

APPENDIX C

UPDATED MITIGATION MEASURES

PLANNED MANAGEMENT & MITIGATION MEASURES FOR THE PROPOSED DEVELOPMENT

By:	Macquarie Data Centres
In relation to:	State Significant Development Application (SSD-24299707) For Talavera Road Data Centre Campus Expansion
Site:	17 – 23 Talavera Road, Macquarie Park Lot 527 DP 752035

Macquarie Data Centres (MDC), plan to undertake the construction and operation of the proposed data centre, in accordance with the following subsections.

PLANNED MANAGEMENT AND MITIGATION MEASURES FOR SSD-24299707		
ID	Management / Mitigation Measure	Timing
Administrative Commitments		
A1	Commitment to Minimise Harm to the Environment MDC will commit to implement all reasonable and feasible measures, to prevent and/or minimise any harm to the environment, that may result from the construction or operation of the proposed development	Prior to construction, during construction, and during operation.
A2	Terms of Approval MDC would carry out the project generally in accordance with the: (a) Environmental Impact Statement; (b) Drawings; (c) Management and Mitigation Measures; (d) Any Conditions of Approval. If there is any inconsistency between the above, the Conditions of Approval shall prevail to the extent of the inconsistency.	Prior to construction, during construction, and during operation.
A3	Occupation Certificate MDC would ensure that Occupation Certificates are obtained prior to the occupation of the facilities.	Prior to operation.
A4	Compliance MDC would ensure compliance with any reasonable requirement(s) of the Secretary of the DPIE arising from the assessment of: (a) Any reports, plans, programs, strategies or correspondence that are submitted in relation to this Approval; and (b) The implementation of any recommended actions or measures contained in reports, plans, programs, strategies or correspondence submitted by the Project Team as part of the application for Approval.	Prior to construction, during construction, and during operation.
A5	Structural Adequacy	During construction.



PLANNED MANAGEMENT AND MITIGATION MEASURES FOR SSD-24299707		
ID	Management / Mitigation Measure	Timing
	MDC would ensure that all new buildings and structures on the site are constructed in accordance with the relevant requirements of the National Construction Code.	
A6	Construction Environmental Management Plan Prior to the commencement of construction, MDC would prepare a Construction Environmental Management Plan (CEMP) that addresses the following: (a) Air Quality; (b) Noise and Vibration; (c) Waste Classification; (d) Erosion and Sediment Control; (e) Materials Management Plan; and (f) Community Consultation and Complaints Handling.	Prior to construction.
A7	Site Induction All staff employed on the site by the construction contractor would be required to undergo a site induction.	Prior to construction.
A8	Operation of Plant and Equipment MDC would ensure that all plant and equipment used on-site, is maintained and operated in proper and efficient manner, and in accordance with relevant Australian Standards.	During operation.
A9	Monitoring the State of Roadways MDC would monitor the state of roadways leading to and from the subject site, during construction, and will take all necessary steps to clean up any adversely impacted road pavements as directed by the City of Ryde Council.	During construction.
A10	Waste Receipts MDC would ensure that a permanent record of receipts, for the removal of both liquid and solid waste from the subject site, be kept and maintained up to date at all times. Such records would be made available to authorised person upon request.	During construction and operation.
A11	Complaints Handling MDC would prepare an Operational Complaints Handling Protocol for the development, prior to the commencement of operations.	Prior to operation.
Specific Environmental Commitments		
Noise and Vibration		
NV1	During construction, MDC is committed to: <ul style="list-style-type: none"> ▪ The use of less noisy plant and equipment, where feasible and reasonable. ▪ Proper maintenance of plant and equipment. ▪ Providing special attention to the use and maintenance of 'noise control' or 'silencing' kits fitted to machines to ensure they perform as intended. 	During construction.



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	<ul style="list-style-type: none"> Strategically positioning plant on site to reduce the emission of noise to the surrounding neighbourhood and to site personnel. Avoiding any unnecessary noise when carrying out manual operations and when operating plant. Switching off any equipment not in use for extended periods during construction work. Limiting/avoiding, where possible, the simultaneous operation of noisy plant within discernible range of a sensitive receiver. Maximising, where practical, the offset distance between noisy plant and adjacent sensitive receivers. Where practical, plant that is used intermittently is to be throttled down or shut down when not in use. Direct noise-emitting plant away from sensitive receivers, where possible. Staging of construction works so as to erect solid external walls first and utilising them to provide noise shielding to the noise sensitive receivers. However, the structural integrity of the external walls should be investigated prior to implementing this measure and should be prioritised over the noise benefits. 	
NV2	In addition to the noise mitigation measures outlined above, a management procedure will need to be put in place to deal with noise complaints that may arise from construction activities. Each complaint will need to be investigated and appropriate noise amelioration measures put in place to mitigate future occurrences, where the noise in question is in excess of allowable limits.	Prior to construction.
NV3	MDC would consult with nearby stakeholders prior to commencing construction and throughout the construction phase, to keep them informed of progress and allow for feedback to be received on any complaints.	Prior to and during construction.
NV4	Noise monitoring would be carried out during the construction phase, in line with recommendations, as required.	During construction.
NV5	Construction noise and vibration management would form part of the CEMP, to be prepared for the project, as outlined in A6 .	Prior to construction.
NV6	Where construction activity is to occur in close proximity to sensitive receivers, vibration testing of actual equipment would be carried out prior to their commencement of site operation, to determine site-specific acceptable buffer distances to the nearest affected receiver locations.	Prior to construction.
NV7	MDC would prepare an Operational Noise Management Plan, in line with the recommendations of the Noise and Vibration Report TM162 - O1F02 (Renzo Tonin & Associates, November 2021).	Prior to operation.



MANAGEMENT AND MITIGATION MEASURES

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PLANNED MANAGEMENT AND MITIGATION MEASURES FOR SSD-24299707		
ID	Management / Mitigation Measure	Timing
Air Quality		
AQ1	Air quality mitigation and monitoring would form part of the CEMP, to be prepared for the project, as outlined in A6 .	Prior to construction.
AQ2	MDC would ensure that all neighbouring properties be notified of any event that may require the emergency operation of all generators beyond a 30 minute duration.	During operation.
Traffic and Transport		
TT1	MDC would ensure that a Construction Traffic Management Plan (CTMP) is prepared and submitted to DPIE. This plan would: <ul style="list-style-type: none"> (a) be submitted to the Secretary for approval prior to the commencement of construction; (b) describe the traffic volumes and movements to occur during construction; (c) detail proposed measures to minimise the impact of construction traffic on the surrounding network, including driver behaviour and vehicle maintenance; and, (d) detail the procedures to be implemented in the event of a complaint from the public regarding construction traffic. 	Prior to construction.
TT2	A site specific Traffic Control Plan (TCP) would be prepared in accordance with TfNSW's <i>Traffic Control at Work Sites Manual</i> once detailed construction staging is completed post-approval and if the vehicle haulage routes that utilises manoeuvres with traffic control are required.	Prior to construction.
TT3	A Site Supervisor would check all relevant traffic control management measures are in place prior to commencement of works.	Prior to construction.
TT4	MDC would prepare a Workplace Travel Plan.	Prior to operation.
Hazards & Risks		
HR1	MDC would notify Safework NSW of the proposed storage of diesel fuel and lithium ion batteries.	Prior to operation.
HR2	MDC would ensure that the storage of combustible and flammable liquids shall be in accordance with Australian Standard <i>AS1940 Flammable Liquids Storage and Handling</i> .	During operation.
HR3	An emergency management plan (EMP) would be prepared in accordance with AS2745:2010. The EMP shall incorporate first attack firefighting training for Emergency Planning Committee and Emergency Control Organisation members and emergency procedures which reinforce containment of fires only where safe to do so.	Prior to operation.
Cultural Heritage		



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ID	Management / Mitigation Measure	Timing
H1	An Unexpected Finds Policy would be developed, in the unlikely event that relics are identified during ground disturbing works.	Prior to construction.
H2	Unexpected Aboriginal objects remain protected by the National Parks and Wildlife Act 1974. If any such objects, or potential objects, are uncovered in the course of the activity, all work in the vicinity would cease immediately. A qualified archaeologist would be contacted to assess the find and Heritage NSW and Metropolitan Local Aboriginal Land Council would be notified.	During construction.
H3	If human remains, or suspected human remains, are found in the course of the activity, all work in the vicinity would cease, the site would be secured, and the NSW Police and Heritage NSW would be notified	During construction.
H4	All relevant staff, contractors and subcontractors would be made aware of their statutory obligations for heritage under the NSW <i>Heritage Act 1977</i> and best practice as outlined in <i>The Burra Charter 2013</i> , during site inductions.	Prior to construction.
H5	Consultation with the registered Aboriginal parties would continue.	Prior to and during construction.
Socio-Economic		
SE1	MDC would notify surrounding businesses and residents one (1) week before commencement of construction activities. Notices should include: <ul style="list-style-type: none"> ▪ Details of the proposal, including contact details of management team ▪ Hours and expected period of construction ▪ Details regarding process should businesses or residents have concerns, questions or complaints 	Prior to construction.
SE2	MDC would set up a feedback process to manage and respond to stakeholder concerns, questions, or complaints. MDC would ensure that this process is clear and accessible to stakeholders such as surrounding businesses and residents.	Prior to and during construction.
SE3	MDC would prioritise engaging with local businesses, where practicable, e.g. site induction for visiting workers to include profile of surrounding food and beverage retailer.	During construction.
Waste Management		
WM1	Effective management of construction materials and construction and demolition waste, including options for reuse and recycling where applicable and practicable, would be conducted. Only wastes that cannot be cost effectively reused or recycled would be sent to landfill or appropriate disposal facilities.	During construction.



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ID	Management / Mitigation Measure	Timing
WM2	Waste materials produced from site preparation and construction activities would be separated at the source and stored separately on-site.	During construction.
WM3	<p>The Site Manager or equivalent role would:</p> <ul style="list-style-type: none"> ▪ Arrange for suitable waste collection contractors to remove any construction waste from site ▪ Ensure waste bins are not filled beyond recommended filling levels ▪ Ensure that all bins and loads of waste materials leaving site are covered ▪ Maintain waste disposal documentation detailing, at a minimum: <ul style="list-style-type: none"> ○ Descriptions and estimated amounts of all waste materials removed from site ○ Details of the waste and recycling collection contractors and facilities receiving the waste and recyclables ○ Records of waste and recycling collection vehicle movements, for example, date and time of loads removed, licence plate of collection vehicles, tip dockets from receiving facility, and ○ Waste classification documentation for materials disposed to off-site recycling or landfill facilities. ▪ Ensure lawful waste disposal records are readily accessible for inspection by regulatory authorities such as Council, SafeWork NSW or NSW EPA, and ▪ Remove waste during hours approved by Council. 	During construction.
WM4	<p>Site inductions, as required under A7 would ensure the following training is covered:</p> <ul style="list-style-type: none"> ▪ Legal obligations and targets ▪ Emergency response procedures on-site ▪ Waste priorities and opportunities for reduction, reuse, and recycling ▪ Waste storage locations and separation of waste ▪ Procedures for suspected contaminated and hazardous wastes ▪ Waste related signage ▪ The implications of poor waste management practices, and ▪ Responsibilities and reporting, including identification of personnel responsible for waste management and individual responsibilities. 	Prior to construction.
WM5	The following monitoring practices would be undertaken to improve site preparation and construction waste management and to obtain accurate waste generation figures:	During construction.



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ID	Management / Mitigation Measure	Timing
	<ul style="list-style-type: none"> Conduct waste audits of current projects where feasible. Note waste generated and disposal methods. Look at past waste disposal receipts. Record this information to track waste avoidance, reuse, and recycling performance and to help in waste estimations for future waste management plans. 	
WM6	Waste audits would be undertaken approximately one (1) month into the operational phase of the project to quantify actual waste generation rates.	During operation.
WM7	Waste avoidance, reuse and recycling measures would be implemented throughout the life of the project, where possible.	During operation.
WM8	Monitoring would be undertaken by MDC to ensure waste and recycling management arrangements and provisions for the project are functional, practical and are maintained to the standard outlined in this plan, at a minimum.	During operation.
WM9	<p>Visual assessments of bins and bin storage areas would be conducted by the Building Manager, at minimum:</p> <ul style="list-style-type: none"> Weekly, in the first two months of operation to ensure the waste management system is sufficient for the operation, and Every six months, to ensure waste is being managed to the standards outlined in this document. 	During operation.
WM10	<p>Audits would be conducted on a half-yearly basis to ensure waste management provisions are maintained.</p> <p>Quantities of waste and recycling associated with disposal of waste and recycling, including dockets, receipts and other physical records would be recorded by the Building Manager. This would allow reviews of the waste management arrangements and provisions at the site over time. Records of waste disposal would also be available to regulatory authorities such as the NSW Environmental Protection Authority and SafeWork NSW, upon request.</p>	During operation.
Tree Protection		
TPI	Trees to be retained on site must be protected in accordance with AS4970-2009.	During construction.

