



Appendix 3 – Mitigation Measures

Table 1. Proposed Mitigation Measures

Item / Impact	Supporting Documentation	Recommended Mitigation Measures
Noise and Vibration	Appendix 22 – Noise and Vibration Impact Assessment	CONSTRUCTION MITIGATION • Implementation of a Construction Noise and Vibration Management Plan (CNVMP). • High noise-generating activities (e.g. rock breaking, vibratory rolling) will be restricted to continuous blocks not exceeding 3 hours, separated by a minimum 1-hour respite period. • Installation of temporary noise barriers (at least 3m in height) along the site boundary where works are in proximity to sensitive receivers to provide acoustic shielding. • Usage of broad-band “quacker” reversing alarms instead of tonal “beepers” on all site vehicles. • Advanced notification to neighbours regarding the timing and duration of high-noise works, particularly during Phase 2 (Civil and Earthworks). OPERATION MITIGATION • Install vertical perimeter noise wall above roof deck which supports the chillers up to RL130. • Provide solid horizontal acoustic baffle between top of chillers. • All generators are housed in bespoke acoustic enclosures with attenuated air intake and discharge louvres and sound-absorbing internal lining.



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		- Quieter selection of load bank should be used as feasible and reasonable. To prevent exceedances of noise above the PNTLs, a solid wall (floor to floor) needs to be installed adjacent to the car park. - Generator testing is strictly prohibited during evening and night-time periods to prevent sleep disturbance. - Routine generator testing is limited to a maximum of three (3) generators operating concurrently campus-wide.
Construction Management	Traffic	Appendix 15 – Preliminary Construction Traffic Management Plan DESIGN AND CONSTRUCTION - Finalise and implement the Construction Traffic Management Plan (CTMP) prior to the commencement of works. - Ensure all new access driveways, internal circulation roads, and car parking areas are designed in accordance with AS2890.1:2004 and AS2890.6:2009. - Design loading docks and service vehicle access routes to accommodate 12.5m Heavy Rigid Vehicles (HRVs) and 20m Articulated Vehicles (AVs) in accordance with AS2890.2:2018. - Ensure emergency vehicle access routes comply with NSW Fire + Rescue Fire Safety Guidelines, including minimum carriageway widths and height clearances. OPERATION - Implement the Green Travel Plan (GTP) to encourage staff to utilise public and active transport options. - Maintain the existing Stage 1 end-of-trip facilities for use by Stage 2 staff. - Investigate the installation of bicycle and motorcycle parking spaces post-approval.

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		• Manage service vehicle arrivals to occur via the western access and depart via the eastern access to ensure one-way circulation and prevent queuing on Brookhollow Avenue.
Visual Impact	Appendix 9 – Landscape and Visual Impact Assessment	• Retention and strengthening of the 20-metre green belt: The existing green belt, containing more than 400 established trees, is retained as a continuous visual buffer. Supplementary native planting is proposed in gaps as required to reinforce screening and maintain the strong landscape edge. • Supplementary native planting to soften built form: Additional canopy trees and layered understorey planting are provided along Brookhollow Avenue, Norwest Boulevard and around the perimeter to blend the proposed development into the surrounding tree canopy. • Habitat-focused landscape treatments: Logs, hollows and bird boxes created from removed trees are reused within the green belt to support biodiversity, while also adding natural visual texture within public views. • Nature trails: A trail through the existing vegetation creates a softer visual interface and avoids unnecessary clearing by working between retained trees. Seating and recycled sandstone elements provide subtle, non-intrusive features within the landscape. • Use of endemic, low-maintenance planting: Native species consistent with the local Cumberland Plain context are used throughout, supporting ecological continuity and providing a visually cohesive landscape character.
Tree Removal	Appendix 13 – Arborist Report	• Tree protection fencing is required around the TPZs (where viable) of retained trees including the 607 surveyed. The tree protection fencing will simply need to exist as an exclusion zone between the development footprint and the retained trees. • All trees to be retained must be protected in accordance with AS 4970-2009, details of which are included in Annexure D of the Arborist Report.



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		• No over-excavation, battering, or benching shall be undertaken beyond the footprint of any structure unless approved by the Project Arborist. • To mitigate potential impacts on surrounding trees during the construction of the 2.0m-wide drainage easement as outlined in the stormwater plan, it is recommended that all excavation works be carried out using non-destructive digging (NDD) techniques. This approach will help avoid damage to tree roots within proximity to the works. All excavation activities must be supervised by an AQF Level 5 Arborist to ensure that the vitality and structural stability of the nearby retained trees are not compromised. No additional impacts to other retained trees are anticipated as a result of the proposed stormwater works. • The proposed substation design includes the 33kV cable route to Data Centre Switchroom which is not certain if it requires excavation. If yes, some retained trees may need to be removed or NDD needs to be performed to avoid major impact to the existing tree roots.
Air Quality	Appendix 21 – Air Quality Impact Assessment	CONSTRUCTION PHASE MITIGATION • Communications: Develop and implement a stakeholder communications plan that includes community engagement. • Dust Management Plan (DMP): Develop and implement a DMP, interacting with the stakeholder communications plan, and includes procedures with respect to complaints, incidents, inspections, site management, dust suppression, surface/stockpile stabilisation, storage management, water supply, trackout measures, and so forth. • Vehicle/machinery: ○ All on-road vehicles shall comply with relevant vehicle emission standards. ○ When stationary, vehicles are to switch off engines.



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		○ Use of diesel or petrol-powered generators to minimised, in preference to mains electricity or battery powered equipment where practicable. – Waste: Avoid burning of waste materials on site.
		OPERATIONAL PHASE MITIGATION • Generator Design and Siting: ○ The generator exhaust stack heights for Stage 2 must be at least 35.7 m AGL (RL 130) to ensure effective dispersion of pollutants. ○ Emission performance of the selected generators must conform with or improve upon the Cummins C3750 D5 or CAT 3516E baseline specs used in the AQIA. • Maintenance and Testing Limits: ○ Generator testing will be limited to a maximum of three (3) generators concurrently across the entire campus (one for Stage 1 and two for Stage 2). ○ Routine testing is restricted to daytime hours: 07:00 to 18:00 (Monday to Saturday) and 08:00 to 18:00 (Sundays and Public Holidays). ○ The total duration of generator operation (including testing and emergency use) shall not exceed 200 hours per year per generator to maintain non-scheduled status. • Fuel Storage: ○ Fuel storage systems must comply with AS/NZS 1940:2017 and include automated leak detection and secondary containment to minimize fugitive VOC emissions. • Ongoing Management:



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		○ Establish a proactive complaints management mechanism, with a register accessible to authorized Council officers upon request.
Infrastructure Requirements	Appendix 29 – Infrastructure Requirements	• Proposals are to have dedicated electrical supply. Electrical authorities have confirmed that capacity exists within the network to serve the site. • Generators are containerised units which include noise attenuation features. The noise level of generator testing will be assessed against NSW Noise Policy for Industry. • Fuel tanks will be designed to comply with AS 1692 and AS1940. Fuel tanks to be located in fully contained, fire rated fuel rooms designed to AS1940. Each fill point will have all ancillaries to meet requirements of AS1940. • Generators will be designed in accordance with AS 1940 which defines separation between fuel storage tanks. • Two separate mains supply routes are proposed and the probability of mains failure has been investigated for the electrical supply. • Failure rates for a supply in this arrangement are extremely low meaning the generators will rarely be used. • Generators will include specific emissions control measures and will be Tier 2 certified to Australian EPA requirements.
Aboriginal Cultural Heritage	Appendix 33 – Aboriginal Cultural Heritage Assessment Report Appendix 35 – Connecting with Country, within Design Report	• SSD applications must be supported by an ACHAR, prepared in accordance with the Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW (the Guide) (OEH 2011); • The ACHAR must be supported by Aboriginal community consultation undertaken in accordance with the Aboriginal cultural heritage consultation requirements for proponents 2010 (DECCW 2010b); • A Heritage Induction should be provided to all staff working in the Project Area, to appraise them of the Aboriginal heritage values of the Project Area and Unexpected Finds Procedure;



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		An Unexpected Finds Procedure must be prepared for the project and presented to all staff working on site as part of the Heritage Induction.
Waste Management	Appendix 32 – Waste Management Plan	CONSTRUCTION WASTE MANAGEMENT - Ensuring the right quantities of materials are ordered, minimally packaged and where practical pre-fabricated, and any oversupplied materials are returned to the supplier; - Source separation of off-cuts to facilitate reuse, resale or recycling where possible; - Coordination of subcontractors to maximise on site reuse of materials; and - Ensure the site has clear signs directing staff to the correct location for recycling and stockpiling, and that each bin/skip/stockpile is clearly signposted. OPERATIONAL WASTE MANAGEMENT - Implementation of waste tracking for statutory waste streams in accordance with the <i>Protection of the Environment Operations (Waste) Regulation 2014</i>. - Provision of colour-coded bins for separate waste streams (paper/ cardboard, co-mingled recycling, general waste) to maximise recovery rates. - Engagement of licensed waste contractors to ensure all waste is transported to lawful facilities.
Contamination	Appendix 30 – Detailed Site Investigation Appendix 31 – LTEMP	Long-Term Environmental Management Plan (LTEMP): An LTEMP will be prepared and implemented to monitor groundwater conditions and the stability of the residual diesel plume.



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		• Groundwater Monitoring: Periodic gauging and sampling will be undertaken to ensure no migration of contaminants occurs beyond the site boundary. • Contingency Measures: The LTEMP will include contingency protocols (e.g., further MPVE events) should monitoring indicate re-mobilisation of LNAPL. • Unexpected Finds Protocol: A protocol will be established to manage any unexpected contamination encountered during future earthworks or development.
Social Impacts	Appendix 37 – Social Impact Assessment	• Construction Management Plan is prepared and updated as the construction progresses. Further, it is recommended that consultation with the nearby childcare centres (Nukids) is done as part of the preparation of the CMP to ensure that noise and construction traffic impacts on children and their families is minimised. • Ongoing engagement throughout the construction phase including a dedicated email/phone number for people to get more information, lodge a complaint or speak with someone about any issues.
Hazards and Risks	Appendix 28 – Hazards and Risks Assessment	To mitigate the risks associated with fuel (Diesel / HVO) storage, the following measures are incorporated: • Containment: bulk tanks are located within fuel rooms with a Fire Resistance Level of 240/240/240. • Spill Management: day tanks are located within generator enclosures that provide spill containment. Bulk tanks are designed to comply with AS 1940:2017. • Fire Protection: the fuel rooms and generator enclosures are protected by fire detection and suppression systems, including sprinklers and water mist systems.



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		The risks associated with Lithium-ion batteries, specifically thermal runaway, are managed through: • Testing: the manufacturer will ensure batteries and the Battery Management System (BMS) comply with the testing requirements of UL 9540A. • Monitoring: a continuous monitoring system (the BMS) that detects faults and isolates affected battery units. • Off-gas Detection: sensors installed to detect early signs of battery failure, integrated with the fire alarm system. • Suppression: deployment of pre-action sprinklers and appropriate fire extinguishers (CO₂) to protect electrical equipment.