Appendix 1 – Mitigation Measures

Lismore South Public School – Flood Recovery Rebuild

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Acknowledgement of Country

The NSW Department of Education acknowledges the Widjabul Wia-bal people, the traditional custodians of the land on which the Lismore South Public School flood recovery rebuild is proposed.

We pay our respects to their Elders past and present and celebrate the diversity of Aboriginal people and their ongoing cultures and connections to the lands and waters of Australia.

The NSW Department of Education is committed to honouring Aboriginal peoples' cultural and spiritual connections to the land, waters and seas and their rich contribution to society.

The NSW Department of Education recognises that by acknowledging our past, we are laying the groundwork for a future that embraces all Australians; a future based on mutual respect and shared responsibility.

1. Mitigation Measures

A compilation of all the mitigation measures and recommendations as stated within the relevant supporting documentation is provided in Table 1 below.

The mitigation measures have been grouped as either general mitigation measures or the relevant technical discipline (i.e., transport).

Table 1 identifies at which point of the process each mitigation is required to be undertaken:

- Prior to construction
- During construction
- Prior to operation
- During operation

Table 1: Mitigation Measures and Recommendations

ID	Measure	Timing
General		
G1	Prior to the commencement of any public domain works, landowners' consent must be obtained in writing from the relevant landowner or authority.	Prior to construction
G2	All relevant personnel, including contractors and their subcontractors, as well as those involved in operating the school, must be made aware of these mitigation measures and the requirement to undertake the works and school operations as per these mitigation measures.	All
G3	All building work is to be designed and undertaken in accordance with the National Construction Code Series, Building Code of Australia, Volume 1 and 2, as relevant.	Prior to and during construction
G4	Prior to the commencement of any construction work, Council and the occupiers of any land within a minimum of 80 metres of the site boundaries must be notified in writing of the project. The notice must outline the works to be undertaken, the expected timing for commencement and expected timing for completion of construction works. A minimum period of 48 hours notification prior to the commencement of any construction work shall be given.	Prior to construction
G5	Prior to commencement of any construction work, a Complaints Register is to be developed to record the details of all complaints received and the means of resolution of those complaints. The Complaints Register shall be made available on request. On receiving a complaint, it is to be recorded and provided to the relevant SINSW Project Director and reviewed to determine whether issues relating to the complaint can be resolved, avoided or minimised. A response approved by the relevant DoE Project Director or Senior Project Director shall be provided to the complainant within 14 days of receiving the complaint explaining what remedial actions (if any) were taken.	Prior to and during construction
G6	Prior to the commencement of any construction work, all site contamination reports accompanying the Review of Environmental Factors (REF) (including the Remediation Action Plan) must be reviewed by an NSW EPA-Accredited Site Auditor and a Site Audit Statement prepared. A copy of the Site Audit Statement is to be provided to the relevant SINSW Project Director or Senior Project Director.	Prior to construction

ID	Measure	Timing
G7	Prior to the commencement of any construction work, a Construction Environmental Management Plan (CEMP) is to be prepared and provided to the Crown Certifier. The CEMP must be prepared having regard to the Environmental Management Plan Guideline: Guideline for Infrastructure Projects (2020) prepared by the Department of Planning and Environment, and is to include where relevant, but not limited to, the following:	Prior to construction
	Details of:	
	Hours of work;	
	 24-hour contact details of site manager; 	
	 Management of dust and odour; 	
	 Stormwater control and discharge; 	
	 Erosion and sediment control measures; 	
	 Measures to ensure that sediment and other materials are not tracked onto the roadway by vehicles leaving the site; 	
	 Any other specific environmental construction mitigation measures detailed in the REF; 	
	 Any requirements outlined in any relevant approvals, permits, licences or owners consents; and 	
	Community consultation and complaints handling.	
	 Aerial Site Plan showing the location of the works; 	
	 Construction Traffic and Pedestrian Management Plan; 	
	 Construction Noise and Vibration Management Plan; 	
	 Construction Waste Management Plan (including details on contaminated waste); 	
	 Construction Air Quality and Dust Management Plan; 	
	 Construction Soil and Water Management Plan; 	
	Flood Management Plan;	
	Tree Protection Plan;	
	Demolition Work Plan;	
	Asbestos Management Plan;	
	 Aboriginal/Non-Aboriginal Heritage Management Plan(s); 	
	 Unexpected finds protocol for Aboriginal and non- Aboriginal heritage; 	
	 Unexpected finds protocol for contamination; 	
	Emergency Management Plan; and	
	 Training of responsibilities/heritage site inductions under the National Parks and Wildlife Act 1975, Heritage Act 1977 and any other relevant legislation, as relevant to the works. 	
	The following general mitigation measures are to be included in the CEMP:	
	 Construction site fencing is to be installed around the construction site. Construction vehicle and pedestrian access points to the construction site are to be clearly designated, signposted and controlled for authorised access only. 	
	 The use and storage of hazardous materials and dangerous goods, including petroleum, distillate and other chemicals, shall be in accordance with the relevant 	

ID	Measure	Timing
	legislation including, but not limited to:	
	 Protection of the Environment Operations Act 1997; 	
	 Work Health and Safety Regulation 2017; 	
	 AS 1940:2017 The Storage and Handling of Flammable and Combustible Liquids; and 	
	 Safe Work NSW Code of Practice – Managing Risks of Hazardous Chemicals in the Workplace. 	
	All materials must be wholly contained within the construction site. The requirements of the Protection of the Environment Operations Act 1997 are to be complied with when placing and stockpiling construction and waste materials, when disposing of waste products and during any other works likely to pollute drains or watercourses.	
	Building operations such as brick cutting, mixing mortar and the washing of tools, paint brushes, form-work and concrete trucks shall be undertaken in the construction site in a location so as to prevent air, land or water pollution.	
	 All equipment and machinery shall be secured to prevent against vandalism outside of construction hours. 	
	 A spill containment kit will be available at all times. All personnel will be made aware of the location of the kit and trained in its effective deployment. 	
	No batching plant is permitted on the site.	
	 A copy of the approved and certified plans, specifications and documentation shall be kept on site at all times and shall be available for perusal by any authorised officer of Council. 	
	 All contractors must meet all workplace safety legislation and requirements. 	
	 No vehicle maintenance is permitted in the construction areas except in emergencies. 	
G8	The Construction Noise and Vibration Management Plan to be included in the CEMP (required by mitigation measure G7)is to include (not limited to) the following mitigation measures:	Prior to construction
	 All works will be in accordance with AS 2436-2010: Guide to Noise and Vibration Control on Construction, Demolition and Maintenance Sites; 	
	 Building contractors are to implement the requirements of the Office of Environment Interim Construction Noise Guideline (July 2009) as far as practicable; 	
	 Construction is to be carried out in accordance with the National Construction Code deemed-to-satisfy provisions with respect to noise transmission; 	
	All reasonable, practicable steps are to be undertaken to reduce noise and vibration from the site;	
	 Plant and equipment are to be maintained, checked and calibrated in accordance with the appropriate design requirements and to ensure that maximum sound power levels are not exceeded; 	
	 Plant and equipment (where possible) are to be strategically positioned on site to reduce the emission of noise from the site to the surrounding area, users of the site and on site personnel; 	

ID	Measure	Timing
	 Unnecessary noise is to be avoided when carrying out manual operations and operating plant; and 	
	Any equipment not used for extended periods is to be	
	switched off.	
	Additional project-specific mitigation measures are also to be included, as required.	
G9	The Construction Waste Management Plan to be included in the CEMP (required by mitigation measure G7) is to be prepared in accordance with the Department of Environment and Climate Change (DECC) Waste Classification Guidelines (2008) and the <i>Protection of the Environment Operations Act</i> 1997 and include (not limited to) the following mitigation measures:	Prior to construction and during construction
	 The work site is to be left tidy and rubbish free each day prior to leaving the site and at the completion of the works; 	
	 Non-recyclable waste and containers are to be regularly collected and disposed of at a licensed waste disposal site. Frequency of collection should be identified and records maintained; 	
	 No burning or burying of waste is permitted on the site; 	
	 Any bulk garbage bins delivered by authorised waste contractors are to be placed and kept within the site boundary; 	
	 No materials will be used in a manner that will pose a risk to public safety and waste generated from the works will be recycled wherever possible; 	
	 All loose material stockpiles are to be stored within the temporary construction compounds and are to be protected from possible erosion; 	
	 Unnecessary resource consumption will be avoided; 	
	 All soils and materials (liquid and solid) to be removed from the site must be analysed and classified by an appropriately qualified consultant in accordance with the Protection of the Environment Operations (Waste) Regulation 2014 and related guidelines, in particular the NSW EPA Waste Classification Guidelines, prior to offsite disposal; and 	
	 All waste must be disposed of at an appropriately licensed waste facility suitable for the specific waste. Receipts for the disposal of the waste must be submitted to the SINSW Project Director within 14 days of the waste being disposed. 	
	Additional project-specific conditions/mitigation measures are also to be included, as required.	
G10	The Construction Air Quality and Dust Management Plan to be included in the CEMP (required by mitigation measure G7) is to include (not limited to) the following conditions/mitigation measures:	Prior to construction
	 Spraying of paint and other materials with the potential to become air borne is only to be undertaken on days with still or light wind conditions to prevent drift; 	
	 No burning of materials is permitted; 	
	 Dust generated during construction works is to be controlled to avoid impact on surrounding properties; 	
	All necessary maintenance for construction vehicles and	

ID	Measure	Timing
	equipment is to be undertaken during the construction period/approved work hours;	
	 Excessive use of vehicles and powered construction equipment is to be avoided; 	
	 Exposed areas are to be progressively revegetated as soon as practical; 	
	 Vehicle wash down areas are to be established on-site to ensure all mud and soil from construction vehicles is not carried onto public roads; 	
	 All vehicles involved in any excavation and/or demolition and departing the site with demolition materials, spoil or loose matter must have their loads fully covered before entering the public roadway; and 	
	 Vehicles, machinery and equipment will be maintained in accordance with manufacturer's specifications and meet the requirements of the <i>Protection of the Environment</i> Operations Act 1997 and associated regulations. 	
	Additional project-specific conditions/mitigation measures are also to be included, as required.	
G11	The undertaking of any construction work, including the entry and exiting of construction and delivery vehicles at the site, is restricted to the following standard work hours:	During construction
	Monday to Friday inclusive: Between 7.00am to 6.00pm;	
	Saturday: Between 8.00am to 1.00pm; and	
	Sunday and Public Holidays: No work permitted.	
	Provided noise levels do not exceed the existing background noise level plus 5dB, works may also be undertaken during the following additional work hours:	
	Mondays to Friday inclusive: Between 6:00pm to 7:00pm; and	
	Saturday: Between 1:00pm to 4:00pm.	
G12	To minimise loss of amenity, blasting is not permitted and the use of any rock excavation machinery, mechanical pile drivers or the like is restricted to the following hours:	During construction
	Monday to Friday inclusive: 9:00am to 12:00pm;	
	Monday to Friday inclusive: 2:00pm to 5:00pm; andSaturday: 9:00am to 12:00pm.	
G13	Should any groundwater be encountered during construction, works are to cease immediately. Where groundwater needs to be removed, an approval will be required under the <i>Water Management Act 2000</i> . This will require an application for a water supply works approval to be submitted to the NSW Natural Resources Access Regulator (NRAR) for assessment and determination. Council is to be contacted to determine the appropriate measures for the management and disposal of the groundwater.	During construction
G14	Remediation of known contaminated land is to be carried out in accordance with the requirements of the Remediation Action Plan (RAP) approved as part of the REF. Amendments to the approved RAP required as a result of further investigations must be prepared by a suitably qualified contamination consultant. Any amendments to the approved contamination reports are to be provided to the engaged NSW EPA-Accredited Site Auditor for review and approval. Following	During construction

ID	Moacuro	Timing
ID	Measure	Timing
	completion of the remediation works, a Site Remediation and Validation Report is to be submitted to the relevant DoE Project Director or Senior Project Director and the Crown Certifier. A notice of completion of remediation work must also be given to Council within 30 days of completion of the work in accordance with Section 4.14 and Section 4.15 of State Environmental Planning Policy (Resilience and Hazards) 2021.	
G15	During construction works, should any contamination information or contaminants be identified which have the potential to alter previous site contamination assessments and recommendations, the relevant DoE Project Director or Senior Project Director must be immediately notified and works must cease in the location of the contamination. Works must not recommence until a suitably qualified contamination consultant has investigated the unexpected contamination and provided recommendations for the necessary remedial work required to render the site suitable for the activity. Following completion of the remediation, a Site Remediation and Validation Report is to be submitted to a NSW EPA-Accredited Site Auditor to confirm site suitability. A copy of the Site Remediation and Validation Report is also to be provided to the relevant SINSW Project Director and the Crown Certifier. A notice of completion of remediation work must also be given in accordance with Section 4.14 and Section 4.15 of State Environmental Planning Policy (Resilience and Hazards) 2021.	During construction
Traffic and Pa	rking	
TRA1	The School Transport Plan (STP) is to be implemented to actively encourage walking, cycling and use of public transport.	Operation - ongoing
TRA2	A road safety audit be conducted during the detailed design phase of the project.	Prior to construction
TRA3	Transport Access Guide (TAG) be updated to reflect adjustments to kiss and drop, parking, bike parking and bus services at day of opening.	Operation
TRA4	A Construction Traffic Impact Assessment (CTIA) and Construction Traffic Management Plan (CTMP) be prepared during the detailed design to assess and manage construction-phase traffic impacts on the surrounding road network.	Prior to construction
Noise and Vib	ration	
NV1	External noise emissions from mechanical services Mechanical plant is to be designed to achieve compliance with external noise level criteria discussed in Section 3.1 of the Noise and Vibration Assessment Report by PWNA and accompanying the REF. Conceptual recommendations are presented in Section 5.1 of the Report for implementation during detailed design stages.	Prior to construction
NV2	Internal noise levels Mechanical plant is to be designed to achieve compliance with the internal noise level criteria discussed in Section 3.4 of the Noise and Vibration Assessment Report by PWNA and accompanying the REF. Additionally, all mechanical plant is to be resiliently vibration mounted to achieve compliance with vibration criteria as per Section 3.7 of the Report.	Prior to construction
NV3	Noise emissions from outdoor playgrounds	Prior to and during

ID	Measure	Timing
	An Operation Management Plan (OMP) for the school is to be prepared prior to operations which includes measures to manage noise emissions from outdoor activities at the school. This should include the noise recommendations of Section 5.3 of the Noise and Vibration Assessment Report by PWNA and accompanying the REF. This includes (but is not limited to) restriction on use of outdoor playgrounds between 6:30am to 7:00am.	operation
NV4	External noise emissions from multi-purpose hall The Outdoor PA system for the school should be designed so internal noise levels do not exceed 87 dB LAeq (15 minutes). Hall doors should be maintained closed for school events, especially if these events are conducted during the evening and night-time periods.	Prior to and during operation
NV5	Noise emissions from outdoor PA system The Outdoor PA system should be designed so noise emissions do not exceed the intrusiveness criteria at nearest impacted residences as set out in Section 5.5 of the Noise and Vibration Assessment Report by PWNA. Also, refer to Section 5.5 for conceptual treatments to be considered during detailed design. Outdoor PA system should only operate between 9:00am and 3:00pm.	Prior to and during construction
NV6	Noise emissions from waste collection services Waste collection is to only be conducted between 7:00am and 10:00pm.	During operation
NV7	Outside of school hours care Students and carers should be located indoors between 6:30am and 7:00am.	During operation
Contaminatio	n and Hazardous Materials	
CON1	Interim Asbestos Management Plan (AMP) As a duty of care, and to meet the requirements under Clause 429 of the WHS Regulation, an Asbestos Management Plan (for asbestos in/on soil) is required to be prepared and implemented during construction to manage the site until activity occurs.	Prior to construction (preparation)
CON2	Construction Phase AMP To meet the requirements under Clause 429 of the WHS Regulation a construction phase AMP is required for the proposed	Prior to construction (specifically, soil disturbance, remediation and construction)
Flooding		
FL1	Design Review Against Flood Impact Report - The design is required to be reviewed during detailed design and construction to ensure compliance with the mitigation measures outlined in the approved Flood Risk and Impact Assessment prepared by TTW. - Any significant design changes are required to be evaluated by a suitably qualified flood engineer for potential flood impacts.	During Detailed Design & Construction
FL2	Flood Emergency Response Plan (FERP) - The department is to develop and implement a FERP to	Operation - ongoing

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ID	Measure	Timing
	facilitate safe evacuation during severe flooding. - The school is to conduct regular training and drills to ensure preparedness.	
	Flood Resilience - Flood-resistant materials must be used for structures located at or below Flood Planning Level (FPL).	During detailed design, prior to construction
	- Essential services (e.g., air conditioning units, electrical switchboards) must be positioned above the FPL except for the hydrant booster.	
FL3	- In detailed design, and prior to construction, a suitably qualified structural engineer is to certify the structure design will resist flood forces up to and including the probable maximum flood (PMF), with consideration of debris loading, Hydrostatic & hydrodynamic forces, Local scour (based upon geotechnical advice) and Buoyancy of structure (as well as any other matters outlined in the relevant Australian Standards). This is to be in accordance with the recommendations of the approved Structural Engineering Schematic Design Report prepared by TTW.	
	Regular Review & Update of Flood Impact and Risk Assessment (FIRA)	Operation - ongoing
FL4	 The FIRA is required to be reviewed and updated every 5 to 10 years and after significant flood events. Updates should incorporate the latest climate data, flood modelling. 	
Surface Water	and Groundwater	
SWGW1	Further geotechnical investigations are to be undertaken during detailed design, to confirm whether the groundwater table will be intercepted. If it will be intercepted, dewatering will be required. A dewatering plan will need to be prepared in accordance with any relevant authority requirements, and the requisite approvals obtained, prior to the commencement of construction. This must include further investigation of the quality of the groundwater, to determine whether any water quality treatment measures are required to be employed during dewatering, to manage the presence of zinc.	Prior to and during construction
SWGW2	The detailed civil design is to incorporate all of the relevant stormwater management and quality measures and recommendations outlined in the civil package at Appendix 6 . The stormwater design is to include adequate stormwater pits and pipes, swales and overland flow paths to limit the quantity of stormwater runoff.	Prior to construction
SWGW3	Installation of 41x460mm PSorb Stormfilters, 8 x Ocean Protect Oceanguard Pit inserts and 1 swale to remove the quantity of gross pollutants, suspended solids, nitrogen and phosphorous to council water quality requirements is to be undertaken, in accordance with the civil package at Appendix 9 .	During construction
Aboriginal Heritage		
ABH1	An Unexpected Finds Protocol, inclusive of a Stop Works Procedure prepared by a qualified archaeologist, must be in place for the duration of site redevelopment to manage any exposure of undocumented remains. The head contractor is responsible for ensuring compliance with this protocol during all excavation works.	Prior to (preparation) and during (implementation) construction

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ID	Measure	Timing
АВН2	A heritage induction and cultural awareness training is to be provided to all staff and contractors involved in the redevelopment so that workers are aware of their statutory obligations regarding Aboriginal heritage and understand the cultural significance of the study area as part of the wider Lismore landscape. The cultural awareness training should be presented by a representative of Widjabul Wia-bal Gurrumbil Aboriginal Corporation (WWGAC).	Prior to construction
АВН3	Aboriginal cultural heritage and values are to be included in onsite interpretation, guided by a suitably qualified Aboriginal cultural heritage consultant.	General measure (detailed design, during construction and prior to operation)
Non-Aborigina	ll Heritage	
NAH1	An Unexpected Finds Protocol is to be prepared by a qualified archaeologist and remain in place for the duration of site redevelopment to mitigate and manage exposure of undocumented remains that may occur on the study site.	Prior to construction
NAH2	The Principal Contractor is to ensure implementation of the Unexpected Finds Protocol during all excavation and other relevant works on site.	During construction
Arboricultural		
ARB1	Pruning works are to be undertaken by a suitably qualified and experienced arborist complying with the Australian Standard for the Pruning of Amenity Trees, AS4373-2007. Natural Target Pruning methods should be used wherever possible when removing sections from retained trees.	Prior to construction
ARB2	Installation of tree protection fencing to exclude construction from the tree protection zone (TPZ). TPZ fencing will be installed as per Section 4.1.1 of the Arboricultural Impact Assessment (AIA).	Prior to and during construction
ARB3	Stump and root material from a tree elected for removal that are growing in close association with a tree nominated for retention are to be cut to ground level or by other means deemed appropriate. Tree removals are to be undertaken by a suitably qualified and experienced arborist.	Prior to and during construction
ARB4	Rumble boards or steel plates are to be used to between the stages of demolition and construction of the new carpark. Where any structural roots (those with a diameter greater than 20 mm) are encountered by excavation, these are to be pruned with clean, sharp pruning tools by a suitably qualified arborist. If temporary access into any TPZ is required for machinery during construction, then ground protection measures are required. Measures may include permeable membranes such as geotextile fabric beneath a layer of mulch or crushed rock below rumble boards.	Prior to and during construction
ARB5	Any unavoidable excavation within the demarked TPZ will be undertaken by hydro excavation. Any exposed roots >20 mm in diameter will be assessed by the appointed consulting arborist to determine if they require pruning.	During construction
ARB6	Immediately after the completion of construction work and 18 months after, the consulting arborist will carry out an assessment of all trees retained and/or affected by the works.	Prior to operation
Ecology		

ID	Measure	Timing
ECO1	Tree protection zones are to be established around trees to be retained prior to works commencing on site and maintained for the extent of establishment works on the site.	Prior to and during construction
ECO2	The extent of vegetation clearing is to be clearly delineated on site prior to works commencing.	Prior to construction
ECO3	Pre-clearance surveys are to be undertaken if any hollow- bearing trees are to be removed each morning by an ecologist or spotter-catcher.	Prior to and during construction
ECO4	If species such as Koalas are encountered, works must be paused and managed consistent with the recommendation of the Biodiversity Summary prepared by GeoLink.	During construction
ECO5	All work is to be undertaken in accordance with the Saving Our Species Hygiene guidelines (DPHIE, 2020) where relevant.	During construction
ECO6	Erosion and sediment control measures are to be implemented (in accordance with the Landcom/ Department of Housing Managing Urban Stormwater; Soils and Construction Guidelines) and maintained to prevent sediment moving offsite and sediment laden water entering any water course.	Prior to and during construction
ECO7	Appropriate measures must be implemented during construction to prevent the introduction and spread of biosecurity risk weeds, including ensuring machinery and equipment are clean prior to site entry. Weed management is to comply with the Biosecurity Act 2015 and/or any relevant Council requirements.	During construction
ECO8	Contractors are to ensure all machinery is cleaned prior to entering the works areas to ensure that soil, vegetation and Yellow Crazy Ant and/or Fire Ant are not imported to the site. Any observations of Yellow Crazy Ant and/or Fire Ant are to be reported to the Biosecurity Hotline, the DPI website, or via the Local Lands Services office.	During construction
Waste Genera	tion	
WST1	Waste generated during all stages of the proposed activity (construction and operation) is to be managed in accordance with the waste management hierarchy. Waste avoidance, minimisation and recycling will be prioritised above disposal.	All stages
WST2	Waste storage, processing, and reuse is to comply with the POEO Act and the Waste Regulation during all stages of the proposed activity (demolition, construction and operation).	Operation
WST3	During all stages of the proposed activity (construction and operation), waste is only to be exported to a site licensed by the EPA for the storage, treatment, processing, reprocessing or disposal of the subject waste, or to any other place that can lawfully accept such waste.	All stages
WST4	During all stages of the proposed activity (construction and operation), all waste that is removed from site is to be classified in accordance with the EPA's <i>Waste Classification Guidelines</i> (NSW EPA, 2014), with appropriate records and disposal dockets retained for audit purposes.	All stages
WST5	An updated Waste Management Plan will be prepared and implemented in consultation with Council and the EPA. This plan will detail: The anticipated quantity and type of the waste to be generated and their intended fate;	Prior to construction

ID	Measure	Timing
	Details of how waste will be segregated, handled, stored,	- Timining
	managed and then collected and transported for treatment and/or disposal;	
	Any testing or monitoring procedures;	
	How materials segregation will be achieved, particularly the segregation of hazardous demolition waste, resource recovery materials and waste generated from the construction and demolition staff; and	
	The capability of the waste management facilities in Councils LGAs to accept the volumes of waste	
	Waste tracking and reporting requirements	
WST6	Should the anticipated NSW Government NSW Food Organics and Garden Organics (FOGO) mandate come into effect for educational institutions/establishments, changes to waste management are to be investigated and implemented to meet the mandated obligations and responsibilities.	Operation
Social Impact		
SOC1	The design team is to continue to engage with Widjabul Wiabal Gurrumbil Aboriginal Corporation RNTBC throughout detailed design on the landscape design with a view to ensuring Country is embedded in the project.	Prior to construction
Geotechnical		
GEO1	Further site investigations and laboratory testing is required to characterise the stiffness, consolidation characteristics and depth of the alluvial clays on the site. Additional investigation should also be completed following demolition to confirm site conditions in those areas currently inaccessible to the drilling rigs.	Prior to construction
GEO2	Detailed settlement analysis for the foundation system is required to further assess the potential and magnitude of any consolidation settlement that will occur as a result of the additional stresses placed on the lower normally consolidated clay layer (Unit 3).	Prior to construction
GEO3	Proof-rolling inspections and further advice on subgrade treatment such as bridging layers and/or lime stabilisation is to be undertaken and obtained to inform detailed design.	Prior to and during construction
GEO4	Further geotechnical investigations are also required with regard to the following, to inform detailed design and construction:	Prior to and during construction
	 Lime-demand and lime-stabilised California Bearing Ratio (CBR) testing, if such an approach is preferred for pavement construction. 	
	In-situ density testing of all materials placed as engineered fill to confirm that it complies with the earthworks specification.	
	Design of working platforms for the specific piling rigs proposed.	
	Inspection of footing excavations and piling.	
GEO5	The design recommendations by JK Geotechnics in the Geotechnical Investigation accompanying the REF are to be implemented in detailed design, prior to construction. Those recommendations are only to be disregarded if further, more detailed geotechnical investigations (as outlined in GEO1 to	Prior to and during construction

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ID	Measure	Timing
	GEO 4 inclusive) identify different recommendations for implementation.	
Salinity		
SAL1	A Salinity Management Plan (SMP) is to be prepared prior to the commencement of any construction work. The SMP is to be generally in accordance with the Salinity Management Plan at Section 10 of the Salinity and Acid Sulfate Soil Assessment and Salinity Management Plan by JK Environments, accompanying the REF.	Prior to construction
SAL2	The SMP is to be implemented during all site construction activities.	During construction
Obstacle Limi	tation Surface	
OLS1	If cranes or other construction measures or machinery are required to be used during construction which involve intrusion into the prescribed airspace for Lismore Airport, the appropriate controlled activity approval is to be obtained through the relevant approval authority prior to works commencing on site.	Prior to construction
Services		
SER1	All relevant requisite approvals are to be obtained during the Level 3 detailed design process. Any conditions of those approvals will need to be implemented.	Prior to construction
SER2	The plumbing contractor is to coordinate the necessary actions for new utility connections. The contractor is to manage the application and approval process with the appropriate authority for both sewer and water connections.	Prior to construction