Appendix 1 – Mitigation Measures

#	Impact	Mitigation measure	Timing	Significance after mitigation
Traffic,	transport and access	(Construction)		
CT1	To address access and traffic impacts during construction.	A detailed Construction Environmental Management Plan is to be prepared inclusive of a Construction Traffic Management Plan (CTMP) to manage construction traffic impacts.	Prior to construction	Not significant
CT2	To encourage alternate transport modes, and reductions in car usage by construction workers.	The Contractor is to implement measures to reduce worker car travel, such as shuttle buses from key transport nodes or designated remote pick-up points as necessary.	Prior to operation	Not significant
СТЗ	To reduce impacts from construction vehicles on the local community.	Construction vehicles are advised to follow specified routes as outlined in the preliminary CTMP.	Prior to operation	Not significant
CT4	To ensure safety of pedestrians and cyclists.	Where pedestrian or cyclist routes are affected, accredited traffic controllers will be provided to manage the impact and minimise conflict between vehicles and pedestrians or cyclists.	Prior to operation	Not significant
Traffic,	transport and access	(Operation)	Ι	Γ
TT1	To ensure pedestrian accessibility across the future sub- arterial road.	Provide a signalised pedestrian crossing at the intersection of Fairway Drive / Road 14.	Prior to operation	Not significant
TT2	To provide a north- south active transport link for students residing north and south of	Provide a minimum 2.5m wide shared path on eastern side of unnamed sub-arterial road.	Prior to operation	Not significant

#	Impact	Mitigation measure	Timing	Significance after mitigation
	the school site.			
ТТЗ	To ensure safe walking access for students.	Provide a wombat crossing on Road 14, south of Road 20.	Prior to operation	Not significant
TT4	To ensure safe walking access for students.	Provide a wombat crossing on Road 14, north of unnamed local road	Prior to operation	Not significant
TT5	To ensure walking and cycling access for students residing east of the school site via a direct and convenient route.	Provide a minimum 2.5m wide shared path east of Road 14 through open space.	Prior to operation	Not significant
TT6	To ensure safe walking access for students	Provide a wombat crossing on the unnamed road, north-west of playing fields.	Prior to operation	Not significant
ТТ7	To ensure adequate student and staff bicycle parking spaces are provided based on forecasted demand as per mode share target.	Provide bicycle parking areas (minimum 38 bicycle parking spaces, consisting of 34 student spaces and 4 staff spaces) close to the school gates on Road 14 (main entrance) and unnamed sub-arterial road.	Design	Not significant
TT8	To ensure the kiss and drop zone requirements are met based on moderate target mode share for students travelling via private vehicle.	Provide a kiss and drop zone (with a minimum of 15 spaces and 90m in length) along the Road 14 school frontage.	Prior to operation	Not significant
ТТ9	To provide bus routes connecting the school site to students residing in areas outside of the active transport catchment.	Investigate opportunities for new school bus services or/and extension of existing school and public bus routes to service trips between the school site and the residential areas beyond active transport catchment distances.	Prior to- operation	Not significant

#	Impact	Mitigation measure	Timing	Significance after mitigation
		particularly the upcoming residential developments in Bingara Gorge and South East Wilton		
TT10	To address ongoing operational and safety concerns at the school site.	Prior to the commencement of operations, a School Transport Plan must be prepared to the satisfaction of the DoE Transport Planning Team. If the school already has a School Transport Plan, the existing plan is to be reviewed and updated if necessary to reflect the impacts of the REF works, to the satisfaction of the DoE Transport Planning Team. A copy of the School Transport Plan is to be provided to the relevant DoE Project Lead for implementation during operations.	Prior to operation	Not significant
Noise a	and Vibration	T		
NV1	To comply with the established noise level criteria and to protect the acoustic amenity of the surrounding receivers.	The proposed mechanical layout includes insulated rigid ductwork on the discharge of the top discharge units. Acoustic assessment of all mechanical plant shall continue during the design phases of the project in order to confirm any noise control measures to achieve the relevant noise criteria at the nearest noise sensitive receivers.	Design	Not significant
NV2	To comply with the established noise level criteria and to minimise the negative impacts on the acoustic amenity	The public address and school bell systems shall be designed, installed and operated such that the systems do not interfere unreasonably	Design and operation	Not significant

#	Impact	Mitigation measure	Timing	Significance after mitigation
	of surrounding receivers.	with the comfort and repose of occupants of nearby residences. Noise emissions from public address and school bell systems shall be restricted to the noise levels as per Section 4.4 of the Noise and Vibration Assessment prepared by JHA. Acoustic assessment of public address and school bell systems shall continue during the detailed design phase of the project in order to confirm any noise control measures required to achieve the relevant noise criteria at the nearest noise sensitive receivers.		
NV3	To comply with the recommended noise level criterion and to protect the acoustic amenity of the surrounding receivers.	A 1.8m high solid fence must be provided around the entire length of the outdoor playground of the pre-school.	Design and operation	Not significant
NV4	To comply with the internal noise level criteria and ensure road noise break-in does not adversely affect students.	To achieve the internal noise level criteria in accordance with NSW DoE Design Checklist - 0001c, all external glazing facing the Hume highway (facing south or east) to provide a minimum sound reduction index of RW32. A 6.38mm laminated fixed single glazing system achieves the nominated sound reduction index.	Design and operation	Not significant
NV5	To comply with the NSW and Department of Environment and Climate Change	A detailed Construction Noise and Vibration Management (CNVMP) Plan must be prepared by the Contractor and	Prior to construction Construction	Not significant

#	Impact	Mitigation measure	Timing	Significance after mitigation
	(DECC) ICNG noise criteria and to protect amenity of the surrounding receivers.	implemented throughout the construction life of the project.		
Contan	nination and Hazardou	us Materials	1	1
CH1	To ensure proper classification and disposal of waste in compliance with NSW EPA guidelines.	Sampling and testing of material from the small stockpile in the central portion of the site in accordance with the NSW EPA (2014) Waste Classification Guidelines to facilitate off-site disposal (if required).	Prior to construction	Not significant
CH2	To reduce the potential human health and environmental risks associated with unexpected contamination finds that may be encountered during construction works.	Implement an unexpected finds protocol for contamination.	Prior to construction	Not significant
CH3	To confirm that the bulk earthworks have not resulted in contamination of the site and that the site remains suitable for the proposed use as a school and pre- school.	Prepare an updated Preliminary Site Investigation at the completion of bulk earthworks.	Post earthworks, prior to construction of school	Not significant
Floodir	ng			
F1	To protect school buildings from overland flow flooding in the PMF event.	The Finished Floor Levels of the school and pre-school are to be constructed at least 300mm above the surrounding ground level.	Design and Construction	Not significant
F2	To either fully contain or divert anticipated stormwater runoff away from the	Sufficient drainage provisions must be provided around each proposed building within the site. An overland flow path will need to be	Design and Construction	Not significant

#	Impact	Mitigation measure	Timing	Significance after mitigation
	buildings.	provided to the northeast of the site to allow overland flow to pass between Building A.		
F3	To ensure appropriate emergency management measures are implemented.	If available prior to operation, review the final Wollondilly Shire Flood Study Report, and if required update management measures within the schools Emergency Management Plan.	Prior to operation	Not significant
Stormv	vater Management	1	1	I
SW1	To avoid polluting the water and/or blocking the stormwater network. To prevent sediment from leaving the site with stormwater runoff.	Implementation of Erosion and Sediment Control measures as described in the Civil Engineering Design Report and on the Erosion and Sediment Control Plan prepared by BG&E.	Construction	Not significant
Aborig	inal Heritage			
A1	To ensure compliance with AHIP requirements.	Future works must be conducted in accordance with the conditions of AHIP 5288. Further archaeological management will be required for the site to comply with the conditions of the AHIP.	Construction	Not significant
A2	To enhance cultural awareness.	Consultation with the local Aboriginal community should be undertaken to discuss educational opportunities for future inclusion of recovered relics from the broader Landcom masterplanned development into the new school's design.	Throughout	Not significant
Tree Re	emoval and Protection	1		
TR1	To protect trees for retention from	The twelve (12) trees as shown in blue on the	Prior to Construction	Not significant

#	Impact	Mitigation measure	Timing	Significance after mitigation
	unnecessary damage.	Tree Removal and Retention Plan prepared by Sydney Landscape Consultants are to be retained and protected in accordance with the requirements of AS4970 Protection of Trees on Development Sites (2009).	During Construction	
TR2	To ensure the safety of occupants and ongoing viability of the twelve trees.	Regular monitoring and maintenance is required on a set programmed schedule by engaged Contractor.	During construction	Not significant
Bushfi	re			
BF1	To meet PBP requirements and ensure the bushfire risk is minimal at the new primary school and pre-school.	Landcom must ensure the identified APZ is constructed to the specification detailed in Section 4.3.1. During operation, Landcom must ensure the identified APZ is managed in perpetuity or until such time as the land is developed and bushfire hazard removed.	During design, construction and operation	Not significant
BF2	To meet PBP requirements and ensure the bushfire risk is minimal at the new primary school and pre-school.	DoE to ensure all fences within 6m of the buildings shall be of non- combustible material.	During design, construction and operation	Not significant
BF3	To meet PBP requirements and ensure the bushfire risk is minimal at the new primary school and pre-school.	DoE is to ensure landscaping within the site is designed to achieve PBP acceptable solutions until such time as the surrounding hazard is permanently removed. During operation, DoE must maintain landscaping and fencing in accordance with PBP until such time as the surrounding hazard is	Prior to operation During operation	Not significant

#	Impact	Mitigation measure	Timing	Significance after mitigation	
		permanently removed.			
BF4	To meet PBP requirements and ensure the bushfire risk is minimal at the new primary school and pre-school.	Landcom to deliver the road network and surrounding public domain network in accordance with DA/2022/1279/1. Landcom and DoE to ensure road network designed and operated to achieve bushfire design principles, including a design excluding brides and with fire hydrants located outside of internal road reserve and parking areas.	During design, construction and operation	Not significant	
BF5	To meet PBP requirements and ensure the bushfire risk is minimal at the new primary school and pre-school.	DoE to ensure the site is serviced by a reticulated water supply.	During design, construction and operation	Not significant	
BF6	To meet PBP requirements and ensure the bushfire risk is minimal at the new primary school and pre-school.	DoE to ensure certification of design and installation for gas services are undertaken by a suitably qualified professional and in compliance with Section 6.8.3 of PBP.	Prior to construction	Not significant	
BF7	To meet PBP requirements and ensure the bushfire risk is minimal at the new primary school and pre-school.	DoE to prepare emergency management plans.	Prior to operation	Not significant	
Soils a	Soils and Geology				
SG1	To avoid uneconomical design and ensure serviceability for built structures. To ensure compliance with AS2870 and AS2159.	Foundations must be designed by a qualified structural engineer as per the recommendations given in Section 5.2 of the Geotechnical Investigation and take into consideration the	Design	Not significant	

#	Impact	Mitigation measure	Timing	Significance after mitigation
		general recommendations given in Section 5 of the Geotechnical Investigation.		
SG2	To prevent corrosion or degradation of buried structures over its design life. To ensure compliance with AS2870 and AS2159	Buried concrete and steel foundations and structures must be designed to withstand soil and groundwater aggression (durability)	Design	Not significant
SG3	To ensure that pavements or trafficable surfaces have adequate strength to perform over their intended design life. To ensure earthworks are carried out in accordance with AS3798	Pavements or trafficable areas are to be designed in accordance with the recommendations given in Section 5.6 of the Geotechnical Investigation and the earthworks specification is to conform with the recommendations given in Section 5.10 Geotechnical Investigation.	Design	Not significant
SG4	To ascertain that the recommended foundation has been reached and to check initial assumptions regarding foundation conditions and possible variations that may occur	Inspection of foundation excavations must be undertaken during construction.	Construction	Not significant
SG5	To ensure compliance with the project earthworks specification and AS3798	Geotechnical supervision and testing by a Geotechnical Inspection and Testing Authority (GITA) during any bulk earthworks or detailed earthworks including the construction of pavements and subgrade areas and the backfilling of service	Construction	Not significant

#	Impact	Mitigation measure	Timing	Significance after mitigation
		trenches.		
SG6	To prevent future building cracking in reactive clay soils	Compliance with CSIRO Foundation Maintenance and Footing Performance Guideline is required.	Operation	Not significant
Waste	(Construction and Op	eration)		
W1	To avoid impacts resulting from the stockpiling of waste and to ensure construction waste is handled in accordance with industry standards.	The waste management measures outlined in the Construction Waste Management Plan (January 2025) shall be implemented. This Plan will need to be updated prior to construction to align with the appointed Contractor.	Prior to construction Construction	Not significant
W2	To maximise the source separation and recovery of recyclable materials, and minimise amenity impacts from waste management.	The waste management measures outlined in the Operational Waste Management Plan (January 2025) shall generally be implemented.	Operation	Not significant
W3	To minimise the risk to groundwater, litter, odours and visual amenity from the waste storage area.	The waste bin area will have an impervious floor and walls, be screened and ventilated.	Operation	Not significant
Constr	uction (General)	1	1	
CI1	To allow for effective project management and communication, minimisation of programme delays and ensures that the project is built and delivered within the desired financial and quality standards.	Once engaged, the Contractor will be required to develop and implement a detailed overarching Construction Management Plan that will incorporate WHS, Environmental and Quality management as well as all relevant sub- plans.	Prior to construction	Not significant
CI2	To ensure that works can	Engagement of professional accredited	Prior to construction	Not significant

#	Impact	Mitigation measure	Timing	Significance after mitigation
	commence under the guidelines provided by an accredited professional and will minimise traffic and waste issues during construction.	traffic and waste consultants prior to commencement of works on site.		
CI3	To ensure that all workers on site are aware of their respective responsibilities, planning and controls during construction of the project.	Preparation of site specific WHS plans by the Contractor prior to commencement of works on site.	Prior to construction	Not significant
CI4	To ensure that all workers on site are aware of their respective WHS responsibilities, planning and controls during construction of the project.	All contractors must meet all workplace safety legislation and requirements, including undergoing formal inductions to the site and attending toolbox talks.	Prior to construction	Not significant
CI5	To ensure only authorised personnel can access the site, minimising the risks of accidents / exposure to hazards especially to the public.	Construction site fencing to be installed around the construction site.	Prior to construction	Not significant
CI6	To minimise the impact of the shutdown on the services users.	Preparation of services shutdown protocol.	Construction	Not significant