

Secretary's Environmental Assessment Requirements

Section 5.16 of the *Environmental Planning and Assessment Act 1979*

Application Number	SSI 18_9186
Proposal	<p>The Cabramatta Loop would comprise:</p> <ul style="list-style-type: none">• Construction of a 1,300m rail crossing loop, on the eastern side of the Southern Sydney Freight Line between Cabramatta Station and Warwick Farm Station;• Modification of Sydney Trains' overhead wiring structures;• Installation of two new bridges at Sussex Street and Cabramatta Creek;• Relocation of an existing retaining wall and noise wall between Cabramatta Rd East and Sussex Street; and• Reconfiguration of Broomfield Street between Bridge Street and Sussex Street Bridge, including service relocations.
Location	Land generally located between Cabramatta Station and Warwick Farm Station
Proponent	Australian Rail Track Corporation
Date of Issue	17 May 2018

General Standard SEARs

Desired Performance Outcome	Requirement	Current Guidelines ¹
<p>1. Environmental Impact Assessment Process</p> <p>The process for assessment of the proposal is transparent, balanced, well focussed and legal.</p>	<ol style="list-style-type: none"> 1. The Environmental Impact Statement must be prepared in accordance with Part 3 of Schedule 2 of the <i>Environmental Planning and Assessment Regulation 2000</i> (the Regulation). 2. It is the Proponent’s responsibility to determine whether the project needs to be referred to the Commonwealth Department of the Environment for an approval under the Commonwealth <i>Environment Protection and Biodiversity Conservation Act 1999</i> (EPBC Act). 3. The onus is on the Proponent to ensure legislative requirements relevant to the project are met. 	<p>EPBC Act Environment Assessment Process (SEWPAC, 2010)</p>
<p>2. Environmental Impact Statement</p> <p>The project is described in sufficient detail to enable clear understanding that the project has been developed through an iterative process of impact identification and assessment and project refinement to avoid, minimise or offset impacts so that the project, on balance, has the least adverse environmental, social and economic impact, including its cumulative impacts.</p>	<ol style="list-style-type: none"> 1. The EIS must include, but not necessarily be limited to, the following: <ol style="list-style-type: none"> (a) executive summary; (b) a description of the project, including all components and activities (including ancillary components and activities) required to construct and operate it; (c) a statement of the objective(s) of the project; (d) a summary of the strategic need for the project with regard to its State significance and relevant State Government policy; (e) an analysis of any feasible alternatives to the project²; (f) a description of feasible options within the project³; (g) a description of how alternatives to and options within the project were analysed to inform the selection of the preferred alternative / option. The description must contain sufficient detail to enable an understanding of why the preferred alternative to and options(s) within the project were selected; (h) a concise description of the general biophysical and socio-economic environment that is likely to be impacted by the project (including offsite impacts). Elements of the environment that are not likely to be affected by the project do not need to be described; (i) a demonstration of how the project design has been developed to avoid or minimise likely adverse impacts; (j) the identification and assessment of key issues as provided in the ‘Assessment of Key Issues’ performance outcome; 	

¹ Guidelines listed are the current list of guidelines that may be applicable to a SSI project. It is the Proponents responsibility to identify, and justify, which guidelines have been applied to a specific project.

² Alternatives to a project are different projects which would achieve the same project objective(s) including the consequences of not carrying out the project. For example, alternatives to a road project may be a rail project in the same area and alternate routes for the road.

³ Options within the project are variations of the same project. For example, options within a road project could be design of an intersection; the location or design of a bridge; locations for a vent stack.

Desired Performance Outcome	Requirement	Current Guidelines ¹
	<p>(k) a statement of the outcome(s) the proponent will achieve for each key issue;</p> <p>(l) measures to avoid, minimise or offset impacts must be linked to the impact(s) they treat, so it is clear which measures will be applied to each impact;</p> <p>(m) consideration of the interactions between measures proposed to avoid or minimise impact(s), between impacts themselves and between measures and impacts;⁴</p> <p>(n) an assessment of the cumulative impacts of the project taking into account other projects that have been approved but where construction has not commenced, projects that have commenced construction, and projects that have recently been completed;</p> <p>(o) statutory context of the project as a whole, including:</p> <ul style="list-style-type: none"> – how the project meets the provisions of the EP&A Act and EP&A Regulation; – a list of any approvals that must be obtained under any other Act or law before the project may lawfully be carried out; <p>(p) a chapter that synthesises the environmental impact assessment and provides:</p> <ul style="list-style-type: none"> – a succinct but full description of the project for which approval is sought; – a description of any uncertainties that still exist around design, construction methodologies and/or operational methodologies and how these will be resolved in the next stages of the project; – a compilation of the impacts of the project that have not been avoided; – a compilation of the proposed measures associated with each impact to avoid or minimise (through design refinements or ongoing management during construction and operation) or offset these impacts; – a compilation of the outcome(s) the proponent will achieve; and – the reasons justifying carrying out the project as proposed, having regard to the biophysical, economic and social considerations, including ecologically sustainable development and cumulative impacts. <p>(q) relevant project plans, drawings, diagrams in an electronic format that enables integration with mapping and other technical software.</p> <p>2. The EIS must only include data and analysis that is reasonably needed to make a decision on the proposal. Relevant information must be succinctly summarised in the EIS and included in full in appendices. Irrelevant, conflicting or duplicated information must be avoided.</p>	
<p>3. Assessment of Key Issues*</p>	<p>1. The level of assessment of likely impacts must be proportionate to the significance of, or degree of impact on, the issue, within the context of the proposal location and the surrounding environment. The</p>	

⁴ Measures proposed to avoid or minimise one impact may cause an unintended impact on another issue. Therefore, these impacts and their interactions need to be analysed and resolved where possible.

Desired Performance Outcome	Requirement	Current Guidelines ¹
<p>Key issue impacts are assessed objectively and thoroughly to provide confidence that the project will be constructed and operated within acceptable levels of impact.</p> <p>* Key issues are nominated by the Proponent in the SSI project application and by the Department in the SEARs. Key issues need to be reviewed throughout the preparation of the EIS to ensure any new key issues that emerge are captured. The key issues identified in this document are not exhaustive but are key issues common to most SSI projects.</p>	<p>level of assessment must be commensurate to the degree of impact and sufficient to ensure that the Department and other government agencies are able to understand and assess impacts.</p> <p>2. For each key issue the Proponent must:</p> <ul style="list-style-type: none"> (a) describe the biophysical and socio-economic environment, as far as it is relevant to that issue; (b) describe the legislative and policy context, as far as it is relevant to the issue; (c) identify, describe and quantify (if possible) the impacts associated with the issue, including the likelihood and consequence (including worst case scenario) of the impact (comprehensive risk assessment), and the cumulative impacts; (d) demonstrate how potential impacts have been avoided (through design, or construction or operation methodologies); (e) detail how likely impacts that have not been avoided through design will be minimised, and the predicted effectiveness of these measures (against performance criteria where relevant); and (f) detail how any residual impacts will be managed or offset, and the approach and effectiveness of these measures. <p>3. Where multiple reasonable and feasible options to avoid or minimise impacts are available, they must be identified and considered and the proposed measure justified taking into account the public interest.</p>	
<p>4. Consultation</p> <p>The project is developed with meaningful and effective engagement during project design and delivery.</p>	<ul style="list-style-type: none"> 1. The project must be informed by consultation, including with relevant government agencies, infrastructure and service providers, special interest groups, affected landowners, businesses and the community. The consultation process must be undertaken in accordance with the current guidelines. 2. The Proponent must document the consultation process, and demonstrate how the project has responded to the inputs received. 3. The Proponent must describe the timing and type of community consultation proposed during the design and delivery of the project, the mechanisms for community feedback, the mechanisms for keeping the community informed, and procedures for complaints handling and resolution. 	

Key Issue SEARs

Key Issue and Desired Performance Outcome	Requirement (specific assessment requirements in addition to the general requirement above)	Current Guidelines
<p>1. Transport and Traffic</p> <p>Network connectivity, safety and efficiency of the transport system in the vicinity of the project are managed to minimise impacts.</p> <p>The safety of transport system customers is maintained.</p> <p>Impacts on network capacity and the level of service are effectively managed.</p> <p>Works are compatible with existing infrastructure and future transport corridors.</p>	<ol style="list-style-type: none"> 1. The Proponent must assess construction transport and traffic (vehicle, pedestrian and cyclists) impacts, including, but not necessarily limited to: <ol style="list-style-type: none"> (a) a considered approach to route identification and scheduling of transport movements, including haulage routes; (b) the number, frequency and size of construction related vehicles (passenger, commercial and heavy vehicles, including spoil management movements); (c) construction worker parking; (d) changes to parking along Broomfield Street including identification of replacement options prior to displacement; (e) the nature of existing traffic (types and number of movements) on construction access routes (including consideration of peak traffic times and sensitive road users (including emergency services vehicles) and parking arrangements); (f) access constraints and impacts on public transport, pedestrians and cyclists; and (g) the need to close, divert or otherwise reconfigure elements of the road and cycle network associated with construction of the project, particularly the pedestrian and cycleway along Bloomfield Street, across Cabramatta Creek and the Sussex Street underpass. 2. The Proponent must assess (and model) the operational transport impacts of the project, including: <ol style="list-style-type: none"> (a) impact to parking along Broomfield Street and surrounding streets and the identification of replacement parking; (b) impacts on cyclists and pedestrian access and safety; and (c) opportunities to integrate cycling and pedestrian elements with surrounding networks. 	<p>Guide to Traffic Management – Part 3 Traffic Studies and Analysis (Austroads, 2007)</p> <p>Guide to Traffic Generating Developments Version 2.2 (RTA, 2002)</p> <p>Cycling Aspects of Austroads Guides (Austroads, 2014)</p> <p>NSW Bicycle Guidelines v 1.2 (RTA, 2005)</p> <p>Planning Guidelines for Walking and Cycling (DIPNR, 2004)</p> <p>NSW Sustainable Design Guidelines Version 3.0 (TfNSW, 2013)</p> <p>Future Transport 2056</p> <p>Draft NSW Freight and Ports Plan</p>

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<p>2. Noise and Vibration - Amenity</p> <p>Construction noise and vibration (including airborne noise, ground-borne noise and blasting) are effectively managed to minimise adverse impacts on acoustic amenity.</p> <p>Increases in noise emissions and vibration affecting nearby properties and other sensitive receivers during operation of the project are effectively managed to protect the amenity and well-being of the community.</p>	<ol style="list-style-type: none"> 1. The Proponent must assess construction and operational noise and vibration impacts in accordance with relevant NSW noise and vibration guidelines. The assessment must cover typical and realistic construction and operation activities (such as bringing trains to idle or holding trains in the loop). The assessment must include consideration of: <ol style="list-style-type: none"> (a) impacts to sensitive receivers including small businesses; (b) noise impacts from the removal of the existing noise walls and construction of any new noise walls (permanent or temporary) during construction, including the consideration of implementing permanent noise walls prior to the removal of the existing noise walls; (c) noise impacts of out-of-hours works including proposed activities, justification for these activities, estimation of the number of out-of-hours activities required and timeframes for these activities; (d) sleep disturbance; and (e) the characteristics of noise and vibration, as relevant (for example, low frequency noise). 2. The Proponent must demonstrate that blast impacts are capable of complying with the current guidelines, if blasting is required. 	<p>Technical Basis for Guidelines to Minimise Annoyance due to Blasting Overpressure and Ground Vibration (ANZECC, 1990)</p> <p>Assessing Vibration: a technical guideline (DEC, 2006)</p> <p>Interim Construction Noise Guideline (DECCW, 2009)</p> <p>NSW Industrial Noise Policy (EPA, 2000)</p> <p>Construction Noise Strategy (TfNSW, 2012)</p> <p>Rail Infrastructure Noise Guideline (EPA, 2013)</p> <p>NSW Road Noise Policy (DECCW, 2011)</p> <p>Environmental Noise Management Manual (RMS, 2001)</p> <p>Development Near Rail Corridors and Busy Roads – Interim guideline (DoP, 2008)</p> <p>Noise Mitigation Guideline (RMS, 2015)</p> <p>Noise Criteria Guideline (RMS, 2015)</p> <p>NSW Sustainable Design Guidelines Version 3.0 (TfNSW, 2013)</p>
<p>3. Noise and Vibration - Structural</p> <p>Construction noise and vibration (including airborne noise, ground-borne noise and blasting) are effectively managed to minimise adverse impacts on the structural integrity of buildings and items including Aboriginal places and environmental heritage.</p> <p>Increases in noise emissions and vibration affecting environmental heritage as defined in the <i>Heritage Act 1977</i> during operation of the</p>	<ol style="list-style-type: none"> 1. The Proponent must assess construction and operation noise and vibration impacts in accordance with relevant NSW noise and vibration guidelines. The assessment must include consideration of impacts to the structural integrity and heritage significance of items (including Aboriginal places and items of environmental heritage). 2. The Proponent must demonstrate that blast impacts are capable of complying with the current guidelines, if blasting is required. 	<p>German Standard DIN 4150-3: Structural Vibration - effects of vibration on structures</p>

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project are effectively managed.		
<p>4. Air Quality</p> <p>The project is designed, constructed and operated in a manner that minimises air quality impacts (including nuisance dust and odour) to minimise risks to human health and the environment to the greatest extent practicable.</p>	<ol style="list-style-type: none"> 1. The Proponent must undertake an air quality impact assessment (AQIA) for construction and operation of the project in accordance with the current guidelines. 2. The Proponent must ensure the AQIA also includes: <ol style="list-style-type: none"> (a) Demonstration of compliance with the relevant regulatory framework, specifically the <i>Protection of the Environment Operations Act 1997</i> and the <i>Protection of the Environment Operations (Clean Air) Regulation (2010)</i>; and (b) a cumulative local and regional air quality impact assessment. 	<p>Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales (DEC, 2005)</p> <p>Approved Methods for the Sampling and Analysis of Air Pollutants in NSW (DEC, 2005)</p> <p>Technical Framework - Assessment and Management of Odour from Stationary Sources in NSW (DEC, 2006)</p>
<p>5. Biodiversity</p> <p>The project design considers all feasible measures to avoid and minimise impacts on terrestrial and aquatic biodiversity.</p> <p>Offsets and/or supplementary measures are assured which are equivalent to any remaining impacts of project construction and operation.</p>	<ol style="list-style-type: none"> 1. The Proponent must assess biodiversity impacts in accordance with the current guidelines including the Biodiversity Assessment Method (BAM), and documented in a Biodiversity Development Assessment Report (BDAR). 2. The BDAR must include details of the measures proposed to address the offset obligation as follows: <ol style="list-style-type: none"> (a) the total number and classes of biodiversity credits required to be retired for the development/project; (b) the number and classes of like-for-like biodiversity credits proposed to be retired; (c) the number and classes of biodiversity credits proposed to be retired in accordance with the variation rules; (d) any proposal to fund a biodiversity conservation action; and (e) any proposal to make a payment to the Biodiversity Conservation Fund. 3. The Proponent must assess any impacts on biodiversity values not covered by the BAM as specified in s2.3.⁵ 	<p>NSW Biodiversity Offsets Policy for Major Projects (OEH, 2014)</p> <p>Biodiversity Assessment Method (BAM) (OEH, 2017)</p> <p>Policy and Guidelines for Fish Habitat Conservation and Management – Update 2013 (DPI, 2013)</p> <p>Threatened Species Survey and Assessment Guidelines</p> <p>Why do Fish Need to Cross the Road? Fish Passage Requirements for Waterway Crossings (NSW Fisheries, 2003)</p> <p>NSW Sustainable Design Guidelines Version 3.0 (TfNSW, 2013)</p> <p>Aquatic Ecology in Environmental Impact Assessment – EIA Guideline (Marcus Lincoln Smith 2003)</p>

⁵ OEH will provide specific assessment requirements for any such impacts during agency consultation on the SEARs.

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	<ol style="list-style-type: none"> 4. The Proponent must assess impacts on the following [EECs, threatened species and/or populations] and provide the information specified in s8, s9 and s10 of the BAM⁶, specifically the Grey Headed Flying Fox colony located in the Jacqui Osmonde Reserve. 5. The Proponent must identify whether the project as a whole, or any component of the project, would be classified as a Key Threatening Process (KTP) in accordance with the listings in the <i>Biodiversity Conservation Act 2016</i> (NSW) (BC Act), <i>Fisheries Management Act 1994</i> (FM Act) and <i>Environmental Protection and Biodiversity Conservation Act 2000</i> (EPBC Act). 	
<p>6. Soils, Protected and Sensitive Lands</p> <p>The environmental values of land, including soils, subsoils and landforms, are protected.</p> <p>Risks arising from the disturbance and excavation of land and disposal of soil are minimised, including disturbance to acid sulfate soils and site contamination.</p>	<ol style="list-style-type: none"> 1. The Proponent must verify the risk of acid sulfate soils (Class 1, 2, 3 or 4 on the Acid Sulfate Soil Risk Map) within, and in the area likely to be impacted by, the project. 2. The Proponent must assess the impact of the project on acid sulfate soils (including impacts of acidic runoff offsite) in accordance with the current guidelines. 3. The Proponent must assess whether the land is likely to be contaminated and identify if remediation of the land is required. Where assessment and/or remediation is required, the Proponent must document how the assessment and/or remediation would be undertaken in accordance with current guidelines. 4. The Proponent must assess the impacts on soil and land resources (including erosion risk or hazard). Particular attention must be given to soil erosion and sediment transport consistent with the practices and principles in the current guidelines. 5. The Proponent must assess the impacts of the project on environmentally sensitive land and processes (and the impact of processes on the project), including: 	<p>Acid Sulfate Soils Assessment Guidelines (DoP, 2008)</p> <p>Acid Sulfate Soils Manual (Acid Sulfate Soils Management Advisory Committee, 1998)</p> <p>Managing Land Contamination: Planning Guidelines SEPP 55 –Remediation of Land, (DUAP & EPA, 1998)</p> <p>Guidelines for Consultants Reporting on Contaminated Sites (OEH, reprinted 2011)</p> <p>Guidelines for the NSW Site Auditor Scheme (DEC, 2006)</p> <p>Guidelines on the Duty to Report Contamination under the Contaminated Land Management Act 1997 (EPA, 2015)</p> <p>Urban and regional salinity – guidance given in the Local Government Salinity Initiative booklets (http://www.environment.nsw.gov.au/salinity/solutions/urban.htm) which includes <i>Site Investigations for Urban Salinity</i> (DLWC, 2002)</p>

⁶ OEH will provide this list of species during agency consultation on the SEARs.

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	<ul style="list-style-type: none"> (a) Key Fish Habitat as mapped and defined in accordance with the <i>Fisheries Management Act 1994</i> (FM Act); and (b) waterfront land as defined in the <i>Water Management Act 2000</i>. 	<p>Landslide risk management guidelines presented in Australian Geomechanics Society (2007)</p> <p>Soil and Landscape Issues in Environmental Impact Assessment (DLWC 2000)</p> <p>Managing Urban Stormwater: Soils and Construction Volume 1 (Landcom 2004) and Volume 2 (A. Installation of Services; B. Waste Landfills; C. Unsealed Roads; D. Main Roads; E. Mines and Quarries) (DECC, 2008)</p> <p>Other guidelines made or approved under section 105 of the <i>Contaminated Land Management Act 1997</i></p> <p>Policy and Guideline for Fish Habitat Conservation and Management (DPI Fisheries, 2013)</p>
<p>7. Water - Hydrology</p> <p>Long term impacts on surface water and groundwater hydrology (including drawdown, flow rates and volumes) are minimised.</p> <p>The environmental values of nearby, connected and affected water sources, groundwater and dependent ecological systems including estuarine and marine water (if applicable) are maintained (where values are achieved) or improved and maintained (where values are not achieved).</p> <p>Sustainable use of water resources.</p>	<ol style="list-style-type: none"> 1. The Proponent must describe (and map) the existing hydrological regime for any surface and groundwater resource (including reliance by users and for ecological purposes) likely to be impacted by the project, including stream orders, as per the BAM. 2. The Proponent must assess (and model if appropriate) the impact of the construction and operation of the project and any ancillary facilities (both built elements and discharges) on surface and groundwater hydrology in accordance with the current guidelines, including: <ul style="list-style-type: none"> (a) impacts from any permanent and temporary interruption of groundwater flow, including the extent of drawdown, barriers to flows, implications for groundwater dependent surface flows, ecosystems and species, groundwater users and the potential for settlement; (b) direct or indirect increases in erosion, siltation, destruction of riparian vegetation or a reduction in the stability of river banks or watercourses; (c) minimising the effects of proposed stormwater and wastewater management during construction and operation on natural 	<p>Biodiversity Assessment Method (OEH, 2017)</p> <p>Managing Urban Stormwater: Soils and Construction Volume 1 (Landcom 2004) and Volume 2 (A. Installation of Services; B. Waste Landfills; C. Unsealed Roads; D. Main Roads; E. Mines and Quarries) (DECC, 2008)</p> <p>NSW Aquifer Interference Policy (DPI, 2012)</p> <p>NSW Sustainable Design Guidelines Version 3.0 (TfNSW, 2013)</p> <p>Risk assessment Guidelines for Groundwater Dependent Ecosystems (Office of Water, 2012)</p> <p>NSW Aquifer Interference Policy (Office of Water, 2012)</p> <p>Guideline for Controlled Activities on Waterfront Land (DPI Water, 2012)</p> <p>Water Sharing Plan for the Greater Metropolitan Region Groundwater Sources</p>

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	<p>hydrological attributes (such as volumes, flow rates, management methods and re-use options) and on the conveyance capacity of existing stormwater systems where discharges are proposed through such systems; and</p> <p>3. The Proponent must identify any requirements for baseline monitoring of hydrological attributes.</p>	<p>Water Sharing Plan for the Greater Metropolitan Region Unregulated River Water Sources</p>
<p>8. Water - Quality</p> <p>The project is designed, constructed and operated to protect the NSW Water Quality Objectives where they are currently being achieved, and contribute towards achievement of the Water Quality Objectives over time where they are currently not being achieved, including downstream of the project to the extent of the project impact including estuarine and marine waters (if applicable).</p>	<p>1. The Proponent must:</p> <ul style="list-style-type: none"> (a) state the ambient NSW Water Quality Objectives (NSW WQO) and environmental values for the receiving waters relevant to the project, including the indicators and associated trigger values or criteria for the identified environmental values; (b) demonstrate that all practical measures to avoid or minimise water pollution and protect human health and the environment from harm are investigated and implemented; (c) identify sensitive receiving environments (which may include estuarine and marine waters downstream) and develop a strategy to avoid or minimise impacts on these environments; and (d) identify proposed monitoring locations, monitoring frequency and indicators of surface and groundwater quality. 	<p>NSW Water Quality and River Flow Objectives at http://www.environment.nsw.gov.au/ieo/</p> <p>Using the ANZECC Guidelines and Water Quality Objectives in NSW (DEC, 2006)</p> <p>Australian and New Zealand Guidelines for Fresh and Marine Water Quality (ANZECC/ ARMCANZ, 2000)</p> <p>Approved Methods for the Sampling and Analysis of Water Pollutants in NSW (DECC, 2008)</p> <p>Managing Urban Stormwater: Soils and Construction Volume 1 (Landcom 2004) and Volume 2 (A. Installation of Services; B. Waste Landfills; C. Unsealed Roads; D. Main Roads; E. Mines and Quarries) (DECC, 2008)</p>
<p>9. Flooding</p> <p>The project minimises adverse impacts on existing flooding characteristics.</p> <p>Construction and operation of the project avoids or minimises the risk of, and adverse impacts from, infrastructure flooding, flooding hazards, or dam failure.</p>	<p>1. The Proponent must assess and (model where required) the impacts on flood behaviour during construction and operation for a range of flood events up to the probable maximum flood (taking into account sea level rise and storm intensity due to climate change).</p>	<p>NSW Government's Floodplain Development Manual (Department of Natural Resources, 2005)</p> <p>PS 07-003 New guideline and changes to section 117 direction and EP&A Regulation on flood prone land</p> <p>Practical Consideration of Climate Change - Flood risk management guideline (DECC, 2007)</p> <p>Cabramatta Floodplain Management Study and Plan (Bewsher, October 2004)</p>

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		<p>Georges River Floodplain Risk Management Study and Plan (Bewsher, May 2004)</p> <p>Cabramatta Creek Flood Study (Liverpool Council, 2011)</p>
<p>10. Heritage</p> <p>The design, construction and operation of the project facilitates, to the greatest extent possible, the long term protection, conservation and management of the heritage significance of items of environmental heritage and Aboriginal objects and places.</p> <p>The design, construction and operation of the project avoids or minimises impacts, to the greatest extent possible, on the heritage significance of environmental heritage and Aboriginal objects and places.</p>	<ol style="list-style-type: none"> 1. The Proponent must identify and assess any direct and/or indirect impacts (including cumulative impacts) to the heritage significance of: <ol style="list-style-type: none"> (a) Aboriginal places and objects, as defined under the <i>National Parks and Wildlife Act 1974</i> and in accordance with the principles and methods of assessment identified in the current guidelines; (b) Aboriginal places of heritage significance, as defined in the Standard Instrument – Principal Local Environmental Plan; (c) environmental heritage, as defined under the <i>Heritage Act 1977</i>; and (d) items listed on the National and World Heritage lists. 2. Where impacts to State or locally significant heritage items are identified, the assessment must: <ol style="list-style-type: none"> (a) include a statement of heritage impact for all heritage items (including significance assessment); (b) consider impacts to the item of significance caused by, but not limited to, vibration, demolition, archaeological disturbance, altered historical arrangements and access, visual amenity, landscape and vistas, curtilage, subsidence and architectural noise treatment (as relevant) (c) outline measures to avoid and minimise those impacts in accordance with the current guidelines; and (d) be undertaken by a suitably qualified heritage consultant(s) (note: where archaeological excavations are proposed the relevant consultant must meet the NSW Heritage Council’s Excavation Director criteria). 3. Where archaeological investigations of Aboriginal objects are proposed these must be conducted by a suitably qualified archaeologist, in 	<p>Guide to investigating, assessing and reporting on Aboriginal Cultural Heritage in NSW (OEH, 2011)</p> <p>Aboriginal Cultural Heritage Consultation requirements for proponents (DECCW, 2010)</p> <p>Code of practice for archaeological investigation of Aboriginal objects in NSW (DECCW, 2010)</p> <p>NSW Skeletal Remains: Guidelines for Management of Human Remains (Heritage Office, 1998)</p> <p>Aboriginal site recording form</p> <p>Aboriginal site impact recording form</p> <p>Aboriginal Heritage Information Management System site registration form</p> <p>Care agreement application form</p> <p>Criteria for the assessment of excavation directors (NSW Heritage Council, 2011)</p> <p>NSW Heritage Manual (Heritage Office and Department of Urban Affairs and Planning, 1994)</p> <p>Assessing Heritage Significance (NSW Heritage Office, 2001)</p> <p>The Australia ICOMOS Burra Charter</p>

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	<p>accordance with section 1.6 of the <i>Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW</i> (DECCW 2010).</p> <p>4. Where impacts to Aboriginal objects and/or places are proposed, consultation must be undertaken with Aboriginal people in accordance with the current guidelines.</p>	
<p>11. Climate Change Risk</p> <p>The project is designed, constructed and operated to be resilient to the future impacts of climate change.</p>	<p>1. The Proponent must assess the risk and vulnerability of the project to climate change in accordance with the current guidelines.</p> <p>2. The Proponent must quantify specific climate change risks with reference to the NSW Government's climate projections at 10km resolution (or lesser resolution if 10km projections are not available) and incorporate specific adaptation actions in the design.</p>	<p>Australian Government's Climate Change Impacts and Risk Management – A Guide for Business and Government (2006)</p> <p>AS/NZS 3100:2009 Risk Management – Principles and Guidelines</p> <p>Technical Guide for Climate Change Adaptation for the State Road Network (RMS, in draft)</p>
<p>12. Health and Safety</p> <p>The project avoids or minimises any adverse health impacts arising from the project.</p> <p>The project avoids, to the greatest extent possible, risk to public safety.</p>	<p>1. The Proponent must assess the potential health impacts of the project, in accordance with the current guidelines.</p> <p>2. The Proponent must assess the likely risks of the project to public safety, paying particular attention to pedestrian safety and the handling and use of dangerous goods.</p>	<p>Environmental Health Risk Assessment, Guidelines for assessing human health risks from environmental hazards, Commonwealth of Australia (enHealth, 2012)</p> <p>Methodology for Valuing the Health Impacts of Changes in Particle Emissions (EPA, 2013)</p> <p>Health Impact Assessment: A practical guide (NSW Health, 2007)</p> <p>Health Impact Assessment Guidelines, Commonwealth Department of Health and Aged Care (enHealth, 2001)</p> <p>SEPP No. 33 - Hazardous and Offensive Development</p>
<p>13. Urban design & Visual Amenity</p> <p>The project design complements the visual amenity, character and quality of the surrounding environment.</p>	<p>1. The Proponent must:</p> <p>(a) identify the urban design and landscaping aspects of the project and its components (including noise barriers and shared pedestrian paths);</p> <p>(b) assess the impact of the project on the urban and natural fabric;</p>	<p>AS4282-1997 Control of the obtrusive effects of outdoor lighting</p> <p>Beyond the Pavement: RTA urban design policy, procedures and design principles (RMS, 2014)</p>

Key Issue and Desired Performance Outcome	Requirement (specific assessment requirements in addition to the general requirement above)	Current Guidelines
<p>The project contributes to the accessibility and connectivity of communities.</p> <p>The project minimises adverse impacts on the visual amenity of the built and natural environment (including public open space) and capitalises on opportunities to improve visual amenity.</p>	<ul style="list-style-type: none"> (c) explore the use of Crime Prevention Through Environmental Design (CPTED) principles during the design development process, including natural surveillance, lighting, walkways, signage and landscape; and (d) identify urban design strategies and opportunities to enhance healthy, cohesive and inclusive communities. (e) opportunities to offset visual impacts from the loss of trees along Bloomfield Street such as incorporating greening initiatives on street facing infrastructure (i.e noise barrier). <p>2. The Proponent must provide artist impressions and perspective drawings of the project to illustrate how the project will respond to the visual impacts.</p>	<p>Bridge Aesthetics: Design guidelines to improve the appearance of bridges in NSW (RMS, 2012)</p> <p>Crime prevention and the assessment of development applications (DUAC, 2001)</p> <p>Crime Prevention through Environmental Design (CPTED) (Queensland Government, 2007)</p> <p>Disability (Access to Premises – Buildings) Standards 2010</p> <p>NSW Sustainable Design Guidelines Version 3.0 (TfNSW, 2013)</p> <p>Technical guideline for Urban Green Cover in NSW (OEH, 2015)</p>
<p>14. Waste</p> <p>All wastes generated during the construction and operation of the project are effectively stored, handled, treated, reused, recycled and/or disposed of lawfully and in a manner that protects environmental values.</p>	<ul style="list-style-type: none"> 1. The Proponent must assess predicted waste generated from the project during construction and operation. 2. The Proponent must assess potential environmental impacts from the excavation, handling, storage on site and transport of the waste particularly with relation to sediment/leachate control, noise and dust. 	<p>EPA's Waste Classification Guidelines (as in force from time to time)</p> <p>NSW Sustainable Design Guidelines Version 3.0 (TfNSW, 2013)</p> <p>Managing Urban Stormwater: Soils and Construction Volume 1 (Landcom 2004) and Volume 2 (A. Installation of Services; B. Waste Landfills; C. Unsealed Roads; D. Main Roads; E. Mines and Quarries) (DECC, 2008)</p>