

Appendix C – Mitigation Measures

Measures required to mitigate future impacts associated with future detailed development that follows consent of the amended concept DA are extracted in the table below. These measures are identified in appended consultant reports. It is noted that no physical works are proposed as part of this Amended Concept SSDA. The measures include considerations for future design of buildings, and recommendations for future environmental assessment requirements.

Where a mitigation measure has been revised or added since lodgement of the original Concept DA, this is shown in **bold strike through** and in **bold italics**

Ref No.	Mitigation Measure
Design and Operation	
Built Form and Visual Impact	
<i>D/O-BF1</i>	Future buildings will be designed in accordance with the Amended Urban Design Report prepared by BVN at Appendix E and within the Design Guidelines prepared by BVN at Appendix J.
<i>D/O-BF2</i>	Consider objectives which promote the mitigation of visual impacts of bulk and scale in the Urban Design Report at Appendix E.
<i>D/O-BF3</i>	Ensure separation distances between buildings comply with the relevant recommendations of the Apartment Design Guide.
<i>D/O-BF4</i>	The detailed design of any built form and public domain shall be conducted with consideration of the Masterplan and have regard to the recommendations in all consultants reports as summarised at Section 6.0 of this EIS.
<i>D/O-BF5</i>	<i>Include objectives and controls that mitigate visual impacts of building bulk and scale in the BaptistCare Macquarie Park Design Guidelines at Appendix J.</i>
Amenity	
<i>D/O-AM1</i>	Future residential buildings will achieve compliance with SEPP 65 and the Apartment Design Guide, where practicable.
<i>D/O-AM2</i>	Future residential buildings will be designed in accordance with the urban Design Report prepared by BVN at Appendix E and the Design Guidelines prepared by BVN at Appendix J.
<i>D/O-AM3</i>	<i>Ensure that Kikkiya Park and the Central Urban Plaza receive a minimum of 2 hours solar access in mid-winter, with greater solar access during the summer solstice.</i>
Flora and Fauna	
<i>D/O-FF1</i>	Prepare a detailed Tree Protection Specification & Tree Management Plan and issue as part of all construction contracts prior to any construction work.
<i>D/O-FF2</i>	Acquire and retire biodiversity offsets in accordance with the Amended Biodiversity Development Assessment Report prepared by Biosis at Appendix N.
<i>D/O-FF3</i>	Incorporate the identified measures to mitigate or manage impacts recommended by Biosis at Appendix J.
<i>D/O-FF4</i>	In addition to the principles and objectives in the Urban Design Guidelines, the detailed design of public spaces is to ensure a diversity in plant family, genus and species to provide greater resilience against pests, diseases and climatic conditions. The potential mature size of new trees should be considered to ensure sufficient space for the development of good tree form. New trees should be grown and supplied in accordance with the Updated Landscape Design Report prepared by Arterra at Appendix L.
Traffic and Transport	

Ref No.	Mitigation Measure
<i>D/O-TT</i>	Implement the travel sustainability measures outlined in the Preliminary Green Travel Plan prepared by JMT Consulting at Appendix H .
Ecologically Sustainable Development	
<i>D/O-ESD1</i>	Consider the ESD initiatives outlined in the ESD Concept Design Report prepared by WSP Atelier Ten at Appendix U when developing the building design to maximise the environmental performance and energy efficiency of buildings.
<i>D/O-ESD2</i>	The detailed design of the development shall demonstrate a pathway to achieve a minimum 5 Star Green Star rating, and how the aspirational 6 Star Green Star rating might be achieved or elements of this might be achieved.
Wind Impacts	
<i>D/O-WI1</i>	It has been recommended by RWDI at Appendix AA that the final tower plan is designed in consultation with a wind engineer to ensure the future detailed built form reduces downwash and acceleration effects.
<i>D/O-WI2</i>	The design of corner balconies in the future detailed design stages will be reviewed in detail in consultation with a wind engineer and will be accompanied by a detailed wind impact assessment.
<i>D/O-WI3</i>	Prepare a thermal comfort assessment to ensure there is a holistic understanding of comfort around the Mixed-Use Precinct for future detail design stages.
<i>D/O-WI4</i>	Ensure the vegetation buffers/setback areas along Epping Road and between Lots 1 and 3 comprise of multi-layered trees and shrubs to provide shelter from channelling winds.
<i>D/O-WI5</i>	Ensure that future outdoor dining spaces are located in areas that typically have calm conditions.
<i>D/O-WI6</i>	The awning design In future detailed design stages will be revised in consultation with a wind engineer to assist in providing better conditions along the footpaths and around corners of buildings.
<i>D/O-WI7</i>	In future detailed design stages, ensure that all landscape buffers and setbacks throughout the site are retained.
<i>D/O-WI8</i>	In future detailed design stages, ensure that the entrances to various buildings are located in areas that are suitable for standing use. Ensure this aligns with the heat map prepared by RWDI at Appendix AA.
<i>D/O-WI9</i>	In future detailed design stages, refine the design of podium terraces with tall perimeter screening and dense landscaping in accordance with areas of walking-uncomfortable wind criteria identified within the heat map prepared by RWDI at Appendix AA.
Safety	
<i>D/O-SA1</i>	Further CPTED certification will form part of future application(s) for the detailed design of buildings, where relevant.
<i>D/O-SA2</i>	The detailed design of any built form and public domain shall have consideration of the principles of Crime Prevention Through Environmental Design and the recommendations contained in the CPTED Report prepared by Ethos Urban at Appendix S .
Noise and Vibrations	
<i>D/O-NV1</i>	Appropriate traffic calming measures will be developed in accordance with traffic and acoustic engineers throughout the future detailed design stages for each of the allotments.
<i>D/O-NV2</i>	The detailed design stage will include an acoustic review of the mechanical plant once selections and locations finalised, complying with the mechanical noise trigger levels.
<i>D/O-NV3</i>	Incorporate acoustic treatments into future residential buildings to comply with the acoustic criteria recommended by the Updated Acoustic Impact Assessment prepared by RWDI at Appendix O .

Ref No.	Mitigation Measure
<i>D/O-NV4</i>	Maximising the offset distance between noisy plant items and sensitive receivers.
<i>D/O-NV5</i>	Using noise source controls, such as the use of residential class mufflers, to reduce noise from all plant and equipment including bulldozers, cranes, graders, excavators and trucks.
<i>D/O-NV6</i>	Development of a vibration management strategy as part of the CNVMP.
<i>D/O-NV7</i>	The future design of the school will comply with the acoustic criteria recommended by the Updated Acoustic Impact Assessment prepared by RWDI at Appendix O.
Social Impacts	
<i>D/O-SIA1</i>	Implement the recommendations and mitigation measures to minimise social impacts and increase social cohesion outlined in the Social Impact and Economic Assessment prepared by Ethos Urban at Appendix Y .
Flooding	
<i>D/O-FL1</i>	Ensure that all floor levels and entrances to basement car parking are located above the PMF event flood levels accordingly.
<i>D/O-FL2</i>	Flood modelling to be undertaken as part of future detailed DAs, where relevant.
Construction Management	
Noise and Vibrations	
<i>C/M-NV1</i>	Where possible, works should be completed during the standard daytime construction hours of Monday to Friday 7.00am to 6.00pm and Saturday 8.00am to 1.00pm.
<i>C/M-NV2</i>	A detailed Construction Noise and Vibration Management Plan (CNVMP) should be prepared which delivers specific measures to ameliorate any potential noise or vibration impacts to surrounding sensitive receivers (refer to Section 8.3.3 of Appendix O for specific measures).
<i>C/M-NV3</i>	Undertake regular noise monitoring to determine the impact of operating plant on sensitive receivers.
<i>C/M-NV4</i>	Undertake community consultation and respond to complaints in accordance with established project procedures.
<i>C/M-NV5</i>	<i>In future detailed design stages, ensure that a site-specific construction noise management plan is implemented if noise levels exceed the project specific Noise Management Levels (NMLs) established for the site.</i>
Construction Waste	
<i>C/M-CW1</i>	Better practice waste management including the avoidance, reuse and recovery of unwanted items can be achieved through source separation. The Updated Construction Waste Management Plan prepared by Elephants Foot Consulting at Appendix DD outlines what is typically included in various waste streams and how they can be managed.
Contamination	
<i>C/M-CO1</i>	As soon as practicable, it is recommended that a suitably qualified/licensed contractor is to carry out an 'emu pick' to remove any visible FCF from the areas of the site with exposed soils.
<i>C/M-CO2</i>	As soon as practicable, it is recommended that a surface clearance certificate for asbestos is then to be issued by a Licensed Asbestos Assessor.
<i>C/M-CO3</i>	<i>As a preliminary AMP has been prepared at this stage only, a final, detailed AMP prepared by a Licensed Asbestos Assessor to outline the management strategy for addressing the risks posed by asbestos will accompany each future detailed SSDA once more specific details are known.</i>
<i>C/M-CO4</i>	<i>Undertake a DSI to better assess the sources of contamination.</i>
<i>C/M-CO54</i>	A hazardous building materials (HAZMAT) survey should be undertaken prior to demolition of any

Ref No.	Mitigation Measure
	buildings/structures and following an asbestos clearance certificate should be provided.
C/M-CO65	<i>As a preliminary RAP has been prepared at this stage only, a final, detailed RAP with robust framework to address data gaps is required for each future detailed SSDA once more specific details are known.</i>
Flora and Fauna	
C/M-FF1	Suitably tag and/or distinctly mark all existing trees to be retained, prior to any demolition work.
C/M-FF2	Existing surrounding trees that are to be removed is to be done by qualified arboricultural staff only with care not to impact or damage other surrounding trees throughout the process.
C/M-FF3	Appropriately fence all TPAs outside of the already noted incursions for the duration of all major site construction work.
C/M-FF4	Avoid digging into existing root zones for the installation of any proposed landscaping around the trees and the installation sizes of new plants to be 5L or less to ensure that excavations are less than 200mm in depth.
C/M-FF5	Do not allow storage or stockpiling of any materials or site sheds within established TPAs unless it can be demonstrated that this will not impact on tree retention and it is specifically approved in writing by the Project Consulting Arborist.
C/M-FF6	<i>Ensure the Construction Environment Management Plan (CEMP) prepared for future construction works accounts for the impacts on adjacent environments in the form of noise, dust, light spill and transport of pathogens in accordance with the assessment of impacts within the amended Biodiversity Development Assessment Report prepared by Biosis at Appendix N.</i>
Geotechnical	
C/M-GEO1	During construction, geotechnical and survey monitoring will be required to confirm that actual movements are in line with those predicted.
C/M-GEO2	Groundwater monitoring and permeability testing of the subsurface profile will be required to inform the necessary seepage analysis.
C/M-GEO3	Undertake further geotechnical investigation during preparation of future detailed design and implement engineering construction methods, as detailed in the Geotechnical Investigation prepared by JK Environments at Appendix KK .
Aboriginal Heritage and Archaeology	
C/M-HA1	If potential Aboriginal objects are located during future works, works must cease in the affected area and an archaeologist must assess the finds.
C/M-HA2	If Aboriginal objects are located, OEH must be notified and an appropriate course of action in accordance with the National Parks and Wildlife Act 1974.
C/M-HA3	If any suspected human remains are discovered during any activity, works must immediately cease whilst not disturbing the remains and notify the NSW Police and Heritage NSW Environment.
C/M-HA4	Complete heritage inductions for all site workers and contractors to prevent any unintentional harm to any unexpected Aboriginal objects.
Civil Works – Morling College Road Connection	
C/M-CW1	<i>Ensure further liaison with the neighbouring site and owners is conducted throughout the future detailed design development phase for the Morling College road connection in accordance with the updated Civil Design Report prepared by JN at Appendix Q.</i>