Western Sydney Aerotropolis Development Control Plan Compliance Table

Elizabeth Enterprise Precinct – Stage 1

1669-1723 and 1669A Elizabeth Drive, Badgerys Creek

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Objectives	**Compliance**	**Assessment**
***O1**. Establish cultural safety by considering Aboriginal peoples perspectives in planning and design decisions.*	**Y**	A Connecting with Country Framework has been prepared by Yerrabingin (**Appendix Y**), which outlines the approach to embed Country and the leadership of its custodians in the proposed development. The framework will continue to evolve and represents the current understanding, it is intended to be informed by continued partnership with the Aboriginal community throughout the delivery of the project and ongoing operation of the Site. The framework was informed by an extensive engagement with Dharug Custodians, RAPs and the broader Aboriginal Community including various Walk's on Country and several design discussions as the concepts were progressed, engagement will continue to build on this process through all future design processes. Below Community led principles being developed for the project: • **Connect to Dharug Country** – Celebrating Dharug Country; it's unique landform, climate, seasons, flora, fauna, the spirituality, and the connection Dharug people have with Country through language, custodianship and ceremony. • **Designing for Kin** – Understanding ecological systems and functions, creating appropriate habitat and ensuring green links. • **Enterprise opportunities** – Prioritising enterprise partnerships connected to cultural practice, land management and native food production into perpetuity**.** • **Supporting cultural practice** – Acknowledging Dharug culture including the provision of cultural safe access for cultural practice. Supporting the sharing of knowledge and linkages to community education programs. The framework includes key strategies within the Aerotropolis Recognising Country Guidelines outlining the elements/value of Country on the site and the opportunities for the project to respect, restore and regenerate Country and contribute to design excellence through the consideration of Country. These include: • **Starting With Country** – Cultural Safety, Meaningful Engagement and Economic development opportunities. • **Cultural Landscape** – Cultural values and heritage, Landscape, Water, Park and open space and Caring for Country. • **Built Form** – Culturally responsive design, social infrastructure, and public art. • **Language and Wayfinding** – Appropriate inclusion of language lead by Dharug custodians. Wayfinding design that reflects and shares the rich cultural landscape at both the micro and macro scale of Country. The framework incudes a typology matrix that has informed the Urban Design Report prepared by e8 Urban (**Appendix J**), Design Statement prepared by SBA Architects (**Appendix I**) and Landscape Report prepared by Site Image (**Appendix Q**) for the proposed development to further ensure a Country-centred design. The place-making methodology adopted for the proposed development includes establishing strong connection to Wianamatta "Mother Creek" - South Creek by implementing a unique architectural design responses that draws inspiration from the natural elements of the site. Such methodology addresses the following planning framework: • **Better Placed** – The place-led design approach intersects with seven distinct objectives identified in Better Placed such as better fit, better performance, better for community, better for people, better working, better value and better look and feel. • **Connecting with Country Framework** – The design is informed by strategies outlined in this framework, with particular focus on the idea of Country-centre hierarchy whereby human, flora and fauna are all interconnected in the natural and built environment. The key part of engaging with the commitments of this framework will involve executing meaningful consultation with registered Aboriginal parties in the later and ongoing stages of the project. • **Recognise Country** – Guidelines for Development in the Aerotropolis. The culturally responsive design highlights accessibility and social inclusions by providing facilities, infrastructures and recreational spaces within proposed built forms and landscape. This measure connects a sense of place, aligned with the key measures specified within the framework of Connecting with Country. It is Mirvac's intent to deliver an industrial estate that promotes connections with country into perpetuity, which will be embodied in ongoing consultation with Aboriginal peoples. Engagement with Aboriginal peoples will continue throughout the project lifecycle and beyond. Over time the solution will further be refined through a cyclical approach. The process of engagement has commenced and over time we will form further ideas through conversations and stronger collaborative relationships ensuring reconciliation can continue.
***O2**. Ensure diverse opportunities for connection to Country are considered and implemented in the design and planning of development, including through meaningful engagement with Aboriginal groups building upon engagement undertaken in the preparation of the Western Sydney Aerotropolis Plan, Parkland City SEPP and Aerotropolis Precinct Plan.*	**Y**	
***O3**. Create opportunities for capacity building and economic development for Aboriginal people and organisations across planning, design, construction and operation.*	**Y**	
***O4**. Recognise and reflect Aboriginal connection to Country by protecting and enhancing significant natural features, as well as providing access and opportunities to care for Country.*	**Y**	
***O5**. Celebrate Aboriginal culture and language through naming, wayfinding, public art and cultural infrastructure which supports cultural practice.*	**Y**	

Performance Outcome	Benchmark Solution	Compliance	Assessment
***PO1**. The cultural values and heritage, waterways and landscapes of Country form a key structuring element of development. Development retains and connects and provides access to landscape elements including*	***1.** For development where the Recognise Country Guidelines apply and in conjunction with Aboriginal heritage assessment requirements, cultural values research is to be undertaken by a qualified Aboriginal heritage consultant (with experience in Aboriginal heritage and cultural values research). Cultural values research must be undertaken in consultation with Traditional Custodians (including through an on-site review). Cultural values research must identify within the proposed development site and any adjoining areas:*	**Y**	Refer to the Aboriginal Cultural Heritage Assessment Report (**Appendix MM**) and Connecting with Country Framework (**Appendix Y**). **1**. The proposed development has been designed in accordance with the Connecting to Country Framework. The framework includes key strategies within the Aerotropolis Recognising Country Guidelines outlining the elements/value of Country on the Site and the opportunities for the project to respect, restore and regenerate Country and contribute to design excellence through the consideration of Country as outlined above. **2**. An Aboriginal Cultural Heritage Assessment Report (**Appendix MM**) has informed to the proposed Counting with Country Framework. **3**. As identified within the report and through consultation with the Dharug Community a key area of significance is Wianamatta-South Creek. Powerful connections and a sense of place come from a deep understanding of and connection to this land informed by the

ridgelines, waterways and native vegetation.	*a. cultural values and heritage significance, particularly within moderate to high areas of Aboriginal heritage sensitivity;* *b. significant cultural landscape elements, as they relate to cultural values; and* *c. significant waterways or bodies and areas of surrounding riparian vegetation as they relate to cultural values.* ***2.** Development proposals must outline how findings of the cultural values research have informed the planning and design, including the spatial layout of the site and the public domain, including areas used for open space, stormwater management and or biodiversity conservation and outline any potential impacts and mitigation measures.* ***3.** Development is to respect and respond to:* *a. Identified significant sites, places, views, traditional movement corridors and narratives of Country;* *b. The natural landscape, including topography and native vegetation by providing clear and legible links (within the road network and public domain) between ridgetops and creek lines and retaining native vegetation clusters and corridors through the siting of buildings; and* *c. Natural systems, including significant tributaries and waterways in the Wianamatta-South Creek catchment by avoiding significant impacts to ecological condition and the function of ecosystems as well as protect and restore native riparian vegetation.* ***4.** Development proposal design must ensure water management infrastructure and processes are responsive to Country and prioritise natural solutions that enhance the overall waterway systems condition, function and connections.*		Dharug Traditional Custodians. Wianamatta-South Creek has been a source of inspiration throughout our built design and was covered in our consultation with Dharug Mob. The creek concept allows for organic natural elements to be strongly defined with patterns, form and material reminiscent of the Cumberland Plain Forest. The vision is for a restored and protected waterway system that nourishes a cool, green and inclusive Western Sydney Parkland. Integrated planning of land use and water cycle management to restore waterway health which is integral through • Connecting water dependent ecosystems • Management of stormwater within urban areas • Retention of water within the urban landscape • Supporting urban repair through to perpetuity More than 30ha of open space will be dedicated to support connection and access to areas of significance along the Riparian Corridor (details of this will come under a future, separate application). Examples of different amenity use types include: • Shelter and spaces for gathering • Spaces for respite and reflection • Integrating space and activation to encourage active uses for the public • Nursery showcasing grown/harvested species (Noting the Riparian Corridor is not included within the current application and the strategy for use will be further refined in time). The Proposal has been informed and influenced by the results extracted from the reports and consultation from the Dharug Traditional Custodians. Areas of significance will be honoured and reflected through built form and landscape architect responses throughout. Blue-Green Connections have been a source of inspiration to ensure connectivity is established to key recreational areas. Tangible design outcomes outcomes which have been considered in finalising this application include: • Consideration of the impact the project will have on generations (our children, grandchildren, great-grandchildren); • Consideration of all layers – land and people work together; • Consideration of a space for Dharug people only to access – a cultural space; • Current 'public space' makes it hard for Dharug people to maintain cultural practice on Country; • Aboriginal community access enables the environment to be constantly managed, protecting the landscape – it's the multiple layers in the design that create a restorative approach; • Consideration of plants species from our (Dharug) Country, not other Country; • The Dharug women have a very close association with the land on this Site, and would like to see sustainable cultural practice and the health of the waters as a top priority; • Cultural burning management practices to; control weeds; regenerate the area; increase food supply to encourage wildlife to come back to the area; • Designing for kin; retain and nurture key stone species, no monoculture of planting; and • Consideration of riparian corridors. **4.** The design respects existing catchment responses that maintain natural flows to Wianamatta-South Creek via combination of overland flow and piped network through the proposed road reserve. Detention basins are located within the developable footprint to capture and treat run off. Post development discharge points match the existing creek discharge points, mimicking natural outflows. Streets are the primary means for the transmission of water as overland flow and piped reticulation within the public domain, on-lot drainage is managed through traditional pit and pipe network that conveys water to the treatment basins as well as rain gardens within street verges.
***PO2**. Parks and public open space provide spaces for outdoor cultural practice, learning and play to support connection to culture and Country.*	***1**. The design of the public domain within areas of moderate to high Aboriginal heritage sensitivity identified in the Aerotropolis Precinct Plan is to incorporate spaces for outdoor cultural practice and for learning and cultural play, in accordance with outcomes of cultural values research and engagement with Traditional Custodians and other relevant Aboriginal Stakeholders (Knowledge Holders, LALCs and the local Aboriginal and Torres Strait Islander community).*	**Y**	The Site includes areas of low to moderate Aboriginal sensitivity with high sensitivity directly along Wianamatta-South Creek in the eastern portion of the Site. The Connecting with Country Framework prepared by Yerrabingin (**Appendix Y**) has been incorporated into the urban design, landscaping and building design of the Proposal. Refer to the Design Statement prepared by SBA Architects (**Appendix I**), Urban Design Report prepared by e8 Urban (**Appendix J**), and Landscape Report and Drawings prepared by Site Image (**Appendix Q** and **Appendix R**). Organised by Yerrabingin, a series of Co-Design sessions (including Walking on Country) have occurred since the project's inception. The Project Team have been fortunate enough to participate in these sessions. Yerrabingin have taken this knowledge, and aided Site Image in shaping the ideas and principles of the landscape design. These learnings have been distilled, infused and informed the landscape design though the following elements: • **Water Country** – Rehabilitation of Wianamatta Creek and human interaction with drainage basins; • **Sky Country** – Open spaces; • **Move with Country** – Spaces and pathways for people to connect with one another and Country; • **Deep Country** – Expression of landforms and materiality; • **Non-human Kin** – Rehabilitation and creation of habitat to South Creek and Drainage basins; and • **Wind Country** – Wind in tree canopy and grasses. Pollinator species. Refer to Drawing No. 008 of the Landscaping Report prepared by Site Image (**Appendix Q**). The landscape-led approach incorporates the layers of country's throughout the green and open space, design elements incorporate into urban activity whilst restoring and preserving environmental, cultural and spiritual values. The design has been established to respect and

			enhance the cultural heritage, throughout the design and based on the feedback provided by the Dharug Traditional Custodian's rehabilitation and restoration of the creek is imperative. The Wianamatta–South Creek corridor is the central element of the urban design and water management of the Western Parkland City. The design response provides amenity and recreational opportunities, including: • The landscape-led approach integrates the many elements of the public domain as a landscape, connectivity and social infrastructure framework with quality public spaces; • Promote passive and active recreation; • key source of amenity for our workers, customers and visitors • key adjacency for all amenity zones because of the outlook and these zones will then also promote active uses and passive surveillance; • effectively rehabilitate and promote the Mother creek; • Contribute to the long-term management and custodianship of the vegetation and doing it in a way that is respectful of the connection with country to the Dharug people; • Promoting the new stormwater requirements making sure we are capturing and treating run off in a best practice way that promotes the health of the waterway and minimises erosive flows and mitigates the built form and urban environment; • Promoting connectivity within the employment estate; • Opportunity to dedicate space for private ceremonial and sacred gatherings for Dharug Custodians; and • Providing the opportunity to own and maintain some of these cultural practices around the creek in a supported fashion with other long-term suppliers. By incorporating these philosophy's education and storytelling are naturally incorporated and will allow for the stories of the land carry with the land over time.
***PO3**. The design of the public domain within areas of moderate to high Aboriginal heritage sensitivity identified in the Aerotropolis Precinct Plan is to incorporate spaces for outdoor cultural practice and for learning and cultural play, in accordance with outcomes of cultural values research and engagement with Traditional Custodians and other relevant Aboriginal Stakeholders (Knowledge Holders, LALCs and the local Aboriginal and Torres Strait Islander community).*	***1**. Where relevant, development is designed to enable Aboriginal people to continue to care for Country through the integration of traditional knowledge into environmental assessments and management plans (e.g. floodplain management and bushfire hazard management).* ***2**. Development proposals must demonstrate that the design has been informed by engagement with Traditional Custodians (and Knowledge Holders where appropriate) and incorporates cultural practice requirements and their aspirations for associated enterprise and economic development.* ***3**. Development proposals must outline how cultural knowledge has been integrated into environmental assessment and management strategies, and should consider opportunities for ongoing land management and enterprise and economic development.*	**Y**	**1**. A Connecting with Country Framework has been prepared by Yerrabingin (**Appendix Y**), which outlines the approach to embed Country and the leadership of its custodians in the proposed development and future public domain (to be deferred to a later stage and subject to separate applications). The framework will continue to evolve and represents the current understanding, noting it is intended to be informed by continued partnership with the Aboriginal community throughout the delivery of the project and ongoing operation of the Site. **2**. The framework has been informed by extensive engagement with Dharug Custodians and the broader Aboriginal community including a Walk on Country and several design discussions as the concepts progress, engagement will continue to build on this process through all future design processes. The following community led principles being developed for the project: • **Connect to Dharug Country** – Celebrating Dharug Country; it's unique landform, climate, seasons, flora, fauna, the spirituality, and the connection Dharug people have with Country through language, custodianship and ceremony. • **Designing for Kin** – Understanding ecological systems and functions, creating appropriate habitat and ensuring green links. • **Enterprise opportunities** – Prioritising enterprise partnerships connected to cultural practice, land management and native food production. • **Supporting cultural practice** – Acknowledging Dharug culture including the provision of cultural safe access for cultural practice. Supporting the sharing of knowledge and linkages to community education programs. **3**. The consultation sessions to date have highlighted the areas of significance for the Dharug Traditional Custodians. Initial discussions have focused on the significance of the Wianamatta-South Creek and proposed land management strategies (such as cool burning) to support the rejuvenation of the landscape. • Prioritise restoration of creek; • Focus on waterway health; • Provide economic opportunities ; • Create a space whereby people can learn about country - stories continue for generations; • Flora that is native to Dharug Land; and • Design to protect kin.
***PO4**. Aboriginal culture is celebrated and embedded within building design.*	***1**. For development where the Guidelines apply or that is located within or intersects areas identified as having moderate to high Aboriginal heritage sensitivity in the Aerotropolis Precinct Plan, culturally sensitive design must be incorporated.* ***2**. Development proposals must outline how cultural values research and engagement with Traditional Custodians (and Knowledge Holders where appropriate) have informed the design outcomes. Where previous cultural values research (including overarching master plans and neighbouring sites) has been undertaken, the development proposal is to respond to the findings.*	**Y**	**1**. An Aboriginal Cultural Heritage Assessment Report (ACHAR) has been prepared by Artefact (**Appendix MM**). Recommendations to mitigate impacts will be carried out as appropriately. The Connecting with Country Framework prepared by Yerrabingin (**Appendix Y**) provides an overview of the engagement held with Traditional Custodians and includes key strategies within the Aerotropolis Recognising Country Guidelines outlining the elements and value of Country on the Site and the opportunities for the project to respect, restore and regenerate Country and contribute to design excellence through the consideration of Country. These include: • **Starting With Country** – Cultural Safety, Meaningful Engagement and Economic development opportunities. • **Cultural Landscape** – Cultural values and heritage, Landscape, Water, Park and open space and Caring Country. • **Built Form** – Culturally responsive design, social infrastructure, and public art. • **Language and Wayfinding** – Appropriate inclusion of language lead by Dharug custodians. Wayfinding design that reflects and shares the rich cultural landscape at both the micro and macro scale of Country. The framework incudes a typology matrix has informed the Urban Design Report (**Appendix J**) for the Proposal to further ensure a Country-centred design. From conversations and engagement to date, the design response has been inspired by the integration of the

			land and water flow forming the contours of the surrounding landform of the creek. The above actions have translated into the following tangible design elements: • Built Form - The colours and material palette has been carefully selected to reflect the earthy tone of the Cumberland Plain Woodland landscape that is prevalent in the Western Sydney Aerotropolis. - The design of the warehouse patterns and office form are inspired by the natural profile of Wianamatta South-Creek. The resultant sculptural organic form responds to site contours, acknowledging existing creek and water bodies, - Opportunities to display public art across the estate in accordance with the public art strategy and ongoing consultation with First Nations people. - Two design expressions have been embedded in the design of the built form to respond to 'Sky Country' which include the office roof canopy that opens outwards over the terrace communal space and gesture towards the sky, and sky garden is provided at level 1 office that contains a void in the roof to frame the sky and allow natural light. • Landscaping and public domain - Integration of WSUD initiatives to respond to 'Water Country' principles through streetscape raingardens, stormwater basins and overland flow. - Enhancing the green grid through planting of street and on-lot trees and native understorey to tie in 'Wind Country' principles and provide greater connectivity to the broader landscape and surrounding bushland. - A series of varying activity nodes are proposed to address people's desire to connect with nature and Country, Specifically, the proposed 'Edge amenity node' seeks to include a native edible species and interpretation garden that demonstrates the outputs of potential Indigenous enterprise, such as the growing and harvesting of native food by First Nations People. - The Elizabeth Drive Frontage planting seeks to further replicate the natural profile of Wianamatta- South Creek which is proposed on the built form. Further co-design with First Nations organisations via Yerrabingin may result in a refined or more connected motif for this planting design. - The Entry Statement will feature carefully co-designed graphics and materiality, as well as express the concept of Welcome and Acknowledgement of Country. **2**. Refer to the Connecting with Country Framework., prepared by Yerrabingin (**Appendix Y**), the cultural values research has informed design outcomes of the Master plan as specified under PO4.1 . As neighbouring sites are further developed, it is intended to work with authorities and surrounding landowners to collaborate in delivering an interconnected precinct that appropriately represents country.
***PO5**. Development enables appropriate provision of built cultural infrastructure including dedicated spaces for cultural practice, places for sharing culture and specialised infrastructure to meet the needs of the local Aboriginal community.*	***1**. Master Plans and sites of 20 hectares or more, within metropolitan, specialised and local centres (see Centres Hierarchy map in the Precinct Plan), should identify appropriate sites (location and size) for the provision of cultural infrastructure based on identified need (see Section 4.3 Aboriginal Culture and Heritage – Recognising Country in the Aerotropolis Precinct Plan). This includes specialised stand-alone infrastructure such as education, health and community facilities and services, as well as integrated spaces for gathering (see Section 14.4, 15.5 and 15.6 of the Guideline).* ***2**. When planning for and designing cultural infrastructure the proponent is to engage with relevant Traditional Custodians and other Aboriginal stakeholder types (i.e. Knowledge Holders, LALCs, Service providers and the local Aboriginal and Torres Strait Islander community) where appropriate (Section 2.1.2 of the Guideline).*	**N/A**	Not applicable. The Centres Hierarchy is not allocated within this location. Whilst PO5 is not applicable to this application, based on the Cultural Values Research it has been discussed with Traditional Custodians regarding opportunities for dedicated cultural spaces (please refer to comments included within PO2 and PO3.)
***PO6**. Cultural narratives are embedded in public art.*	***1**. Public art should respond to culture and Country, particularly within identified areas of significant Aboriginal heritage and value.* ***2**. Where a development proposal has identified the opportunity to deliver public art that is responsive to culture and Country, an Aboriginal person with a connection to Western Sydney is to be engaged to:* *a. Provide input into the preparation of the public art brief, and* *b. Contribute to the design of the public art.*	**Y**	A Public Art Strategy has been prepared by Yerrabingin (**Appendix Z**). The intent is to create a unique design response that is representative of the areas of cultural significance within the Site and surrounds, as well as creating a connectiveness to neighbouring properties, being embedded in the landscape and built form expressing the key themes and narratives unique to the Site and connected to the broader cultural landscape. Proposed locations, inspiration, and artist strategy within the Public Art Strategy outlines how narratives can be incorporated throughout the development. The strategy outlines the key Public Art strategy that will contribute to the overall project: • Visual Narratives will connect interventions in the built and public domain to expressing voices of Country; • Yerrabingin will also develop Artist briefs and facilitate the selection process as well as support the engagement and completion of commissions; and • The Strategy will also offer tenants the ability to contribute to the broader story of Country and contribute to the strategy This is shown, in location form, in the Architectural Plans at **Appendix B** which highlights the location of Public Art at the entry and public interfaces of the Warehouse 2 and Warehouse 6 built forms as part of the Stage 1A Development.
***PO7**. Place names incorporate local Aboriginal language to enhance and strengthen the cultural connection to place.*	***1**. Where an existing geographical feature or public place already has a non-Aboriginal name, dual naming with the Aboriginal name, should be assigned where appropriate. More information can be found within the NSW Geographical Names Board's Dual Naming – Supporting Cultural Recognition factsheet.*	**Y**	Refer to the Connecting to Country Framework (**Appendix Y**) which outlines language strategy and approach. **1**. Naming of the estate and roads will be updated based on feedback from consultation with RAPs. Initial conversations have been held with Dharug Traditional Custodians and RAPs. The project team will proceed with a meeting with Local Aboriginal Language Holders and RAPs to produce a shortlist of naming options which will be referred to Penrith City Council and the Geographical Names Board. **2**. Indigenous naming will also be reflected within the street names, arrival entry and wayfinding elements. A Street Naming application is being implemented with consultation with local groups.

	2. New development including suburbs, public spaces, places, roads or administrative areas should give preference to the use of local Aboriginal language for naming purposes. *3. For Aboriginal naming and dual naming, the proponent is required to consult with the NSW Geographical Names Board, Traditional Custodians, local language subject matter experts (and Knowledge Holders where appropriate) (Section 2.1.2 of the Guideline).* *4. The proponent is required to seek a statement from Traditional Custodians (and Knowledge Holders where appropriate) in the selection and use of local traditional language.*		3. The design team have initially engaged with the Dharug Traditional Custodians in December 2022 and RAPs on 13 July 2023 to determine a new naming of the estate and roads to ensure cultural significance is retained. A language strategy will be prepared to include endorsed naming options which will be submitted through the Local Council Geographical Names Board for approval. 4. Refer to the Connecting to Country Framework (**Appendix Y**) which lists stakeholders that have been consulted with to date.
PO8. *Wayfinding signage incorporates Aboriginal language, knowledge and art to enhance and strengthen the cultural connection to place.*	*1. Wayfinding signage for development proposals is to be informed by cultural values research and engagement with Traditional Custodians (and Knowledge Holders where appropriate).* *2. Wayfinding signage is to consider the inclusion of elements that reflect the history and pronunciation of the associated Aboriginal name(s) in the wayfinding strategy.* *3. The proponent is required to seek a statement from Traditional Custodians (and Knowledge Holders where appropriate) in the selection and use of local traditional language*	**Y**	The detailed design of wayfinding signage will incorporate Aboriginal language, knowledge and art to enhance and strengthen the cultural connection to place. The Proposal comprises signage zones, as illustrated on MP06 of the Architectural Drawings (**Appendix B**). Wayfinding elements and language strategy will include alignment to the Connecting to Country Framework (**Appendix Y**): 1. Cultural values and connection aligned to findings outlined within the ACHAR (**Appendix MM**); 2. Elements, history and appropriate naming. A Street Naming application is being implemented with consultation with local groups; and 3. Refer to the Connecting to Country Framework (**Appendix Y**) and the Recognise Country Guidelines (**Appendix NN**) which lists stakeholders that have been consulted with to date.

2.2 Heritage

2.2.1 Aboriginal Cultural Heritage

Objectives	Compliance	Assessment
***O1**. Ensure adequate protection and appropriate management of archaeological resources.*	**Y**	Refer to the ACHAR prepared by Artefact (**Appendix MM**). Appropriate management protocols have been referenced within the report. The temporary repository of any retrieved artefacts will be in a locked cupboard on the premises of the archaeological consultant. Long term management of the Aboriginal objects would involve the reburial of the artefact assemblage within the environmental protection area in the eastern portion of the study area. The reburial location will be located outside of the proposed works area. As this area is outside the proposed works area, reburial will be undertaken outside the registered site extent of all identified Aboriginal sites including EP PAD 03 (AHIMS ID 45-5- 5234). Reburial will be undertaken in accordance with the Requirement 26 of the Code of Practice (DECCW 2010). Following reburial, a site card will be submitted for the reburial location with ASIRFs submitted for all sites which have had Aboriginal objects reburied.
***O2**. Ensure long-term heritage conservation outcomes are retained or interpreted to reflect the history of the Aerotropolis area.*	**Y**	
***O3**. Preserve the scenic and cultural heritage connections and values of waterways, riparian lands and ridgelines.*	**Y**	Refer to the ACHAR prepared by Artefact (**Appendix MM**). The retention of the Riparian Zone preserves this existing flora and faunal habitats associated with Wianamatta-South Creek. The water management strategy aims to retain the current catchment and outlet locations. The design respects existing catchment responses that maintain natural flows to Wianamatta-South Creek via combination of overland flow and piped network through the proposed road reserve. The Site is located on the eastern flank of a wide valley that is not in a prominent view location. There is the potential for visibility of the Site from Mt Vernon to the east of the Site, however, it is likely to be obscured due to the planned development associated with the Mamre Road Precinct. Creek to creek connections have been achieved through the design of public elements and the E-W road connections which will achieve views from and to Wianamatta-South Creek.

Performance Outcome	Benchmark Solution	Compliance	Assessment
***PO1**. New development adjacent to or within the vicinity of an item or place of Aboriginal heritage significance or cultural value should not impact on that item, or place. Development is to consider visual and physical connections between items and places.*	*1. New development is appropriately sited to ensure that the curtilage or setting of the Aboriginal item or place of cultural value is retained.* *2. The development must consider surrounding landscaping, topography, views and connection with other Aboriginal sites. Possible uses for sites with identified Aboriginal heritage include passive open space, environmental conservation, and riparian corridors.*	**Y**	1. The proposed EEP Stage 1 layout and design minimises impacts to the environment through the retention of land within the 1:100 year flood level. The retention of this area preserves this existing flora and faunal habitats associated with Wianamatta-South Creek. The proposed development has considered the riparian corridor of Wianamatta-South Creek through the urban design of the Sites proposed. Refer to the Urban Design Report prepared by e8 Urban (**Appendix J**). The Connection with Country Framework (**Appendix Y**) also includes areas of cultural significance and demonstrates how these areas have been considered within the Masterplan 2. Refer to Visual Impact Assessment report prepared by Clouston's (**Appendix BB**). Creek to creek connections have been achieved through the design of public elements and the E-W road connections which will achieve views from and to Wianamatta-South Creek The open space area is not included within the current application and the strategy for use will be further refined in time and subject to separate approval processes as required.
***PO2**. Heritage items and landscapes shall provide for long-term conservation outcomes.*	*1. Development on sites containing heritage is to provide opportunities for people to engage with heritage and culture. This may include heritage or cultural values interpretation, artwork, signage, and or public access. Any interpretation or signage is to be delivered in consultation with relevant Aboriginal stakeholders, considering the sensitivity of Aboriginal cultural heritage, knowledge and values.* *2. Development proposals for sites containing Aboriginal cultural heritage and cultural values are to be accompanied by a conservation strategy ensuring long-term conservation and restoration (where relevant) outcomes.*	**Y**	The proposed development has been designed in accordance with the Connecting to Country Framework. The framework includes key strategies within the Aerotropolis Recognising Country Guidelines outlining the elements/value of Country on the Site and the opportunities for the project to respect, restore and regenerate Country and contribute to design excellence through the consideration of Country. The ACHAR (**Appendix MM**) found a number of Aboriginal sites (for the purposes of sensitivity, detail has been excluded from this compliance tables). Recommendations to mitigate impacts will be carried out as appropriate. The landscape-led approach incorporates the layers of country throughout the green and open space, design elements incorporate into urban activity whilst restoring and preserving environmental, cultural and spiritual values. The design has been established to respect and enhance the cultural heritage, throughout the design and based on the feedback provided by the Dharug Traditional Custodian's rehabilitation and restoration of the creek is imperative. The Wianamatta–South Creek corridor is the central element of the urban design and water management of the Western Parkland City. The design response provides amenity and recreational opportunities (which will be covered under a separate DA): • Landscape-led approach integrates the many elements of the public domain as a landscape, connectivity and social infrastructure framework with quality public spaces. • Promotes passive and active recreation • Key source of amenity for workers, customers and visitors • Key adjacency for all amenity zones because of the outlook and these zones will then also promote active uses and passive surveillance • Effectively rehabilitate and promote the Wianamatta South Creek "Mother Creek" • Contribute to the long-term management and custodianship of the vegetation and doing it in a way that is respectful of the connection with country to the Dharug people • Promoting the new stormwater requirements making sure we are capturing and treating run off in a best practice way that promotes the health of the waterway and minimises erosive flows and mitigates the built form and urban environment • Promoting connectivity within the employment estate • Opportunity to dedicate space for private ceremonial and sacred gatherings for Dharug Custodians • Providing the opportunity to own and maintain some of these cultural practices around the creek in a supported fashion with other long-term suppliers

			By incorporating these philosophy's, we will help build in education and storytelling to ensure the stories of the land carry with the land over time. Refer to the ACHAR prepared by Artefact (**Appendix MM**). RAPS have been engaged with the provisions within the Aerotropolis DCP. The salvage excavation process has been agreed and detailed within the report. Any artefacts identified would follow the appropriate reburial methodology.
***PO3**. The archaeological potential of sites is to be determined as part of detailed site investigations. Aboriginal archaeological sites are conserved, and significant archaeological remains are protected and interpreted.*	***1**. Any land with the potential to contain archaeological remains is to be subject to detailed investigations and assessment to determine the level of archaeological intervention required. Intervention may include the following:* *a. Unexpected finds procedure;* *b. Monitoring during works; or* *c. Formal salvage excavation.*	**Y**	In the ACHAR has been prepared by Artefact (**Appendix MM**), a number of Aboriginal sites have been identified (for the purpose of sensitivity, detail has been excluded from this compliance table). Recommendations to mitigate impacts will be carried out as appropriate and the appropriate intervention procedures will be followed.

2.2.2 Non-Aboriginal and European Heritage

Objectives	Compliance	Assessment
***O1**. Ensure that development in the vicinity of heritage items is designed and sited to protect the heritage significance of the item and its setting.*	**Y**	Refer to the Non-Aboriginal Statement of Heritage Impact, Archaeological Research Design Report, Salvage Excavation Archaeological Research Design Report and Archaeological Test Excavation Results Report prepared by Artefact (**Appendix MM**). Objectives and recommendations will be considered within the development. The Site has no remanent heritage items. Previously the Site was occupied by James Badgery who received a grant of land in 1809 and bult the Exeter Farm. As identified in the Non-Aboriginal Archaeological Report, prepared by Artefact (**Appendix OO**), it is understood that the building was demolished in 2006. In acknowledgement of the previous use, a commemorative structure and heritage interpretation feature located in the amenity area next to Warehouse 6 will include homage to the European heritage of the Site.
***O2**. Ensure adequate protection and appropriate management of archaeological resources.*	**Y**	
***O3**. Ensure that as much archaeology of Local, State, and potential National heritage significance is retained on site and interpreted within the new developments.*	**Y**	
***O4**. Ensure the continued relevance of historic values through long-term heritage conservation outcomes that reflect the history of the Aerotropolis area.*	**Y**	

Performance Outcome	Benchmark Solution	Compliance	Assessment
***PO1**. Inappropriate or unsympathetic alterations and additions of heritage items are removed, and significant missing details and building elements are reinstated.*	***1**. Alterations and additions to existing heritage items do not dominate or detract from the original building in terms of scale, materials, siting, landscaping, and views.* ***2**. Any unsympathetic or inappropriate previous alterations or additions are removed.*	**N/A**	Not applicable. As identified in **Appendix OO**, no remnant existing heritage items remain on the Site.
***PO2**. The impact of new development adjacent to or within the vicinity of a heritage item is minimised.*	***1**. Development in the vicinity of a heritage item minimises the impact on the setting of the item by:* *a. Providing an adequate area around the building to allow interpretation of the heritage item;* *b. Retaining original or significant landscaping (including plantings with direct links or association with the heritage item);* *c. Protecting and allowing the interpretation of archaeological features; and d. Retaining and respecting significant views to and from the heritage item.* ***2**. Any new development in the vicinity of heritage items should be of a contemporary design that incorporates materials that do not overwhelm any adjacent heritage items.* ***3**. Open spaces should be planned around heritage items to ensure it maintains its prominent siting and encourage opportunity for active and passive interaction with the place.* ***4**. Highly activated urban areas in the vicinity of a heritage item must be carefully and respectfully sited, designed and landscaped to ensure that heritage values associated with the heritage item are protected.*	**N/A**	Not applicable. As identified in **Appendix OO** The testing program did not identify remains associated with first Exeter house (historical Phase 1) in the location determined to be most likely to contain such resources. However, the Site retains nil-low potential to contain evidence of this phase below the remains of the second Exeter house. No evidence of state significant archaeological remains associated with the early development of the Site were identified.
***PO3**. The subdivision of land on which a heritage building is located does not isolate the building from its setting or context,*	***1**. Front and rear setbacks are adequate to ensure the retention of the existing landscape character of the heritage item or conservation area and important landscape features.* ***2**. Any significant historical pattern of subdivision and lot sizes is to be retained.*	**N/A**	Not applicable. As identified in **Appendix OO**, no existing remnant heritage items remain on the Site: therefore there is no impact on proposed or future subdivision.

or adversely affect its amenity or privacy.	***3**. Subdivision or site amalgamation involving heritage items or contributory buildings do not compromise the setting or curtilage of buildings on or adjoining .*		
***PO4**. Archaeological sites are conserved, and significant archaeological remains are protected and interpreted.*	***1**. Any works that may impact a known, or potential, archaeological site must have an archaeological assessment undertaken to determine the archaeological significance of the site and appropriate management procedures.*	**Y**	Refer to the Non-Aboriginal Statement of Heritage Impact, Archaeological Research Design Report and Salvage Excavation Archaeological Research Design Report prepared by Artefact (**Appendix OO**). The proposal will have no physical (direct) impact on nearby heritage items and will have a negligible visual (indirect) impact on nearby heritage items.

2.3 Stormwater, Water Sensitive Urban Design and Integrated Water Management

2.3.1 Waterway Health and Riparian Corridors

Objectives	Compliance	Assessment
***O1**. Protect and restore native and riparian vegetation to improve the connectivity, ecological condition, and function of ecosystems.*	**Y**	The Proposal has taken these objectives into consideration as part of the broader Concept Masterplan design. Refer to the Biodiversity Development Assessment Report (BDAR) (**Appendix LL**) and Water and Stormwater Management Plan (**Appendix M**) and Civil Drawings (**Appendix K**) An Erosion and Sediment Control Plan (**Appendix N**) has been prepared in accordance with the *NSW Department of Housing Publication titled: Managing Urban Stormwater – Soils and Construction* (2004) for the Site. The key objectives of the SWMP are: • Acknowledging the activities on a construction site which may contribute to erosion, sedimentation and water quality impacts. • The implementation of industry best management practices to minimise adverse water quality and sedimentation impacts brought about through construction activities on waterbodies surrounding the work. • Establishment of processes that effectively manage erosion, sedimentation and water quality practices during the life of the project.
***O2**. Ensure that development does not adversely affect aquatic fauna.*	**Y**	
***O3**. Effectively manage indirect and ongoing impacts of development adjacent to waterways to ensure vegetation in the riparian area, aquatic fauna, water quality and quantity is protected and maintained.*	**Y**	
***O4**. Reinstate more natural conditions in highly modified waterways and riparian land while not increasing flood risk.*	**Y**	

Performance Outcome	Benchmark Solution	Compliance	Assessment
***PO1**. Development retains and restores native vegetation and riparian corridors.*	***1**. Development maintains and protects waterways in accordance with the following guidelines:* *a. Strahler Order 1 watercourses with a catchment area of less than 15 hectares can be re-constructed and /or piped, providing stormwater modelling demonstrates the pipe and street network is capable of accommodating flows up to and including the 100 year AEP storm event.* *b. Naturalised trunk drainage paths are to be provided when the contributing catchment exceeds 15 hectares or when 1% AEP overland flows cannot be safely conveyed overland as described in Australian Rainfall and Runoff – 2019.* *c. Waterways of Strahler Order 2 and higher will be maintained in a natural state, including the maintenance and restoration of riparian areas and habitat, such as fallen debris.* *d. Where a development is associated with, or will affect, a waterway of Strahler Order 2 or higher, rehabilitation will occur to return that waterway to a natural state.* ***2**. Retain areas of the Proteaceae shrubs for the Eastern Pygmy Possum Cercartetus nanus along or adjacent to riparian areas to improve and maintain habitat connectivity.* ***3**. Weeds from creeks, streams and riparian areas are removed and replaced with appropriate native planting.* ***4**. Locate stormwater infrastructure including pipelines and detention basins wholly on certified-urban capable land consistent with the Plan's biodiversity consistent with the Plan's biodiversity certification approvals. Stormwater infrastructure is not to be located within land identified as avoided or land managed as a reserve.*	**Y**	**1**. The proposed Stage 1A Development has been located to avoid all impacts to the riparian zone (ENZ land) where better condition native vegetation is present. Refer to the BDAR (**Appendix LL**). The development site contains existing watercourses. However, it was determined that these did not meet the definition of a watercourse in accordance with the *Water Management Act 2000* (WM Act). The proposed stormwater management strategy outlined in the Water and Stormwater Management Plan prepared by AT&L (**Appendix M**). a. Catchment areas of less than 15ha have been adopted b. Not applicable. Catchment areas do not exceed 15ha c. Not applicable as the site contains 1 x 1st order stream d. Not applicable as the site contains 1 x 1st order stream Construction methodologies will be adopted to minimise the impact of sedimentation. Suitable erosion and sediment controls will be provided by the Contractor and maintained throughout all stages of works, including at completion of the bulk earthworks. No future development is proposed within the area mapped as a Strategic Conservation Area. Area's surrounding the riparian corridor are intended to be restored and rehabilitation with plants specified within the DCP plant species list. Refer to AT&L drawing 16-369 C1131 and 1132 for all pre- and post-development catchments. All existing and proposed catchments are less than 15 ha in area **2**. Refer to the BDAR (**Appendix LL**) which confirms the subject species have not been identified. **3**. To improve habitat connectivity species included withing the Aerotropolis DCP, species list will be adopted as referenced within the Landscape Report at **Appendix Q**. **4**. The proposed water and stormwater management strategy (refer to **Appendix M**) aims to retain the current catchment and outlet locations. The design respects existing catchment responses that maintain natural flows to Wianamatta-South Creek via combination of overland flow and piped network through the proposed road reserve. Streets are the primary means for the transmission of water as overland flow and piped reticulation within the public domain, on-lot drainage is managed through traditional pit and pipe network that conveys water to the treatment basins as well as rain gardens within street verges.
***PO2**. Protect key aquatic habitat where it occurs.*	***1**. Where aquatic habitat exists, proposed development responds to Policy and Guidelines for Fish Habitat Conservation and Management by the Department of Primary Industries and other relevant guidelines.* ***2**. Aquatic fauna habitat is rehabilitated in streams of Strahler Order 2 and higher.* ***3**. Existing habitat, such as fallen debris, is retained in streams of Strahler Order 2 and higher.*	**Y**	**1**. The EEP Stage 1A Development has been located to avoid all impacts to the riparian zone (ENZ land) where better condition native vegetation is present. Refer to the BDAR prepared by Ecologique(**Appendix LL**), which identifies limited presence of aquatic habitat. **2-3**. The Site does not comprise and Strahler Order 2 streams.
***PO3**. Development provides increased connectedness to high quality passive open space and the blue-green grid.*	***1**. Road crossings across a waterway of Strahler Order 2 or higher are to be designed to minimise impacts to vegetated riparian areas and species movements in accordance with NSW Department of Primary Industries' requirements to maintain fish passage.*	**N/A**	Not applicable. The Proposal does not include any road crossings across a waterway of Strahler Order 2 or higher. However, the proposed EEP Stage 1A Development will increase connectiveness to quality and passive open space and the blue-green grid. Refer to the Urban Design Report prepared by e8 Urban (**Appendix J**). The proposed road network has been designed to replicate the *Western Sydney Aerotropolis Precinct Plan* (Precinct Plan). Creek to creek connections have been achieved through the design of public elements and the east-west road connections which will achieve views from and to Wianamatta-South Creek
***PO4**. Riparian streets shown on the Aerotropolis Precinct Plan are delivered as part of subdivision and*	***1**. Riparian streets are to be designed generally in accordance with the indicative cross sections at Figure 2 and Figure 3 and Guidelines for Controlled Activities on Waterfront Land—Riparian Corridors Published by NSW Department of Industry in May 2018.*	**N/A**	Not applicable. The Site is not identified to include riparian streets as shown in Figure 5 of the Precinct Plan, and riparian corridors are not present on the Site within the proposed extent of works.

civil works and riparian corridors are integrated with the public domain and active transport connections.	***2**. The outer 50% of the riparian zone can accommodate pedestrian and cycle paths (or shared paths) street furniture (including lights and seating), landscaped verges and water sensitive urban design elements that are normally part of the street verge.* ***3**. On the side of the riparian corridor that is not adjacent to a public road, the outer 50% of the riparian corridor can form part of the front setback of development lots, provided the part of the setback that is within the riparian corridor is used for landscaped area and paths only (with permeable or semi-permeable surfaces).* ***4**. Despite any other provision of this DCP, for lots in the Mixed Use zone with development that includes active ground floor uses:* *a. If fronting a riparian corridor or street, development may have a zero lot setback to the boundary fronting the riparian corridor or street; or* *b. If there is no street between the riparian corridor, the lot may encroach into the outer 50% of the riparian corridor. Buildings and hard surfaces on the lot must be outside the riparian corridor.* ***5**. Within the Enterprise zone, development that includes office, retail or other active uses that create an active façade with surveillance to the riparian corridor or street may have a zero lot setback to the boundary fronting the street or riparian corridor. Where there is no street between the riparian corridor and the lot boundary, the lot may encroach into the outer 50% of the riparian corridor providing buildings and hard surfaces are set back at least to the outer boundary of the riparian corridor.* ***6**. Vehicular access to lots that directly adjoin the riparian zone, or where there is a zero lot setback to the street is to be from the side or rear property boundary (i.e. opposite to the boundary fronting the riparian corridor).* ***7**. Maintenance access for the stormwater drainage manager must be accommodated in the design of riparian streets. Further details on access requirements for maintenance is provided in Section 2.3.3 of the DCP.* *Note 1: All street cross-sections show the minimum requirements. In certain circumstances these may need to increase to respond to site specific conditions such as topography and the retention of remnant vegetation.* *Note 2: Further guidance on the width of the riparian element of riparian streets, including the identification of the Strahler order of all riparian streets, is contained in Appendix C.*		

2.3.2 Stormwater Management and Water Sensitive Urban Design		
Objectives	**Compliance**	**Assessment**
***O1**. Manage indirect and ongoing impacts of development on waterways to ensure that Wianamatta-South Creek Catchment water quality and flow objectives in the Aerotropolis Precinct Plan are achieved and maintained.*	**Y**	The proposed water management strategy has sought to minimise the impact of the proposed development by ensuring the water quality and flow targets are met. Refer to the Water and Stormwater Management (**Appendix M**).
***O2**. Ensure development is integrated with water cycle management to meet the Wianamatta-South Creek Catchment stormwater management targets.*	**Y**	
***O3**. Utilise stormwater for passive irrigation of street trees to promote healthy trees, optimise canopy cover and contribute to streetscape, urban cooling and amenity.*	**Y**	The Proposal includes the provision for the reuse of stormwater for landscape irrigation. Refer to Water and Stormwater Management Plan prepared by AT&L (**Appendix M**).
***O4**. Ensure overland flows are conveyed in a safe manner to the trunk drainage system.*	**Y**	The Western Sydney Aerotropolis Stormwater and Water Cycle Management Study (Interim Report) includes indicative locations of trunk drainage infrastructure across the Badgerys Creek precinct. No trunk drainage has been identified within the Site.
***O5**. Protect, maintain and restore the ecological condition, hydrology and hydrogeology of aquatic ecosystems (including but not limited to wetlands and riparian lands).*	**Y**	The proposed measures outlined within the Water and Stormwater Management Plan (**Appendix M**) and detailed in the Civil Drawings (**Appendix K**) provide strategies to protect, maintain and restore the ecological condition. In addition, refer to the BDAR (**Appendix LL**). Measures include demarcation of project boundary footprints through the use of fencing prior to commencement of construction, placement of the footprint of the development to avoid higher biodiversity value areas within the riparian zone, and generally retaining earthworks within areas previously disturbed or on exotic grasslands.

Performance Outcome	**Benchmark Solution**	**Compliance**	**Assessment**
***PO1**. Development applications must demonstrate compliance with the stormwater*	***1**. Compliance with the water quality targets below are satisfied where development applications demonstrate:*	**Y**	The results presented below demonstrate the proposed stormwater management measures that will be implemented under the Interim Arrangement satisfy the DCP Option 2 stormwater flow targets. For further discussion, refer to Section 6.3.1 of the Water and Stormwater Management Plan (**Appendix M**).

quality targets at all times through interim stormwater management measures incorporated within the development, or by connection to the regional stormwater system once operational.

a. To the satisfaction of the Stormwater Management Authority and the consent authority that stormwater discharge from the development will flow into the regional stormwater system; and

b. The requirements of PO4 in Section 2.3.2 are met.

***2**. Where the Stormwater Management Authority indicates that the regional stormwater system will not be in place to service the development interim measures must be included to achieve the waterway health objectives of the Aerotropolis Precinct Plan. Interim stormwater management measures are to be designed to achieve the stormwater quality targets listed in the table below:*

Note: A proponent may opt to undertake works-in-kind to deliver the regional stormwater system in accordance with the Stormwater Management Authority's requirements.

Parameter	*Stormwater Quality Target – Operational Phase*
Option 1: Annual Load Reduction	
Gross Pollutants (anthropogenic litter >5mm and coarse sediment >1mm)	*90%*
Total Suspended Solids (TSS)	*90%*
Total Phosphorus (TP)	*80%*
Total Nitrogen (TN)	*65%*
Option 2: Allowable Loads	
Gross Pollutants (anthropogenic litter >5mm and coarse sediment >1mm)	*< 16 kg/ha/y*
Total Suspended Solids (TSS)	*< 80 kg/ha/y*
Text Total Phosphorus (TP)	*< 0.3 kg/ha/y*
Total Nitrogen (TN)	*< 3.5 kg/ha/y*

Parameter	Sources – Post-Development	Residual Load Post-Development	Reduction (%)	Mean annual load (post-treatment) (kg/ha/yr)	DCP Target Option 2 (allowable mean annual load)
TSS (kg/yr)	53200	10400	80.5	56.5	< 80.0 kg/ha/yr
TP (kg/yr)	111	34.3	69.0	0.19	< 0.3 kg/ha/yr
TN (kg/yr)	851	368	56.8	2.00	< 3.5 kg/ha/yr
Gross Pollutants (kg/yr)	10300	116	98.9	0.63	< 16.0 kg/ha/yr

***PO2**. Development applications must demonstrate compliance with the stormwater flow targets at all times through interim stormwater management measures incorporated within the development, or by connection to the regional stormwater system once operational.*

***1**. Compliance with the stormwater flow targets below are satisfied where development applications demonstrate:*

a. To the satisfaction of the Stormwater Management Authority and the consent authority that stormwater discharge from the development will flow into the regional stormwater system, and

b. The requirements of PO4 Section 2.3.2 are met.

***2**. Where the Stormwater Management Authority indicates that the regional stormwater system will not be in place to service the development interim measures must be included to achieve the waterway health objectives of the Aerotropolis Precinct Plan. Interim stormwater management measures to be designed to achieve the following stormwater flow targets:*

Parameter	*Stormwater Quality Target – Operational Phase*
Option 1: Mean Annual Runoff	
Mean Annual Runoff Volume (MARV)	*≤ 2 ML/ha/year at the point of discharge to the local waterway*

Y

The results presented below demonstrate the proposed stormwater management measures that will be implemented under the Interim Arrangement satisfy the DCP Option 1 stormwater flow targets. For further discussion, refer to Section 6.3.2 of the Water and Stormwater Management Plan (**Appendix M**).

Parameter	Result	DCP Target	Complies with DCP target	
			DCP Option 1 (MARV approach)	DCP Option 2 (Flow Duration Curve approach)
Mean annual runoff volume (ML/ha/yr)	1.26	2.0	Yes	n/a
95%ile flow (L/ha/day)	14476	3000 to 15000	n/a	Yes
90%ile flow (L/ha/day)	4655	1000 to 5000	Yes	Yes
75%ile flow (L/ha/day)	978.9	100 to 1000	n/a	Yes
50%ile flow (L/ha/day)	40.9	5 to 100	Yes	Yes
10%ile flow (L/ha/day)	0.02	0	No	n/a
Cease to flow	9.0%	10% to 30%	n/a	No

	90%ile flow	*1,000 to 5,000 L/ha/day at the point of discharge to the local waterway*	
	50%ile flow	*5 to 100 L/ha/day at the point of discharge to the local waterway*	
	10%ile flow	*0 L/ha/day at the point of discharge to the local waterway*	
	Option 2: Allowable Loads		
	95%ile flow	*3,000 to 15,000 L/ha/day at the point of discharge to the local waterway*	
	90%ile flow	*1,000 to 5,000 L/ha/day at the point of discharge to the local waterway*	
	75%ile flow	*100 to 1,000 L/ha/day at the point of discharge to the local waterway*	
	50%ile flow	*5 to 100 L/ha/day at the point of discharge to the local waterway*	
	Cease to flow	*Cease to flow to be between 10% to 30% of the time*	
***PO3**. Development applications must include a Water Management Strategy (WMS)*	***1**. The WMS is to provide details of:* *a. The approach to WSUD (including conceptual design details of the stormwater drainage, WSUD systems and on site detention) and how the approach will be implemented, including detail of ongoing management and maintenance responsibilities. This includes if the system is to be fenced, landscaped and maintained for the entirety of the operation of the system.* *b. Where required under PO1 and PO2, how the approach to WSUD complies with the water quality and flow objectives and targets consistent with the Technical guidance for achieving Wianamatta-South Creek stormwater management targets (DPE, 2022).*	**Y**	Refer to the Water and Stormwater Management Plan (**Appendix M**) and 16-369-C1151 of the Civil Drawings (**Appendix K**) prepared by AT&L.
***PO4**. The regional stormwater system includes requirements for on lot as well as streetscape measures to ensure the Targets in PO1 and PO2 are met.*	***1**. Development includes the following stormwater management measures within each lot created by the development:* *a. Minimum pervious areas to meet the requirements of PO8.* *b. Gross pollutant traps (GPTs) designed in accordance the Regional Stormwater Authority technical guidance.* *c. Passively irrigated street trees are provided in accordance with the provisions of clause 2.4.5 of this DCP.*	**Y**	a. The proposed development comprises 19.4% permeable area meeting the 15% requirement of the PO8. Refer to MP 16 within the Architectural Drawings (**Appendix B**). b. The proposed stormwater treatment train would consist of gross pollutant traps (GPTs) as a means of primary stormwater treatment. GPTs are designed to capture litter, debris, coarse sediment, as well as some oils and greases. c. Passively irrigated street trees have been identified and included as part of the stormwater management strategy. Refer to Section 5.4 of the Water and Stormwater Management Plan (**Appendix M**).
***PO5**. (No PO5 within the Aerotropolis DCP)*			
***PO6**. Development must not increase existing urban salinity or result in increased salt loads in waterways, wetlands, drainage line or soils*	***1**. A salinity and or sodicity hazard assessment is required to ensure no impacts to both the waterways and built infrastructure.* ***2**. All WSUD systems must incorporate an impervious liner, unless a detailed Salinity and Sodicity Assessment demonstrates infiltration of stormwater will not adversely impact the water table and soil salinity (or other soil conditions).*	**Y**	**1**. Refer to Salinity and Aggressivity Investigation undertaken by PSM and included at Appendix D of the Geotechnical Investigation (**Appendix GG**). Stormwater has been managed as per the Water and Stormwater Management Plan (**Appendix M**) and Civil Drawings (**Appendix K**) prepared by AT&L. No impacts have been identified to the waterways and built infrastructure **2**. The temporary evaporation basin is intended to be lined with an impermeable liner as needed.
***PO7**. Drainage is designed to safely convey overland flows*	***1**. Designs shall ensure that flows are safely conveyed to avoid unsafe conditions for pedestrians and vehicles and to meet the requirements of Australian Rainfall & Runoff Guidelines 2019.* ***2**. Trunk drainage capable of conveying 1% AEP flow shall be designed as naturalised channels connecting to the existing stream system.* ***3**. Trunk drainage is to be located through natural creek lines or constructed natural drainage channels to help detain flows and contribute to biodiversity, public amenity and safety.* ***4**. Naturalised trunk drainage channels will commence when 15 ha of catchment contribute runoff flows.*	**Y**	**1**. Refer to the Stormwater Drainage Design Criteria within the Civil Infrastructure Report (**Appendix L**), which indicates all flows are conveyed to avoid unsafe conditions for pedestrians and vehicles. **2-4**. Not applicable. At this stage no trunk drainage is identified within the Site. Furthermore, Sydney Water have not identified any trunk drainage channels within the Aerotropolis DCP for the Site.
***PO8**. Lots achieve minimum perviousness to meet stormwater drainage manager requirements and*	***1**. Development is to demonstrate that the perviousness rates identified below are achieved.* *Development in the Mixed Use Zone:* *i. Mixed Use Centre (over 2:1 FSR) – 30%* *ii. Mixed Use Centre (up to 2:1 FSR) – 35%* *Development in the Enterprise and Agribusiness Zone:*	**Y**	The Proposal comprises 19.4% permeable area (meeting the 15% target), across the estate inclusive of road reserve and accessways, Lots 1, 2, 4, 5, 6, 7 and 8, the amenity nodes, drainage reserve and the batter zone. Refer to MP 16 within the Architectural Drawings prepared by SBA Architects (**Appendix B**). Specifically, when looking at each allotment, the following perviousness is achieved on-lot: • Lot 1: 28.5% • Lot 2: 16.2% • Lot 4: 22.7%

green and cooling objectives	*iii. Employment – business, commercial, light industrial (three storeys and above) – 30%* *iv. Employment – Large format industrial and light industrial (up to two storeys) – 15%* *Note 1: If there is more than 1 building on a lot, the number of storeys for the purposes of this clause must be determined in accordance with the Business Zone Design Guide dated December 2021 and published on the NSW planning portal (see Figure 4).* *Note 2: Where an application includes the delivery of streets, streets are to be included in the pervious surface area calculations.* ***2**. The Site area pervious requirement is to be calculated in accordance with the following index:* • Deep soil (one metre or more in depth, connected subsoil) – 100% • Shallow soil (less than one metre in depth, not connected to subsoil) – 75% • Permeable pavement – 50% Hardstand – 0% *Note: as an example of application of the above ratios:* *i. Site area (comprising development lots and streets) is 1,000 square metres in a large format industrial area (up to 2 storeys).* *ii. 150 square metres of pervious area would be required if it is 100% deep soil.* *iii. 300 square metres of pervious area would be required if it is 100% permeable pavement.* *iv. areas of deep soil, shallow soil and permeable pavement can be used in combination to achieve the equivalent required pervious area.*		• Lot 5: 19.9% • Lot 6: 13.7% (this is considered appropriate given the corner contributes the central amenity node area of 1,057m^2) • Lot 7: 13.7%Lot 8: 12.8%

2.3.3 Management and Access to Regional Stormwater Infrastructure and Waterways			
Performance Outcome	**Benchmark Solution**	**Compliance**	**Assessment**
***PO1**. Regional infrastructure Stormwater assets (including land and infrastructure) are managed and maintained by the stormwater drainage manager.*	***1**. Where land for regional infrastructure stormwater assets (including open drainage corridors as a part of riparian streets) are not identified for acquisition on the Land Reservation Acquisition Map in State Environmental Planning Policy (Precincts – Western City) 2021 development is to:* *a. Provide an allocation of sufficient, suitably located land area to allow for stormwater assets in agreement with the stormwater drainage manager.* *b. Where stormwater assets are not dedicated to Sydney Water, appropriate legal access rights are required for ongoing management and maintenance. The legal right of access must be undertaken in consultation with the Regional Stormwater Authority, Sydney Water.* *c. All costs associated with the value of land and easement creation are to be borne by the developer.*	**Y**	Refer to the Water and Stormwater Management Plan prepared by AT&L (**Appendix M**). The proposed stormwater management measures that have been incorporated into Stage 1 are wholly contained within the estate. Subsequent development applications for future stages of development will require regional stormwater infrastructure, which will be managed and maintained by Sydney Water as the Waterway Manager for the Wianamatta-South Creek catchment.
***PO2**. Development provides management access to the stormwater drainage manager.*	***1**. The design of development shall ensure where a riparian zone is identified in the Riparian Plan or Drainage Scheme Plan the landowner is to provide a legal right of access for the stormwater drainage manager to undertake required revegetation, management, and maintenance works.* ***2**. The maximum area of land to be designated for access for this purpose is the vegetated riparian zone or the 1% AEP, whichever the greater, for all waterways. All costs associated with the value of land and easement creation are to be borne by the developer.* *Note: The stormwater drainage manager will only be responsible for undertaking defined waterway, stormwater, and riparian zone management activities on this land.*	**Y**	**1**. The requirement for future access to the riparian zone for the drainage manager (Sydney Water) shall be registered as an easement on title and can be progressed at the stage of subdivision of the Site. **2**. The requisite land will be designated to the drainage manager in accordance with the relevant requirements and standards. It is understood that the costs for the easement creation will be borne by the developer.

2.4 Vegetation and Biodiversity

2.4.1 Deep Soil and Tree Canopy

Objectives	Compliance	Assessment
***O1**. Provision of de-compacted deep soil zones to provide sufficient space for sustainable tree growth to increase the canopy cover across the Aerotropolis.*	**Y**	The Proposal will take the provision for deep soil zones to be de-compacted through the detailed design phase. Refer to Landscape Report prepared by Site Image at **Appendix Q**.

Performance Outcome	Benchmark Solution	Compliance	Assessment
***PO1**. Consolidate areas of deep soil and tree canopy and provide minimum dimensions which allow for sufficient tree planting.*	***1**. Tree canopy and deep soil is provided in accordance with Table 2. Applicants must also have regard for the site coverage and relevant pervious surface targets outlined in this DCP.* ***2**. Deep soil areas are to be a minimum 3m by 3m in dimension.* ***3**. Consolidate deep soil areas by establishing them right up to abutting boundary walls and fence lines.* ***4**. Consolidate deep soil in setback areas and locate with adjoining deep soil areas in adjoining properties.* ***5**. Other than Urban Parks available under the Aerotropolis Precinct Plan, a minimum tree canopy of 45% for open space is to be achieved. Where open spaces include sports courts or fields, the 45% tree canopy shall be provided outside the spaces identified for the court or field area.* ***6**. Deep soil planting areas are to be de-compacted before planting with no services to be installed within these zones.*	**Y**	**1**. Section 2.4.1 PO1 provides for three requirements as benchmark solutions, relating to tree canopy, deep soil and tree planting rates. The Proposal exceeds two of these controls, being the deep soil and tree planting rates: • Deep Soil: with a target of 15%, the Proposal provides 22.6%, some 7.6% higher than the target. - This larger extent of deep soil will enable greater planting of canopy trees in areas that are a minimum 3m in dimension in consolidated, larger areas. - Deep soil zones are all de-compacted to provide sufficient space for sustainable tree growth • Tree Planting: the Proposal exceeds the requires 670 trees through providing some 1,113 trees – an exceedance of 443 trees. - The landscaping strategy has allowed for the planting for the minimum tree planting rates (which meets this control of for every 400m2 of site area or part thereof, at least two medium trees or one large tree is to be planted in the deep soil area). • Canopy Cover: The Concept Plan allows for an estate average of 22.19% which is marginally below the 25% target. The proposed tree canopy and landscaping strategy provides: • On Lot Average of 19.63%; • Road Reserve of 29.88%; • Batter Zone & Basin Area of 26.69%; and • Total Estate Area Coverage is 22.19%. The guidelines, objectives and planning constraints stipulated in the current versions of the NASF, Phase 2 DCP and the SEPP impose constraints on plant species selection for landscaping design. The Concept Plan proposes to balance competing objectives within the planning framework, in consideration of the performance objectives outlined in P02 of Section 2.10.3 of the Aerotropolis DCP and SEPP Section 4.19 Wildlife hazards. The provision of marginally lower tree canopy coverage is to appropriately manage this potential conflict given the inherent risk involved, and balance competing objectives within the planning framework. Assessments carried out and as outlined in the relevant specialist reports (**Appendix V** Wildlife Risk Assessment, **Appendix LL** Biodiversity Development Assessment Report and **Appendix U** Aeronautical Impact Assessment) identify a conflict of the tree canopy control targets due to: • National Airports Safeguarding Framework (NASF) Guidelines • Clause 4.19. Wildlife Hazards, of the State Environmental Planning Policy (Precincts—Western Parkland City) 2021. • Section 2.10.3 Wildlife Hazards, of the Western Sydney Aerotropolis Development Control Plan 2022. Through design, monitoring and maintenance measures the landscape design considers the safety hazard to the operations of the WSA. It is understood that the project must balance requirements related to the Blue-Green Infrastructure Framework and the NASF. However, the landscaping required to satisfy the Western Parkland City vision and various objectives of the Blue Green Network, the Cumberland Plain Conservation Plan, and the DCP, can contradict the principles of airport safeguarding against wildlife hazards. The intended minor reduction in tree canopy compared to the target is due to mitigating this risk whilst applying management practices to ensure a balanced approach is taken, including review of the landscape species to be used and prioritising aviation safeguards accordingly. The landscape design and plant species selection reflects the consultation between the landscape architect, ecologist and recommendations from the Wildlife Hazard Assessment. Adopting the management requirements outlined in the Wildlife Risk Assessment (**Appendix V**), seeks to strike a balance between the objectives of the DCP as they relate to canopy cover and those relating to wildlife hazards. **2**. Deep soil areas will be a minimum of 3m x 3m. Refer to the Landscape Drawings (**Appendix R**). **3-4**. Deep soil areas will be consolidated where appropriate. Refer to the Landscape Drawings (**Appendix R**). **5**. Tree canopy provision for open space will be provided and provides for 45.76% canopy coverage. **6**. Deep soil will be de-compacted before planting with appropriate landscape specification to be provided to ensure optimum growing conditions for canopy tree planting within these zones.

Table 2 Tree Canopy, Deep Soil and Tree Planting Requirements

Recommended Guidance	*Minimum Tree Canopy Target (% of site area)*	*Minimum deep soil (% of site area)*	*Minimum tree planting rates**
Large format industrial and light industrial			
All lots	*25%*	*15%.*	*For every 400m2 of site area or part thereof, at least two medium trees or one large tree is to be planted in the deep soil area*

2.4.2 Protection of Biodiversity

Objectives	Compliance	Assessment
***O1**. Ensure consistency with the requirements of the relevant biodiversity certification for the subject land where applicable.*	**Y**	The protection of biodiversity has been considered as part of the development of the Proposal. Refer to the (BDAR prepared by Ecologique (**Appendix LL**). The BDAR has been prepared to meet the requirements of the Biodiversity Assessment Method (BAM) established under Section 6.7 of the BC Act. The Proposal is located predominantly in exotic grasslands and disturbed areas which do not contain biodiversity values. The placement of the development footprint has been strategically designed to avoid high biodiversity value areas along the riparian corridor and utilises mainly exotic grasslands or built lands. The BDAR outlines the measures taken to avoid, minimise and mitigate impacts on the vegetation and species habitat present within the development footprint and measures to minimise impacts during construction and operation of the development. Refer to Bushfire Hazard Assessment report prepared by Blackash Bushfire Consulting (**Appendix TT**) in regard to bushfire risk management.
***O2**. Ensure construction and operational works avoid and minimise impacts to native vegetation and ecological communities.*	**Y**	
***O3**. Retain and protect native vegetation areas, particularly those with Aboriginal cultural value, and provide for areas with a size and configuration that will allow for the survival and improvement of the native vegetation communities.*	**Y**	
***O4**. Implement the Sydney Region Growth Centres Biodiversity Certification Order where applicable.*	**Y**	
***O5**. Implement the Cumberland Plain Conservation Plan (CPCP) where applicable.*	**Y**	
***O6**. Manage fire risk by regimes that protect biodiversity and habitats in the long term.*	**Y**	

Performance Outcome	Benchmark Solution	Compliance	Assessment
***PO2**. Populations of threatened species are retained, and the condition of suitable habitat improves within areas of the Cumberland subregion most likely to support long-term viability.*	***1**. Mitigation to be undertaken in accordance with the following best practice guidelines for threatened ecological communities (TEC):* *a. Best Practice Guidelines: Cooks River/Castlereagh Ironbark Forest (NSW Department of Environment and Climate Change, 2008) within and adjacent to the TEC; and* *b. Recovering Bushland on the Cumberland Plain: Best Practice Guidelines for the Management and Restoration of Bushland (NSW Department of Environment and Climate Change, 2005).* ***2**. Fencing is to be constructed where required to protect threatened species habitat. Site design allows access to fencing for ongoing maintenance.* ***3**. Temporary protective fencing to be erected around areas identified for conservation on or immediately adjoining the site prior to construction commencing.* ***4**. Allow public access to temporary fencing to ensure ongoing maintenance throughout construction.* ***5**. Protect integrity of temporary fencing during construction.* ***6**. Implement open structure design for roads adjacent to known populations of Cumberland Plain Land Snail in accordance with actions under the Save our Species Program (EES, 2020).* ***7**. Locate Asset Protection Zones (APZs) for bushfire protection wholly within certified land. The appropriate APZ distance is determined by Planning for Bush Fire Protection 2019 and Rural Fire Service Standards for Asset Protection based on vegetation type, slope and development type.* ***8**. Contain domestic cats and dogs within certified-urban capable land, consistent with relevant council guidelines as permitted and appropriate.* ***9**. Provide for the reuse of native plants (including but not limited to seed collection) and topsoil from development sites that contain known or potential native seed bank.*	**Y**	Refer to the BDAR prepared by Ecologique (**Appendix LL**). **1**. The BDAR contains an assessment of threatened ecological communities and appropriate mitigation measures **2-5** The proposed site design fencing will have access to enable ongoing maintenance. The boundaries of the development footprint are to be clearly demarcated by fencing prior to commencement of construction to protect retained native vegetation. Fencing will be constructed to comply with requirements with the intention of protecting any threatened habitats, fencing will be maintained through the duration of development. **6**. The Cumberland Plain Snail was not identified as occurring within or in proximity to the Site. **7**. APZ design (buffer zones) are to replicate open park; trees will be planted along the fire access road at a 2-5m distance noting any unmanaged vegetation in defendable zone is not permissible **8**. N/A due to the proposed use of large format industrial. Domestic animals are unlikely to visit the facilities. **9**. Existing native plants will be reused/planted, and any new species will comply with the DCP species list and feedback that has provided from Dharug Traditional Custodians.
***PO3**. Development facilitates the connected movement of native animals through the landscape.*	***1**. Avoid impacts to habitat features which provide essential habitat for native fauna including ground cover and shrub layers, emerging trees, mature trees, dead trees capable of providing habitat, natural drainage lines and rock outcrops and avoid impacts to soil within the Tree Protection Zone (TPZ) of the retained trees and the subject and neighbouring sites.* ***2**. Movement of fauna is facilitated within and through wildlife corridors by:* *a. Ensuring that development, services and landscaping associated activities do not create barriers to the movement of fauna along and within wildlife corridors.* *b. Protect fauna from potential construction hazards during pre-construction and construction.*	**Y**	Refer to the Biodiversity Development Assessment Report (BDAR) prepared by Ecologique (**Appendix LL**) **1**. The BDAR Includes a requirement for pre-clearance surveys along with additional measures to mitigate impacts on native fauna. **2**. The EEP Stage 1 site does not provide habitat connectivity, however the Proposal will not impact areas of continuous habitat which are provided in the South Creek riparian corridor to the east of the site.

	c. Prepare a pre-clearance native fauna survey immediately prior to clearing of native vegetation to ensure that arboreal mammals, roosting and hollow-using birds, bats and reptiles are stopped from accessing any vegetation to be cleared and are translocated prior to clearing. Translocation may require a licence from NSW Environment, Energy and Science under the Translocation Operational Policy. *d. Adopt and implement open structure design for roads adjacent to known populations of the Cumberland Plain Land Snail in accordance with actions under the NSW Government's Saving Our Species program.*		
***PO4**. Within land subject to the Cumberland Plain Conservation Plan only, development adjoining conservation areas provides ecological setbacks to threatened species.*	***1**. The following threatened species require setbacks:* *Grey-headed flying fox:* *a. Grey-headed flying fox camp requires 100m setback to any buildings and development;* *b. The setback area should be maintained free of flying fox roosting habitat; and* *c. A flying fox management plan should be provided to demonstrate management and mitigation measures.* *Raptors:* *a. Raptor nests require a 500m circular setback from where nests are in extensive undisturbed bushland; and* *b. Where nests are located closer to existing developments, a minimum circular setback distance of 250m should be maintained along with an undisturbed corridor at least 100m wide extending from the nest to the nearest foraging grounds.*	**N/A**	Refer to the BDAR prepared by Ecologique (**Appendix LL**). The Site has been categorised as excluded land under the CPCP; however, future applications in relation to Stage 2 have been captured under the CPCP as certified urban capable land. Not applicable: the area of certified land impacted is not located within any of the prescribed distances from grey headed flying fox camps or raptor/owl nests.
***PO5**. Noise and light adjacent, and near, conservation areas does not result in any disturbance to wildlife.*	***1**. High intensity lighting including industrial or commercial lighting, sports field lighting, lighting within carparking areas and associated with any industrial or commercial-scale retail development shall be designed to avoid light spill into adjoining parks and biodiversity areas (AS 4282 Control of the Obtrusive Effects of Outdoor Lighting, or updates to that standard, are to be considered as a minimum).* ***2**. Install warm coloured LED street lighting where a development footprint contains or is within 100m of known microbat colonies or habitat likely to support microbat colonies to deter insects.* ***3**. Manage light spill and noise producing activities where wildlife impacts are likely to arise from the proposed development and where development is adjacent to avoided land. Measures shall include appropriate noise treatment barriers along major roads and other light and noise attenuation mitigation measures.* ***4**. Ensure that any residual noise impacts on wildlife arising from development are appropriately mitigated.*	**Y**	**1**. High intensity light from the proposed development will avoid light spill into adjoining parks and biodiversity areas and will be designed in accordance with the appropriate controls. The proposed development has been designed with consideration to Wianamatta-South creek Corridor. Green open space faces the Wianamatta-South Creek corridor with the Warehouse 8 and 9 loading dock and hardstand area positioned to the west (to be delivered at a later stage). **2-3**. Warm coloured LED lighting will be installed throughout the estate. Light spill can be managed through a lighting plan - noise will be managed in accordance with the appropriate conditions of consent **4**. Mitigation measures will be implemented as required.
***PO6**. Bushfire risk is minimised.*	***1**. Ensure appropriate fire management regimes and hazard reduction techniques for native vegetation areas, waterways, and riparian zones.*	**Y**	Refer to the Bushfire Hazard Assessment (**Appendix TT**). Bushfire management strategies have been provided; furthermore, a Fire Management Plan shall be prepared for the management of the native vegetation within the residual land in the eastern part of the estate. Strategies include: • Sufficient access and egress • Adequate water supplies • Facilitate the maintenance of APZ's • Appropriate property preparation and property maintenance requirements • Suitable emergency and evacuation arrangements • Safe access to the public road system
***PO7**. Retain and protect koala populations and their habitats through mitigating indirect and ongoing impacts from development.*	***1**. For all certified-urban capable land adjacent to koala habitat, the following controls apply:* *a. Design subdivision layout, including perimeter roads and asset protection zones to reduce impacts to, and protect areas of, adjacent koala habitat.*	**N/A**	The land within the development site does not contain significant environmental features such as Koala Habitat. Potential Koala habitat present is substantially degraded such that this species is unlikely to utilise the development site. Habitat was not considered suitable due to the high disturbance and limited feed trees. Refer to the BDAR prepared by Ecologique (**Appendix LL**).

b. Signpost areas adjoining koala habitat to identify koalas in the area and associated penalties for non-compliance.

c. Exclude planting tree species in open space, recreation areas and urban streets that are koala feed tree species set out below by Schedule 2 – Central and Southern Tablelands and Central Coast Koala Use Tree Species of the State Environmental Planning Policy (Koala Habitat Protection) 2021.

d. An ecologist shall be present through the duration of any pre-clearance koala surveys and vegetation clearing works to maintain oversight and responsibility of the activities and koala translocation.

***2**. Where a koala exclusion fence is not installed between koala habitat and certified-urban capable land, the following development controls apply:*

a. Prepare a pre-clearance koala survey immediately prior to the removal of native vegetation to ensure minimal disturbance to koala habitat. Implement a translocation plan if koalas are found. Translocation may require a licence from NSW Environment, Energy and Science (EES) under the Translocation Operational Policy.

b. Implement a tree-felling protocol to avoid impacts to koalas in trees to be cleared.

c. Enforce vehicle wash-down points for machinery, equipment and tyres prior to entering and leaving the construction site to control the spread of vegetation pathogens known to affect koala feed trees.

d. Pre-construction Temporary Fencing

e. Erect temporary protective fencing designed for koala protection to protect adjacent koala habitat on or immediately adjoining the site prior to construction to ensure koala protection.

f. Dog Containment Fencing

g. Design and construct public dog recreation areas with secure containment fencing.

h. Design residential lots with dog containment fencing in accordance with Council requirements.

i. Development Operation

j. Manage roadside vegetation to increase the visibility of koalas.

k. Vehicle Strike

l. Implement traffic calming measures for all development:

i. Implement 40km/hr speed limit restrictions on local roads adjacent to koala habitat.

ii. Install koala information signposts on perimeter roads and roads adjacent to wildlife habitat areas in accordance with Austroads, Roads and Maritime Services (RMS) technical guidelines, Council Guidelines and relevant Australian Standards.

iii. Install traffic calming devices such as speed humps and audible surfacing along perimeter roads adjacent to koala habitat.

iv. Install koala-friendly road design structures, such as underpasses, fauna bridges and overpasses as required. Reference to the RMS Biodiversity Guidelines is to be made.

2.4.3 Protection of Trees and Vegetation		
Objectives	**Compliance**	**Assessment**
***O1**. Conserve and manage existing vegetation and contribute to the increase of habitat and tree canopy cover within the Aerotropolis.*	**Y**	Native vegetation will be retained where possible on the Site including in the Wianamatta-South Creek corridor. Trees are proposed for planting within the on-lot, road reserve and open space, with the drainage reserve at the eastern edge of the development will also serve as a transition zone between the Wianamatta-South Creek corridor and the Site, further increasing tree canopy coverage on the Site. Refer to **Appendix LL**, with the BDAR outlining the measures taken to avoid, minimise and mitigate impacts on the vegetation and species habitat present within the development footprint and measures to minimise impacts during construction and operation of the development. The placement of the development site footprint has been strategically designed to avoid higher biodiversity value areas within the riparian zone and utilises mainly exotic grasslands and built lands.

***O2**. Retain and preserve significant trees and other vegetation to contribute to the Western City Parkland vision, vegetated ridgelines, and urban cooling and to mitigate effects of climate change.*	**Y**	Native vegetation will be retained where possible on the Site including in the Wianamatta-South Creek corridor. Aligned to the WSA Vision, the Landscape Report at **Appendix Q** provide a concept for the planting of trees throughout the development. Ancillary features for the purposes of construction will be located within the operational footprint, avoiding additional impacts to threatened species habitat or vegetation in high threat categories. The BDAR outlines the impacts of the development requiring offset for native vegetation and the impacts of the development requiring offset for threatened species and threatened species habitat.
***O3**. Protect and enhance native vegetation communities, threatened ecological communities, significant tree habitat and canopy, while appropriately mitigating risks from natural hazards*	**Y**	A BDAR has been prepared by Ecologique (**Appendix LL**) which addresses the indirect and prescribed biodiversity impacts of the proposed development. The BDAR also provides mitigation measures to minimise the impacts and overall improve the biodiversity and ecological values across the Aerotropolis. Two Plant Community Types (PCTs) occurring in various conditions are present in the Site. The PCTs have been mapped as: • PCT 3320 – Cumberland Shale Plains Woodland • PCT 3975 – Southern Lower Floodplain Freshwater Wetland. PCT 3320 and PCT 3975conform to the Threatened Ecological Communities (TECs), Cumberland Plain Woodland in the Sydney Basin Bioregion and reshwater Wetlands on Coastal Floodplains of the New South Wales North Coast, Sydney Basin and South East Corner Bioregions, respectively, listed under the BC Act. These TECs were generally in a degraded condition. Five threatened microchiropteran bats, were recorded during the Anabat survey within the development site. Impacts on Southern Myotis habitat require species credit offsets. Impacts to Eastern False Pipistrelle, Eastern Coastal Freetail-bat, Eastern Bentwing-bat and Greater Broad-nosed Bat will be offset as ecosystem credits. Eastern Bentwing-bat is also a species credit species where breeding habitat will be impacted, however, breeding habitat for this species is not present within or in proximity to the Site.
***O4**. Mitigate impacts of development and associated works on threatened ecological communities to improve and enhance ecological condition over the long term.*	**Y**	
***O5**. Prioritise development on land clear of vegetation and avoid locating development on steep and densely vegetated land.*	**Y**	The placement of the Proposal's development footprint has been strategically designed to avoid high biodiversity value areas and utilises mainly cleared or built lands and planted vegetation. Placement of amenity node and public open space reserve within generous building setbacks is concentrated along the interface fronting Wianamatta-South Creek to help break down the scale of built forms and allow for the appearance of the 'continuation' of green areas to 'spill' from the creek into the development, noting the topography of the Site slopes down from west to east. The Site is generally undulating, with a gentle fall from the Western boundary towards the Wianamatta-South Creek located along the precinct's eastern boundary. The fall throughout the Site is generally in a Northeast direction. The existing high point of the precinct is in the southwestern corner at Elizabeth Drive with a level of approximately 62m Australian Height Datum (AHD). The low point of the Site extends along the eastern boundary with Wianamatta-South Creek generally at level 38m. The Proposal is compliant with the Precinct Plan and avoids all identified blue-green infrastructure and land of biodiversity significance scheduled for protection/retention.
***O6**. Where site conditions require it, adopt the use of underground engineered tree pits to harvest rainwater and provide sufficient space for the development of tree roots and avoid conflict with surrounding infrastructure.*	**N/A**	Not applicable. Underground engineered tree pits have not been considered

Performance Outcome	Benchmark Solution	Compliance	Assessment
***PO1**. Existing trees and vegetation are retained, protected, enhanced, and incorporated into the development, wherever possible.*	***1**. Development is designed to minimise impacts on trees, except for invasive species and/or noxious weeds.* ***2**. Development is designed to minimise removal of trees (includes vehicular access, utility installations and ancillary development).* *Note: Applications involving the removal of trees must refer to the Liverpool Council Tree Management Policy or the Penrith Council Guidance for Tree Removal and pruning available on the respective Council's website.*	**Y**	The Proposal has been located predominantly in exotic grasslands and disturbed areas which do not contain biodiversity values. Impacts to Southern Myotis (a species with a high biodiversity risk weighting of 2.0) are limited to dams outside an extensive riparian zone. Refer to the BDAR prepared by Ecologique (**Appendix LL**). Removal of trees is proposed where required for the proposed development. No tree removal is proposed in the open space area of Wianamatta South Creek. The BDAR outlines the measures taken to avoid, minimise and mitigate impacts on the vegetation and species habitat present within the development footprint and measures to minimise impacts during construction and operation of the development. The residual unavoidable impacts of the project were calculated in accordance with BAM by utilising the Biodiversity Assessment Method Credit Calculator (BAMC). The Council Removal Policy will be adhered to where the removal of trees is required beyond those sought for removal under this application (noting all trees within the footprint are to be removed).
***PO2**. Minimise threats to the long-term survival of existing trees through tree preservation zones and pruning techniques.*	***1**. Works and construction activities are excluded within the Tree Protection Zone (TPZ) of trees unless a qualified arborist has assessed the tree and provided guidelines as to how the work can be carried out with minimal risk to the long-term survival of the tree and this has been included in an approved Tree Protection Plan (Drawing and Specification)* ***2**. Any pruning or tree removal works that may impact threatened ecological communities are to adhere to the following best practice guidelines:* *a. Best Practice Guidelines: Cooks River/Castlereagh Ironbark Forest (Department of Environment and Climate Change NSW, 2008) within and adjacent to the threatened ecological community; and*	**Y**	The BDAR prepared by Ecologique(**Appendix LL**) addresses the indirect and prescribed biodiversity impacts of the proposed development. The BDAR also provides mitigation measures to minimise the impacts and overall improve the biodiversity and ecological values across the Aerotropolis. The design has considered the placement of built form and roads to avoid the higher biodiversity values on The Site, where practical, with areas of exotic grassland largely utilised for built form elements that will impact on the existing environment. Trees are to be removed across the development footprint; however no trees will be removed within the open space area towards Wianamatta South Creek.

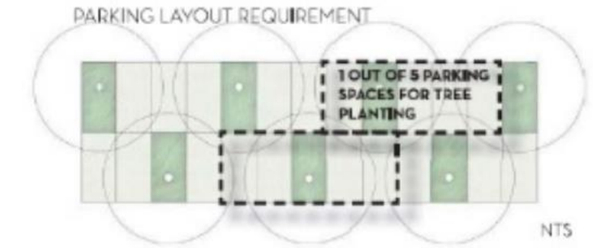
	b. Recovering Bushland on the Cumberland Plain: Best Practice Guidelines for the Management and Restoration of Bushland (Department of Environment and Climate Change NSW, 2005). ***3**. Development is designed to avoid impacts on trees, except for priority weeds in accordance with the Council's weed policy.* ***4**. Existing trees have appropriate soil volumes and setbacks from buildings, footpath, road/kerb and gutter and services to provide sufficient space for root and canopy development to ensure the tree reaches its identified mature height and spread.*		
***PO3**. Where hollow-bearing tree cannot be retained and are removed, they shall be replaced with nesting boxes, as close as possible to where the removed tree was located.*	***1**. The removal of the hollow bearing trees shall be offset by the installation of nesting boxes. The size of the nest box is to reflect the size and dimensions of the hollow removed. Alternatively, the tree hollow could be appropriately mounted on one of the retained trees in a manner where it will not pose a risk to life or property.* ***2**. All nesting boxes and hollows shall be mounted at least 5m above the ground.* ***3**. Requirement for 60% of nest boxes (replacement habitat) to be in place prior to clearing of hollow-bearing trees.*	**Y**	Should any trees removed have hollows/hollow trunks/fissures, they should be retained as ground fauna habitat and/or used as replacement hollows and attached to trees within adjacent native vegetation. If it is impractical to use salvaged hollows as replacement tree hollows, compensatory nest boxes should be installed and mounted where practical at a ratio of 1 nest box installed per hollow removed.

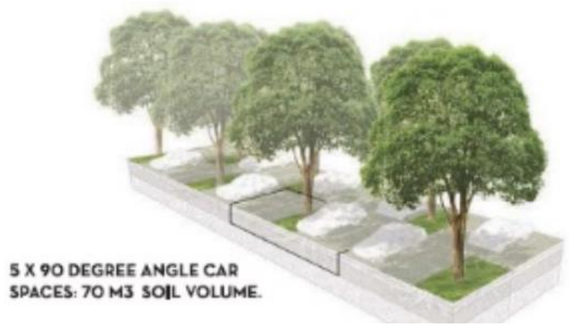
2.4.4 On Lot and Streetscape Landscaping and Preferred Plant Species

Objectives	Compliance	Assessment
***O1**. Enhance the streetscape and promote a scale and density of planting that softens the visual impact of buildings.*	**Y**	Refer to the Landscape Report prepared by Site Image (**Appendix Q**). The Proposal includes significant planting surrounding each of the proposed lots that softens the visual impact of each building individually as well as collectively. Consideration has been given to the interface between the streets and the on-lot setbacks and landscape to create strong bands of canopy and landscape along the streets. The Concept Masterplan will provide walkable streets that facilitate: • Direct, accessible and safe pedestrian and cycle connections; • Sustainable urban connections that include efficient and accessible public transport links; • Connections to quality public spaces and amenity nodes; • Fine grain street layout that responds to urban landform, topography and view connections throughout the estate; • Landscaped, activated, safe streets that provide passive surveillance and easy access to on lot amenity and office locations; and • Shaded streets that support the tree canopy targets. Various Amenity Nodes are located throughout the Site, supporting the walkability distance throughout the estate (the entire footprint of the Site is within 400m walking distance to open space). Within these nodes, landscaping supports the retention of water within the landscape, extends green connections throughout the estate whilst providing amenity integrated within the urban design supporting tree canopy targets and heat mitigation.
***O2**. Provide a mix of canopy trees, shrubs, and groundcover to manage effects of urban heat and support environmentally sensitive design.*	**Y**	Refer to the proposed Planting Strategy in the Landscape Report prepared by Site Image (**Appendix Q**), it includes a mix of species and provides an overview of the planting strategy of each identified landscape sector of the estate (aligned to the DCP species list). The planting strategy thought out the Site has been developed by a series of opportunities, aspirations, and constraints, these include: • The aspiration to rehabilitate the existing Flora communities have created the baseline planting schedule for the Site. Both the River Flat Eucalypt and Cumberland Plain Woodland species shall be utilised to rehabilitate and revegetate the Site; • Connection with Country outcomes of creating Indigenous Enterprise and opportunity for Cultural practices , have resulted in an important overlay of native species to the planting design and selection. It should be noted that many species harmoniously overlap across these factors; • Aerotropolis DCP plant species which are wildlife attracting and may pose a 'Strike Risk' are excluded outside of the 3km buffer zone.
***O3**. Landscaping and green (vegetation) assets are effectively managed, maintained and consistent with airport safeguarding requirements.*	**Y**	The landscaping and green assets will be effectively managed throughout the operation of the proposed development.

Performance Outcome	Benchmark Solution	Compliance	Assessment
***PO1**. Plant species are provided in accordance with the preferred species identified for the Aerotropolis.*	***1**. Landscaping in development is to incorporate a diverse range plant species, as per the Aerotropolis DCP preferred Species List provided at Appendix B of this DCP. Prioritise use of Cumberland species, followed by other species that are suitable for the purpose and the microclimatic conditions of the site.*	**Y**	Refer to the proposed Planting Strategy in the Landscape Report (informed by the plant species DCP list) prepared by Site Image (**Appendix Q**), it includes a mix of species and provides an overview of the planting strategy of each identified landscape sector of the estate. It is noted that the AIA at **Appendix U** provides that *landscaping to satisfy the Western Parkland City vision and various objectives of the Blue Green Network, the CPCP, and the Aerotropolis DCP, contradict the principles of airport safeguarding against wildlife hazards. The landscape design and plant species selection reflect the consultation between the landscape architect, ecologist and recommendations from the Wildlife Hazard Assessment. Adopting the management requirements outlined in the Wildlife Monitoring and Management Plan, seeks to strike a balance between the objectives of the DCP as they relate to canopy cover and those relating to wildlife hazards to aviation.*

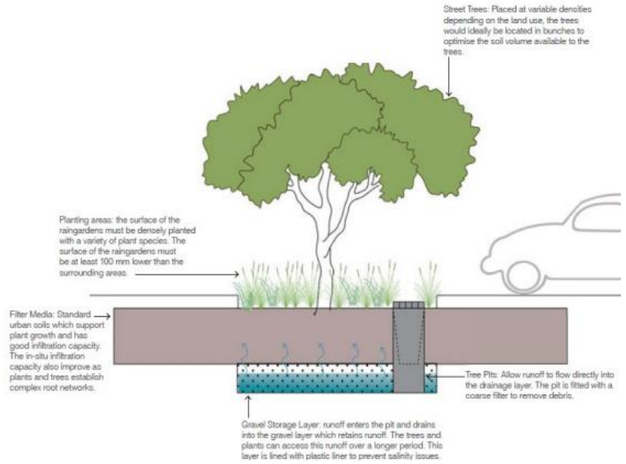
***PO2**. Landscape design reflects the cultural landscape and is integrated with the design intent of the architecture and built form.*	***1**. Landscaping is to highlight architectural features, define entry points, indicate direction, and frame and filter views into the site along sight lines.* ***2**. Size and scale of landscaping is responsive to the bulk and scale of the development.*	**Y**	**1**. The proposed landscape reflects the cultural landscape and is well integrated into the proposed built form. Refer to the Landscape Report prepared by Site Image (**Appendix Q**). Connecting with Country elements informing the design seek to celebrate natural features of the Site as well as the human experience. A series of Co-Design sessions were organised by Yerrabingin (refer to **Appendix Y**), including Walking on Country which have occurred since the project's inception. Site Image have been fortunate enough to participate in these sessions. Yerrabingin have taken this knowledge and aided us as Landscape Architects in shaping the ideas and principles of the landscape design. These learnings have been distilled, infused, and informed the landscape design. **2**. Wianamatta-South Creek has been a source of inspiration throughout the built design and was covered in our consultation with Dharug Traditional Custodians. The creek concept allows for organic natural elements to be strongly defined with patterns, form and material reminiscent of the Cumberland Plain Forest.
***PO3**. Landscaping complements the views to and from the public domain, as well as to and from public and private open spaces within the site.*	***1**. Use appropriate species to screen side (where sufficient width permits) and rear boundaries and enhance visually obtrusive land uses or building elements (e.g. waste enclosures).*	**Y**	Refer to the proposed Planting Strategy in the Landscape Report prepared by Site Image (**Appendix Q**), it includes a mix of species and provides an overview of the planting strategy of each identified landscape sector of the estate. The planting strategy includes various strata of species which shall provide effective screening to visually obtrusive elements and enable complete ecologies. Species referenced within the DCP Plant Species lists will be used to inform the plant selection for the various landscaping requirements. The utilisation of street tree planting will provide for natural screening where necessary as well as providing strong green connections throughout the estate promoting safe, comfortable and active streets. Consideration has been given to the interface between the streets and the on-lot setbacks and landscape to create strong bands of canopy and landscape along the streets
***PO4**. Trees are planted in locations and distances apart to support their ongoing growth without causing conflict, including with the Obstacle Limitation Surface and utility services.*	***1**. Trees are planted in unobstructed spaces where they have a minimum of 3 x mature trunk diameter space to grow and to limit upheaval of pavements and infrastructure.* ***2**. Trees are not to penetrate operational airspace and tree heights should encourage wildlife movements below the OLS, where practical.* ***3**. Demonstrate that species have been selected to ensure that at maturity, heights and root systems will achieve adequate clearance from streetlights and underground services such as stormwater pits.* ***4**. If required, trees can be planted in underground engineered tree pits to provide sufficient underground space to sustain the tree to maturity and beyond.* ***5**. Trees are planted and spaced to ensure the locations and spacings permit the trees to establish and reach maturity with their canopy and trunk being unimpeded.*	**Y**	**1**. Refer to the Landscape Drawings prepared by Site Image (**Appendix R**). To ensure safe and activated streets, there are a series of amenity nodes that are located throughout the precinct. Within these nodes, landscaping supports the retention of water within the landscape, extends green connections throughout the estate whilst providing amenity integrated within the urban design supporting tree canopy targets and heat mitigation. Trees have been located throughout the estate in streetscapes lots and open space to enable mature canopy growth to trunks and canopies. Detailed species selection will be undertaken from species listed in proposed plant schedules in consideration of available space, location and microclimate. As above, there is a conflict between the need to provide canopy cover and the selection of species identified from the Aerotropolis DCP and the balance of airport safeguarding. The landscape design reflects consultation between the landscape architect, ecologist and recommendations of the Wildlife Risk Assessment. **2**. The operational airspace sits significantly higher than the potential tree heights. **3**. Tree species selected will achieve adequate clearance from infrastructure. **4**. Engineered tree pits will be considered as required. **5**. Trees will be planted to ensure canopy and trunks are unimpeded, noting this benefits tree canopy coverage (notwithstanding the airport safeguarding matters discussed elsewhere, refer to **Appendix U** and **Appendix V**).
***PO5**. Landscaping design promotes safety and surveillance.*	***1**. Within high use areas (e.g. car parking areas, children's play areas and walkways), trees at maturity have clean trunks to a height of 1.8m around facilities.* ***2**. Medium height shrubs (0.6m – 1.8m) are avoided along paths and close to windows and doors to maintain sight lines and allow for passive surveillance.* ***3**. Landscaping in the vicinity of a driveway entrance does not obstruct visibility for the safe ingress and egress of vehicles and pedestrians.*	**Y**	Refer to the Landscape Drawings prepared by Site Image (**Appendix R**). **1**. Tree species proposed have clean trunks to allow for appropriate safety and surveillance of surrounding walkways and carparking area **2**. Medium shrubs have been placed in areas to maintain sight lines as needed. **3**. The landscape design surrounding driveway entrances is minimal in height to avoid visibility obstruction and to meet requirements set out under 2.14 Design for safe spaces
***PO6**. Landscaping is integrated with vehicular access and car parking areas on development lots to soften their visual impact, provide protection from glare, and reduce heat island effect.*	***1**. Provide 1 medium tree for every 5 at grade car spaces, and maximise shading (as listed and shown in the image below) by:* *a. Orienting the tree parallel to the parking space;* *b. Staggering the configuration rather than linear;* *c. Selecting a tree with a Leaf Area Index of >4; and* *d. Using structurally engineered pits or vaults and WSUD design principles to provide appropriate space for tree root development.*	**Y**	**1**. The proposed development includes the provision of 3.3.3 Landscape Setback Development Control Plan. The proposed landscaping is consistent with the performance outcome as: • It is consistently integrated with the proposed vehicular access and car parking areas; • It includes a wide range of planting with both trees and shrubs that soften the visual impact; • It will provide adequate shading with the car park's benefiting from planting with the surrounding landscape setback; and • The Proposal is seeking to comply with the canopy cover targets for the Site and provide adequate tree canopy cover to reduce urban heat island effect across the Site. **2**. The proposed landscaping has considered the restriction of sight lines across the development, clear trunk species will be used and species with tree canopy at eye level avoided. **3**. Not applicable. Refer to the Landscape Drawings prepared by Site Image (**Appendix R**).





2. *Landscaping shall not restrict driver sightlines to pedestrians, cyclists, and other vehicles on the frontage road.*
3. *Where basement car parking extends beyond the building envelope, a minimum soil depth of 1.5m is provided above the basement, measured from the top of the slab, and including the required drainage. This will not be calculated as part of the deep soil zone nor included as part of the urban typology (site coverage) for the site.*

2.4.5 Street Tree Planting Requirements			
Objectives		**Compliance**	**Assessment**
***O1**. Utilise stormwater for passive irrigation of street trees to promote healthy trees, optimise canopy cover and contribute to streetscape and amenity.*		**Y**	Streets are the primary means for the transmission of water as overland flow and piped reticulation within the public domain, on-lot drainage is managed through traditional pit and pipe network that conveys water to the treatment basins as well as rain gardens within street verges.
***O2**. Facilitate canopy street tree planting that reaches a mature height that is commensurate with the width of the street and the height of development fronting that street, to enhance the amenity and identity of the street.*		**Y**	Refer to the Landscape Report prepared by Site Image (**Appendix Q**). Species planted align to the DCP species list and therefore would be consistent with the aspirations of the Aerotropolis as the parkland city. Streets will be designed to promote walkability for visitors and workers.
***O3**. In preparation for planting the site is to be de-compacted to ensure that a growing environment capable of supporting the sustainable growth of a tree is provided.*		**Y**	The growing environment is capable of supporting the sustainable growth of the proposed trees throughout the development. The confirmation of de-compacted soil will be resolved through the design development of the project. The Proposal will allow for the preparation of planting by de compacting and appropriate soil specification to provide for sustainable tree growth
Performance Outcome	**Benchmark Solutions**	**Compliance**	**Assessment**
***PO1**. Development is to incorporate street trees within public road reserves, designed to be passively irrigated through the stormwater drainage system and maximise stormwater losses through evapotranspiration.*	1. *Street Tree heights and canopy spread are to be commensurate with the road reserve dimension.* 2. *Street trees are to be planted at a maximum of 10m intervals (trunk to trunk) on all local streets and designed in accordance with specifications below:*	**Y**	1. The proposed internal road network includes the provision of street trees. These are designed to be passively irrigated. Refer to the Landscape Report prepared by Site Image (**Appendix Q**). Street tree species selection will be responsive to the hierarchy of roads and road reserves – indicative species include: Acacia implexa — Hickory Wattle — 10 x 6 Acacia parramattensis — Sydney Green Wattle — 12 x 6 Angophora subvelutina* — Broad Leaf Apple — 20 x 10 Melaleuca decora* — Paperbark — 10 x 5 Corymbia citriodora* — Lemon Scented Gum — 30 x 8 Eucalyptus crebra* — Narrow Leaf Red Ironbark — 35 x 10



Eucalyptus moluccana*	Grey Box	30 x 8

Species with an Asterix within the wildlife buffer only. Noting restricted species are typically larger.

2. The proposed internal road network includes the provision of street trees; these will be designed to be passively irrigated. Streetscape design includes trees planted at 10m spacing achieving a road reserve coverage of 29.88% throughout the estate.

***PO2**. Continuous tree canopy cover is achieved along both sides of the street.*

***1**. Provide verge street trees as indicated below:*


Verge tree planting on Minogue Crescent, Harold Park.
credit: ASPECT Studios


Verge tree planting in Marsden Park.
credit: ASPECT Studios

***2**. Provide kerb extension trees as indicated below:*


Street tree planting in kerb extension, Nagurra Place, Rozelle.
credit: ASPECT Studios

***3**. Provide carriageway trees as indicated below:*

Y

1-4. Street and kerb tree planting has been considered and included to support tree canopy targets and designed to create walkable active and safe streets. Tree canopy will contribute to shade coverage and help mitigate heat island affects. Refer to the Landscape Report prepared by Site Image (**Appendix Q**).

The concept design for landscape replicates the same design principles as those examples included within the DCP with a particular focus on landscaping within streetscapes to enable water to be retained through rain gardens and street verges; therefore slowing the movement of water and protecting the landscape. This approach restores the significance of water and natural pathways throughout the Site. By retaining water in the catchment will improve creek flow and irrigate open spaces and vegetation; therefore, provide a cooler, more attractive green environment for the WSA.

5. Consideration has been given to the interface between the streets and the on-lot setbacks and landscape to create strong bands of canopy and landscape along the streets. The Master Plan will provide walkable streets that facilitate

- Direct, accessible and safe pedestrian and cycle connections
- Sustainable urban connections that include efficient and accessible public transport links
- Connections to quality public spaces and amenity nodes
- Fine grain street layout that responds to urban landform, topography and view connections throughout the estate
- Landscaped, activated, safe streets that provide passive surveillance and easy access to on lot amenity and office locations
- Shaded streets that support the tree canopy targets

	 Street trees in the carriageway on Pennyroyal Boulevard, Denham Court. credit: ASPECT Studios ***4***. *Provide median street trees as indicated below:*  Retrofitting median street trees in Primrose Avenue, Rosebery. credit: ASPECT Studios ***5***. *Retain and supplement trees along all proposed streets so that they provide green linkages across Aerotropolis.*		
PO3. *Streets trees mitigate urban heat.*	***1***. *Provide 50% of north-south oriented streets with shade for active transit users during the hottest times of the day.* ***2***. *Provide 80% of east-west oriented streets with shade for active transit users during the hottest times of the day.*	**Y**	Refer to the Landscape Report prepared by Site Image (**Appendix Q**). The proposed internal road network includes the generous provision of street trees achieving a canopy coverage of 34% (within the road reserve). In addition tree planting along site frontages will cast shade into the streetscapes at various times throughout the day.

2.5 Flooding and Environmental Resilience Management

2.5.1 Flood Management

Objectives	Compliance	Assessment
***O1**. Ensure development in the floodplain is consistent with the NSW Flood Prone Land Policy and the principles of the NSW Floodplain Development Manual.*	**Y**	The proposed works achieve this objective by limiting the bulk earthworks to the area just outside the 100 year ARI flood extent. A full range of floods have been assessed in this Flood Impact Assessment with design flood levels and extent, depths, velocities and hazards assessed under proposed Stage 1 bulk earthworks for the 20 year ARI, 100 year ARI, 200 year ARI, 500 year ARI floods and the PMF. As described in the Flood Impact Assessment (FIA) (**Appendix II**): • Figures F5, F11, F17, F23 and F29 disclose nil impact in the 20 yr ARI and 100 yr ARI events. This was expected because the limit of the bulk earthworks lies just outside the 100 yr ARI flood extent under 2018 Conditions. The impact on flood levels in the 200 yr ARI and 500 yr ARI events are negligible. The impact of PMF levels extends beyond the Site boundary it appears that these impacts are exacerbated by the "corner" of the berm which extends east of the limit of Stage 1 earthworks. these impacts are up to around 0.05 m on the eastern extent of the PMF. The PMF impacts extend to Elizabeth Drive. Given the likelihood of the PMF, these flood level impacts are considered to be negligible. • Figures F7, F13, F19, F24 and F30 disclose nil impact in the 20 yr ARI and 100 yr ARI events. This was expected because the limit of the bulk earthworks lies just outside the 100 yr ARI flood extent under 2018 Conditions. The impact on flood velocities in the 200 yr ARI and 500 yr ARI events are less than 0.05 m/s and are negligible. The impacts on PMF velocities extend across the floodplain just north of Stage 1. It appears that these impacts are initiated by the "corner" of the berm which extends east of the limit of Stage 1 earthworks. These velocities do not exceed 2 m/s expect in a small zone close to the "corner" of the berm. The impact on PMF velocities is minor.
***O2**. Embed Aboriginal cultural knowledge and caring for Country practices to minimise the impact of development on flood behaviour and function of the floodplain and avoid adverse impacts to the existing flora, fauna and community.*	**Y**	The proposed works achieve this objective by limiting the bulk earthworks to the area just outside the 100 year ARI flood extent which does not impact on the blue-green infrastructure. As also discussed in Section 2 of this FIA report: Notwithstanding the runoff from the Elizabeth Drive Enterprise Precinct will not adversely impact peak flows in South Creek, an assessment of basin sizes to manage 2 year ARI and 100 year ARI peak flows in a 2 hr storm burst was undertaken. A preceding assessment of the Steam Erosion Index in Wianamatta-South Creek just downstream of the proposed development reported on 2 February 2019 concluded that the daily rainfall model gave an SEI of 1.0 while the model which analysed six minute rainfall gave an SEI of 1.13. This outcome was expected given the results of the hydrological assessments of flood flows and the relative size of the proposed development in comparison to the catchment area to Node 1.15, namely, around 1.3% of the catchment area. The incorporation of a basin sized to limit the peak discharges from the development to no greater than Existing Conditions across the range of floods from 2 year ARI to 100 year ARI also avoids adverse impacts to the existing flora, fauna and community.
***O3**. Minimise the flood risk to life and property, including to uses downstream, associated with the use of land considering the full range of flooding.*	**Y**	A full range of floods have been assessed in this Flood Impact Assessment with design flood levels and extent, depths, velocities, velocity x depth and hazards assessed under proposed Stage 1 Bulk Earthworks for the 20 year ARI, 100 year ARI, 200 year ARI, 500 year ARI floods and the PMF. As described in the FIA (**Appendix II**): • Figures F5, F11, F17, F23 and F29 disclose nil impact in the 20 yr ARI and 100 yr ARI events. This was expected because the limit of the bulk earthworks lies just outside the 100 yr ARI flood extent under 2018 Conditions. The impact on flood levels in the 200 yr ARI and 500 yr ARI events are negligible. The impact of PMF levels extends beyond the Site boundary it appears that these impacts are exacerbated by the "corner" of the berm which extends east of the limit of Stage 1 earthworks. these impacts are up to around 0.05 m on the eastern extent of the PMF. The PMF impacts extend to Elizabeth Drive. Given the likelihood of the PMF, these flood level impacts are considered to be negligible. • Figures F7, F13, F19, F24 and F30 disclose nil impact in the 20 yr ARI and 100 yr ARI events. This was expected because the limit of the bulk earthworks lies just outside the 100 yr ARI flood extent under 2018 Conditions. The impact on flood velocities in the 200 yr ARI and 500 yr ARI events are less than 0.05 m/s and are negligible. The impacts on PMF velocities extend across the floodplain just north of Stage 1. It appears that these impacts are initiated by the "corner" of the berm which extends east of the limit of Stage 1 earthworks. These velocities do not exceed 2 m/s expect in a small zone close to the "corner" of the berm. The impact on PMF velocities is minor
***O4**. Enable key community services and infrastructure that respond to flood threats to function during flooding.*	**Y**	This objective is achieved by the adopted platform level of the Stage 1A Development which is higher than the PMF level.
***O5**. Allow development on land that is compatible with the flood function and behaviour on the land, taking into account projected changes as a result of climate change.*	**Y**	The proposed works achieve this objective by limiting the Stage 1 bulk earthworks to the area just outside the 100 yr ARI flood extent. A full range of floods have been assessed in this Flood Impact Assessment with design flood levels and extent, depths, velocities, velocity x depth and hazards assessed under proposed Stage 1 bulk earthworks for the 20 yr ARI, 100 yr ARI, 200 yr ARI, 500 yr ARI floods and the PMF. The 200 yr ARI and 500 yr ARI are viewed as surrogates for the impact of climate change on 100 yr ARI flooding by around the year 2100 under climate scenarios RCP4.5 and RCP8.5. As described in this Flood Impact Assessment:

		• … The impact on flood levels in the 200 yr ARI and 500 yr ARI events are negligible. ….. The impact on flood velocities in the 200 yr ARI and 500 yr ARI events are less than 0.05 m/s and are negligible.
***O6**. Consider areas within the floodplain for amenity and recreation use where compatible with flood function and flood risk.*	**N/A**	Compatibility of areas on the Wianamatta-South Creek floodplain for amenity and recreation use within the 100 yr ARI flood extent will be guided by the assessments of flood levels, depths velocities and hazards under the 20 yr ARI, 100 yr ARI, 200 yr ARI, 500 yr ARI floods and the PMF reported in the 2021 Flood Risk Assessment.
***O7**. Development is not intensified in a floodway or flood storage area.*	**N/A**	There is no development in Stage 1 in the floodway or in any flood storage area in a 100 yr ARI flood.
***O8**. Avoid adverse or cumulative impacts on flood behaviour and the environment.*	**Y**	As described in Section 4.1 of the FIA (**Appendix II**): • The estimated impact of the SSDA Masterplan Stage 1 works on 20 yr ARI, 100 yr ARI, 200 yr ARI, 500 yr ARI flood levels and PMF levels (in comparison to Detailed Survey (2018) Conditions) are plotted in Figures F5, F11, F17, F23 and F29 respectively. These Figures disclose nil impact in the 20 yr ARI and 100 yr ARI events. This was expected because the limit of the bulk earthworks lies just outside the 100 yr ARI flood extent under 2018 Conditions. The impact on flood levels in the 200 yr ARI and 500 yr ARI events are negligible. The impact of PMF levels extends beyond the Site boundary it appears that these impacts are exacerbated by the "corner" of the berm which extends east of the limit of Stage 1 earthworks. these impacts are up to around 0.05 m on the eastern extent of the PMF. The PMF impacts extend to Elizabeth Drive. Given the likelihood of the PMF, these flood level impacts are considered to be negligible. As described in Section 4.2 of the FIA (**Appendix II**): • The estimated impact of Proposed Bulk Earthworks on 20 yr ARI, 100 yr ARI, 200 yr ARI, 500 yr ARI flood velocities and PMF velocities (in comparison to Detailed Survey (2018) Conditions) are plotted in Figures F7, F13, F19, F24 and F30 respectively. These Figures disclose nil impact in the 20 yr ARI and 100 yr ARI events. This was expected because the limit of the bulk earthworks lies just outside the 100 yr ARI flood extent under 2018 Conditions. The impact on flood velocities in the 200 yr ARI and 500 yr ARI events are less than 0.05 m/s and are negligible. The impacts on PMF velocities extend across the floodplain just north of Stage 1. It appears that these impacts are initiated by the "corner" of the berm which extends east of the limit of Stage 1 earthworks. These velocities do not exceed 2 m/s expect in a small zone close to the "corner" of the berm. The impact on PMF velocities is minor. The proposed works achieve this objective.
***O9**. Enable the safe occupation and efficient evacuation of people in the event of a flood.*	**Y**	This objective is achieved by the adopted Stage 1 platform levels of the development which is higher than the PMF level. People can safely remain on the Site and do not need to evacuate.
Performance Outcome	**Outside Flood Planning Area to Probable Maximum Flood (defined in Appendix A) Unsuitable for Critical Land Uses**	**Compliance**	**Assessment**
***PO1**. Conveyance and storage of floodwaters through the floodplain is managed. The siting and layout of development considers flood constraints, including risks to personal safety during the full range of floods. The Site layout and built form of the development is compatible with flood constraints and potential risk.*	***1**. Applicant to demonstrate that development as a consequence of a subdivision or development proposal, can be undertaken in accordance with a FIRA.* ***2**. The FIRA is undertaken by a suitably qualified professional engineer and considers the impacts of:* *a. Flooding on the development;* *b. The development on flooding;* *c. Flooding and the development on property and the existing and future community; and* *d. Climate change consistent with the objectives of this DCP.* ***3**. The FIRA assesses flood constraints for both pre and post development cases with and without climate change to ensure there are no detrimental impacts on flood behaviour or to the community upstream, downstream, or adjacent to the site.* ***4**. Critical and sensitive land uses are to have floor levels equal to or greater than the PMF level, where intended to be utilised during flooding.*	**Y**	**1**. The proposed land use is not a Critical Land Use. The proposed earthworks in the Stage 1A Development also mean the development will occur only on land higher than and beyond the PMF extent. This performance outcome is achieved. **2**. The FIRA comprises the 2021 Flood Risk Assessment and this Flood Impact Assessment of Stage 1 which were prepared by Stantec staff who are suitably qualified professional engineers. The proposed earthworks also mean the development will occur only on land higher than and beyond the PMF extent. As described in Section 4.1 of the FIA (**Appendix II**): • Figures F5, F11, F17, F23 and F29 disclose nil impact in the 20 yr ARI and 100 yr ARI events. This was expected because the limit of the bulk earthworks lies just outside the 100 yr ARI flood extent under 2018 Conditions. The impact on flood levels in the 200 yr ARI and 500 yr ARI events are negligible. The impact of PMF levels extends beyond the Site boundary it appears that these impacts are exacerbated by the "corner" of the berm which extends east of the limit of Stage 1 earthworks. these impacts are up to around 0.05 m on the eastern extent of the PMF. The PMF impacts extend to Elizabeth Drive. Given the likelihood of the PMF, these flood level impacts are considered to be negligible. • Figures F7, F13, F19, F24 and F30 disclose nil impact in the 20 yr ARI and 100 yr ARI events. This was expected because the limit of the bulk earthworks lies just outside the 100 yr ARI flood extent under 2018 Conditions. The impact on flood velocities in the 200 yr ARI and 500 yr ARI events are less than 0.05 m/s and are negligible. The impacts on PMF velocities extend across the floodplain just north of Stage 1. It appears that these impacts are initiated by the "corner" of the berm which extends east of the limit of Stage 1 earthworks. These velocities do not exceed 2 m/s expect in a small zone close to the "corner" of the berm. The impact on PMF velocities is minor The 200 yr ARI and 500 yr ARI are viewed as surrogates for the impact of climate change on 100 yr ARI flooding by around the year 2100 under climate scenarios RCP4.5 and RCP8.5. As described in this Flood Impact Assessment: • … The impact on flood levels in the 200 yr ARI and 500 yr ARI events are negligible. ….. The impact on flood velocities in the 200 yr ARI and 500 yr ARI events are less than 0.05 m/s and are negligible. **3**. A full range of floods have been assessed in the 2021 Flood Risk Assessment and in this Flood Impact Assessment with design flood levels and extent, depths, velocities and hazards assessed under Benchmark Conditions and under proposed the Stage 1A Development bulk earthworks for the 20 year ARI, 100 year ARI, 200 year ARI, 500 year ARI floods and the PMF. A preceding assessment of the Steam Erosion Index in South Creek just downstream of the proposed development reported on 2 February 2019 concluded that the daily rainfall model gave an SEI of 1.0 while the model which analysed six minute rainfall gave an SEI of 1.13. This outcome was expected given the results of the hydrological assessments of flood flows and the relative size of the proposed development in comparison to the catchment area to Node 1.15, namely, around 1.3% of the catchment area. The incorporation of a basin sized to limit the peak discharges from the development to no

			greater than Existing Conditions across the range of floods from 2 yr ARI to 100 yr ARI also avoids adverse impacts to the existing flora, fauna and community. **4**. There are no critical or sensitive land uses proposed in the Stage 1A Development.
***PO2**. Development has minimal impact on flood behaviour.*	***1**. The FIRA demonstrates that development will not increase flood affectation to existing and proposed development within and outside the development site.* ***2**. Except for single detached dwellings and alterations and additions to existing dwellings, an engineer's report is required to certify that the development will not increase flood affectation to existing and proposed development.*	**Y**	**1**. This performance outcome is achieved. As described in Section 4.1 of the FIA (**Appendix II**): • Figures F5, F11, F17, F23 and F29 disclose nil impact in the 20 yr ARI and 100 yr ARI events. This was expected because the limit of the bulk earthworks lies just outside the 100 yr ARI flood extent under 2018 Conditions. The impact on flood levels in the 200 yr ARI and 500 yr ARI events are negligible. The impact of PMF levels extends beyond the Site boundary it appears that these impacts are exacerbated by the "corner" of the berm which extends east of the limit of Stage 1 earthworks. these impacts are up to around 0.05 m on the eastern extent of the PMF. The PMF impacts extend to Elizabeth Drive. Given the likelihood of the PMF, these flood level impacts are considered to be negligible. • Figures F7, F13, F19, F24 and F30 disclose nil impact in the 20 yr ARI and 100 yr ARI events. This was expected because the limit of the bulk earthworks lies just outside the 100 yr ARI flood extent under 2018 Conditions. The impact on flood velocities in the 200 yr ARI and 500 yr ARI events are less than 0.05 m/s and are negligible. The impacts on PMF velocities extend across the floodplain just north of Stage 1. It appears that these impacts are initiated by the "corner" of the berm which extends east of the limit of Stage 1 earthworks. These velocities do not exceed 2 m/s expect in a small zone close to the "corner" of the berm. The impact on PMF velocities is minor. **2**. This Flood Impact Assessment satisfies this performance outcome.
***PO3**. Structures are designed and constructed so that they remain structurally sound for the life of the development considering flood and debris forces.*	***1**. Critical and sensitive land uses are of flood -compatible building components below or at the PMF level, where intended to be utilised during flooding.* ***2**. An engineer's report is submitted to certify that the structure can withstand the forces of floodwater including debris and buoyancy up to and including the PMF level for sensitive development or essential community facilities intended to be utilised during flooding.*	**N/A**	**1**. The proposed earthworks are such that development in Stage 1 will occur only on land higher than and beyond the PMF extent; therefore, flood and debris forces are not applicable. **2**. Not a relevant consideration.
***PO4**. All fill ensures the long-term stability of the development site and is not affected by erosion.*	***1**. The FIRA demonstrates that any fill as a result of the development will not be impacted by erosion and will have long term stability.*	**Y**	As provided by the Civil Infrastructure Report (**Appendix L**) and Civil Drawings (**Appendix K**), the Proposal is expected to generate a net fill of approximately 164,267m^3. An Erosion and Sediment Control Plan (**Appendix JJ**) has been prepared with the proposed erosion and sediment control measures illustrated on the Civil Drawings (**Appendix K**).
***PO5**. The safety of users of developed areas located on the floodplain for the full range of flooding is ensured.*	***1**. Vehicular access to precincts is designed to ensure rising road access/egress is provided to above the predicted peak level of the PMF.* ***2**. FIRA for sensitive and critical development demonstrates that evacuation can be undertaken consistent with the Local Flood Plan or SES flood emergency strategy for the area.*	**Y**	**1**. This performance outcome is achieved. Vehicular access to the precinct is from Elizabeth Drive is higher than the PMF noting that there are sections of Elizabeth Drive which are overtopped by floodwaters at major creek crossings (Wianamatta-South Creek, Cosgroves Creek). In the future the M12 will provide an opportunity for vehicles to safely egress along Elizabeth Drive and on to the M12 motorway except in extreme floods where unsafe conditions may develop at the Badgerys Creek crossing. It will be safer to remain on site than to evacuate along Elizabeth Drive to another location which is equally higher than the PMF level. **2**. The proposed development is neither Sensitive development nor Critical development.
***PO6**. Public safety and the environment are not adversely affected by the detrimental impacts of floodwater on hazardous materials manufactured or stored in bulk*	***1**. No external storage of materials which may cause pollution or be potentially hazardous during any flood.*	**Y**	This performance outcome is achieved because the proposed earthworks are such that development will occur only on land higher than and beyond the PMF extent in Stage 1.
***PO7**. Fencing is designed and constructed so that it does not impede and/or direct the flow of floodwaters, add debris to floodwaters or increase flood affectation on surrounding land.*	*1. Fencing is constructed in a manner that does not obstruct the flow of floodwaters.* *2. Fencing of flow paths is limited to permeable open type fences.*	**Y**	
***PO8**. Earthworks including cut and fill do not impact flood storage areas*	*1. The FIRA demonstrates that earthworks will not affect flood storage capacity or flood behaviour for the full range of flood events.* *2. Any fill platform associated with development does not create a local site-specific flood island isolating the user from safety during flooding*	**Y**	**1**. This performance outcome is achieved. The proposed earthworks also mean the development will occur only on land higher than and beyond the PMF extent in Stage 1.. The FIRA is described in the 2021 Flood Risk Assessment and this Flood Impact Assessment of Stage 1. As described in Section 4.1 of the FIA (**Appendix II**): • Figures F5, F11, F17, F23 and F29 disclose nil impact in the 20 yr ARI and 100 yr ARI events. This was expected because the limit of the bulk earthworks lies just outside the 100 yr ARI flood extent under 2018 Conditions. The impact on flood levels in the 200 yr ARI and 500 yr ARI events are negligible. The impact of PMF levels extends beyond the Site boundary it appears that these impacts are exacerbated by the "corner" of the berm which extends east of the limit of Stage 1 earthworks. these impacts are up to around 0.05 m on the eastern extent of the PMF. The PMF impacts extend to Elizabeth Drive. Given the likelihood of the PMF, these flood level impacts are considered to be negligible.

- Figures F7, F13, F19, F24 and F30 disclose nil impact in the 20 yr ARI and 100 yr ARI events. This was expected because the limit of the bulk earthworks lies just outside the 100 yr ARI flood extent under 2018 Conditions. The impact on flood velocities in the 200 yr ARI and 500 yr ARI events are less than 0.05 m/s and are negligible. The impacts on PMF velocities extend across the floodplain just north of Stage 1. It appears that these impacts are initiated by the "corner" of the berm which extends east of the limit of Stage 1 earthworks. These velocities do not exceed 2 m/s expect in a small zone close to the "corner" of the berm. The impact on PMF velocities is minor.

2. Vehicular access to the precinct is from Elizabeth Drive which is higher than the PMF. However, there are sections of Elizabeth Drive which are overtopped by floodwaters at major creek crossings (Wianamatta-South Creek, Cosgroves Creek). This is a pre-existing condition which is not altered by the proposed development. It will be safer for everyone to remain on site than to evacuate along Elizabeth Drive to another location which is equally higher than the PMF level.

2.5.2 Mitigation Urban Heat Island Effect

Objectives	Compliance	Assessment
O1. *Design built form, including public and private open spaces with measures that reduce the impact of very strong and extreme heat stress days on residents, workers and visitors.*	**Y**	Measures to mitigate urban heat island effects are integrated in the design of the built form and public domain, for example the use of light-coloured roofs. The design of streets, landscaping and other public places contributes to management of urban heat and provides for the comfort and amenity of residents and workers. Refer to the Ecologically Sustainable Development Report (**Appendix WW**). There are a range of initiatives including buildings being net positive for carbon emissions, consistent with Mirvac's overall business aims, on-site solar systems for each building, efficient and controlled lighting, and natural ventilation, amongst others. The planting of trees will contribute to reducing the urban heat island effect particularly to assist in providing shading over hardstand areas. Refer to the Landscape Report (**Appendix Q**) which outlines the substantial areas of tree canopy coverage proposed.
O2. *Manage urban heat island effects to ensure a high level of comfort for workers and residents throughout the year, with a focus on hot days and the summer period.*	**Y**	

Performance Outcome	Benchmark Solutions	Compliance	Assessment
PO1. *Site layout of development and public domain mitigates urban heat island effect.*	***1***. *Evaporative cooling is enabled through implementation of design initiatives and features, including:* *a. Misting infrastructure in public places during high and extreme heat days; and* *b. Irrigation of private open spaces (using harvested stormwater) with 50% of grassed areas and 100% trees irrigated.* ***2***. *Use pavements which are permeable and have high albedo, resulting in less solar absorption. When using permeable pavers, it must be demonstrated that there is no impact on the salinity or sodicity of underlying soils.* ***3***. *Public seating has adequate shading.*	**Y**	**1**. Evaporative cooling is a relatively new and emerging technology that is promoted by the Low Carbon Living CRC (2017) as an urban cooling strategy to reduce the impacts of extreme heat and as a means of reducing stormwater runoff volumes (Sydney Water, 2020). While a significant water storage is required for each industrial lot, the irrigation infrastructure is relatively basic and can be incorporated into the final building services design. Refer to the Civil Infrastructure Report (**Appendix L**) and Water and Stormwater Management Plan (**Appendix M**). **2**. The Proposal has sought to minimise the use of non-permeable surfaces were possible. Refer to the Landscape Report (**Appendix Q**). **3**. The placement of public seating will be allocated to ensure shading is maximised during the detailed design of the Project.
PO2. *Buildings minimise cooling demand indoors and heat absorbance through orientation, the design of roofs and facades and materials.*	***1***. *Orientate buildings to take advantage of prevailing winds, natural ventilation, and solar access.* ***2***. *Provide western and northern facades with external shading devices to shield the building from hot summer sun, while allowing direct sunlight in winter.* ***3***. *Integrate green infrastructure into buildings, including healthy vegetation, green walls, and irrigation in open spaces.* ***4***. *A minimum of 50% of non-industrial rooftops are to be either vegetated, light coloured or irrigated using harvested stormwater.* ***5***. *Low heat conductive materials, appropriate insulation, wider eaves on northern and western facades reduce passive internal heating of the building.* ***6***. *To minimise energy use, buildings can:* *a. apply green roof and green façade/wall elements to reduce heat loads on internal spaces;* *b. Use external shading on north and north west facades;* *c. Use sub floor ventilation; and* *d. Provide outdoor clothes drying facilities*	**Y**	**1**. Active frontages of warehouses are typically orientated to towards Wianamatta-South Creek and Elizabeth Drive. Ancillary offices are positioned to take advantage of the views, particularly towards the communal green space and adjoining creek. Internal layouts of the office are arranged so that communal spaces and workspaces have access to natural light. Refer to the Design Statement (**Appendix I**). **2**. Curved roofs over offices feature overhangs all around to provide shades to future occupants. Grey-tinted glazing paired with solid walls protect buildings from excessive heat. Outdoor terrace is shaded with extended roof to further reduce direct heat to indoor and semi-outdoor spaces. **3**. The following measures are being applied to help reduce cooling load and promote adaptive thermal comfort: a. Passive design strategies adopted to treat indoor environment and enhance thermal comfort b. External shading devices/awnings to the warehouse access points/loading spaces c. Optimised building fabric thermal performance (R-value insulation appropriate to the Site) d. Roof ventilators e. High thermally performing glazing f. Natural ventilation to majority of warehouse floor areas g. Light coloured roof h. Extensive areas of landscape / vegetation across the Site For further detail refer to the ESD Report (**Appendix WW**). **4**. All roofs and awnings are light coloured, which occupied more than 50% of the surface. **5**. Extended overhangs all around office facades minimise passive internal heating of the buildings. **6**. The building includes: a) Energy efficient lighting systems, sub metering to monitor energy performance of the building, energy consumption targets to be set as part of the Green Star benchmarking, and efficient equipment and services. b) Optimised building fabric thermal performance (R-value insulation appropriate to the Site)

			Curved roofs over offices feature overhangs all around to provide shades to future occupants. Grey-tinted glazing paired with solid walls protect buildings from excessive heat. Outdoor terrace is shaded with extended roof to further reduce direct heat to indoor and semi-outdoor spaces c) Natural ventilation will be provided to majority of the building floors. d) Not applicable.

2.5.3 Salinity		
Objectives	**Compliance**	**Assessment**
***O1**. Manage and mitigate the impacts of development in relation to salinity processes, to prevent any degradation of soils, groundwater or vegetation, where present in the landscape.*	**Y**	In order to manage the effects of salinity in regard to the project a Salinity and Aggressivity Investigation has been prepared by PSM and included at Appendix D of the Geotechnical Investigation (**Appendix GG**). It was assessed that the soils on the Site were classified as "non-saline to moderately saline". The findings of these reports and the management measures will assist government agencies upon review with maintaining and improving best practice. Furthermore, the broader stormwater management system will manage water flows and the application of water to the landscape.
***O2**. Minimise salt movement in the landscape to promote landscape-led design approaches and ensure development will not significantly increase the salt load in existing watercourses.*	**Y**	
***O3**. Ensure application of water to the landscape and developable areas does not adversely impact the environmental value and the ecological health of waterways, groundwater dependent ecosystems, soil quality, trees, and vegetation.*	**Y**	
***O4**. Assist government agencies, land management authorities and landholders in developing appropriate salinity management practices.*	**Y**	
***O5**. To avoid or mitigate the impacts of salinity on development, including damage to buildings and infrastructure and the loss of productive agricultural land.*	**Y**	

Performance Outcome	**Benchmark Solutions**	**Compliance**	**Assessment**
***PO1**. The extent and location of salinity in the landscape and hydrogeologic regimes are accurately identified.*	***1**. Undertake salinity investigations prior to development and prepare a Salinity Management Plan.* ***2**. Where required, the Salinity Management Plan considers water application rates, size of the block and timing and management of irrigation to ensure overwatering and salt movement is minimised.* ***3**. A detailed salinity analysis, to be prepared by a qualified expert, will be required if:* *a. An initial investigation shows the site as saline or affected by salinity; or* *b. The site of the proposed development has been identified as being a moderately saline area on the Western Sydney Potential Salinity Map.*	**Y**	**1**. A Salinity and Aggressivity Investigation has been included at Appendix D of the Geotechnical Investigation (**Appendix GG**) with a range of soil samples taken across the site. It was assessed that the soils on the Site were classified as "non-saline to moderately saline". The report outlines strategies and measures to effectively manage site salinity, minimise the effect of the proposed development on the salinity processes and to protect the proposed development from salinity damage. A Salinity Management Plan is contained therein. **2**. The Civil Drawings (**Appendix K**) includes proposed irrigation areas. It is expected that the land proposed will be suitable for irrigation and that the proposed irrigation is similar to the current land use **3**. Not applicable.
***PO2**. Development avoids disturbing high-risk saline soils to minimise the movement of salt in the landscape, increase soil health and prevent soil structural decline.*	***1**. Demonstrate that disturbance to the natural hydrological system is minimised by:* *a. Maintaining effective drainage, or where modification occurs, the modification provides effective drainage systems;* *b. Reducing waterlogging on the site and the potential for waterlogging via landscape-led design;* *c. Having minimal impact on the water table; and* *d. Having minimal impact on the hydrogeologic regime for sub soils, lateral flows, and deep groundwater systems.*	**Y**	The Site is unlikely to contain high risk saline soils as outlined in **Appendix GG**, the proposed Water and Stormwater Management Plan (**Appendix M**) manages any potential disturbance to the natural hydrological system. Refer to Section 2.3.2 of this DCP table which addresses waterway health. Groundwater is also not expected to be intercepted based on borehole results.
***PO3**. Salinity management and codes of practise are adhered to and based on NSW and local government guidelines.*	***1**. Implement the following salinity management guidelines and codes of practise (or updates thereto) for land development (not limited to):* *a. Western Sydney Salinity Code of Practice (Western Sydney Regional Organisation of Councils, 2003).* *b. Western Sydney Hydrogeological Landscapes: May 2011 (First Edition) data package.* *c. Relevant Australian Standards, including AS 2159, AS 2870, AS 3600, AS 3700 and AS 2870; and* *d. Local Government salinity initiative documents, including:* *Site Investigations for Urban Salinity;* *Land Use Planning and Urban Salinity;* *Building in a Saline Environment; and* *Roads and Salinity.*	**Y**	**1**. Refer to the Salinity and Aggressivity Investigation included at Appendix D of the Geotechnical Investigation (**Appendix GG**), the relevant codes and practices have been referenced and adhered to. **2**. 10 disturbed soil samples were collected for testing. Refer to the Salinity and Aggressivity Investigation included at Appendix D of the Geotechnical Investigation **Appendix GG** for information detailing outcomes, noting the Site was classified as 'non-saline to moderately saline'.

	***2**. Where soil sampling is required to be undertaken as part of salinity investigations, provide the following details:* *a. Location of investigation soil samples and bores on plan;* *b. Electrical conductivity (EC) and texture profiling down the soil profile;* *c. Density of sampling;* *d. Use of electromagnetic (EM) survey; and* *e. Preliminary block layout to allow for development plans to address salinity issues.*		
***PO4**. Achieve healthy ecosystems by supporting soil ecology and support water retention in the clay landscape of the Cumberland Plain.*	***1**. Retain undisturbed soil networks that occur in riparian corridors, parks, nominated streets and specially designed natural soil corridors.*	**N/A**	No disturbance is proposed with a riparian corridor per this requirement.

2.5.4 Acid Sulfate Soils

Objectives	Compliance	Assessment
***O1**. Manage and mitigate the impacts of land development in relation to acid sulfate soils, where present in the landscape.*	**Y**	Acid sulfate soils (ASS) are generally associated with low-lying coastal areas, including estuarine flood plains, rivers and creeks. As outlined in the Preliminary Site Investigation prepared by JBS&G at **Appendix QQ**, the location and elevation of the Site (greater than 40 m AHD) are such that the likelihood of ASS within the study area is low.
***O2**. Ensure the environmental value and ecological health of waterways, soil, trees, and vegetation are appropriately protected from the release of acid water from disturbed acid sulfate soils.*	**Y**	
***O3**. Manage and mitigate the impacts on infrastructure within acid sulfate soils and waterways where degradation and accelerated corrosion could occur.*	**Y**	

Performance Outcome	Benchmark Solutions	Compliance	Assessment
***PO1**. Acid sulfate soils are managed during development to ensure reuse of acid sulfate soil (with treatment) is considered and managed with no adverse impact to the environment, waterways, and infrastructure.*	***1**. An Acid Sulphate Soils Assessment is to be provided with all development applications.* ***2**. Disposal of any acid sulfate soil as waste during development is undertaken in accordance with guidelines made and approved by the NSW EPA.* ***3**. Where acid sulfate soils are present, an Acid Sulfate Soils Management Plan is prepared by a suitably qualified person and demonstrates that development will have no impact on environmental values or the current level of the water table.*	**Y**	**1**. Refer to the Preliminary Site Investigation (**Appendix QQ**) and Detailed Site Investigation (**Appendix RR**). Acid sulfate soils (ASS) are generally associated with low-lying coastal areas, including estuarine flood plains, rivers and creeks. The location and elevation of the Site (greater than 40 m AHD) are such that the likelihood of ASS within the study area is low. **2**. Where the disposal of acid sulfate soil is required, the appropriate legislation will be followed **3**. Not applicable.
***PO2**. Infrastructure and concrete and steel structures placed in acid sulfate soil or within waterways for land development is designed to withstand acid sulfate soil environments.*	***1**. Development is designed in accordance with relevant standards to withstand increased corrosion and durability impacts associated with acid sulfate soil.*	**Y**	
***PO3**. Land development avoids excavation, dewatering and disturbance of acid sulfate soil.*	***1**. Landscape-led design minimises the potential for environmental and waterway impacts from development on acid sulfate soils.*	**Y**	

2.5.5 Erosion and Sediment Control

Objectives	Compliance	Assessment
***O1**. Protect the health of Wianamatta-South Creek and its tributaries from construction and building runoff and meet the performance criteria for ambient water quality objectives.*	**Y**	An Erosion and Sediment Control Plan (ESCP) at (**Appendix N**). It has been prepared in accordance with the *NSW Department of Housing Publication titled: Managing Urban Stormwater – Soils and Construction* (2004) for the Site. This ESCP has been prepared by a Chartered Professional in Erosion and Sediment Control (CPESC) – Tim Michel accreditation number 11555. The key objectives of the ESCP are: • Acknowledging the activities on a construction site which may contribute to erosion, sedimentation and water quality impacts.
***O2**. Encourage vegetation retention, protect vegetation during construction and operation, and facilitate prompt rehabilitation through revegetation strategies.*	**Y**	
***O3**. Minimise site disturbance during construction, reduce the amount of erosion, and stabilise construction works as quickly as possible following completion.*	**Y**	

- The implementation of industry best management practices to minimise adverse water quality and sedimentation impacts brought about through construction activities on waterbodies surrounding the work.
- Establishment of processes that effectively manage erosion, sedimentation and water quality practices during the life of the project.

Additionally, the erosion control measures proposed for the Site will comply with the requirements of Penrith City Council Engineering Guidelines and the Department of Planning and Environment (DPE) *Technical guidance for achieving Wianamatta-South Creek stormwater management targets*. The proposed ESCP will ensure that the best management practice is applied to the Proposal in controlling and minimising the negative impacts of soil erosion.

Refer to the ESCP document and sheets within the Civil Drawings (**Appendix K**).

Performance Outcome	Benchmark Solutions	Compliance	Assessment
***PO1**. Development is to ensure 80% of all flows leaving the construction site achieves total suspended solids of 50mg/L or less and a pH of 6.5-8.5 during the construction and building phases until the site is stabilised and landscaped.*	***1**. An Erosion and Sediment Control Plan (ESCP) must be submitted for sites less than 2,500sqm and a Soil and Water Management Plan must be submitted for sites greater than 2,500sqm. These plans must be prepared in accordance with Appendix D.21.* ***2**. The ESCP or CPESC must demonstrate compliance with the construction phase targets, outlined in the table below throughout the construction and building phases until the site is stabilised and landscaped.* ***3**. The ESCP or CPESC must illustrate that appropriate controls have been planned which will, when implemented, minimise erosion of soil from the site and, accordingly, sedimentation of drainage systems and waterways.*	**Y**	An ESCP (**Appendix N**), has been prepared in accordance with the NSW Department of Housing Publication titled: Managing Urban Stormwater – Soils and Construction (2004) for the Site This ESCP has been prepared by a Chartered Professional in Erosion and Sediment Control (CPESC) – Tim Michel accreditation number 11555.. The key objectives of the ESCP are: • Acknowledging the activities on a construction site which may contribute to erosion, sedimentation and water quality impacts. • The implementation of industry best management practices to minimise adverse water quality and sedimentation impacts brought about through construction activities on waterbodies surrounding the work. • Establishment of processes that effectively manage erosion, sedimentation and water quality practices during the life of the project. Additionally, the erosion control measures proposed for the Site will comply with the requirements of Penrith City Council Engineering Guidelines and the Department of Planning and Environment (DPE) *Technical guidance for achieving Wianamatta-South Creek stormwater management targets.*. The proposed ESCP will ensure that the best management practice is applied to the Proposal in controlling and minimising the negative impacts of soil erosion. Refer to the ESCP document and sheets within the Civil Drawings (**Appendix K**).

Parameter	Construction Phase Target (reduction in mean annual load from unmitigated development)
Total suspended solids (TSS) and pH	All exposed areas greater than 2,500m2 must be provided with sediment controls which are designed, implemented and maintained to a standard which would achieve at least 80% of the average annual runoff volume of the contributing catchment treated (i.e. 80% hydrological effectiveness) to 50mg/L Total Suspended Solids (TSS) or less, and pH in the range (6.5–8.5). No release of coarse sediment is permitted for any construction or building site. Sites less than 2,500m2 are required to comply with the requirements of the Blue Book.
Oil, litter and waste contaminants	No release of oil, litter or waste contaminants.
Stabilisation	Prior to completion of works for the development, and prior to removal of sediment controls, all site surfaces must be effectively stabilised including all drainage systems. An effectively stabilised surface is defined as one that does not, or is not likely to result in visible evidence of soil loss caused by sheet, rill or gully erosion or lead to sedimentation and water contamination.

2.6 Road Design for Arterial and Sub-Arterial Roads

2.6 Road Design for Arterial and Sub-Arterial Roads			
Objectives		**Compliance**	**Assessment**
***O1**. Design street networks to support the objectives of the NSW Government's Movement and Place framework.*		**Y**	The Proposal includes an interim upgrade of the Elizabeth Drive/Martin Road intersection, refer to **Section 3.4.2** of the EIS for further discussion, and the interim intersection design (**Appendix O**).
***O2**. Design key regional and state roads consistent with the Precinct Plan.*			
***O3**. Design street networks to accommodate diverse modes of transport including heavy vehicles, cars, public transport, walking and cycling.*			
Performance Outcome	**Benchmark Solution**	**Compliance**	**Assessment**
***PO1**. The design, functionality and safety of arterial and sub-arterial roads is consistent across the Aerotropolis Growth Area.*	*1. Direct vehicle access to properties from the Arterial and Sub-Arterial roads identified in the Precinct Plan is not permitted, except for land uses that require or benefit substantially from access to major roads (for example service stations) and where approval is obtained from the relevant roads authority.* *2. Road design for Primary Arterial Roads, Primary Arterial Roads (Rapid Bus), and Subarterial Roads as identified on the Precinct Plan are to be consistent with the typical arrangements shown below in Figure 5 to Figure 7.* *3. Implement fauna-sensitive road design elements to minimise environmental impacts, such as vehicle strike during and after road construction and upgrading.* *Note: All street cross-sections illustrate minimum requirements. In certain circumstances these may need to increase to respond to site specific conditions such as topography and the retention of remnant vegetation.*	**Y**	The Proposal includes an interim upgrade of the Elizabeth Drive/Martin Road intersection, refer to **Section 3.4.2** of the EIS for further discussion, and the interim intersection design (**Appendix O**). The interim intersection design is consistent with the guidelines and outcomes established under the Aerotropolis DCP and Precinct Plan and will enable the operation of the Proposal. The internal road network design has also been considered to provide accessibility to neighbouring sites. Specifically, access to the neighbouring Cleanaway Kemps Creek Resource Recovery Park has been considered. Following the completion of the internal road network and Elizabeth Drive/Martin Road intersection upgrade, he unnamed access road directly to the west of the Site that connects to the Cleanaway Kemps Creek Resource Recovery Park will be closed from Elizabeth Drive due to its proximity to the proposed intersection. The newly proposed access route will be as follows: • Entry – Via Industrial Road 04 (left in only), which will connect to the existing unnamed access road. • Exit – Via Local Collector Road 02, which will connect to the existing unnamed access road. This solution will avoid queuing of trucks onto the weighbridge at the entrance to the Cleanaway Kemps Creek Resource Recovery Park, with the ability for the road to be a two-way connection following redevelopment of the adjacent site. Refer to the Consultation Outcomes Report (**Appendix G**) and evidence of consultation with Cleanaway, other surrounding neighbouring properties and authorities(**Appendix ZZ**).
***PO2**. Support temporary site access that is required but not currently available*	*1. To enable the development of land where access across adjoining properties is required but not yet provided, the consent authority may consider temporary access to arterial or sub-arterial roads where:* *a. The development complies with all other development standards; and* *b. The consent authority is satisfied the carrying out of the development will not compromise road safety.* *2. Where the consent authority grants such consent, the temporary access must be constructed to the Council's standards except in the case of a State classified road, which must be designed and constructed to TfNSW's standards. Conditions will also be imposed to limit access to the designated road when alternative access becomes available.*		

2.7 Parking Design and Access

2.7 Parking Design and Access			
Objectives		**Compliance**	**Assessment**
***O1**. Provide functional, safe, and efficient parking areas.*		**Y**	Design complies with AS2890.1
***O2**. Minimise visual and amenity impacts of car parking on the public domain.*		**Y**	The proposed car parks and loading and hardstand areas have been appropriately articulated with landscaped setbacks (compliant as per table 6 section 3.3.3) providing appropriate screening to minimise the visual impact of these proposed areas.
***O3**. Minimise visual and amenity impacts of loading and servicing on the public domain.*		**Y**	
***O4**. Ensure adaptability of car parking provision and design where accommodated above ground to accommodate other uses over time*		**Y**	Given the industrial nature of the Site, the car parking is provided largely at grade, in open air locations, with good accessibility to the office. This form parking means that it could readily be utilised for other uses or increase the amount of electric vehicle and truck facilities as required.
***O5**. Ensure vehicle access arrangements are appropriate and minimise any adverse impact on infrastructure, road networks, safety, adjoining properties, amenity, and street trees.*		**Y**	Design complies with AS2890.1.
Performance Outcome	**Benchmark Solution**	**Compliance**	**Assessment**
***PO1**. The design and layout of car parking and vehicular access is safe and functional.*	***1**. Parking is to meet AS 2890 and AS 1428.*	**Y**	Design complies with requirements of the Australian Standards and AS2 148.
***PO2**. Prioritise use of basement car parking areas in mixed use areas and Centres.*	***1**. A maximum of one 6m wide basement vehicle entry and one 6m wide basement exit is provided per basement.* ***2**. Basement ceilings are stepped in order to allow for ground floor levels to be provided at natural ground level.*	**N/A**	Not applicable. No basements are proposed.
***PO3**. Where required due to flooding or geological constraints preventing the use of basements, at grade and above ground car parking does not detract from public domain or amenity.*	***1**. Parking areas do not significantly interfere with pedestrian through-site links.*	**N/A**	Not applicable. No basements are proposed.
***PO4**. Above ground car parking is designed to activate the streetscape and not detract from the public domain.*	***1**. Locate vehicle access points on the secondary frontage or via a rear lane.* ***2**. Development which includes ground floor or above ground car parking contains active uses on ground floor street frontages.* ***3**. Car parking levels are appropriately screened from the street and/or public domain and integrated into the design of the building.*	**Y**	Refer to the Landscape Report (**Appendix Q**) and Masterplan (**Appendix B**). The proposed Warehouse 2 and Warehouse 6 car parks will include landscaped bays and landscaped setbacks (compliant as per table 6 section 3.3.3) that contribute to the visual amenity of the Proposal.
***PO5**. Utilise integrated parking solutions to service multiple development sites.*	***1**. Where integrated basement car parking is used, these:* *a. Must provide shared access to the integrated basement car parking area;* *b. Must demonstrate how shared access for adjoining sites, including circulation paths and breakthrough walls, will function and are to be accommodated;* *c. Have basement structures at a depth that adequately accommodates services, stormwater drainage and other infrastructure; and* *d. Ensure that the basement level(s) below the public domain are used for circulation areas, ramps, visitor parking, freight and service vehicle parking, loading areas and waste collection points, not individual strata titled spaces.*	**N/A**	Not applicable. No basements are proposed.
***PO6**. Safe and convenient movement of pedestrians and cyclists is prioritised over vehicle movements.*	***1**. Locate vehicular access points away from active pedestrian areas and public open space on secondary streets or lanes.* ***2**. At vehicular access points, seek to minimise voids and areas for concealments to ensure lighting is sufficient to allow facial recognition.* ***3**. Separate pedestrian and bicycle access from vehicular circulation areas.* ***4**. For industrial land uses and warehouse and distribution facilities, heavy vehicles be fully separated from staff and visitor parking and entry/exit points*	**Y**	**1-4**. The following considerations have been made in respect to the movement of pedestrians and cyclists: • Direct routes from the external road network are provided to the main pedestrian / offices areas for each warehouse; • Vehicular access points of the proposed warehouses are not located in close proximity to active pedestrian or public open space; • Pedestrian and vehicle access points are separated from proposed vehicular access points; • Heavy Vehicle are completely separated from staff and visitor parking with entry and exit point having sufficient separation to ensure conflicts do not occur; and • Clear delineation between pedestrian/cyclist areas, light vehicle and heavy vehicle areas will be a feature of the development;

	and that safe and separated access from staff and visitor parking be provided to office areas. ***5**. Change pavement (colour and/or texture) to:* *a. Provide clear demarcation between pedestrian and vehicle spaces; and* *b. Reduce vehicle speeds at entries or key nodes.* *c. For the egress points of larger developments, install stop signs and lines for motor vehicles crossing pedestrian and bicycle.* *d. Provide separate pedestrian access routes to building entries from the public domain and parking areas.* *e. Pedestrian access routes are direct, with good sightlines, intuitive wayfinding, and easy gradients.* *f. Design of pedestrian access routes consider pedestrian comfort and amenity by providing shade, shelter, and rest areas.*		• The Site layout is simple and intuitive in nature to assist in wayfinding • The Proposal's generous street planting and landscape setback will provide high quality amenity to pedestrians; and • The focus on pedestrian amenity, appropriate signage and wayfinding will continue through to the design development phase. The Master Plan will provide walkable streets that facilitate: • Direct, accessible and safe pedestrian and cycle connections • Sustainable urban connections that include efficient and accessible public transport links • Connections to quality public spaces and amenity nodes • Fine grain street layout that responds to urban landform, topography and view connections throughout the estate • Landscaped, activated, safe streets that provide passive surveillance and easy access to on lot amenity and office locations • Shaded streets that support the tree canopy targets **5**. Refer to the Architectural Drawings (**Appendix B**) as well as the Landscape Report (**Appendix Q**). Pavement selection will form part of detailed design in response to these items, to clearly identify pedestrian routes, act as road slowing devices and demarcate separation between pedestrian and vehicle spaces.
***PO7**. Vehicle access arrangements and queuing areas on a site shall minimise any adverse impact on infrastructure, road networks, safety, adjoining properties, amenity, and street trees.*	***1**. Locate vehicle access points on the secondary frontage or rear lanes with access and egress points provided in a forward direction.* ***2**. Where a site has frontage to a classified road, provide access to an alternate road.* ***3**. Ensure that all vehicles can enter and exit in a forward direction.* ***4**. Accommodate turning movements of the largest design vehicle to access the site, with consideration to servicing and garbage collection requirements.* ***5**. Where the entry to a parking space is also the entry to a waste collection area, access should be possible via a PIN pad and code, to avoid the need for waste truck drivers to carry keys or access cards/fobs with them.*	**Y**	**1**. The proposed development's access points are appropriately located to ensure that there is amble sightlines with low potential conflicts to occur. All vehicles will enter and exit the proposed lots in a forward direction. **2**. Not applicable. **3**. All vehicles will be able to enter and exit the Site in a forward direction. Refer to the Warehouse 2 and Warehouse 6 Site Plans (DA200, DA600) (**Appendix B**). **4**. Swept path diagrams have been prepared by ASON Group and included within the Transport Assessment (**Appendix FF**) to illustrate heavy vehicle movements to and from the access driveways and on-site service areas for Warehouses 2 and 6, noting that concept approval only is sought for the remainder of the Masterplan. Compliance will extent to all future road and access infrastructure within the Site. It is anticipated that a future Condition of Consent will necessarily ensure such compliance with the relevant controls. As such, it is anticipated that the necessary further review and refinement of the detailed design can occur in the future. Notwithstanding, the plans as designed are generally considered capable of compliance. **5**. Waste collection areas are to be located on within the hardstand and loading docks area for the warehouses and would be secured as required.
***PO8**. Car parking spaces and associated infrastructure are designed with the potential to transition to other uses*	***1**. All car parking spaces at grade, or if provided above the ground floor level within a building, shall demonstrate what infrastructure will be incorporated into the carpark areas of the building to allow for the easy transition to habitable land uses in the future. This includes consideration of:* *a. Retrofitting of utilities and services (water, electricity, and internet);* *b. Building code requirements for a range of uses;* *c. Removable ramps;* *d. Greater reinforcement, such as steel (as residential/commercial spaces are heavier than car parks); and* *e. Flexible approaches for night-time use (see images below).* ***2**. All at grade or above ground car parking spaces within buildings have a floor to ceiling height of 3.0m to 4.5m (clearance free of mechanical servicing) to allow for adaption to other uses.*	**Y**	**1**. All at grade car parking spaces are located in open space outdoors, the open nature of the design have the capability to transform for future requirements. In particular, retrofitting of utilities and services in the future could occur as required for any changing use of the Site if needed, along with design elements for greater reinforcement. This Site is within ANEF noise affected area which would prevent future higher or sensitive uses. **2**. Not applicable. All at grade car parking spaces are provided outdoors, with no obstructions (i.e. no obstructions within 3.0m to 4.5m above the parking spaces.).
***PO9**. Parking layout, surfacing and drainage design responds to Water Sensitive Urban Design.*	***1**. With the exception of heavy vehicle entries, use pervious surfaces for at grade parking and driveway design other than entry for heavy vehicles.* ***2**. Where appropriate, incorporate a permeable surface in car washing spaces. The use of turfed or gravel surfaces is considered acceptable, provided the water is treated to prevent contaminants from entering the stormwater system.*	**Y**	**1**. Pervious surfaces will be utilised within the design of parking and driveways. **2**. Not applicable. Car washing spaces are not proposed within the masterplan design.
***PO10**. Utilise tandem, stacked, and mechanical parking where appropriate.*	***1**. Where development includes a mechanical parking installation, such as car stackers, turntables, car lifts or other automated parking systems, a Parking and Access Report is to be provided.* ***2**. Access to mechanical parking installations is to be designed in accordance with AS 2890.* ***3**. Tandem or stack parking will only be permitted where:* *a. Each tandem or stacked parking arrangement is limited to a maximum of two spaces;* *b. The maximum parking limit for spaces in the development is not exceeded;* *c. They are used for staff parking only;*	**N/A**	Not applicable. The proposed grade car park design is able to accommodate the number of parking spaces required by the Aerotropolis DCP; therefore no tandem, stacked or mechanical parking is proposed. Tandem / mechanical parking would typically only be used in constrained sites located in city centre areas due to the management and operational issues associated with their use. As an industrial use, the parking and hardstand areas have been designed to ensure that the operational needs of the future occupiers can be met.

	d. They are not used for service vehicle parking; and *e. The manoeuvring of stacked vehicles is able to occur wholly within the premises.* ***4**. Mechanical parking installations will be considered for developments involving the adaptive reuse of existing buildings where site or building constraints prevent standard parking arrangements.* ***5**. Mechanical parking installations, tandem or stacked parking are not to be used for visitor parking or parking for car share schemes.* ***6**. The minimum length of a tandem space is 10.8m.*		
***PO11**. Smart technology to be incorporated in large car parks (over 100 spaces) to improve functionality.*	***1**. For development (over 100 spaces), provide technology which tracks real-time car movement such as wireless parking bay sensors and dynamic signage to guide drivers.*	**Variation Requested**	Warehouse 6 includes over 100 parking spaces (186); however, does not propose to provide real-time tracking technology as it is not considered appropriate for the type of development proposed. This type of technology is better utilised in public car parks where there is a high turnover of vehicles. This is considered appropriate and consistent with the intent of the objectives and performance outcome as: • The proposed car parks are 'linear' in nature and open to the sky and as such visitors and workers have high visibility and accessibility to car spaces; • An adequate amount of parking will be allocated specifically to staff that will stay at the premise of large amounts of time with a sufficient amount of visitor parking provided. As such, the provision for smart technology parking is not considered appropriate; however is suitable for commercial development that includes frequent intermittent visitors and is typically across multiple stories where there is a higher turnover of vehicles. The proposed Warehouse 6 car park will provide high functionality and an appropriate solution for the proposed development.

2.8 Travel Demand Management

2.8 Travel Demand Management			
Objective		**Compliance**	**Assessment**
O1. Implement TDM to align with mode share targets stipulated in the Precinct Plan.		**Y**	A Travel Plan Framework has been included as part of Transport Assessment (**Appendix FF**) and is expected to form a Condition of Consent. The Travel Plan Framework aligns with the mode share targets stipulated under the Precinct Plan.
Performance Outcome	**Benchmark Solution**	**Compliance**	**Assessment**
PO1. Travel Plans are provided to include measures that reduce car dependency for new developments by encouraging sustainable transport modes.	***1**. A Travel Plan must be submitted for:* *a. Any residential developments containing more than 50 residential units; and* *b. Any commercial or industrial developments which accommodates more than 50 employees.*	**Y**	A Travel Plan Framework has been included as part of the Transport Assessment (**Appendix FF**) and is expected to form a Condition of Consent. An initial 5-year target for reducing travel by private vehicle on the Site has been identified. This target should be confirmed prior to finalisation of any travel plan and should be updated as required, following the monitoring and review process. The proposed active transport target (walked only, motorbike/scooter and cycling) of 7% exceeds the Aerotropolis Wide (average) target of 3%. Similarly, mode share target of car as drive is 75%, improving from the Aerotropolis Wide (average) target of 79% and Badgerys Creek's target of 80%.
PO2. Where temporary access is required but not currently available, this shall be provided in a way that regards the safety and efficiency of the transport network.	***1**. To enable the development of land where access across adjoining properties is required but not yet provided, the consent authority may consider temporary access to arterial or sub-arterial roads where:* *a. The development complies with all other development standards;* *b. Subdivisional roads generally conform with the road pattern shown on the Indicative Layout Plan; and* *c. The consent authority is satisfied the carrying out of the development will not compromise road safety.* ***2**. Where the consent authority grants such consent, the temporary access must be constructed to the Council's standards except in the case of a State classified road, which must be designed and constructed to TfNSW's standards. Conditions will also be imposed to limit access to the designated road when alternative access becomes available.* *Note: Approval from TfNSW will be required for any temporary access to a classified road.*	**N/A**	Not applicable. Temporary access is not proposed to be required. Temporary access will be utilised for construction however, this will be by way of the Unnamed Access Road that runs along the Site's western boundary. Therefore, access will be away from Elizabeth Drive until the time which the Elizabeth Drive/Martin Road intersection is upgraded.

2.9 Service and Loading Design

2.9 Service and Loading Design			
Objectives		**Compliance**	**Assessment**
O1. To provide functional, safe, and efficient loading and servicing areas.		**Y**	The proposed loading area design complies with AS2890.2.
O2. Minimise visual and amenity impacts of loading and servicing on the public domain		**Y**	The proposed layout of the Concept Masterplan has been designed to minimise the visual and amenity impact of hardstand, service and loading areas to the public domain. Refer to the SSDA Masterplan – Stage 1 (MP02) of the Architectural Drawings (**Appendix B**). In particular, where possible hardstand areas for loading and servicing have been screened through substantial landscaping from the public domain (**Appendix Q**), noting that the nature of the industrial typology as proposed requires direct street access with large areas for heavy vehicle movements, and as such, the proposed responds to this necessary requirement while considering appearance from the public domain.
O3. Ensure that adequate off-street loading, delivery, and servicing facilities are provided.		**Y**	The proposed loading area design complies with AS2890.2. The proposal includes ample amount of hardstand area to ensure the proposed development provide efficient and functional usability.
O4. Minimise the impacts of loading, deliveries and servicing operations on the safety and efficiency of the surrounding road system and resident/visitor movement.		**Y**	The proposal includes ample amount of hardstand area to ensure the proposed development provide efficient and functional usability within each lot. All access points have been designed to be unfettered as much as possible, allowing for free flow of heavy vehicles into the lots. All driveways are to be provided in compliance with AS2890., ensuring that there would be no queuing onto the external road network.
Performance Outcomes	**Benchmark Solution**	**Compliance**	**Assessment**
PO1. Provide on-site loading and servicing that meets the demand generated by the development.	***1**. Where a waste collection point is provided within a basement, head height clearances and aisle widths on Level 1 of the basement are to be sufficient for the largest loading vehicle (minimum 5m high) to enter the site, unload and exit the site in only one (1) reverse vehicle movement.* ***2**. All servicing, including waste and recycling collection, to be carried out wholly within the site with collection points at convenient locations.* ***3**. Where waste and recycling bin rooms and collection points are located within the basement, a floor to ceiling clearance of 6.5m is required to allow for the overhead mechanical loading of bins within the basement by garbage trucks.*	**Y**	**1**. Not applicable. **2**. The Proposal includes dedicated waste storage areas for Warehouse 2 and Warehouse 6 that are easily accessible. Refer to the Site Plan – Warehouse 2 (DA200) and Site Plan – Warehouse 6 (DA600) within the Architectural Drawings prepared by SBA Architects (**Appendix B**). **3**. Not applicable.
PO2. Loading and unloading facilities are adaptable to future technologies	***1**. Loading and unloading facilities are adaptable to technology or other services (e.g., food donation operations, or reverse logistics to return items for reuse or repair).*	**Y**	This PO appears to relate to facilities within urban setting residential and commercial development loading bays). The very nature of industrial hardstands means that they readily adaptable to change. The Site can comply with facilitating new technologies as they emerge, for example, accommodating electric vehicle charging stations for electric trucks.
PO3. Service vehicle types are appropriate to the scale and requirements of the proposed development.	***1**. Residential developments containing more than 30 dwellings, but less than 60 must provide at least 1 service delivery space, capable of accommodating at least 1 Medium Rigid Vehicle.* ***2**. Residential developments containing more than 60 dwellings provide at least 1 service delivery space, capable of accommodating at least a: a. Medium Rigid Vehicle (MRV); and b. Heavy Rigid Vehicle (HRV).* ***3**. Swept turning paths provided for HRV and single articulated vehicles (20m).* ***4**. MRVs and HRVs are deemed to be the same as that described in Section 2 of AS 2890.2 – Parking facilities – Part 2: Off-street commercial vehicle facilities.* ***5**. Off-street loading and unloading facilities are provided for all commercial and industrial premises. The number and size of loading bays will be determined by the consent authority having regard to the:* *a. Intended use of the premises;* *b. Frequency of deliveries/collections;* *c. Size and bulk of goods to be delivered/collected;* *d. Size of vehicles to be used; and* *e. Likely impacts on traffic safety and efficiency on adjoining roads.*	**Y**	**1-2**. The loading facilities have been designed in mind for the intended use of the Site (warehouse and logistics uses). No residential development is proposed. **3**. Swept Path Analysis has been undertake of 20m AVs. **4**. The largest vehicle to access the Site is a 30m PBS Level 2 Type B vehicle. This is the equivalent of an A-double as defined by section 2 of AS2890.2:2018. **5**. Off-street loading and unloading has been provided and included within the design as shown in **Appendix B**.

2.10 Airport Safeguarding

2.10.1 Protection of Operation Airspace

Objective	Compliance	Assessment
***O1**. Safeguard the future 24-hour operations of the Airport and provide appropriate protections for the surrounding community.*	**Y**	The safeguarding of the currently under-construction WSI Airport has been considered as part of the Proposal, refer to the Aeronautical Impact Assessment (**Appendix T**). The Proposal safeguards the future 24-hours operations of WSI Airport as: • The Proposal is located within 13 km from boundary of WSI Airport, however the Proposal is generally considered suitable for the location due to being an industrial use. • The Proposal is considered as 'Light Industrial' and is acceptable within all the ANEF zones as per the Australian Standard AS 2021:2015 Acoustics - Aircraft Noise. • The Proposal will not have risk of generating windshear and turbulence at WSI Airport. The proposed development and construction equipment (including cranes) will not have an impact upon airport operations • Subject to the acceptance of a balanced canopy coverage and plant species selection to help reduce the risk of wildlife strike, and the requirements for an acceptable wildlife management plan and future design compliance for external lighting, it is considered that the EEP Stage 1 satisfies the Airport Safeguarding requirements for WSA and it will not adversely affect its airspace nor planned and future aircraft operations Managing the Risk of Wind Turbine Farms as Physical Obstacles to Air Navigation - Proposed development is compliant. No action required. • With maximum building and temporary craneage heights projected to be beneath 121m AHD, the proposed development does not infringe the OLS of aerodrome. No action is required. All of the above factors are arguably more important because of the site's location — both in its close proximity to the airport, and because it is directly under the straight in/out flight path to/from the future second runway.

Performance Outcomes	Benchmarks Solution	Compliance	Assessment
***PO1**. Development does not generate turbulent emissions into the protected airspace.*	***1**. Any plumes caused by a development do not:* *a. Have peak vertical velocities of more than 4.3m/sec; or* *b. Incorporate flares, unless an aviation impact assessment is completed and determines flares are acceptable.*	**Y**	It is expected that all buildings will not include any facilities that emit smoke, dust or other plumes into the atmosphere. All the buildings on the Site will be of a light industrial nature. Refer to the Aeronautical Impact Assessment (**Appendix T**).
***PO2**. Development does not impact on aviation or the operation of the Airport regarding light emission and reflective surfaces.*	***1**. Development must comply with the provisions of the Civil Aviation Regulations 1988 (Cth) and not cause distraction or confusion to pilots due to its configuration, pattern or intensity or prevent clear reception of aerodrome lights or signals. Significant lighting includes:* *a. Motorway and freeway lighting;* *b. Flare plumes from industrial activities;* *c. Flood lighting from stadiums or outdoor recreation facilities; and* *d. Construction lighting.* ***2**. Lighting within the primary light control zones – Zones A, B, C and D:* *a. Must not exceed the following intensity of light above a 3-degree horizontal:* *i. Zone A – 0 candela (cd);* *ii. Zone B – 50 cd;* *iii. Zone C – 150 cd; and* *iv. Zone D – 450 cd.* *OR* *b. Be fitted with a screen/shroud that prevents the light emission above the horizontal plane.* ***3**. Proposals within 6km of the Airport:* *a. Must not include coloured or flashing lights; or* *b. Where coloured or flashing lights are to be incorporated, the proposal must be referred to the relevant Commonwealth body.* ***4**. The appearance, material, reflectivity and aesthetics of the roofscapes consider the flight path and flight zone.*	**Y**	**1**. Development complies with provisions and regulations. The Proposal will not impact on aviation or the operation of the future Western Sydney Aerotropolis. Refer to the Aeronautical Impact Assessment (**Appendix T**). **2**. Lighting is within the control zones specified. **3**. No coloured or flashing lights have been considered within the design. **4**. Materials have been selected in accordance with requirements. Refer to (**Appendix I**) Design Statement (refer to section 3.3.4 PO3).

2.10.2 Noise

Objectives	Compliance	Assessment

2.10.1 Protection of Operation Airspace			
***O1**. Safeguard the future 24-hour operations of the Airport and provide appropriate protections for the surrounding community.*		**Y**	The Proposal is classified as 'Light Industrial'; therefore, is acceptable within all the ANEF zones as per the Australian Standard AS 2021:2015 Acoustics - Aircraft Noise. Refer to the Aeronautical Impact Assessment prepared (**Appendix T**) and Peer Review prepared by Strategic Airspace (**Appendix U**)
***O2**. Development does not introduce or intensify noise sensitive uses.*		**Y**	
Performance Outcomes	**Benchmark Solutions**	**Compliance**	**Assessment**
***PO1**. Development within the ANEC 20 and above contours (including extensions to existing development) is constructed to achieve indoor design sound levels as per the Indoor Design Sound Levels for Determination of Aircraft Noise Reduction in AS 2021 – Acoustics Noise Intrusion – Building Siting and Construction.*	*1. Residential development is constructed in accordance with Table 3.* *2. An acoustic report is provided which specifies the construction standards required to achieve the specified indoor design sound levels.* *Note: Residential development within the ANEC 20 and above contours will only be permitted where provided under clause 4.17(4) of the Parkland City SEPP or existing use rights apply. Development of residential accommodation will have the option of either incorporating the specified construction standards or provide an acoustic report. All other noise sensitive development specified within Table 4 of AS2021 will be required to be accompanied by a report prepared by a suitably qualified and experienced acoustic engineer.*	**Y**	1. Not applicable. The Proposal is not for the purposes of residential development. 2. As per Section 5.1 of the Noise and Vibration Assessment Report (**Appendix KK**), the Proposal is not expected to accommodate residential or any noise sensitive development. Hence, this item would not be applicable.
2.10.3 Wildlife Hazards			
Objectives		**Compliance**	**Assessment**
***O1**. Safeguard the Airport from incompatible development that could compromise safe operations.*		**Y**	In order to ensure that the Proposal will not present any issues that would compromise safe airport operation, refer to the Wildlife Hazard Review (**Appendix V**). It provides a range of mitigation measures to ensure that the proposed development contributes to the safeguarding of the proposed development in regard to Wildlife Hazards. The land use type (warehouse) is categorised as low risk in the NASF, the recommended action is to monitor when located within 3km of an airport.
Performance Outcome	**Benchmark Solution**	**Compliance**	**Assessment**
***PO1**. Development does not attract wildlife which would create a safety hazard to the operations of the Airport.*	*1. All waste bins are designed and installed with fixed lids.* *2. Any bulk waste receptacle or communal waste storage area is contained within enclosures that cannot be accessed by birds or flying foxes.* *3. Any stormwater detention within the 3km and 8km wildlife buffer is designed to fully drain within 48 hours after a rainfall event.* *4. Buildings and structures are designed to minimise the opportunity for roosting areas.*	**1, 2, 4: Y** **3. N**	1. The Waste management plan includes waste management practices, and the detailed design will include fixed lid bins. 2. Building structures include enclosed areas for the facilitation of waste storage. Refer to the Architectural Drawings (**Appendix B**) and Waste Management Plan (**Appendix VV**) 3. The temporary evaporation basin and Basin A do not meet this requirement; however, mitigation measures will reduce wildlife attraction including netting (refer to the Wildlife Risk Assessment at **Appendix V**). Where ongoing wildlife monitoring identifies wildlife attraction, the wildlife management program includes an escalating approach to reduce wildlife attraction. Additional details on stormwater management are included in the Water and Stormwater Management Plan **Appendix M**, and the management of wildlife has been reviewed as part of **Appendix V** with mitigation measures proposed. 4. Detailed designs include installing netting in areas that may provide wildlife nesting or roosting habitat. Where ongoing wildlife monitoring identifies wildlife attraction, the wildlife management program includes an escalating approach to reduce wildlife attraction. Additional details on design are available in the Design Statement at **Appendix I**. Refer to the Wildlife Hazard Assessment Review (**Appendix V**), that considers the Proposal's potential risk of bird and flying foxes and provides appropriate mitigation measures.
***PO2**. Landscaping does not attract wildlife that could create a safety hazard to the operations of the Airport.*	*1. Refer to Appendix B for a list of suitable landscape species.* *2. In areas within the 3km wildlife buffer but outside of the Parkland Priority Areas shown in Figure 8, a report prepared by a suitability qualified and experienced ecologist is to be submitted with any application when the landscaping plan:* *a. Incorporates alternative landscape species not listed within Appendix B;* *b. Incorporates landscape species denoted within the landscape species list;* *c. Will result in more than 5 trees being planted in 1 group (group refers to touching mature canopies); and/or* *d. Provides a spacing between a group of 5 or more trees that is less than 100m.* *3. The ecologist report is to consider building, site, and water body design outcomes and/or landscape maintenance measures that will mitigate bird and flying fox attraction and roosting areas.*	**Y**	The Proposal has been designed to minimise attraction of wildlife which would create a safety hazard for an airport. The chosen species for the landscape palette meet the species requirements in Appendix B of the Aerotropolis DCP. The landscape report includes these details. 1. Refer to the Landscape Report (**Appendix Q**), the Aerotropolis DCP Appendix B has been referred to and species have been adopted, 2. a) Alternate species are not included in the landscape palette. b) The landscape report includes species from Appendix B. c) The landscape plan is based on DCP Section 2.4 Table 2. This grouping does not meet the requirements of 2.10.3; however, mitigation measures in Section 6 will prevent wildlife attraction. Where ongoing wildlife monitoring identifies wildlife attraction, the wildlife management program includes an escalating approach to reduce wildlife attraction. The BDAR (**Appendix LL**) provides that these tree spacings identified in Section 2.10.3 of the DCP, constrain the incorporation of structural diversity in landscaping; that would otherwise be used as a mitigation measure to achieve a positive ecological outcome. d) The landscape plan is based on DCP Section 2.4 Table 2. This spacing does not meet the requirements of 2.10.3; however, mitigation measures in Section 6 will prevent wildlife attraction. Where ongoing wildlife monitoring identifies wildlife attraction, the wildlife management program includes an escalating approach to reduce wildlife attraction. 3. Refer to the Wildlife Hazard Assessment (**Appendix V**), it considers the Proposal's potential risk of bird and flying fox's and provides appropriate mitigation measures and considers the ecologist report meets these requirements. The landscape design and plant species selection have been revised following consultation between the project landscape architect (Site Image) and biodiversity consultant (écologique) and with consideration to the recommendations made by the wildlife hazard specialist

2.10.1 Protection of Operation Airspace	
	(Avisure). It should be noted that not all of the subject site is located within the 0-3 km wildlife buffer zone. The Edge Amenity Node, Amenity Lot and Lots 8 and 9 are located in the 3-8 km wildlife buffer zone, with Lot 6 located on both 0-3 km and 3-8 km wildlife buffer zones (see Figure 9). The on-lot and associated streetscape landscape plantings of the Amenity Lot and Lots 8, 9 and the northern half of Lot 6 are theoretically able to follow the landscape guidelines in the Aerotropolis DCP guidelines without hindrance. However, a conservative approach has been applied and the landscape design amended to exclude bat and bird attractant landscape species across the subject site and not just in the 0-3 km wildlife buffer zone. The landscape design has been amended further to include the following recommendations made in the Wildlife Hazard Assessment Report (Avisure, 2025): • + The exclusion of additional species identified as bird and/or bat attractants despite not identified as restricted in the Aerotropolis DCP (i.e., not identified as requiring an accompanying ecologist report). • Identification of species that are not to be planted in groups of 5 or more, or are to be only sporadically planted, or require removal of seed heads and those that require monitoring. These amendments in combination with building design, waste management, monitoring and landscape maintenance measures, will be further specified in a Wildlife Management Plan that encompasses both construction and operational phases of the development. The design of the landscape, as considered in the BDAR at **Appendix LL**, still contributes to including as greater canopy coverage as possible across the Concept Plan (contributing to urban heat island effect mitigation), while balancing wildlife hazard accordingly. This wildlife hazard, as further assessed in this EIS, has been considered by both the project ecologist and the project wildlife hazard specialist.

2.11 Service and Utilities

2.11 Service and Utilities			
Objectives		**Compliance**	**Assessment**
***O1**. Ensure the construction of utility services/infrastructure provision occurs in a logical and staged manner, and in sequence with development.*		**Y**	Mirvac has had ongoing and frequent consultation with key service providers. as outlined within the EIS and Consultation Outcomes Report (**Appendix G**). Mirvac will continue to work in collaboration with service providers to ensure the delivery of utilities will occur in a logical and staged manner. Refer to Section 8 of the Civil Infrastructure Report prepared by AT&L (**Appendix L**).
***O2**. Encourage innovative and sustainable utility and servicing across the Aerotropolis to promote effective and efficient delivery of services. Ensure utilities designs and locations consider space for alternative future services.*		**Y**	
***O3**. Design and provide utility infrastructure to integrate with and not negatively impact use of the public realm, liveability, and the environment.*		**Y**	
***O4**. Infrastructure (new and existing) is protected from the impacts of urban development.*		**Y**	
***O5**. To ensure land use and development is integrated with water cycle management including service planning for potable water, recycled water and wastewater.*		**Y**	
Performance Outcomes	**Benchmark Solution**	**Compliance**	**Assessment**
***PO1**. Site is serviced with electricity.*	***1**. Meet the design requirements as per the Western Sydney Street Design Guidelines Section C5.4 Electricity.* ***2**. Locate electricity supplies within verge*	**Y**	Refer to the Civil Infrastructure Report prepared by AT&L (**Appendix L**). Correspondence between Endeavour Energy and Mirvac (refer to **Appendix BBB**) stated there is existing capacity within the existing Kemps Creek Zone Substation to service the Site. This is based on Endeavour Energy light industrial load type assessment using generic figures of 85Va/m^2 of office area and 17Va/m^2 of warehouse area. The existing Kemps Creek Zone Substation is located on the corner of Devonshire Road and Cross Street, Kemps Creek. Connection between the Kemps Creek Zone Substation and the Site will need to be provided via high voltage (11kV) arrangements. Provision for new substation within this Site will need to be confirmed during detailed design by a Level 3 Electrical Designer. **1**. Electricity Services will be accommodated in the road reserves as per the Western Sydney Street Design Guidelines. **2**. Electricity Supplies will be located underground within the street verge.
***PO2**. Services and utilities (hydrants, NBN boxes etc) are designed and located to integrate with building context and the public realm.*	***1**. Infrastructure is designed and located to:* *a. Integrate with building design and the public domain;* *b. Not be visible from the public domain unless appropriately screened by landscaping; and* *c. Make a positive contribution to the public domain.* ***2**. New streets integrate utilities within the street reservation, with services located underground and in a manner that facilitates tree planting and consistent with the Western Sydney Street Design Guidelines.* ***3**. Where services must be located on a street, they do not dominate the pedestrian experience and are designed as an integrated component of the facade, as per the Western Sydney Street Design Guidelines.*	**Y**	**1**. The proposed service and utilities will be designed to integrate into the lot layout and building design. Where services are required to be located on the street they will be appropriately located and treated to reduce their visual impact. **2**. Utilities and services will be integrated and located underground within the street verge **3**. Utilities and services have not been identified to be located on street, if required the design and location will be considered to avoid any impact to the pedestrian experience in accordance with the Western Sydney Guidelines
***PO3**. Infrastructure is adequately protected from development.*	***1**. Development near a utility service must be in accordance with the relevant service authority's guidelines and requirements and must not adversely affect the function of the service.* ***2**. Where development is proposed on land containing or adjacent to easements, applicants are to consult with the organisation responsible for the maintenance and management of the easement.* ***3**. Development adjacent to any future fuel pipeline is subject to a land use risk safety audit with the relevant buffers provided, subject to the airport authority.* ***4**. Locate infrastructure taking into account any future road widening to minimise relocation of assets.*	**Y**	**1**. Development near a utility service will be in accordance with the applicable service authorities guidelines. The proponent will also consult with the relevant authority in regard to easements. **2**. Not applicable No easements are located or on adjacent land. If necessary Mirvac will consult with the organisation to ensure appropriate maintenance and management **3**. Not applicable, Mirvac are unaware of any future fuel pipeline **4**. Mirvac has had continued consultation with TfNSW, with design concept plans for the widening of Elizabeth Drive received in January 2023 under a confidentiality agreement and are awaiting further information regarding design and timing. A Review of Environmental Factors (REFs) assessment was conducted in September 2023 by TfNSW, which outlined the features of the concept design for Elizabeth Drive and assessed a range of potential environmental impacts expected when the road is in construction and operation. Mirvac submitted a submission (dated 31 October 2023) to the public exhibition of the REFs. Refer to **Appendix AAA**, setting out a summary of consultation with TfNSW. Roads have been built to the Aerotropolis requirements.
***PO4**. Shared utility trenches combine multiple utilities within a compact area of the street verge, and futureproof service location within road cross-sections.*	***1**. Refer to the provisions within the Western Sydney Engineering Design Manual for details on shared utility trenching.* ***2**. Avoid placement of services within the road carriageway.* ***3**. Ensure sufficient width in the utility corridor.* ***4**. Avoid disruptive works across/ under existing carriageways.*	**Y**	Compatible public utility services will be coordinated in common trenching where practical. **1**. The Western Sydney Engineering Design Manual will be adopted for utility trenching **2**. Refer to PO2 and PO3 services are intended to be located within street verges **3**. Adequate width within all road verges is provided for all utility services in assigned service corridors **4**. Disruptive works will be avoided where possible

	***5**. Adopt a 'dig once' policy where spare conduits and road crossings are installed in strategic locations to avoid disturbing the road in the future.*		**5**. Mirvac acknowledge the "dig once' policy and have considered spare conduits for installation of future infrastructure services.
***PO5**. Infrastructure allows for colocation of compatible similar uses.*	***1**. Allow for the installation of the following within the utility corridor:* *a. Recycled water purple pipes;* *b. Vacuum waste collection system;* *c. Hydrogen district cooling/heating systems; and* *d. Micro-grids for energy sharing.*	**Y**	To be confirmed during the detailed design of the industrial estate, all utilities are intended to be co-located within the utility corridor.
***PO6**. Provide fast, reliable, and high-speed fixed and wireless internet connectivity across the Aerotropolis to the standards listed in the Australia and New Zealand Smart Cities Council's Code for Smart Communities.*	***1**. Demonstrate access to the NBN. Where coverage at time of lot registration is not or will not be above minimum network connectivity speeds, demonstrate how and where allowances for future network augmentation have been made.* ***2**. Follow the design guidance as per the Western Sydney Street Design Guidelines Section C5.6 Telecommunications and Section C6.3 5G Mobile Telecommunications.*	Y	**1**. Refer to **Appendix CCC** outlining NBN plans for the Site and the Civil Infrastructure Report (**Appendix L**). It is anticipated that there is adequate capacity within the existing network to supply the site. It is understood that a minor Telstra network is located within the Site and will ultimately need to be relocated by the developer. NBN requires an application for connection to be made with appropriate lead times to ensure the network can be delivered to the site. All premises will be provided with high speed and reliable infrastructure. **2**. Design guidelines will be adopted as per section C5.6 and C6.3.
***PO7**. Development is to be serviced by recycled water.*	***1**. Where a recycled water scheme (supplied by stormwater harvesting and/or recycled wastewater) is in place, development shall:* *a. Be designed in a manner that does not compromise waterway objectives, with stormwater harvesting prioritised over reticulated recycled water;* *b. Bring a purple pipe for recycled water to the boundary of the site;* *c. Not top up rainwater tanks with recycled water unless approved by Sydney Water; and* *d. Design recycled water reticulation to standards required by the operator of the recycled water scheme.*	Y	Refer to the Civil Infrastructure Report (**Appendix L**). As documented in the Interim Stormwater and Water Cycle Management Strategy (Sydney Water, 2020), Sydney Water has developed a proposed recycled water supply network from the planned Upper South Creek AWRC. It is noted in the Strategy that 'recycled water supply for non-drinking uses is closely related to the stormwater servicing approaches due to competing end uses'. The Strategy also notes that it may be more cost-effective to limit recycled water supply to certain precincts or for certain uses in order to provide the best value for recycled water servicing. Considering the limited demand for non-potable water within the development, it is unlikely there would be sufficient demand for both harvested stormwater and reticulated recycled water within the Site.

2.12 Sustainability

2.12 Sustainability		
Objective	**Compliance**	**Assessment**
***O1**. Minimise energy consumption and achieve net zero energy emissions by 2030.*	**Y**	Mirvac had previously set a target of reaching net positive carbon by 2030, which was achieved in 2021, nine (9) years early. Mirvac's pathway to net positive for carbon emissions by 2030 *(Mirvac's Planet Positive)* supports the delivery of a net zero carbon emissions. The proposed site-wide strategies to minimise energy consumption include: • On-site renewable energy production (min. 99 kW PV System per building); • Energy efficient lighting systems; • Controls of lighting systems; • Optimised façade thermal performance; • Passive design elements (natural ventilation, shading); • Embodied carbon reduction; and • Efficient HVAC System Equipment. A Net-Zero Statement has been prepared by Stantec and executed by an Electrical Engineer from Edgewater, and is included at **Appendix S**. It which confirms the Proposal is designed to be fossil fuel-free immediately upon occupation and it does not require a transition strategy. For further detail, refer to the ESD Report prepared by Stantec (**Appendix WW**). Additionally, an Agreement to Rate has been prepared by Mirvac and is provided at **Appendix W**.
Performance Outcome	**Benchmark Solutions**	**Compliance**	**Assessment**
***PO1**. Incorporate renewable energy systems to ensure all buildings can achieve a 100% renewable energy supply by 2030.*	***1**. All developments demonstrate how 100% renewable energy supply can be achieved by 2030, whether on or off site.* ***2**. Where the net zero energy target cannot be accommodated on site, the proponent must provide an offset e.g. with a Power Purchase Agreement.*	**Y**	A Net-Zero Statement has been prepared by Stantec and executed by an Electrical Engineer from Edgewater and is included at **Appendix S**. It which confirms the Proposal is designed to be fossil fuel-free immediately upon occupation and it does not require a transition strategy. Mirvac's pathway to net positive for carbon emissions by 2030 *(Mirvac's Planet Positive)* supports the delivery of a net zero carbon emissions. Site-wide renewable energy generations systems include: • On-site renewable energy production (min. 99 kW PV System per building); and • The remaining site energy demand is expected to be supplied with off-site renewables by 2030. For further detail refer to the ESD Report prepared by Stantec (**Appendix WW**).

2.13 Smart Places

2.13 Smart Places		
Objectives	**Compliance**	**Assessment**
***O1**. Support the Aerotropolis as a connected, open data digital city and global innovation hub to improve life for individual citizens, future populations, businesses, and communities, in line with the NSW Smart Places Strategy and Smart Western City Program.*	**Y**	The aspiration for the Proposal is to be an innovative precinct for future tenants. Provision will be made to ensure that this is achieved through the development as part of detailed design. Mirvac's vision is to redefine industrial logistic facilities in Western Sydney with a thorough emphasis on design quality, flexibility, technology and sustainability. Mirvac is supportive of delivering a design that is in line with the aspirations of the Aerotropolis and will continue to embrace further opportunities. Refer to examples provided within the Smart City Requirements (**Appendix AA**).
***O2**. Embrace innovative development by installing new and emerging technologies and utility provision.*		
***O3**. Support a resilient and sustainable region that uses technology to manage natural resources efficiently and is focused on environmental, air and water quality.*		
***O4**. Build on initiatives over time in line with the Australian Digital Inclusion Index.*		

Performance Outcome	Benchmark Solution	Compliance	Assessment
***PO1**. Implement multi-function poles (Smart Poles) where street poles are required that accommodate multiple functions.*	***1**. Potential services which could be incorporated into multi-function poles include:* *a. RMS signals and signage;* *b. Street lighting;* *c. Telecommunications (such as mobile cellular network providers);* *d. Council digital infrastructure requirements (e.g. CCTV, signage, lighting); and* *e. Relevant sensing networks, with flexibility to enhance these in the future.* ***2**. Meet the following design requirements:* *a. Placement is a minimum of 600mm from the face of kerb;* *b. Placement avoids impacts on existing and future mature street tree canopies;* *c. Co-locate with other street furniture; and* *d. Pit and pipe to each light pole is provided to enable the future upgrading to 'intelligent' lights and the installation of 'smart meter' to Council specification at each new lot.*	**Y**	The Proposal is intended to be an innovative precinct for future tenants. Provision will be made to ensure that this is achieved through the development as part of detailed design. Mirvac will continue to investigate the provision of Smart Infrastructure and further coordinate with Council in relation to the design requirements specified within Public Areas. Refer to examples provided within the Smart City Requirements (**Appendix AA**).
***PO2**. Pit and pipe infrastructure support future requirements to service smart city infrastructure.*	***1**. Where developments are providing pit and pipe infrastructure, specifications in the Digital Infrastructure Technical Report: Western Parkland City are met to accommodate future smart city infrastructure.*	**Y**	Specifications provided within *Digital Infrastructure Technical Report: Western Parkland City* will be adopted as necessary.
***PO3**. Buildings utilise smart technologies to promote performance, sustainability, resilience, and resource management throughout their operational lives.*	***1**. Where new connections to the water and recycled network are proposed, include smart water meters and fittings to minimise water consumption.* ***2**. Use smart technologies to monitor and self-regulate building environment and operations (e.g. lighting, heat, ventilation, and air conditioning).* ***3**. Install smart energy solutions to increase self-sustainability and reduce reliance on the main energy grid.* ***4**. Demonstrate alignment to relevant NSW policy, including but not limited to the NSW Internet of Things (IoT) policy, NSW Cyber Security Policy and NSW Smart Infrastructure Policy*	**Y**	Refer to the ESD Report (**Appendix WW**) and Smart City Requirements (**Appendix AA**). A series of energy efficiency measurement tools have been proposed. Provision will be made to ensure that this is achieved through the development as part of detailed design.
***PO4**. Embedding smart technologies enhances experiences in the public domain and creates liveable public open spaces.*	***1**. Install smart monitoring equipment, including for water quality, ambient temperature, tree canopy cover and soil moisture content, cycle, and car movements. Specific monitoring requirements for each development are provided by the consent authority.* ***2**. The following smart solutions meet Council's system interoperability and data source requirements and are to be installed in key locations such as open space and public domain areas:* *a. Dedicated internet/fibre connection points;* *b. Public Wi-Fi network that provides sufficient coverage to the whole public space;*	**N/A**	Public Domain is not considered within this application; however in future applications Mirvac will further coordinate requirements with Penrith City Council and WSPA to incorporate smart technologies to meet requirements and objectives.

c. Smart lighting where key locations may be used at night-time for active uses, ensuring lighting is adequate for active and passive uses; *d. Security cameras at key locations to ensure coverage within the public space;* *e. 'Smart bins' with capacity rubbish bin sensors;* *f. 'Smart park furniture' with USB-charging capacity and potentially Wi-Fi connectivity;* *g. Digital display screen, linked to a Council-accessible network to share key community information, data, and activities;* *h. Weather monitoring network/devices to monitor temperature and weather within the park and have this accessible to the public; and* *i. Wireless connectivity (e.g. Bluetooth) with free access within the community's parks, particularly in proximity to the basketball court/youth spaces.*	

2.14 Design for Safe Places

2.14 Design for Safe Places			
Objectives		**Compliance**	**Assessment**
***O1**. Design in accordance with Crime Prevention Through Environmental Design (CPTED) principles.*		**Y**	A CPTED Report has not been prepared for the Proposal as the proposed use is not considered of 'high impact' in accordance with Appendix D of the Aerotropolis DCP. The CPTED principles have been considered as part of the proposed development, as outlined below. CPTED principles have been employed in the proposed development to create a safe and secure environment that encourages activity, vitality and visibility. In particular, areas of active usage such as offices and handstands are oriented towards the street to ensure surveillance along the public interface. Landscape areas are carefully designed to avoid obstructing surveillance and provide clear sightlines between public and private places. Perimeter press formed metal fencing and gates at entry points of individual lots are proposed to allow natural observation of the street.
***O2**. Ensure the development contributes to the activity, vibrancy, diversity and safety of streets and the public domain through the day and night.*		**Y**	Consistent with the ENT Zone, the development provides for an industrial development and public focused areas while integrating with the Wianamatta-South Creek to the east (noting that planning for the rehabilitation and restoration of Wianamatta-South Creek will come under a separate Development Application). Towards the west, the industrial areas are mainly workplace focus, consisting of warehouses, ancillary offices and a potential substation. In contrast, the community focused areas constitute of public open space and amenity node with potential café. Intended for recreation activities and interactivity between users and natural environment, the community focused areas are concentrated along the creek line to the east. Visitors and general public can access the view of the creek and interact with the workers within the development via proposed cycle paths that connects to the amenity node and public open space.
Performance Outcome	**Benchmark Solution**	**Compliance**	**Assessment**
***PO1**. Passive surveillance is maximised.*	***1**. Visibility and surveillance are provided in all areas of development.* ***2**. Adjoining buildings overlook public places.* ***3**. Building frontages face streets and transport corridors to provide passive surveillance.* ***4**. Use open grill or transparent security (at least 50% visually transparent) shutters to retail frontages (if proposed) (as indicatively shown in Figure 9).*	**Y**	1. Visibility and surveillance is maintained throughout the estate. Landscaped, activated streets provide passive surveillance and easy access to on lot amenity and office locations. 2. Areas of active usage such as offices and handstands are oriented to face the street to ensure surveillance along the public interface. In particular, the ancillary offices of Warehouse 5 and 8 are oriented easterly fronting Wianamatta-South Creek to not only maximise views for the occupants but also promoting integrated surveillance to the public open space, green space, amenity node, cycle path and the creek beyond. 3. Streets and Landscape areas are carefully designed to avoid obstructing surveillance and provide clear sightlines between public and private places. The proposed public cycle path that runs along the eastern edges of the Site has generous unobstructed outlook towards Wianamatta-South Creek and links to the landscaped public open space and amenity node. Perimeter press formed metal fencing and gates at entry points of individual lots are proposed to allow natural observation of the street. 4. Not applicable. No retail development is proposed.
***PO2**. Access and sightlines promote safe movement. Ensure pedestrian and cycleways are designed in accordance with CPTED to ensure a safe and secure environment that encourages activity, vitality and visibility, enabling a greater level of security.*	***1**. Building entrances are accessible, clearly visible, legible and allow users to see into or out of the building before entering / exiting.* ***2**. Pedestrian paths have well defined routes, clear sight lines and do not channel users into dead ends that are poorly lit or to areas with opportunities for concealment (as indicatively shown in Figure 8).* ***3**. Minimise corners, poorly lit corridors, laneways with low activity and other kinds of entrapment spots.* ***4**. If entrapment spots are unavoidable, they are to be mitigated using measures such as CCTV surveillance.*	**Y**	**1**. The design of facades along the primary street frontage(s) will strengthen passive surveillance and streetscape character. The entry designs are open and clearly accessible providing easy access. **2-3**. The layout of the road network takes a form of efficient grid pattern informed by the Aerotropolis Precinct Plan, making the estate highly accessible and permeable for vehicles and pedestrians. Local collector road runs north south of the development, forming the main entry point from Elizabeth Drive and serves as the main estate through-site link to adjoining properties. This road is intentionally wider than Industrial Street to serve as local bus routes and also integrate cycle paths as well as footpaths paths within the street. Separate to this is the 6.5m wide cycle path that is located along the Wianamatta-South Creek and intended for public use and as a link to other public open spaces. The proposed footpaths within the estate are further defined with green landscaping between pedestrian and vehicles movement, ensuring safe passageway for future occupants traversing within the development. **4**. CCTV will be incorporated within the estate as required.
***PO3**. Car parking areas, pathways and other elements of transport network infrastructure are in accordance with Crime Prevention Through Environmental Design (CPTED) principles to enhance public safety by discouraging crime and antisocial behaviour.*	***1**. Car parking areas and structures are designed in accordance with CPTED principles.* ***2**. Car park areas and structures are well maintained and incorporate CCTV as a deterrent to crime and anti-social behaviour.* ***3**. Ground levels of car park structures are sleeved with active uses to support passive surveillance.* ***4**. Ensure passive surveillance to and from the public domain for at grade car parking areas.* ***5**. Pedestrian access points to car parks are clearly delineated and located in areas with good visibility from the public realm.*	**Y**	**1**. Car park design promotes passive surveillance and has been designed in accordance with CPTED principles **2**. CCTV will be incorporated within the estate as required **3**. Car spaces and handstands are oriented to face the street to ensure surveillance along the public interface. Building setbacks from street boundary are provided for with generous nature strips along the proposed road network. This large transition area will be landscaped so that the safety and security as well as the amenity of the public domain is retained and enhanced. **4**. Warehouses have been positioned to ensure passive surveillance is maintained and visibility available from the public open space (noting not all warehouses are proposed under this SSDA). **5**. Pedestrian access points are clearly designed to ensure visibility. Palisade fencing has been proposed for on-lot facilities and appropriate landscaping to ensure passive surveillance. **6**. Refer to DA200 and DA600 of the Architectural Drawings prepared by SBA Architects (**Appendix B**), featuring a design that creates openness to facilitate passive surveillance.

	***6**. Facade systems (shown below) are designed to integrate safety barriers and systems while also incorporating visual transparency to facilitate passive surveillance from and to the public realm.* *Example of a facade system that facilitates passive surveillance* 		
***PO4**. Safety is ensured via the use of appropriate lighting.*	***1**. Lighting design should address the principles of CPTED where there is significant pedestrian activity, late night work-shifts or safety and security issues.* ***2**. Use public lighting to connect areas between lights and avoid unnecessary areas of darkness. The areas should be lit to the minimum AS 1158.Illuminate public areas, entrances to buildings and concealed corners.* ***3**. Minimise lighting spillage onto surrounding properties by designing in accordance with AS 4282.*	**Y**	This will be developed as part of detailed design and will comply as required. **1**. All street lighting will be designed in accordance with AS1158. The Proposal's layout includes the positioning of hardstand area that require bright lighting to light the large areas located away from Wianamatta-South Creek corridor and Elizabeth Drive, while focusing lighting on the public domain (footpaths and road corridors) and within areas of high activity on allotments. **2**. The proposed lighting will meet security requirements without excessive energy consumption to provide appropriate levels of lighting to reduce unnecessary areas of darkness. **3**. All lighting will be designed to comply with AS 4282.
***PO5**. Public and private spaces are clearly delineated.*	***1**. Clearly demonstrate ownership of private and public space in the design of the public realm and built form.* ***2**. Use landscaping to delineate between public and private spaces rather than building materials (e.g. solid fences).*	**Y**	Landscaped areas are carefully designed to avoid obstructing surveillance and provide clear sightlines between public and private places. The design of both local collector roads and industrial streets have assisted in delineating private and public spaces/entries through the provision of different widths. Refer to the Landscape Report (**Appendix Q**).

2.15 Universal Design and Access

2.15 Universal Design and Access			
Objectives		**Compliance**	**Assessment**
***O1**. Provide equitable, safe, and legible access to the public realm and built form for all people.*		**Y**	All industrial and office buildings are strategically located within the walkable distance of 800m radius of catchment to the communal open spaces, making the Site easily accessible for the future occupants. The cycle path and street network in linear form runs along the edges of buildings, allowing interconnection between workers, visitors and surrounding natural environment. The Proposal has incorporated pedestrian access throughout the design process including: • Within the Design Elements Diagram in **Appendix I** it has been referenced how the built form responds to the urban strategy and landscape response. • The design has thought carefully about the pedestrian experience throughout the estate, and used a 5 minute walking (400m) radius as a key principle to build a series of functional respite and amenity opportunities as visitors navigate around the masterplan as a pedestrian. • The design has incorporated various amenity nodes that incorporate vegetation and features that respond to country and sustainability by incorporation shade within respite zones knowing it is going to be hotter during the summer months, to provide for comfort to encourage for people to get out and walk.
Performance Outcome	**Benchmark Solution**	**Compliance**	**Assessment**
***PO1**. Buildings and public places are designed for equity, accessibility and safety.*	***1**. Paths, ramps, steps, and lifts comply with AS 1428-2009 Design for Access and Mobility.* ***2**. Provide safe, logical, and predicable pathways that consider:* *a. Sight lines;* *b. Legibility;* *c. Weather protection;* *d. Cultural safety;* *e. The needs of children, the elderly, and people with disabilities; and* *f. Access and signage information.* ***3**. Built form is stepped with the topography to provide at grade access for all ground floor uses.* ***4**. An access report is required where universal access is a requirement of the Disabilities Discrimination Act 1992.*	**Y**	**1**. Provision of pathways, stairs, ramps and lifts are designed with compliance to AS 1428-2009 and NCC for Lot 2 and 6. Further discussion are captured in the BCA (**Appendix DD**). **2**. Provide safe, logical and predictable pathways that consider: • Sight lines: The pathways are generally laid in grid pattern, making the development ‘‘porous’’ and encouraging sightlines in all directions. • Legibility: Pathways will be completed with signages and are delineated with landscaping and materiality to create easily recognisable wayfinding in the development • Weather protection: Pathways are laced with wide nature strip which allows for growth of canopy trees. The canopies in turn provide shade to the pedestrians and reduce heat island effect. • Cultural Safety: Dedicated pathway and cycleway connecting visitors and estate occupants promotes social inclusion within the setting of the Wianamatta-South Creek. • The needs of children, the elderly and people with disabilities: The design compliance to Australian Standards and NCC ensure accessibility and appropriate scale for all users • Access and signage information: Signage design will be integrated with the building façade, addressing the street frontages. The wayfinding device is further strengthened with the use of pylon signage at street level.3. Built form is stepped with the topography to provide at grade access for all ground floor uses: There is a Site fall of roughly 20m from the west towards the creek and therefore the proposed built forms are stepped in the east direction. **3**. The proposed built form is stepped with the topography to provide at-grade access for all ground floor uses. **4**. Refer to the BCA Assessments for the two (2) proposed industrial buildings that indicates that the provisions of the DDA Access to Premises – Buildings Standards have been considered as they are generally consistent with the accessibility provisions of the BCA.

2.16 Waste Management and Circular Economy

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Objectives	**Compliance**	**Assessment**
***O1**. Incorporate well-designed and innovative waste and recycling facilities in the building design stage.*	**Y**	Elements have been considered in the broader masterplan for the Site. The detailed design stage of the development will incorporate these to ensure they are appropriately implemented into the construction and operation phase of the development. Measures and strategies have been referenced within the Waste Management Plan at **Appendix VV** prepared by SLR Consulting. Waste facilities for buildings has been considered as required and will be further detailed as part of detail design. As emerging technologies are introduced, further considerations will be incorporated to provide best in class and sustainable facilities.
***O2**. Encourage circular economy infrastructure including but not limited to reuse and repair facilities, sharing and leasing facilities, reverse vending machines and community recycling centres within the Aerotropolis.*	**Y**	The Proposal will seek to encourage circular economy initiatives where appropriate., in particular in minimising waste going to landfill/generating waste. Refer to **Appendix VV**. It is noted that reverse vending machines and the like may occur on the Site once operational.
***O3**. Minimise the amount of waste generated and going to landfill.*	**Y**	Targets for new development are expected to contribute to state specific targets. The *NSW Waste and Sustainable Materials Strategy 2041* (DPIE, 2021) sets a target of 80% average recovery rate from all waste streams by 2030. Penrith City Council's Waste and Resources Strategy identifies a target for 2021- 2022 of: • Increasing recycling rates to 80% for construction and demolition waste; and • Increasing waste diverted from landfill to 75%. Operationally, tenants will be supported by providing sustainable initiatives to support businesses. It is anticipated that the waste minimisation measures in the following sections will assist the Proposal to meet these targets. Waste reporting and audits can be used to determine the actual percentage of wastes that have been recycled during the construction and site preparation stage of the Proposal.
***O4**. Maximise waste separation and resource recovery*	**Y**	It will be ensured that waste separation and resource recovery is maximised through the operational phase of the project with innovative and best practice methods utilised.
***O5**. Provide innovative and best practice waste management collection systems and technologies for reuse, recycling, organics collection and product stewardship.*	**Y**	
***O6**. Provide waste and recycling facilities that do not impact on amenity for residents, neighbours and the public, such as visually unpleasant areas, noise, traffic and odours from waste collection services, while also ensuring facilities are accessible, integrated wholly within the built form and easy to use.*	**Y**	Each of the proposed Warehouse's (2 and 6) provide designated waste storage areas. The waste storage areas are strategically located to not result in reduced amenity to the public domain as well as the location being highly accessible. Refer to DA200 and DA600 of the Architectural Drawings (**Appendix B**).

Performance Outcome	Benchmark Solution	Compliance	Assessment
***PO1**. Waste management measures are implemented at lot and neighbourhood scale to support circular economy activities.*	***1**. Submit a waste management plan to support circular economy activities that also details the quantity and type of waste generated and how this will be managed, reused and recycled. Where possible, incorporate technologies such as vacuum extraction or on-site food processing.* ***2**. Co-locate and integrate waste infrastructure on sites with multiple uses by providing a single collection point for waste and recycling.* ***3**. Demonstrate that organic waste can be managed in the building through measures such as:* *a. Multiple options for on-site organic waste to maximise recovery (e.g. communal composting, worm farms, individual composting, dehydrators);* *b. Organics and recycling service to all households; or* *c. Energy generation from organic waste (anaerobic digestion) at lot and precinct scale.*	**Y**	**1**. A Waste Management Plan has been prepared (**Appendix VV**). **2**. Infrastructure has been designed to include the allocation of waste facilities throughout the masterplan. Appropriate measures and recommendations have been considered to ensure appropriate management through construction and operation. **3**. Where appropriate organic waste solutions will be integrated within warehouse operations dependent on use.
***PO2**. Waste and recycling facilities promote waste separation and reduce contamination. Materials are separated at source to achieve higher value recovery.*	***1**. Collection points (including but not limited to reverse vending machines and e-waste drop-off) must be located with adequate space for servicing, ease of use and to encourage the separation of waste material. Collection points are documented in the waste management plan and are easily accessible.* ***2**. Provide separate and enclosed storage for liquid, chemicals, and hazardous waste.* ***3**. Where general waste chutes are used, provide for the collection of recycling and organic waste at each level within the building.* ***4**. Consolidated organic waste drop off points are designed to minimise any potential odour and vermin risks. This includes the provision of rooms that are temperature controlled and suitably ventilated.*	**Y**	**1-2**. Each of the proposed Warehouse's (2 and 6) provide designated waste storage areas. The waste storage areas allow adequate space for servicing and separate storage of waste. Refer to DA200 and DA600 of the Architectural Drawings (**Appendix B**). Each tenant has a designated waste collection/ storage area. Areas are secure and positioned away from public view **3**. Not applicable. **4**. Waste Controls and Mitigation measures are set out within the Waste Management Plan (**Appendix VV**). Design of these areas are secure and away from public view with appropriate temperature and ventilation.

***PO3**. The location of waste management is clearly indicated for each site and neighbourhood.*	***1**. Provide uniform waste management design and colour coding in accordance with AS 4123 across residential and commercial developments.* ***2**. Waste management systems and rooms are located inside buildings to support a heightened amenity and urban design outcome. Waste must not be left outside (excluding during collection) to avoid attracting animals.*	**Y**	**1**. Appropriate signage and design has been proposed within Waste Management Plan (**Appendix VV**). **2**. Secure enclosed waste facilities have been appropriately located at each warehouse facility. In addition, the Wildlife Risk Assessment (**Appendix V**) includes mitigation measures to detract animals.
***PO4**. Waste bins are provided to a level commensurate with waste produced for each development as outlined in Council's waste and recycling service.*	***1**. Waste storage areas are designed to:* *a. Accommodate the required number and size of waste bins;* *b. Provide space for the bins to be accessed, rotated and manoeuvred for emptying;* *c. Allow for future waste separation practices; and* *d. Account for different uses in mixed use development through the provision of separate and enclosed collection rooms for both residential and commercial uses.* ***2**. Align building design and collection points with Council's waste and recycling services and collection fleets.*	**Y**	**1**. Refer to the below responses: a. Each of the proposed Warehouse's (2 and 6) provide designated waste storage areas. b. The waste storage areas will be designed to include requirement provisions through the detailed design process. Refer to DA200 and DA600 of the Architectural Drawings prepared by SBA Architects (**Appendix B**). c. Design will allow for future initiatives regarding waste management principles. d. Not applicable. **2**. Design is intended to meet Council requirements.
***PO5**. Implement innovative waste management storage systems that are safe, healthy, and efficient.*	***1**. Waste storage areas are to:* *a. Be well-lit and ventilated;* *b. Include water and drainage facilities for cleaning the bins and bin storage area;* *c. Be easily and conveniently accessible for all users and collection contractors;* *d. Be located so that residents do not have to walk more than 30m for access; and* *e. Comply with Local Council Policy and contractual service provisions.* ***2**. Collection and loading points are to be:* *a. Level;* *b. Free of obstructions;* *c. Easily accessible from the nominated waste and recycling storage area;* *d. Be integrated wholly within the built form to support a heightened amenity outcome;* *e. Be accessible by heavy rigid collection vehicles to permit entry and exit of the site in a forward direction;* *f. Comply with the Building Code of Australia and Relevant Australian Standards; and* *g. Comply with Local Council Policy and contractual service provisions.* ***3**. Provide safe and easy access to waste and resource recovery areas for residents, building managers and collection contractors.* ***4**. Ensure waste and recycling areas flexibly adapt to other types of waste and materials storage over time.* ***5**. Design waste and recycling facilities to prevent litter and contamination of the stormwater drainage system.*	**Y**	**1**. Each of the proposed Warehouse's (Warehouses 2 and 6) provide designated waste storage areas. The waste storage areas will design to achieved all of the requirements. Refer to DA200 and DA600 of the Architectural Drawings (**Appendix B**). Sufficient design provides for flexibility to adapt to changing requirements. **2**. Collection points have been designed to have appropriate accessibility. **3**. The location of waste storage facilities is easily accessible located in the middle of the loading dock and separate from the Dock and Site Offices. **4**. Design will allow for future initiatives regarding waste management principles and types. **5**. Secure waste facilities have been designed to avoid litter and contamination.
***PO6**. Waste management storage systems minimise negative impacts on the streetscape, public domain, building presentation or amenity of pedestrians, occupants, and neighbouring sites.*	***1**. Waste storage and collection areas are to:* *a. Where possible, be integrated wholly within the developments built form;* *b. Not be visible from the street or public domain;* *c. Not adjoin private open space, windows, habitable rooms, or clothes drying areas;* *d. Not be located within front setbacks; and* *e. Comply with Local Council Policy and contractual service provisions.* ***2**. Collection points and systems are designed to minimise noise for occupants and neighbours during operation and collection.*	**Y**	**1**. Each of the proposed Warehouse's (2 and 6) provide designated waste storage areas which are integrated and designed away from public domain on lot outdoor amenity. The waste storage areas are strategically located to not result in reduced amenity to the public domain as well as the location being highly accessible. Refer to DA200 and DA600 of the Architectural Drawings (**Appendix B**). **2**. The location of the waste storage facility is located within the middle of the hardstand separate to the location of the Dock and Site Office; This location is the furthest point from the offices therefore limiting the amount of noise disturbance and disruption.
***PO7**. Recognise waste types, generation rates and separation needs may change during the useful life of a building.*	***1**. Waste and resource recovery facilities are sited to enable possible future expanded floor area.* ***2**. Design waste and resource recovery facilities to enable installation of new, potentially larger equipment.*	**N/A**	Not applicable. the Site is not proposed to be a waste recovery facility.

2.17 Subdivision Design

2.17 Subdivision Design			
Performance Outcome	**Benchmark Solution**	**Compliance**	**Assessment**
***PO1**. To protect biodiversity values and minimise impacts on remnant native vegetation.*	*1. Land zoned Environment and Recreation must not be subdivided unless the consent authority is satisfied appropriate arrangements have been made for revegetation and rehabilitation in accordance with a Vegetation Management Plan, including ongoing monitoring and management.*	**Y**	The proposed subdivision includes a separate lot for land zoned ENZ with the Site. No works are proposed to be carried out within the ENZ area.
***PO2**. To respond to the natural topography and physical characteristics of the land and minimise the need to cut and fill.*	*1. Subdivision design shall balance cut and fill as far as practicable. Development proposals must include an Earthworks Plan, detailing the proposed cut and fill strategy, how the design minimises cut and/or fill, and justification for the proposed changes to the landform.* *2. The impact on environmental values of any earthworks proposed are to be mitigated through the construction of physical barries and sediment controls* *3. Where a proposal is for subdivision of land only, benching is limited to road layouts and to within 15m of each newly created or proposed lot.*	**Y**	The proposed subdivision has considered the Site's topography. Refer to Section 5 of the Civil Infrastructure Report (**Appendix L**). A balanced cut to fill has been achieved, minimising the need for exportation of fill across the Site. The key elements in regard to cut and fill are below: • The balanced cut to fill balance includes: - Re-use of existing cut material and topsoil; - Construction works limited to the Site extents only; - Minimising external construction traffic; and - No exports required. • Terraced pads will be established cascading towards Wianamatta-South Creek following natural topography to minimise impact where possible • The challenge always with creating building platforms at this size range, it inherently that does create the need for retaining walls • There have been retaining walls positioned throughout the Site, generally up to 7 meters in height • The location of walls is behind built form to obscure the view from the public domain, as well as the effective use of batters which reduce the overall wall heights. • Key sections throughout the Site show how the proposed levels generally respond to the landforms stepping down the Site and towards the creek corridor. • A general principle where walls are obscured behind built form and won't be particularly visible from the public domain. • Within public domain areas minimising retaining structures via battering at max 1:4 slope, particularly within eastern portions of The Site adjacent creek as indicated in sections.

2.18 Earthworks and Retaining Walls

2.18 Earthworks and Retaining Walls			
Performance Outcome	**Benchmark Solution**	**Compliance**	**Assessment**
***PO1**. To ensure site planning considers the stability of land, its topography, geology and soils*	*1. Site planning is to respond to the natural topography of the site and protect vegetation, particularly where it is important to site stability.* *2. A Geotechnical Report is to be submitted with applications proposing to change site levels.* *3. Excavation and fill shall be adequately retained and drained in accordance with the Western Sydney Engineering Design Guidelines.*	**Y**	1. Refer to Section 5 of the Civil Infrastructure Report (**Appendix L**). It outlines the Proposal's cut and fill requirements and consideration taken into account as well as the proposed retaining wall strategy. Refer to the Civil Drawings (**Appendix K**) that details the proposed retaining walls in response to the Sites topography which slopes from the west down towards the Wianamatta-South Creek along the eastern boundary of the Site. 2. A Geotechnical Investigation (including supporting investigations) (**Appendix GG**). 3. Engineering Design Guidelines are to be adopted and referred to within the Civil Drawings (**Appendix K**).
***PO2**. To ensure that earthworks and retaining wall construction is suitably designed and landscaped to ameliorate its visual presentation to and from the public domain and adjacent properties.*	*1. Level transitions must be managed between lots and not at the interface to the public domain.* *2. Finished ground levels adjacent to the public domain or public road shall be no greater than 1.0m above the finished road level (or public domain level).* *3. Where a level difference must exceed 1.0m and adjoins the public domain or public road, the retaining wall must be tiered. Each retaining wall tier element shall be no more than 2.0m. A 1.5m wide deep soil zone with suitable landscaping is to be provided between each tier. The maximum cumulative height of any retaining walls adjoining the public domain is 6.0m.* *4. The toe (fill retaining wall) or top (cut retaining wall) of all retaining walls are to be setback 2.0m into the property boundary and the setback is to be suitably landscaped.* *5. On sloping sites, site disturbance is to be minimised by using split level or pier foundation building designs.* *6. Retaining wall design and materials shall complement architectural and landscape design.*	**Y**	Refer to the Civil Drawings (**Appendix K**). Retaining walls have been designed in compliance with the Aerotropolis DCP, with all walls fronting public domain or public roads designed as tiered walls. No tier exceeds 2m in height with a 1.5m wide landscape set back between tiers where adjoining the public domain. No cumulative tiered wall exceeds 6m in height.
***PO3**. To encourage reuse of fill material from within the Aerotropolis Precinct.*	*1. Imported fill it is to be Virgin Excavated Natural Material (VENM) or Excavated Natural Material (ENM) and validated by a suitably qualified person.* *2. Where possible, fill material should be sourced from within the Aerotropolis Precinct.* *3. Topsoil should be preserved on site and suitably stockpiled and covered for re-use.*	**Y**	The Proposal will be conducted in accordance with this control. A general cut to fill balance across Stage 1A Development has been achieved which will minimise any fill material to be sourced. Topsoil will be stockpiled on the Site and re-used within landscaped areas. Imported fill will be subject to the requirements of the Fill Management Plans (**Appendix JJ)**,

2.19 Public Art

2.19 Public Art			
Objectives		**Compliance**	**Assessment**
***O1**. Enrich and enliven the public and private domain with high quality, aesthetic, and functional art.*		**Y**	**Appendix Y** and **Z** outlines the Public Art Strategy for the Estate which is being coordinated by Yerrabingin. The intent is to create a unique design response that is representative of the areas of cultural significance within the Site as well as creating a connectiveness to neighbouring properties. The strategy is intended: • To deliver innovative and functional art to provide an opportunity for users to engage and further understand cultural significance of the land • Correspond to the requirements set out within Penrith's Public Art Policy • Connect to stories that are integral to the connection of the land In addition, the Public Art Location Plan in **Appendix B** shows the proposed location of the Warehouse 2 and Warehouse 6 public art, at the key public interface areas near the office forms.
***O2**. Provide public art consistent with Council's Public Art Policy*		**Y**	
***O3**. Recognise and celebrate Aboriginal heritage, values and living culture in the public domain.*		**Y**	
Performance Outcome	**Benchmark Solution**	**Compliance**	**Assessment**
***PO1**. High-quality public art is integrated into the design and function of the development to embellish and enliven the public domain.*	*1. The strategy should respond to cultural values mapping to deliver a suitable artwork for the development demonstrating that the scale of the public art provided is commensurate to the intensity of use at the site or landscape.* *2. For such development defined above, a minimum of 1 work of public art is provided within the publicly available and accessible spaces of the development such as:* *a. Any frontage to the public domain;* *b. Building entrances; or* *c. Arcades and through site links.* *3. Different types of public art may be incorporated into the following aspects of development:* *a. Murals may form part of the facades of new buildings;* *b. Sculptures may be multipurpose and be integrated into urban furniture (e.g. shade, seating, water/drinking fountains or play/exercise equipment);* *c. Light installations may be combined with public lighting to support the needs of pedestrians or active transport after dark; or* *d. Artworks may form part of landscaping as part of wayfinding or interpretive walking trails.*	**Y**	Refer to Public Art Strategy (**Appendix Z**). **1**. Cultural values mapping has been included within the Public Art Strategy (**Appendix Z**) highlighting areas of significance. based on the ACHAR (**Appendix MM**), and proposed design options. **2**. Public art will be made available within a range of accessible areas. **3**. A range of public art options has been proposed and will be further refined based on consultation received from community and local indigenous artists.
***PO2**. Public art is provided to capture and reflect the qualities and essence of place, community values and the stories of past and present cultures, places, and people.*	*1. Artwork is the result of collaboration with an artist to deliver a coordinated and cohesive development and public art response* *2. Public art is created in conjunction with a community consultation process to ensure alignment between public art, cultural/community values, and development.* *3. Commissioning and contract processes prioritise artworks which are:* *a. Created by Aboriginal artists and/or created with direct involvement and collaboration with Aboriginal communities; and/or* *b. Initiated by the local community (i.e. Unsolicited requests for public art).* *4. Public art themes provide a response to elements particular to a place.* *a. Considerations include, but are not limited to:* *b. Aboriginal culture and places of significance;* *c. Unique place qualities and attributes;* *d. Natural landscape elements; and/or* *e. Historical land uses; buildings, persons, and events*	**Y**	**1**. The Public Art Strategy (**Appendix Z**) and final design options will be informed through consultation based on themes such as: • Design narratives • Landscape typologies • Place and history • Cultural Values **2**. Public art will be informed by the consultation and engagement process as outlined in the Public Art Strategy (**Appendix Z**). **3**. Aboriginal artists will be engaged to commission artworks as informed by community consultation. **4**. Public art designs and themes will be informed and reflective of cultural values and significance of the area.
***PO3**. Public art is easy to maintain.*	*1. Where art is permanent, use materials that are:* *a. Appropriate to the landscape/environment;* *b. Resistant to vandalism;* *c. Safe for the public; and* *d. Require minimal maintenance.* *2. Where art is temporary, develop clear and concise agreements with artists/organisations on expectations and deaccession (the process used to*	**Y**	**1**. Permanent public art will be made from sustainable materials that is safe to public and requires minimal maintenance. **2**. Agreements will be prepared in the event temporary art is to be procured as per Mirvac's corporate procedures.

	permanently remove an object, artwork, or assemblage). In this case, replacement art is to be provided, so the site has art in perpetuity		

3.0 Development for Enterprise and Industry and Agribusiness

3.1 Local Road Network and Design

3.1.1 Street Design			
Performance Outcome	**Benchmark Solution**	**Compliance**	**Assessment**
***PO1**. To enable a road network that is safe and efficient for all users and minimises through traffic on minor roads.*	***1**. Road design for local streets, collector streets and park edge streets as identified on the Aerotropolis Precinct Plan are to be consistent with the typical road cross-sections in this Figure 10 to Figure 12.* ***2**. Development applications shall be accompanied by a Traffic and Transport Report. The Report shall assess the impact of projected pedestrian and vehicular traffic associated with the proposal and outline the extent and nature of traffic facilities necessary to preserve or improve the safety and efficiency of the road system.* ***3**. Subdivision and development are to consider the coordinated staging and delivery of surrounding road infrastructure. Development consent will only be granted to land serviced by a suitable road network with traffic capacity to service the development (to the satisfaction of the relevant roads authority).* ***4**. All parking shall be provided either on site or in centralised off- road locations.* ***5**. The internal road pattern is to facilitate 'through-roads' with cul-de-sacs to be avoided unless dictated by topography or other constraints.* ***6**. The road network is to be designed for 30m Performance Based Standards (PBS) Level 2 Type B vehicles and tested for a 36.5m PBS Level 3 Type A vehicles.* ***7**. To accommodate the design vehicle (i.e. B-double and B-triple) the standard kerb return radius will need to increase from 12.5m to 15.0m.* ***8**. Road design shall consider arrangements for broken down vehicles and incident response.* *Note: All street cross-sections illustrate minimum requirements. In certain circumstances these may need to increase to respond to site specific conditions such as topography and the retention of remnant vegetation.*	**Y**	**1**. The proposed internal road network is generally consistent with the road network prescribed in the Precinct Plan. The only difference from the road network indicated in the Precinct Plan is the positioning of the proposed east-west 'Industrial Streets' and the connection of the northern most east-west roads. The proposed road network layout enables greater flexibility and sizes of lots to cater for a variety of functional, market and client requirements. For further discussion refer to **Section 4.5** of the EIS and Architectural Drawings (**Appendix B**). A summary of the adopted road design criteria is provided in Table 3 of the Civil Infrastructure Report (**Appendix L**). **2**. A Transport Assessment has been prepared (**Appendix FF**). **3**. The proposed subdivision and development has considered the requirements and coordination of infrastructure. The EEP Stage 1 Concept Masterplan is proposed to be developed in stages accordingly with the Stage 1A Development comprising the construction of Warehouse 2 and Warehouse 6. Consultation has been conducted with service authorities and neighbouring site's to ensure the delivery of infrastructure. Refer to the Consultation Outcomes Report prepared by Ethos Urban (**Appendix G**). **4**. All parking is provided on the proposed lots, refer to the Architectural Drawings (**Appendix B**). **5**. The proposed internal road network includes through-roads to access each of the proposed lots with one (1) cul-de-sac proposed in an appropriate location to avoid heavy vehicles on Park Edge Road who are not permitted to travel on this road. **6**. The design vehicle for the proposed internal road network is to be a 26m long B-Double with a design speed of 60km/hr in the estate roads, with the check vehicle being the 36m long B-Triple. **7**. Complies. The proposed Collector Road and Local Industrial Road includes a minimum kerb return radius of 15m. **8**. The proposed internal road network provides sufficient space for broken down vehicles and incident response, refer to Civil Drawings (**Appendix K**).
***PO2**. To encourage the orderly and economic provision of road and intersection works. To encourage the use of public transport, bicycles and walking.*	***1**. Internal road network intersections are to be provided at the following minimum intervals:* *a. Local to local industrial road – 40m-60m;* *b. Local to collector/distributor road – 100-200m; and* *c. Collector/distributor to sub-arterial – 400m-500m.*	**Y**	Refer to 16-369-C1101 to C1113 of the Civil Drawings (**Appendix K**). A summary of the adopted road design criteria is provided in Table 3 of the Civil Infrastructure Report (**Appendix L**).

3.2 Parking and Travel Management

3.2 Parking and Travel Management			
Performance Outcome	**Benchmark Solution**	**Compliance**	**Assessment**
***PO1**. To facilitate an appropriate number of vehicular spaces having regard to the industrial and agribusiness nature of the locality.*	*1. On-site car parking is to be provided in accordance with Table 3.* *2. For activities not identified in Table 3, the TfNSW' (formerly RTA) Guide to Traffic Generating Developments (ISBN 0 7305 9080 1) should be referred to as a guide.*	**Y**	Warehouse 2 includes the provision for 84 car parking spaces with the Aerotropolis DCP requiring a minimum of 82 spaces. Warehouse 6 includes the provision for 186 car parking spaces with the Aerotropolis DCP required a minimum of 184 spaces. Refer to Section 6 of the Transport Assessment (**Appendix FF**).
***PO2**. To promote efficient and safe vehicle circulation, manoeuvring and parking (including service vehicles and bicycles).*	*1. Vehicular access and driveways widths must be sweep path tested for the largest vehicle that will access a particular site e.g. 30m PBS Level 2 Type B or 36.5m PBS Level 3 Type A vehicles.* *2. The required threshold should be set within the property to prevent cross fall greater than 4% within the footway area.* *3. Turning circles shall accommodate the largest type of truck reasonably expected to service the site. A standard truck must be able to complete a 3-point or semi-circular turn on-site without interfering with parked vehicles, buildings, landscaping, storage and work areas.* *4. Vehicular ramps less than 20m long must have a maximum grade of 1 in 5 (20%).* *5. Development shall provide on-site loading facilities to accommodate the anticipated heavy vehicle demand for the site.* *6. All loading and unloading areas are to be:* *a. Integrated into the design of developments;* *b. Separated from car parking and waste storage and collection areas;* *c. Located away from the circulation path of other vehicles; and* *d. Located behind the building alignment of any street boundary and where visible from a public place, be provided with appropriate screening.* *7. Car park surfaces should use finishes that minimise heat retention e.g. painted in light coloured paint.* *8. Access, parking, manoeuvring and loading facilities shall be in accordance with Performance Based Standards An introduction for road managers (National Heavy Vehicle Register, May 2019) to accommodate vehicle types outlined in Table 4. The design shall have regard to the Standard Vehicle Turning Templates of the former RMS publication Policies Guidelines and Procedures for Traffic Generating Developments*	**Y**	1. For Swept Path Diagrams of the proposed Warehouse 2 and Warehouse 6 driveways, refer to Appendix E of the Transport Assessment (**Appendix FF**) which provide for the 30m PBS level 2 Type B vehicles. 2. The required thresholds have been adopted. 3. Turning Circles have been designed to accommodate 30m PBS level 2 Type B vehicles. 4. Any vehicle access ramps are within a grade of 1 in 5. 5. Refer to DA200 and DA600 of the Architectural Drawings (**Appendix B**). 6. The proposed Warehouse 2 and Warehouse 6 include hardstand and loading areas that are integrated into the layout of each lot. They are also completely separated from the proposed car parking areas with the waste storage area being an accessible and defined space. It is also noted that this has been incorporated across the entire Concept Masterplan to ensure the future lots are capable of deliver efficient and functional site layouts. Access is in accordance with standards and guidelines.
***PO3**. To minimise the impact of vehicle access points on the quality of the public domain and streetscape.*	*1. Driveways should be:* *a. Located considering any services within the road reserve, such as power poles, drainage inlet pits and existing street trees;* *b. Designed to avoid conflict between heavy vehicle and staff, customer and visitor vehicular and cycle movements, preferably by providing separate access driveways; and* *c. For driveways with high traffic volumes, located away from major roads, intersections, opposite other intense developments, high pedestrian zones, and where right turn movements would obstruct traffic.*	**Y**	The proposed Warehouse 2 and Warehouse 6 driveways are located considering any service infrastructure, designed to avoid conflict between other access driveways and located away from major roads. It is noted that Warehouse 2 is accessed via Local Collector Road 01 which includes a median strip to prevent right hand turns. All Lots are currently achieving separated light and heavy vehicle access points. The Lots are not anticipated to generate high traffic volumes. Refer to MP02 of the Architectural Drawings (**Appendix B**).
***PO4**. To support the complementary use and benefit of public and active transport.*	*1. The following bicycle destination facilities for staff are to be provided:* *a. For ancillary office and retail space with a gross floor area over 2,500 sqm, at least 1 shower cubicle with ancillary change rooms;* *b. For industrial activities with a gross floor area over 4,000 sqm, at least 1 shower cubicle with ancillary change rooms;* *c. Change and shower facilities are to be located close to the bicycle storage areas; and d. Where the building is strata-titled, the facilities are to be available to all occupants.* *2. Bicycle parking, facilities and storage must be in convenient locations, visible, secure, and provide weather protection for the bicycle. Bicycle parking and*	**Y**	1. The Proposal includes change and shower facilities, located in close proximity to the breakroom and bicycle parking area. Refer to the Warehouse 2 and Warehouse 6 Office Plans of the Architectural Drawings (**Appendix B**). 2. Bicycle parking is located immediately adjacent to the proposed main office entrances and breakroom entrance. Refer to DA200 and DA600 of the Architectural Drawings (**Appendix B**).

	storage should be near to the entrances and facilities closer to work spaces or other amenities.

3.3 Built Form

3.3.1 Building Sitting and Design

Performance Outcome	Benchmark Solution	Compliance	Assessment
***PO1**. To encourage building form that responds to the topography of the site and the relative position of the allotment to other allotments and the street.* *To minimise the impact of buildings upon the surrounding public realm, including areas of environmental significance, landscape value and residential uses.*	***1**. Building height should respond to the natural landscape and scale of adjoining development, with lower elements towards the street, pedestrian paths, adjoining rural-residential areas, environmental and open space areas, riparian corridors and ridgelines.*	**Y**	Refer to MP02 of the Architectural Drawings (**Appendix B**) and the Landscape Character and Visual Impact Assessment (**Appendix BB**). Warehouse 2 and 6 have a maximum height of 13.7m to the ridge point. Heights of the remaining warehouses will be subject to separate approval processes depending on tenant requirements however are proposed to be 16m. The proposed height is well below the maximum height plane of 24m stipulated in the Precinct Plan and does not have any adverse overshadowing impact to the adjoining properties, or to the riparian corridor. Smaller scale ancillary offices, which are generally 2-storeys in height, are deliberately positioned to line the street and oriented towards the Wianamatta South-Creek, encouraging passive surveillance and maximise views. Warehouse facilities are generally 'stepped' down in west-east directions, responding to existing site falls to minimize cut and fill. Where possible, gable ends of the warehouses will interface with the streetscape, presenting smaller built forms to complement the ancillary offices. Canopy shelters, which are strategically located across the Site, are about 3m in height. These kiosks occupy the area between the landscape setback and footpath, serving as shades for both Electrical Vehicle Bays and pedestrian alike. Other smaller built form such as the potential single storey café within the amenity node, is located near the creek to attract interactions from visitors and future estate workers. Areas of active usage such as offices and handstands are oriented to face the street to ensure surveillance along the public interface. Landscape areas are carefully designed to avoid obstructing surveillance and provide clear sightlines between public and private places. Perimeter press formed metal fencing and gates at entry points of individual lots are proposed to allow natural observation of the street. Constituting of public open space, cycle path and amenity node, the community focused areas are largely concentrated along the creek and thus enable appropriate interfaces between leisure activities and green environment. Majority of the ancillary offices to the warehouses are oriented to face Wianamatta-South Creek to maximise views and activate the public domain, reinforcing a sense of place.

3.3.2 Building Setbacks

Performance Outcome	Benchmark Solution	Compliance	Assessment
***PO1**. To provide a consistent streetscape design and landscaped transition to the public realm.* *To enhance the visual quality of development and the urban landscape.* *To minimise the impact of overshadowing to adjoining buildings and open space.*	***1**. Building setbacks are to be in accordance with Table 6.* ***2**. Notwithstanding control (1) above, the following development is permitted within the defined setback for any road (excluding primary arterial roads):* *a. Landscaping;* *b. Maintenance/rehabilitation of biodiversity corridors or areas;* *c. Utility services installation;* *d. Cross-overs;* *e. Fire access roads;* *f. Approved signage;* *g. Street furniture; or* *h. Drainage works.* ***3**. Side and rear boundary setbacks may incorporate accessways and driveways (not permitted in setbacks to designated roads), where an alternative arrangement cannot be achieved.* ***4**. Setbacks to public roads may also incorporate loading dock manoeuvring areas and associated hardstand and off streetcar parking provided the minimum setbacks in Table 5 are achieved. In addition to the setback requirements in Table 5, setbacks that incorporate an off-street parking area must demonstrate the location of the car parking area:* *a. Promotes the function and operation of the development;* *b. Enhances the overall design of the development by implementing design elements, including landscaping, that will screen the parking area and is complementary to the development; and* *c. Does not detract from the streetscape values of the locality.* ***5**. Additional setbacks may be applicable to avoid construction over easements.*	**Y**	**1**. The Proposal has adopted building setbacks that compliant with the Aerotropolis DCP's numerical requirements. Refer to DA200 and DA600 of the Architectural Drawings (**Appendix B**): • Lots fronting primary arterial and sub-arterial roads, 20m; • Lots fronting collector streets: 12m; and • Lots fronting local streets: 7.5m. The setbacks within the Site create a suitable interface and relationship between existing and new infrastructure and built form. • Along the Local Collector Road, the minimum building setback is 12m inclusive of 6m landscape zone. Building setbacks fronting the Industrial Road are at 7.5-13m inclusive of 4-6m landscape setbacks. • At the southern boundary of the Site, 30m of land dedication is provided along the southern boundary to all for the potential road widening of Elizabeth Drive. Buildings are also setback a further 20m to enable landscaping opportunities, screening and softening built forms beyond the setback. Offices are lined along the warehouse oriented towards Elizabeth Drive to activate public interfaces. • At the western boundary building footprints are setback 5m, to reinforce street alignment towards the existing neighbourhood road and park beyond. • At the northern boundary the proposed road corridor running east-west direction is located along this boundary with buildings further setback from this road. This arrangement allows for protection of ridge line and provide access to future EEP Stage 2 • At the eastern boundary setbacks of buildings from the top of bank of Wianamatta-South Creek ranges from approximately 30m to 114m. These setbacks serve many critical functions such as maintaining 40m vegetated riparian zone from the creek and keeping the development substantially safe from 100-year flood along the eastern edges. Cycle path, public open spaces and amenity node are set within these setbacks to reduce scale of built form viewed from the creek. Offices are generally located along the eastern façade of warehouse to maximise views to the creek and activate the public domains. **2**. Development within building setbacks includes landscaping, cross overs and fire access roads **3**. Accessways are proposed on the sides of Warehouses 6, 7 and 8. **4**. Loading dock manoeuvring areas are proposed within the building setback for the following warehouses: **5**. No setbacks are currently impacted by easements.

	6. For corner sites, setbacks must ensure clear vehicular sight lines for perpendicular traffic.		**6**. Complies. The proposed internal road network includes wide intersection verges. Footpaths and driveways have been designed in accordance with AS 2890.2. A summary of the adopted road design criteria is provided in Table 3 of the Civil Infrastructure Report (**Appendix L**).

3.3.3 Landscape Setbacks			
Performance Outcome	**Benchmark Solution**	**Compliance**	**Assessment**
***PO1**. To provide a consistent streetscape design and landscaped transition to the public realm.* *To enhance the visual quality of development and the urban landscape.* *To minimise the impact of overshadowing to adjoining buildings and open space.*	*1. Landscaped area is to be provided in accordance with Table 6. Note control (4) and (7) in PO1 of Section 3.6.2 allows different landscape setbacks to those identified in Table 5 for loading dock manoeuvring areas and on-site car parking.* *2. A Landscape Plan prepared by a Landscape Architect is to be submitted with all development proposals.* *3. Existing remnant vegetation and paddock trees shall be retained where practical within setback areas and integrated with landscaping plans.* *4. Landscaped front setbacks should include canopy trees whose mature height is in scale with the proposed development.* *5. Setbacks shall include suitable tree planting along the northern and western elevations of buildings to provide shade and assist with cooling.* *6. Developments adjoining existing sensitive receivers (e.g. educational establishments) shall be designed to mitigate impacts on sensitive receivers such as through generous buffer zones and landscaping, and locating noise generating activities away from the sensitive interface, as well as traffic management measures to improve safety and minimise conflicts.* *7. Tree planting in the form of island planter beds shall be provided at a rate of one planter bed per 10 car spaces within car parks to reduce the heat island effect of hard surfaces that are a minimum 1.5m dimension.* *8. Evergreen shrubs and trees shall screen car parks, vehicular manoeuvring areas, garbage areas, storage areas from the street frontage.* *9. Paving, structures and wall materials should complement the architectural style of buildings.*	**Y**	**1**. The proposed Warehouse 2 and Warehouse 6 landscape setbacks are compliant with Table 5 of the Aerotropolis DCP. Refer to DA200 and DA600 of the Architectural Drawings (**Appendix B**). • Lots fronting primary arterial and sub-arterial roads: **10m**; • Lots fronting a public road with a setback containing loading dock manoeuvring areas and associated hardstand: **6m**; and • Lots fronting a public road with a setback containing off streetcar parking areas: **6m**. **2**. Refer to Landscape Report (**Appendix Q**). **3**. No existing vegetation or trees within the developable area are able to be retained with the Site being cleared as part of the proposed bulk earthworks. Refer to the Demolition & Remediation Plan (16-369-C1601) within the Civil Drawings (**Appendix K**). **4**. Appropriate trees have been considered to achieve a mature height and not impact any of the airport safeguarding requirements. Refer to species listed within Landscape Report prepared by Site Image (**Appendix Q**). **5**. The Proposal will include suitable planting across the development. Refer to species listed within Landscape Report prepared by Site Image (**Appendix Q**) which has been informed by the WSA Landscape Species List **6**. Not applicable. There are no sensitive receivers located near to the Site. **7**. Island planter beds have been designed per 10 car spaces. Refer to the Landscape Drawings (**Appendix R**). **8**. The Proposal includes complaint landscape setbacks that surround the proposed vehicle manoeuvring areas and as such will be appropriately screened with appropriate species as set out in the WSA Landscape Species List. **9**. Paving, structures and wall materials will complement the architectural style of buildings. Refer to the Design Statement (**Appendix I**).

3.3.4 Building and Architectural Design			
Performance Outcome	**Benchmark Solution**	**Compliance**	**Assessment**
***PO1**. To ensure buildings achieve a high level of sustainability and environmental performance.*	*1. Buildings should take advantage of a north or north-easterly aspect to maximise passive solar illumination, heating and natural cross-ventilation for cooling.* *2. Development proposals shall demonstrate Ecological Sustainable Design (ESD) measures have been incorporated into the design, including a consideration of:* *a. Building and window orientation;* *b. Window size and glass type;* *c. Insulation;* *d. Natural ventilation and light with generous, all weather openings;* *e. Utilise extensive roof areas for energy and water collection;* *f. Air flow, ventilation and building morphology to support cooling; and* *g. Circular economy in the design, construction and operation of buildings, public domain, infrastructure, and energy, water and waste systems.*	**Y**	The Proposal seeks to deliver highly efficient development. Refer to the ESD Report (**Appendix WW**) and the Design Statement **Appendix I**). **1**. The ancillary offices of the warehouses are deliberately oriented towards the streets and natural features to maximise views and create street presence. As a result, majority of the offices benefit from easterly and northerly sun aspect. The proposed industrial buildings are positions to align with the topography of the Site to also minimise the impact on cut to fill levels. Warehouse facilities are generally 'stepped down" in the west-east direction responding to the existing falls. **2**. All office buildings have balanced area of glazing and solid wall to reduce radiant heat particularly during summer. Thermally broken window system will be utilized to further reduce heat gain. Appropriate insulation will be incorporated based on further thermal energy assessment. Great easterly and northerly sun orientation maximises natural light into the office space. While the building relies on mechanical ventilation, there are generous provision of shaded semi-outdoor areas that connects to the natural environment for communal use. The proposed building utilizes cladding material produced by manufacturers that are committed to reduction of wastage and recycled materials.
***PO2**. To ensure new development contributes to a visually cohesive urban environment and responds to the adjacent scale and character of the area.*	*1. Buildings shall be oriented so building frontage is parallel with the primary street frontage.* *2. Building design should minimise overshadowing within the site and on adjoining buildings.*	**Y**	**1**. The proposed Stage 1A Development (Warehouse 2 and Warehouse 6) as well as the proposed Concept Masterplan is parallel to the primary street frontage. Refer to the SSDA Masterplan – Stage 1 (MP02) of the Architectural Drawings (**Appendix B**). **2**. The proposed Concept Masterplan has generally sought to minimise the overshadowing impact through the proposed lot layout and building form. Refer to the Shadow Diagrams within the Architectural Drawings (**Appendix B**).
***PO3**. To encourage innovation and a high standard of architectural*	*1. External finishes should contain a mix of materials and colours and low reflectivity to minimise glare and reflection.*	**Y**	Refer to the Design Statement (**Appendix I**). **1**. The material palette comprise balance use of neutral tone colours paired with grey tinted glazing to minimise glare and reflectivity (aligned with Airport safeguarding requirements).

design, utilising quality materials and finishes.	***2**. Elevations visible from the public domain must be finished with materials and colours and articulation that enhance the appearance of that façade and provide an attractive and varied streetscape.* ***3**. Large expanses of wall or building mass should be relieved using articulation, variation in construction materials, fenestration or alternative architectural enhancements.* ***4**. Entrances to buildings must be highlighted by architectural features consistent with the overall design of the building.* ***5**. The design and location of roof elements and plant and mechanical equipment, including exhausts, is to minimise visual impact from the street or from elevated locations, such as screening with an integrated built element such as parapets.* ***6**. The design of the main office and administration components shall:* *a. Be located at the main frontage of the building and be designed as an integral part of the overall building, rather than a 'tack on' addition;* *b. Have a designated entry point that is highly visible and directly accessible from visitor parking and the main street frontage; and* *c. Incorporate the principles of Universal Design.* ***7**. Roof forms should help to visually articulate the use within the building. This may include transitions between foyer, office and larger warehouse uses.* ***8**. Roof design must provide natural illumination to the interior of the building.*		**2**. Elevations facing the public domain include the proposed office space that provides a human scale and greater visual appearance. The curved organic-like patterns on the warehouse create interest in the streetscape while denotes different interplay of materials and colours on the façade. **3**. The warehouse facades include feature wall's fronting the public domain. The featured organic pattern on the warehouse is further reinforced by the design of the office with the curved high canopy roof and feature wall, creating a soft and inviting form in the streetscape. **4**. The natural profile of Wianamatta-South Creek and the existing contours prevalent within the Site are the source of inspiration for a new composition. The design component of the warehouse as well as office hinges around the abstraction of the Wianamatta-South Creek. The undulating curvatures of architectural features and patterning on facades denotes the transitional change in programmatic functions. The result is a unique form that sculpts interior and outdoor spaces utilising feature arches, cantilevered roof and curved awning. The office entrances feature curved roof with projecting eaves and cantilevered canopy that softens the built form and creates an easily identifiable visual interest and double height volume. The canopy provides shared to the terrace and instils a sense of welcoming gesture and arrival as an entry point. **5**. Materials for the proposed warehouse have low reflectivity (aligned with Airport safeguarding). The design has incorporated to minimise visual equipment **6**. Offices are generally positioned at the prominent corner of the warehouses that also marks the main vehicular and pedestrian entry points. This area is easily identifiable and accessible as the architectural expression reveals the entries and entry points are levelled to the street respectively. **7/8**. The roof design, provides shade and also comprises of an open skylight over the courtyard lunchroom on level 1. This skylight frames the sky, allowing ambient natural light into the workspaces. There is a clear delineation between office and warehouse use using roof architectural features.

3.3.5 Communal Outdoor Area

Performance Outcome	Benchmark Solution	Compliance	Assessment
***PO1**. To contribute to amenity for employees.*	***1**. Each building shall be provided with at least 1 communal outdoor area for the use and enjoyment of employees and visitors to that development. The space shall be commensurate with the scale of the development and be accessible from the main office.* ***2**. In locating communal areas, consideration should be given to the outlook, natural features of the site, and neighbouring buildings.* ***3**. Communal areas shall be embellished with appropriate soft landscaping, shade, paving, tables, chairs, bins, and access to drinking water commensurate with the scale of the development, activities, and anticipated number of workers.* ***4**. Communal areas shall be relatively flat and not contain impediments which divide the area or create physical barriers which may impede use.* ***5**. Communal areas must receive a minimum of 2 hours direct sunlight between 11am and 3pm on 21 June.* ***6**. Outdoor communal areas shall immediately adjoin a staffroom/lunchroom with kitchen facilities. Where this is not possible, the outdoor communal area is to be provided with a suitably designed weatherproof outdoor kitchen for the use of staff.*	**Y**	Refer to the Landscape Drawings (**Appendix R**), Architectural Drawings (**Appendix B**) and Public Art Strategy (**Appendix Z**) **1**. The Proposal includes communal outdoor space on each lot with the Concept Masterplan comprising the provision for a future amenity nodes. As referenced within the Public Art Strategy (**Appendix Z**), communal outdoor areas have also been identified as areas for artistic intervention. The office component of the warehouse consists of three (3) types of communal spaces; the terrace, outdoor lunch-room and level 1 courtyard. Each communal spaces are defined by how natural light enter each space. The terrace and the outdoor lunch area are defined by high and lower roof canopies respectively, while the courtyard on level 1 is serviced by a light well. **2**. The communal spaces are positioned in a hierarchical order for privacy purposes, but have equal share of access to distant views, sky and greeneries Communal Areas have been positioned to benefit the outlook of natural features This has been considered as part of the layout of the proposed Concept Masterplan. Where opportunities present themselves office's and outdoor areas have been located facing natural features. The provision of the Amenity Nodes and public open space particularly take advantage of the outlook to Wianamatta-South Creek. **3**. All outdoor spaces will include appropriate soft landscaping And appropriate amenities for outdoor uses. The communal spaces are textured with variety of materials, colours and amenities to complement the architectural expression. **4**. All communal spaces, particularly the terrace, has roof spanning 6m over to create an unimpeded use of space for all activities. Areas are designed to be flat an easily accessible to encourage effective use and support social health and wellbeing **5**. The Stage 1A Development receives direct sunlight as follows; Warehouse 2 (2B specifically) receives direct sunlight between 11am and 12 noon, and Warehouse 6 (6B specifically) receives direct light between 11am and 12 noon, and 1pm to 2pm. All other warehouses receive two (2) hours. In addition to the on-lot community areas various amenity nodes have been positioned around the precinct that are subjected to additional daylight providing additional areas for employees and visitors Refer to the Shadow Diagrams within the Architectural Drawings (**Appendix B**). **6**. All outdoor lunchroom is immediately serviced by adjoining kitchen facilities.

3.4 Signage

3.4 Signage			
Performance Outcome	**Benchmark Solution**	**Compliance**	**Assessment**
***PO1**. To permit the adequate display of information concerning the identification of premises, the name of the occupier, and the activity conducted on the land.*	***1**. Free standing pylon signage must not exceed 10m in height from finished ground level and 2m width. No signage is permitted in the bottom 2m of the structure.* ***2**. Building identification signage should have a maximum advertising area of up to 0.5 square metres for every metre of lineal street frontage.* ***3**. Sky signs and roof signs that project vertically above the roof of a building are not permitted.* ***4**. In the case of multiple occupancy of a building or site:* *a. Each development should have at least one single directory board listing each occupant of the building or site;* *b. Only one sign is to be placed on the face of each premises either located on or over the door; and* *c. Multiple tenancies in the same building should use consistent sign size, location and design to avoid visual clutter and promote business identification.*	Y	Refer to the Signage Plan (MP08) within the Architectural Drawings (**Appendix B**). **1**. The Proposal includes pylon signs that are built to a maximum height of 10m and 2m in width. **2**. The proposed signage will not exceed the 0.5m^2 for every linear street frontage metre and will be appropriately proportioned to the street frontage area. **3**. No sky or roof signs are proposed. **4**. In regard to the Proposal: a. Only one (1) sign is proposed to be located at the top of main building entrance b. Consistent signage and sizing will be adopted throughout the estate c. Consistent signage is proposed to uphold appropriate design standards across all buildings within the estate.
***PO2**. To minimise the visual impact of signage. To prevent distraction to motorists and minimise the potential for traffic conflicts.*	***1**. Flat mounted wall signs for business identification signage are to be no higher than 15 metres above finished ground level.* ***2**. Signs should be confined to the ground level of the building, awning or fascia, unless it can be demonstrated that the building is of a scale, architectural style and in a location that would be enhanced by signage at different elevations.* ***3**. Signs are to be contained fully within the confines of the wall or awning to which they are mounted.* ***4**. Illuminated signs are not to detract from the architecture of the building during daylight.* ***5**. Illumination (including cabling) of signs is to be either:* *a. Concealed;* *b. Integral with the sign;* *c. Provided by means of carefully designed and located remote or spot lighting.* ***6**. A curfew may be imposed on the operation of illuminated signs where continuous illumination may adversely impact the amenity of residential buildings or the environment.* ***7**. Up-lighting of signs is prohibited. External lighting of signs is to be downward pointing and focused directly on the sign and is to minimise the escape of light beyond the sign.* ***8**. A maximum of one illuminated sign is permitted on each elevation of each building.* ***9**. Illuminated signage shall be oriented away from residential receivers.*	Y	Refer to the Signage Plan (MP08) within the Architectural Drawings (**Appendix B**). **1**. The proposed flat mounted signs wall signs will be lower than 15m above the finished ground level. **2**. The proposes signage will be located on the warehouse elevations at an appropriate location. **3**. The proposed signage will be located fully within the wall in which they are mounted. **4**. The proposed illuminated signage will not detract from the architecture of the proposed development during daylight. It is noted that the Proposal includes signage zones which are subject to future detail. However, they are appropriately sized and located. It is also noted that Concept elements of the development will be subject to a future development application. Refer to the Statutory Compliance Table (**Appendix C**). **5**. The relevant cabling will be appropriately concealed. **6**. Not applicable. The Site is not located in close proximity to residential receivers. The signage illumination can be adjusted or subject to a curfew if deemed necessary **7**. Not applicable. No 'up-lighting' is proposed with all signage to be backlit. **8**. The proposed Signage Plan (MP08) (**Appendix B**) is consistent with the objectives of this section. It is noted that The Proposal includes multiple illuminated signs along a single elevation due to the potential for multiple tenancies to be place for each premises. This is considered appropriate and consistent with the objectives and performance outcomes as the need for future potential tenants to accurately be identified and allow for the operation of multiple tenancies with the proposed warehouses. Additionally, the visual impact from the proposed signage not considered to be significant due to not being directed towards residential receivers and not resulting in the distribution of traffic. **9**. Signage is positioned away from residential receivers.

3.5 Lighting

3.5 Lighting			
Performance Outcome	**Benchmark Solution**	**Compliance**	**Assessment**
***PO1**. To provide adequate external security lighting for employment activities, whilst minimising adverse impacts on adjoining premises and surrounding rural-residential areas.*	***1**. Lighting details shall be provided as part of development proposals.* ***2**. Lighting is to be designed or directed to not cause light spill onto adjoining sites, sensitive receivers or impact Airport operations.*	**Y**	The Proposal will include minimum average lux levels in the warehouse, office, awning and carpark to enable 24/7 operation the site and contribute to safety and security. All street lighting will be designed in accordance with AS1158. The proposed site layout includes the positioning of hardstand area that require bright lighting to light the large areas located away from Wianamatta-South Creek corridor and Elizabeth Drive The proposed lighting will meet security requirements without excessive energy consumption. In accordance with the ESD Report, the development is recommended to feature on-site Renewable Energy Production for Warehouse 1 including a 500 kW Solar System and 200kWh battery proposed. The lighting will be designed in accordance with the relevant standards and will not spill onto neighbouring rural-residential areas.
***PO2**. To encourage energy efficient lighting.*	***1**. Adequate lighting shall be provided to meet security requirements without excessive energy consumption. Lighting powered by solar batteries or other renewable energy sources and the use of sensor lighting, both internally and externally, is encouraged.*	**Y**	

3.6 Fencing

3.6 Fencing			
Performance Outcome	**Benchmark Solution**	**Compliance**	**Assessment**
***PO1**. To ensure that the design and location of fencing is integrated within the development and is suitable for its purpose and setting.*	***1**. Fencing along street frontages should provide open style fencing, which does not obstruct views of landscaping from the street or reduce visibility.* ***2**. Palisade fencing is encouraged.* ***3**. Solid fences above 1 metre in height are not permitted along street frontages.*	**Y**	Fencing along street frontages is proposed to be palisade fencing with chain wire mesh fencing proposed on lot boundaries not facing the public domain. Refer to DA200 and DA600 of the Architectural Drawings (**Appendix B**).
***PO2**. To ensure that the security needs of the development are satisfied in a manner which complements the surrounding landscape design and streetscape quality.*	***1**. No fencing other than a low ornamental type may be erected at the front or secondary street site boundary.* ***2**. High security fencing should be located either behind the landscape setback or alternatively within the landscaped area midway between the site front or secondary boundary and the building line. The design of the landscape setback should consider site security management.*	**Y**	Low-ornamental type fencing is proposed and is typically located mid-way through the landscaped setback. Refer to DA200 and DA600 of the Architectural Drawings (**Appendix B**).

3.7 Noise and Amenity

3.7 Noise and Amenity			
Performance Outcome	**Benchmark Solution**	**Compliance**	**Assessment**
***PO1**. To ensure noise and vibration do not adversely impact human health and amenity. To ensure building design adequately protects workers and surrounding receivers from noise and vibration.*	***1**. Any machinery or activity considered to produce noise emissions from a premise shall be adequately sound-proofed so that noise emissions are in accordance with the provisions of the Protection of the Environment Operations Act 1997.* ***2**. Noise should be assessed in accordance with Noise Policy for Industry (EPA, 2017) and NSW Road Noise Policy (Department of Environment, Climate Change and Water, 2011).* ***3**. An Acoustic Report by a qualified acoustical engineer must be submitted where proposed development, including traffic generated by that development, will create noise and/or vibration impacts, either during construction or operation, that impacts on adjoining developments or nearby rural-residential areas. The Acoustic Report should outline the proposed noise amelioration strategies and management methods.* ***4**. Acoustic Reports for individual developments must assess cumulative noise impacts, including likely future noise emissions from the development and operation of the Precinct. The consultant should liaise with the relevant consent authority to determine acceptable amenity goals for individual industrial developments and background noise levels.* ***5**. The use of mechanical plant and equipment may be restricted in areas close to sensitive receivers, such as adjoining rural-residential development and educational establishments.* ***6**. Building design is to incorporate noise amelioration features. Roof elements are to control potential breakout noise, having regard to surrounding topography.* ***7**. Boundary fences are to incorporate noise amelioration features and control breakout noise having regard to developments adjoining rural-residential areas.*	**Y**	**1**. An assessment of the potential operational machinery has been incorporated in the Noise and Vibration Impact Assessment (NVIA) (**Appendix KK**). **2**. The NVIA has considered the Noise Policy for Industry (EPA, 2017) and NSW Road Noise Policy (Department of Environment, Climate Change and Water, 2011) and assessed the proposed developments cumulative noise impacts. **3**. Refer to the Noise and Vibration Impact Assessment (NVIA) (**Appendix KK**). **4**. Refer to Section 3.3.4 and Section 5.7 of the Noise and Vibration Impact Assessment (NVIA) (**Appendix KK**). The Proposal is expected to remain within the recommended amenity noise levels for each area. **5**. Not applicable, the Site does not include any sensitive receivers in its immediate surround that would be impacted by noise emissions from plant. **6**.-**7** The Proposal's noise impact is considered to be acceptable. However through the detailed design process, opportunities for noise mitigation will be taken.