGU-410-000004	MEWP Use	Subcontractor (Rocktown)
CRRTSD-SH-SWMS-CBGU-415-000034	Excavator Operations	Subcontractor (Dundrum)

SAFETY ESSENTIAL EXCEPTIONS

Are any Safety Essential Exceptions required for this work? No ☒ Yes ☐ If Yes, (Attach Safety Essential Exception Requests);

[Enter details of each Safety Essential Exception]

STAKEHOLDER NOTIFICATIONS

Are Stakeholders required to be notified for this work? No ☒ Yes ☐ If Yes, By Whom (Attach resulting document);

[Enter Details e.g. emergency services, change traffic notifications, nightshift works, community awareness, media]

ENVIROMENTAL

Are The Works Within The Approved Project Footprint?	☒	YES	☐	NO	☐	N/A
CEMP Covers The Relevant Works And Environmental Risks?	☒	YES	☐	NO	☐	N/A
Environmental Approvals / Permits / Notifications Required?	☐	YES	☒	NO	☐	N/A
Cultural Heritage Impacts?	☐	YES	☒	NO	☐	N/A
Soil Disturbance?	☒	YES	☐	NO	☐	N/A
Native Vegetation Disturbance?	☐	YES	☒	NO	☐	N/A
Noise / Vibration / Dust?	☒	YES	☐	NO	☐	N/A

Details:

(include details and attachments as required)

List key environmental risks and controls related to the activity:

[Example text has been provided below]

Environmental Aspect	Risk Rating	Control Action / Procedure – Relevant to this Work Pack
Acid Sulphate Soil	Medium	Follow ASS procedures including • Characterisation of suspected ASS material • Stockpiling, handling and transportation of ASS • Treatment and verification of excavated ASS • Dewatering management/monitoring
Air Quality	Low	Implement appropriate dust control measures such as dust suppression Be aware of meteorological conditions to provide an early warning system to upcoming adverse conditions Mitigate the migration of fine soil particles on open roads Enforce requirements for haulage trucks travelling on public roads Stabilise stockpiles of material that may subject to wind dispersion such as lime used for the treatment of ASS Airborne contamination as a result of the removal of asbestos and other hazardous material – follow Code of Practice 2011 protocols regarding waste control for asbestos and hazardous material – Air quality monitoring systems will be set up on-site during asbestos and hazardous materials. Demolition waste should be separated properly to maximise recycling.
Biosecurity	Low	All machinery / equipment will be inspected and declared weed seed and Fire Ant free prior to arriving on site, using Unity's Plant and Equipment Clean Down Declaration which will be kept with the Plant Department. Work closely with any subcontractors and suppliers to ensure that the import of potential RIFA carrier is managed in accordance with the Biosecurity Act 2014 requirements.
Community	Low	Notify community of works and hours of works. Note up to 44 days notice may be required.
Construction Activities	Low	Adhere to the site CTMP (Construction Traffic Management Plan), Communicate requirements to subcontractors Subcontractors have suitably maintained vehicles for works (haulage, deliveries, floats etc) Park only in designated construction parking areas. Install & Maintain safety fencing, hoarding, gantries, barriers, signage and clear demarcation of restricted work areas
Contaminated Land	Medium	Where reasonable and practicable avoid ground-disturbance works in known areas of contamination. No removal of spoil from site without Soil Disposal Permit. Material backfilled following borehole / test pit / hand auger completion. Contaminated materials are temporarily stored in such a manner that accidental impact to the receiving environment is practicably and reasonably mitigated Removal from site in accordance with Soil Disposal permit / regulated waste requirements. Management of asbestos or asbestos-containing materials are managed in accordance with the relevant WHS legislation and the WHSMP (refer to section 2 below), particularly during demolition activities Management of hazardous substances is in accordance with the WHSMP (refer to section 2 below)
Erosion & Sediment Control	Low	ESC controls installed, updated and maintained as per certified sediment and erosion control plans. Stockpiles must not be placed in drainage lines, channels or paths.
Indigenous Cultural Heritage	Medium	Cultural monitors are to be contacted in the event any items of heritage significance are un-earthed during the course of the works. Stops works should potential heritage item be unearthed in accordance with Unexpected Finds Procedure.
Nature Conservation	Low	Minimise disturbance to significant vegetation and habitat during construction. Consult environment if vegetation is required to be removed.
Noise and Vibration	High	A Noise model / screening needs to be produced to determine extent of potential impacts Minimise mobile equipment reversing movements and use alternative beepers, such as broadband beepers. Use Main Roads for Site traffic. Prioritise loud activities during the day where practical. Avoid the use of horns.

		Where practicable use noise attenuation devices (i.e. noise curtains / plywood) to screen high noise generating activities. All works that occur outside of standard of the standard construction hours (6:30 am – 6:30 pm) must obtain an Out of Hours Work Permit.
Non-Indigenous Heritage	Medium	Heritage monitors are to be contacted in the event any items of heritage significance are un-earthed during the course of the works. No storage against / within heritage areas.
Waste	Low	Signed suitable bins and skips to be provided for segregation of waste Contaminated waste disposed of offsite at a licenced facility and tracked by soil disposal permit
Waterways and Water Quality	Medium	Any Trapped water is tested prior to release by the Environment Team/Trained supervisory personnel

Does the activity have Regulated Waste? No ☐ Yes ☐ If Yes, (Attach Details)

Is a Site Environmental Plan applicable to this Work Pack? No ☐ Yes ☐ If Yes, (Include details below & attach)

SEP Doc. No.	Site Environment Plan Title

IDENTIFICATION OF SERVICES
Are services present or positively identified, above, below or within the work area? No ☒ Yes ☐ If Yes, By Whom (Attach resulting document); Provide details of service: Is an isolation required? No ☒ Yes ☐ If Yes, By Whom (Attach resulting document); [Enter Isolation Details]{Consider Electrical, Water, Gas, etc} Is an Excavation or Penetration Permit Required? No ☐ Yes ☒ If Yes, By Whom (Attach resulting document); Will be attached for TC2 once raised

LIFTING
Is a Lift Plan / Study required? No ☒ Yes ☐ If Yes, By Whom (Attach resulting document); [Enter Lift Study Details]{Consider cranes, telehandlers, excavators} Have overhead/underground services been identified? No ☒ Yes ☐ If Yes, By Whom (Attach resulting document); [Enter service identification details]

TEMPORARY WORKS				
The following temporary works are required for this WORK PACK & need to be designed & certified in accordance with Temporary Works Procedure (e.g. access, special formwork, temporary support). Reference any applicable design/work method documentation.				
Type of Temporary Work	Risk Category	Identify relevant approver		
		Designer	Certifier	Inspector

Excavation – geotechnical inspection to confirm shoring/stability of walls (if any required)	Cat 4	-	-	EDG

WORK INTERFACE / SIMULTANEOUS OPERATIONS

Detailed interfaces that affect this scope of work, other disciplines, contractors or operations including reference of any specific traffic control and/or logistical requirements.

Interface (Where?)	Party (Who?)	Control/s
Access/egress to area	Tunnel/site establishment team	- Positive communication - VMP - Pre-start briefings

Is a Vehicle Movement Plan required? No ☐ Yes ☒ If Yes, attach resulting document;

Refer VMP

SURVEY / TESTING REQUIREMENTS

List survey / testing requirements and responsibility

Description of Survey or Testing Required	Resource	When	Frequency
Setout of pile cap excavation	Surveyor	Commencement	Once
Centre of JASO cast in	Surveyor	After excavation & prior to pour	Once
Finished height of pile cap	Surveyor	Pre-pour	Once

DRAWINGS / SPECIFICATIONS

List a layout drawing and other **relevant key** drawings, specifications and standards to clarify above work method. List associated Design Package. (One Design Package per Work Pack).

Design Pack	Design Pack Name
410 – 915	Tower Crane 1
410 – 963	Tower Crane 2
Drawing Number	Drawing Description/Title
CRRTSD-410-0915-DRG-RBGT-1490-240200	Woolloongabba Station - Tower Crane 1 - Cover Sheet
CRRTSD-410-0915-DRG-RBGT-1490-240201	Woolloongabba Station - Tower Crane 1 - Drawing List
CRRTSD-410-0915-DRG-RBGT-1490-240202	Woolloongabba Station - Tower Crane 1 - General Notes Sheet 1

CRRTSD-410-0915-DRG-RBGT-1490-240203	Woolloongabba Station - Tower Crane 1 - General Notes Sheet 2
CRRTSD-410-0915-DRG-RBGT-1490-240210	Woolloongabba Station - Tower Crane 1 - Site Plan
CRRTSD-410-0915-DRG-RBGT-1490-240211	Woolloongabba Station - Tower Crane 1 - Base Plan
CRRTSD-410-0915-DRG-RBGT-1490-240220	Woolloongabba Station - Tower Crane 1 - Elevation
CRRTSD-410-0915-DRG-RBGT-1490-240231	Woolloongabba Station - Tower Crane 1 - Base Pile Details
CRRTSD-410-0963-DRG-RBGT-1490-240250	Woolloongabba Station - Tower Crane 2 - Cover Sheet
CRRTSD-410-0963-DRG-RBGT-1490-240251	Woolloongabba Station - Tower Crane 2 - Drawing List
CRRTSD-410-0963-DRG-RBGT-1490-240252	Woolloongabba Station - Tower Crane 2 - General Notes - Sheet 1
CRRTSD-410-0963-DRG-RBGT-1490-240253	Woolloongabba Station - Tower Crane 2 - General Notes - Sheet 2
CRRTSD-410-0963-DRG-RBGT-1490-240260	Woolloongabba Station - Tower Crane 2 - Site Plan
CRRTSD-410-0963-DRG-RBGT-1490-240261	Woolloongabba Station - Tower Crane 2 - Base Plan
CRRTSD-410-0963-DRG-RBGT-1490-240270	Woolloongabba Station - Tower Crane 2 - Elevation and Base Details
CRRTSD-410-0963-DRG-RBGT-1490-240281	Woolloongabba Station - Tower Crane 2 - Base Pile Details

COMMENTS / ADDITIONAL ACTIONS

WORK PACK CREW BRIEFING

I have briefed the work crew on the methodology and content of this Work Pack, which details the requirements that must be met to effectively undertake the work.

Supervisors Name: _____ Signature: _____ Date: _____

Work Crew Members (Print, Sign Name & Date)

[illegible]

WORK PACK COMPLETION RECORD

Comments:

< *What worked well? What didn't work well? Are there any "Lessons Learnt" improvements? >*

RESPONSIBLE SUPERVISOR:

RESPONSIBLE ENGINEER:

Authorisation:

The work covered within this WORK PACK has been completed and the records have been checked and are ready for presentation

Name

Signature

Date

Responsible Engineer

CHECKLIST

[Insert/attach appendices referenced in this Work Pack here:]

- ☐ Work Pack Risk Assessment
- ☐ Safe Work Method Statements
- ☐ Safety Essential Exceptions Request
- ☐ Stakeholder Notifications
- ☐ Regulated Waste
- ☐ Site Environmental Plan/s
- ☐ Identification of Services
- ☐ Lift Plan
- ☐ Permits / Approvals
- ☐ Temporary Works
- ☐ Vehicle Movement Plan
- ☐ Traffic Control Plan
- ☐ Inspection and Test Plans
- ☐ Relevant Layout Drawings
- ☐ Emergency Response Action Plans (Extract from Emergency Response Management Plan)
- ☐ Other _____

WORK PACK COMPLETION RECORD

Comments:

< What worked well? What didn't work well? Are there any "Lessons Learnt" improvements? >

RESPONSIBLE SUPERVISOR:

~ First P&P activity on site undertaken by stations team without any incidents
~ Design to be IFC prior to commencement
~ Access into excavation to be more detail planned in detail prior to commencement.

RESPONSIBLE ENGINEER:

Works complete

Authorisation:

The work covered within this WORK PACK has been completed and the records have been checked and are ready for presentation

Name Annabelle Kissane Signature *Annabelle Kissane* Date 20/8/21
Responsible Engineer