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SCHEDULE 2

DEFINITIONS

Ancillary Facility	Temporary construction facility including batch plants (concrete or bitumen), site office and compound, stockpile (and other materials storage) sites, sedimentation and detention ponds, Construction vehicle access tracks and parking areas.
Conditions of Approval	The Minister's Conditions of Approval for the Project.
Construction	Includes all work in respect of the Project other than survey, acquisitions, fencing, investigative drilling or excavation, building/road dilapidation surveys, minor clearing (except where threatened species, populations or ecological communities would be affected), establishing Ancillary Facilities/ Construction Work Sites (in locations meeting the criteria identified in the SoC), enabling works, or other activities determined by the EMR to have minimal environmental impact (e.g. minor access roads, minor adjustments to services/utilities, etc.).
Construction Work Site	Sites at which Construction works are undertaken including construction work areas, construction compounds and construction vehicle access tracks and parking areas.
Department, the	Department of Planning
Director-General, the	Director-General of the Department (or delegate)
Director-General's Approval, Agreement or Satisfaction	A written approval or advice from the Director-General (or delegate). Where the Director-General's Approval is required by a Condition, the Director-General will endeavour to provide a response within one month of receiving an approval request. The Director-General may ask for additional information if the approval request is considered incomplete. When further information is requested the time taken for the Proponent to respond in writing will be added to the one month period.
Director-General's Report	The report provided to the Minister by the Director-General of the Department under section 75J of the <i>Environmental Planning and Assessment Act 1979</i> .
Enabling Works	Works which allow isolation of the site so that access for construction can be provided, including service relocations and extension of existing culverts between Macarthur and Glenfield (except where threatened species, populations or ecological communities would be affected).
Environmental Assessment	Environmental Assessment for the Project prepared by Parsons Brinckerhoff, dated April 2006.
Environmental Protection Licence	Environmental Protection Licence issued by the DEC under the <i>Protection of the Environment Operations Act 1997</i> .

Minister, the	Minister for Planning
Operation	Means the commencement of freight movement on whole or part of the Project route, but does not include commissioning trials of equipment or temporary use of parts of the Project where required, during Construction.
Partial Possession	A period of time when an area of a railway station platform, stairway, concourse, footbridge or other railway station infrastructure is inaccessible to train passengers so as to enable Construction of the Project to occur safely and with minimum inconvenience and impact to passengers and station staff.
Project (Activity)	The Project described in Schedule 1 of this Approval including any Ancillary Facilities.
Proponent	Australian Rail Track Corporation
Publicly Available	Accessible to a member of the general public for inspection (for example available on an internet site or at a display centre). Publicly Available does not mean 'available to the public on request '.
Reasonable and Feasible	Consideration of best practice taking into account the benefit of proposed measures and their technological and associated operational application in the NSW and Australian context. Feasible relates to engineering considerations and what is practical to build. Reasonable relates to the application of judgement in arriving at a decision, taking into account: mitigation benefits, cost of mitigation versus benefits provided, community views and nature and extent of potential improvements.
Relevant Councils	Any or all of Bankstown City Council, Fairfield City Council, Liverpool City Council and Campbelltown City Council, as appropriate.
Relevant Government Departments	A Government Department that has an interest in and/or has a licensing or approval role for the Project's Construction or Operation including but not limited to the DEC, DNR, DoP, DPI, RTA, MoT, TIDC, RailCorp, as appropriate.
Relevant Stakeholders	Any person, organisation or authority that has an interest in or would be affected by the Project, including but not limited to LALCs and other indigenous groups, Emergency Services, Local Traffic Committees, bus companies, Pacific National, affected Sensitive Receivers, affected businesses (including the Glenfield Waste Facility), community groups, road users, rail patrons, private landowner's adjoining or impacted by the Project, and the local community.
River	River has the meaning given under the <i>Water Management Act 2002</i> . In summary, this is 'any watercourse, whether perennial or intermittent and whether comprising a natural channel or a natural channel artificially improved'.
Sensitive Receiver	Residence, education institution (eg school, TAFE college), health care facility (eg nursing home, hospital), places of worship (eg church), public theatre or public art gallery.

Stages	<p>Stages refers to the:</p> <ul style="list-style-type: none"> ▪ division of a Project into multiple contract packages; and/or ▪ Construction or Operation of a Project in discrete sections.
Statement of Commitments	Consolidated list of procedures, safeguards and mitigation measures to be undertaken as part of the Project, identified in Appendix D of the Submissions Report.
Structure	Residence or other building.
Submissions Report	Submissions Report for the Southern Sydney Freight Line prepared by Parsons Brinckerhoff, dated August 2006.
Track Possession	Period of time when train operations cease to allow maintenance or Construction within the rail corridor.

ABBREVIATIONS

ASS	Acid Sulfate Soils
CEMP	Construction Environmental Management Plan
CLG	Community Liaison Group
CoA	Minister's Conditions of Approval
dB(A)	Decibel, "A" weighted scale
DEC	Department of Environment and Conservation (including functions of the Environment Protection Authority and the National Parks and Wildlife Service)
DNR	Department of Natural Resources
DoP	Department of Planning (including functions of the Heritage Office)
DPI	Department of Primary Industries (including functions of NSW Fisheries and NSW Agriculture)
EA	Environmental Assessment
EMP	Environmental Management Plan
EMR	Environmental Management Representative
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
ICLR	Independent Community Liaison Representative
L_{Aeq} (24 hour)	Equivalent continuous (constant) sound pressure level (L_{Aeq}) is the energy average over the sample period (in this instance, 24hr) and is equivalent to the level of a constant noise which contains the same energy as the varying noise environment.
L_{Amax}	The maximum noise level over a sample period, measured on fast response during sample period
LALC	Local Aboriginal Land Council
LGA	Local Government Area
MoT	Ministry of Transport
OEMP	Operation Environmental Management Plan
POEO Act	<i>Protection of the Environment Operations Act 1997</i>
RTA	Roads and Traffic Authority
SoC	Statement of Commitments
SSFL	Southern Sydney Freight Line
TIDC	Transport Infrastructure Development Corporation

ADMINISTRATIVE CONDITIONS

GENERAL

All Phases of Project

1. The Project must be carried out to be consistent with:
 - (a) the procedures, safeguards and mitigation measures identified in the EA for the Southern Sydney Freight Line prepared by Parsons Brinckerhoff, dated April 2006; as modified by the Submissions Report for the Southern Sydney Freight Line prepared by Parsons Brinckerhoff, dated August 2006;
 - (b) the Statement of Commitments (SoC) made in the Submissions Report, as amended in Attachment 1 to these Conditions of Approval; and
 - (c) these Conditions of Approval (CoA).

These CoA prevail in the event of any inconsistency with the requirements for the Construction and Operation of the Project arising out of the documents described in (a) and (b) above.

2. It is the responsibility of the Proponent to implement measures and actions arising from documents described in 1(a) and 1(b) and to ensure compliance with all of these CoA and to implement any measures arising from these CoA.
3. These CoA do not relieve the Proponent of its obligations under any other Act.
4. The Proponent must bring to the Director-General's attention any matter that may require further assessment by the Director-General.
5. The Proponent must comply with any requirements of the Director-General arising from the Director-General's assessment of:
 - (a) any reports, plans or correspondence that are submitted to satisfy these CoA; and
 - (b) the implementation of any actions or measures contained in such reports, plans or correspondence.
6. The Proponent may elect to construct the Project in Stages provided that these are consistent with the EA, Submissions Report and CoA. Where Stages are proposed, the Proponent may elect to address the requirements of CoA and SoC (including the preparation of plans, reports or other documents) on a Stage specific basis with the agreement of the Director-General.

NOTIFICATION

Pre-Construction and Pre-Operation

7. The Proponent must notify, in writing, the Director-General, Relevant Government Departments and Relevant Councils of the start of the Project's Construction and Operation at least four weeks before the relevant start date of each phase of the Project (or within any other time agreed to by the Director-General).

COMPLIANCE REPORTS

Pre-Construction

8. The Proponent must submit a Pre-Construction Compliance Report to the Director-General at least four weeks before Construction commences (or within any other time agreed to by the Director-General).

The Pre-Construction Compliance Report must include:

- (a) details of how the CoA and SoC required to be addressed before Construction were complied with;
- (b) the time when each relevant CoA and SoC was complied with, including dates of submission of any required reports and/or approval dates; and
- (c) details of any approvals or licences required to be issued by Relevant Government Departments before Construction commences.

The Pre-Construction Compliance Report must be made Publicly Available.

Pre-Operation

9. The Proponent must submit a Pre-Operation Compliance Report to the Director-General at least four weeks before Operation commences (or within any other time agreed to by the Director-General).

The Pre-Operation Compliance Report must include:

- (a) details of how the CoA and SoC required to be addressed before Operation were complied with;
- (b) the time when each relevant CoA and SoC was complied with, including dates of submission of any required reports and/or approval dates; and
- (c) details of any approvals or licences issued by Relevant Government Departments for the Project's Operation.

The Pre-Operation Compliance Report must be made Publicly Available.

Construction

10. The Proponent must provide the Director-General, Relevant Councils and Relevant Government Departments nominated by the Director-General with Construction Compliance Reports. The EMR must review the Construction Compliance Reports before they are submitted to the Director-General and bring to the Director-General's attention any shortcomings.

The first Construction Compliance Report must report on the first six months of Construction and be submitted a maximum six weeks after expiry of that period (or at any other time interval agreed to by the Director-General). The second, and subsequent, Construction Compliance Reports must be submitted at maximum intervals of six months from the date of submission of the first Construction Compliance Report (or at any other time interval agreed to by the Director-General) for the duration of Construction.

The Construction Compliance Reports must include information on:

- (a) compliance with the CEMP, CoA and SoC;
- (b) compliance with any approvals or licences issued by Relevant Government Departments for Construction;
- (c) the implementation and effectiveness of environmental controls. The assessment of effectiveness should be based on a comparison of actual impacts against performance criteria identified in the CEMP;
- (d) environmental monitoring results, presented as a results summary and analysis;
- (e) the number and details of any complaints, including a summary of main areas of complaint, action taken, response given and intended strategies to reduce recurring complaints;
- (f) details of any review and amendments to the CEMP resulting from Construction during the reporting period; and
- (g) any other matter relating to compliance with the CoA and SoC or as requested by the Director-General.

The Construction Compliance Reports must be made Publicly Available.

ENVIRONMENTAL IMPACT AUDITS

Post- Construction

11. An Environmental Impact Audit Report - Construction must be prepared and submitted to the Director-General a maximum three months after Construction is complete (or at any other time interval agreed to by the Director-General). The Environmental Impact Audit Report – Construction must also be submitted to Relevant Government Departments upon the request of the Director-General.

The Environmental Impact Audit Report – Construction must:

- (a) identify the major environmental controls used during Construction and assess their effectiveness (the assessment of effectiveness should be based on a comparison of actual impacts against performance criteria identified in the CEMP);
- (b) identify any innovations in Construction methodology used to improve environmental management; and
- (c) discuss the lessons learnt during Construction, including recommendations for future Projects.

The Environmental Impact Audit Report – Construction must be made Publicly Available.

Operation

12. An Environmental Impact Audit Report - Operation must be submitted to the Director-General a maximum 12 months after the Project begins Operation and at any additional periods that the Director-General may require. The Environmental Impact Audit Report - Operation must also be submitted to Relevant Government Departments at the request of the Director-General.

The Environmental Impact Audit Report - Operation must:

- (a) compare the Operation impact predictions made in the EA, Submissions Report and any supplementary studies with the actual impacts;
- (b) assess the effectiveness of implemented mitigation measures and safeguards;

- (c) assess compliance with the systems for operation maintenance and monitoring (as required by this approval);
- (d) discuss the results of consultation with the local community particularly any feedback or complaints; and
- (e) be certified by an independent person at the Proponent's expense. The certifier must be advised to the Director-General before the Environmental Impact Audit Report – Operation is prepared.

The Environmental Impact Audit Report – Operation must be made Publicly Available.

CONSTRUCTION AND OPERATION MANAGEMENT PLANS

Pre-Construction and Construction

13. A Construction Environmental Management Plan (CEMP) must be prepared in accordance with the Department of Infrastructure, Planning and Natural Resources (2004) Guidelines for the Preparation of Environmental Management Plans and submitted for the Director-General's Approval at least 4 weeks prior to the commencement of Construction or as otherwise agreed to by the Director-General.

The CEMP must be reviewed by the EMR before the Proponent seeks the Director-General's approval for the CEMP. The EMR must bring to the Director-General's attention any shortcomings.

The CEMP must be prepared and implemented in accordance with the procedures, safeguards and mitigation measures identified in the EA, Submissions Report, SoC and CoA and all relevant Acts and Regulations and in consultation with Relevant Government Departments, Councils, Stakeholders and the CLG. The CEMP must contain all the Construction Sub Plans required by the CoA and SoC.

The approved CEMP must be made Publicly Available.

Pre-Operation and Operation

14. An Operational Environmental Management Plan (OEMP) must be prepared in accordance with the Department of Infrastructure, Planning and Natural Resources (2004) Guidelines for the Preparation of Environmental Management Plans, and submitted for the Director-General's Approval at least 4 weeks prior to the commencement of Operation or as otherwise agreed to by the Director-General.

If the Proponent has an OEMP for its other projects which is applicable to this Project (for example a certified and operating environmental management system) then that system may be proposed as the OEMP. Details of the existing system must be provided to the Director-General demonstrating its application to this Project.

The OEMP must be prepared and implemented in accordance with the procedures, safeguards and mitigation measures identified in the EA, Submissions Report, SoC and CoA and all relevant Acts and Regulations, and in consultation with Relevant Government Departments, Councils, Stakeholders and the CLG.

The OEMP must incorporate the Operational requirements detailed in the CoA and SoC and include a monitoring and review program which contains (but is not limited to):

- (a) an Operation Noise and Vibration Management Plan;
- (b) an Operation Air Quality Management Plan;
- (c) an Operation Hazard and Risk Management Plan;

- (d) a program to monitor any residual impacts of the Project on surface and groundwater including requirements for the monitoring of analyte selenium if any disturbed stockpiles or deposits of steam train boiler ash are proposed to be retained on the Project site;
- (e) a program to monitor the performance and effectiveness of measures implemented as part of the Biodiversity Management Sub Plan (CoA 60);
- (f) details of performance and completion criteria, monitoring frequency and duration; and
- (g) details of responsibility for monitoring and maintenance before and after any asset transfer to the relevant authority

The approved OEMP must be made Publicly Available.

ENVIRONMENTAL MANAGEMENT REPRESENTATIVE

Pre-Construction and Construction

15. The Proponent must request the Director-General's Approval for the appointment of one or more EMR(s) at least eight weeks before Construction commences (or within any other time agreed to by the Director-General). In its request the Proponent must provide the following information, the:
 - (a) qualifications and experience of the EMR including demonstration of general compliance with relevant Australian Standards for environmental auditors;
 - (b) authority and independence (from the Proponent or its contractors) of the EMR including details of the Proponent's internal reporting structure; and
 - (c) resourcing of the EMR role. The EMR must be available:
 - i for sufficient time to undertake the EMR role. This timing must be agreed between the Proponent and the EMR and advised to the Director-General in the request for approval;
 - ii at any other time requested by the Director-General;
 - iii during any Construction activities identified in the CEMP to require the EMR's attendance; and
 - iv for the duration of Construction.

16. The Director-General may at any time immediately revoke the approval of any EMR appointment by providing written notice to the Proponent. Interim arrangements for EMR responsibility following the revocation must be agreed in writing between the Director-General and the Proponent.

17. The Director-General may at any time conduct an audit of any actions undertaken by the EMR. The Proponent must:
 - (a) facilitate and assist the Director-General in any such audit; and
 - (b) include in the conditions of the EMR's appointment the need to facilitate and assist the Director-General in any such audit.

18. The EMR is authorised to :
 - (a) consider and advise the Director-General and the Proponent on matters specified in the CoA and SoC and compliance with such;
 - (b) determine whether work falls within the definition of Construction where clarification is requested by the Proponent;
 - (c) review the CEMP, Construction Compliance Reports and any other matter as required by the Director-General;

- (d) periodically monitor the Proponent's activities to evaluate compliance with the CEMP. Periodic monitoring must involve site inspections of active work sites at least fortnightly;
- (e) provide a written report to the Proponent of any non-compliance with the CEMP observed or identified by the EMR. Non compliance must be managed as identified in the CEMP;
- (f) issue a recommendation to the Proponent to stop work immediately if in the view of the EMR an unacceptable impact on the environment is occurring or is likely to occur. The stop work recommendation may be limited to specific activities causing an impact if the EMR can easily identify those activities. The EMR may also recommend that the Proponent initiate reasonable actions to avoid or minimise adverse impacts;
- (g) review corrective and preventative actions to monitor the implementation of recommendations made from audits and site inspections;
- (h) certify that minor revisions to the CEMP are consistent with the approved CEMP; and
- (i) provide regular (as agreed with the Director-General) reports to the Director-General on matters relevant to carrying out the EMR role including notifying the Director-General of any stop work recommendations.

The EMR must immediately advise the Proponent and the Director-General of any incidents relevant to these Conditions resulting from Construction that were not dealt with expediently or adequately by the Proponent.

COMMUNICATION AND CONSULTATION

Pre-Construction and Construction

19. The Proponent must prepare a Community Involvement Plan, in accordance with CoA 20-22, at least four weeks prior to the commencement of Construction (or as otherwise agreed to by the Director-General) to the satisfaction of the Director-General. The CIA should detail how the community will be kept informed about the Project for the duration of Construction, recognise the socio-economic characteristics of affected communities, and include (but not be limited to):
 - (a) establishing displays in each affected LGA;
 - (b) establishing a project internet site;
 - (c) dissemination of information by newspaper advertisements, letter box drops and/or other means;
 - (d) providing for an Independent Community Liaison Representative in accordance with CoA 20;
 - (e) establishing and maintaining Community Liaison Group(s) in accordance with CoA 21; and
 - (f) establishing a Construction Complaints Management System in accordance with CoA 23.

20. The Proponent must request the Director-General's approval for the appointment of an Independent Community Liaison Representative(s) (ICLR) at least eight weeks before Construction commences (or within any other time agreed to by the Director-General). In its request the Proponent must provide the following information, the:
 - (a) qualifications and experience of the ICLR relating to dispute resolution, facilitation and community involvement particularly in communities where English is not a first language;
 - (b) authority and independence (from the Proponent or its contractors) of the ICLR; and

- (c) resourcing of the ICLR role. The ICLR must:
 - i attend Community Liaison Group meetings as a facilitator;
 - ii monitor the implementation of the Community Involvement Plan and advise the Proponent about its effectiveness;
 - iii be available for direct contact by the community at times and locations identified in the Community Involvement Plan;
 - iv advise the Proponent and EMR about community issues; and
 - v mediate disputes between the Proponent and the community that cannot be resolved directly between the Proponent and community.

The ICLR must serve for the duration of Construction unless otherwise agreed by the Director-General. The cost of employing the ICLR must be the responsibility of the Proponent.

21. At least 4 Community Liaison Group(s) (CLG), one in each LGA must be formed and hold their first meetings prior to the commencement of Construction unless otherwise agreed to by the Director-General. Each CLG must be attended by the EMR, representatives from the Proponent and its head contractor and representatives from Relevant Councils and the community. Community representatives must be identified and selected from relevant community and business groups and individual members of the community adjoining the Project.

The Proponent must, at its own expense:

- (a) maintain the CLG for the duration of Construction unless otherwise approved by the Director-General;
- (b) provide a chairperson for the CLG. The chairperson must be independent of the Proponent and may be elected from the CLG membership;
- (c) nominate two representatives to attend all CLG meetings;
- (d) provide to the CLG regular information on the progress of Construction and related environmental performance;
- (e) promptly provide to the CLG information that the CLG Chair may reasonably request concerning the Project's environmental performance;
- (f) provide meeting facilities for the CLG, and take notes of CLG meetings. These meeting notes must be available to CLG members within 14 days of the meeting and should be endorsed by the Chair;
- (g) where reasonably required by the Chair, arrange consultant(s) to explain technical information to the CLG; and
- (h) where reasonably required by the Chair, invite representatives from Relevant Government Departments or other individuals to attend CLG meetings.

Issues for discussion by the CLG include the dissemination of information to the community, design issues related to CoA and SoC or mitigation measures, the CEMP and Construction activities. The CLG may make comments about these issues which must be considered by the Proponent. The Proponent must report back to the CLG on its considerations of the comments.

The Proponent may review a CLG's membership and/or the need for the CLG at any time during Construction in consultation with the ICLR. The Proponent must seek the Director-General's approval to dissolve a CLG. Any request for dissolution must demonstrate why the CLG is no longer required.

In the event of any dispute between the CLG and the Proponent, the Proponent's decision is final provided it is consistent with these CoA.

22. The Proponent must consult property owners about implementing mitigation measures that affect their property. Mitigation measures should be implemented according to a program derived from that consultation if consistent with the Conditions of Approval.
23. The Proponent must prepare and implement a Construction Complaints Management System before Construction commences and maintain the System for the duration of Construction. The Construction Complaints Management System must be consistent with AS 4269 "Complaints Handling" and include:
 - (a) a 24 hour, toll free telephone number listed with a telephone company and advertised;
 - (b) a system to receive, record, track and respond to complaints within a specified timeframe. When a complaint cannot be responded to immediately, a follow-up verbal response on what action is proposed must be provided to the complainant within two hours during night-time works and 24 hours at other times;
 - (c) a process for the provision of a written response to the complainant within 10 days, if the complaint cannot be resolved by the initial or follow-up verbal response; and
 - (d) a mediation system for complaints unable to be resolved.

Information on all complaints received, including the means by which they were addressed and whether resolution was reached with or without mediation, must be included in the Construction Compliance Reports and must be made available to the Director-General on request.

SPECIFIC ENVIRONMENTAL CONDITIONS

DETAILED DESIGN

Urban Design and Landscaping

Pre-Construction and Construction

24. Prior to the construction of project elements subject to urban design considerations (or as otherwise agreed to by the Director-General), the Proponent must prepare an Urban Design and Landscape Plan (UDLP) for the entire project. The Plan shall be prepared by a suitably qualified urban designer in accordance with the EA, Submissions Report, the SoC, CoA 25, 26, 28, 29, 30, 35-37, the Design principles described in Table 3.2 of the EA (as reproduced in Attachment 2), and to the satisfaction of the Director-General.

In preparing the UDLP, the Proponent must consult with Relevant Government Departments, Relevant Councils, Stakeholders and the CLG for the entire Project, including Station precinct designs.

The UDLP must demonstrate how the urban design and landscaping measures to be implemented as part of the Project would minimise, mitigate and / or offset the impacts of the Project (including physical noise mitigation measures) on property and land use (including green space); visual amenity; biodiversity values; heritage values; access, transport and traffic facilities; and personal and passenger safety, including:

- (a) consideration of relevant design standards including *Disability Access Standards for Accessing Public Transport*, *Design for Access and Mobility – General Requirements for Access – New Building Work*;
 - (b) consideration of *Crime Prevention Through Environmental Design Principles*;
 - (c) consideration of the objectives and requirements of the NSW Department of Urban Affairs and Planning (1996) *Leacock Regional Park Plan of Management* and Liverpool City Council and Planning NSW (2002) *Georges River Corridor: Plan of Management and Master Plan*;
 - (d) consideration of the relevant urban design and landscaping elements of the *draft Liverpool City Centre Plan*, NSW Department of Planning, 2006, and
 - (e) integration of landscape plantings with the offset and enhancement objectives of BMSP (see CoA 60)
25. The UDLP shall include plans prepared for each affected LGA and Station precinct and shall include but not be limited to:
- (a) location and identification of existing vegetation and proposed landscaped areas and elements;
 - (b) built elements including retaining walls, bridges and noise walls;
 - (c) pedestrian and cyclist elements including footpath location, paving types and pedestrian crossings;
 - (d) fixtures such as seating, lighting, fencing and signs; and
 - (e) batter and retaining structures within public open spaces.

The UDLP shall consist of a report with accompanying annotated plans, sections and perspective sketches, photo montages and other illustrative material at a scale and level of detail which is adequate to cover the proposal, including but not limited to:

- (f) graphics for key elements such as sections, sketches, perspective views etc.;
- (g) a schedule of species to be used in landscaping. The derivation of the schedule must be explained including its relationship with the Project's ecological studies;
- (h) details of the timing and progressive implementation of landscape works considering related environmental controls such as erosion and sedimentation controls and drainage; and
- (i) procedures and methods to monitor and maintain landscaped or rehabilitated areas both inside and outside the Project.

The approved UDLP must be made Publicly Available and the Proponent must ensure that the recommendations of the report are implemented as part of the Construction of the Project.

26. In preparing the UDLP and identifying noise mitigation requirements along Broomfield Street, south of Cabramatta Station, the Proponent must specifically consult with adjacent landowners with particular reference to the design of the embankment retaining wall and any physical noise mitigation requirements.

Operation

27. The ongoing maintenance and operation costs of urban design and landscaping items and works implemented as part of this Approval must remain the Proponent's responsibility until satisfactory arrangements have been put in place for the transfer of the asset to the relevant authority to the satisfaction of the Director-General. Prior to the transfer of assets the Proponent, in conjunction with RailCorp, will maintain items and works to the design standards established in the UDLP, including the engagement of a landscape specialist and the removal of graffiti within performance standards specified in the UDLP.

Cabramatta Station Precinct

Pre-Construction and Construction

28. The detailed design of Cabramatta Station and surrounds must consider the personal safety impacts of the proposal during construction and operation by considering Crime Prevention Through Environmental Design principles and ensuring that there is no loss in coverage or capacity of the TownSafe CCTV coverage network during the construction and operation of the SSFL. The lift must be constructed to allow surveillance of passengers from the street and rail overpass, and through the CCTV network if agreed to by Fairfield Council. Any agreed changes to the coverage and operation of the TownSafe CCTV network must meet the design requirements of Fairfield Council.
29. The Proponent must provide car parking to fully compensate for any loss of existing car parking at Cabramatta Station displaced as a result of the construction and/or operation of the Project. The compensatory car parking must be provided within 400 metres of Cabramatta Station.

The location of compensatory car parking measures and the timing of delivery shall be to the satisfaction of the Director-General.

To address this issue, the Proponent must prepare a Parking Plan within 3 months from the date of the approval in consultation with Relevant Government Departments, Fairfield Council, Relevant Stakeholders and the CLG to the satisfaction of the

Director-General. As well as the location of compensatory car parking, the parking plan should include:

- (a) Optimisation of the allocation of parking spaces for different users; and
- (b) Appropriate management of parking impacts on surrounding residential streets.

30. Prior to the commencement of construction, the Proponent must undertake a review of proposed traffic, cycle and pedestrian arrangements in the East Cabramatta area in consultation with Relevant Government Departments, Fairfield Council, and the CLG to the satisfaction of the Director-General. The review should include, but not be limited to:

- (a) the identification of design objectives, relevant guidelines and standards, and how these are achieved;
- (b) a Pedestrian Access and Mobility Plan; and
- (c) an assessment of alternative treatments should the proposed 'Shared Zone' design not meet relevant guidelines and standards.

The findings and recommendations of the review must be incorporated into the UDLP and the Proponent must implement the identified management and mitigation measures as part of the Project.

31. Prior to the commencement of Construction (or as otherwise agreed by the Director-General), the Proponent must liaise with RailCorp about facilitating preliminary piling and roofing works at Cabramatta Station for future enhancements of the RailCorp passenger network with a view to carrying out these works. If possible, these works should be carried out in conjunction with the SSFL Construction to limit future construction impacts at Cabramatta Station.

Level Crossings

Pre-Construction and Construction

32. Prior to the commencement of Construction (or as otherwise agreed by the Director-General), the Proponent must in consultation with RailCorp assess design options for the Sefton Park Junction level crossing including considering impacts of the preferred location of the level crossing on the surrounding road network during Construction and Operation (in consultation with Relevant Government Departments and Councils), to the satisfaction of the Director-General.

Following approval, the Proponent must contribute an agreed amount in cash or kind to RailCorp in order to implement the findings of the assessment during Construction. In lieu of agreement between the parties, the contribution will be to the satisfaction of the Director-General.

Pre-Operation

33. Prior to the commencement of Operations, the Proponent must contribute an agreed amount in cash or kind to Council for the provision of alternate vehicle access to the Casula Regional Arts Centre via Shepard Street. In lieu of agreement between the parties, the contribution will be to the satisfaction of the Director-General.

Unless otherwise agreed to by the Director-General, if alternate vehicle access has not been provided 3 months prior to Operation, the Proponent must undertake a risk

assessment of the Casula Level Crossing in consultation with RailCorp and the Casula Arts Regional Centre and implement measures for the safe operation of the level crossing, prior to Operation, until alternate vehicle access is provided.

34. Unless otherwise agreed to by the Director-General the Proponent must in cooperation with NSW Health and RailCorp ensure that alternative vehicle and pedestrian access across the rail line at the Liverpool Hospital is provided prior to the commencement of Operation. The Proponent must contribute an agreed amount in cash or kind for the provision of alternate vehicle and pedestrian access.

Future Access Provisions

Pre-Construction and Construction

35. The Proponent, in consultation with Relevant Councils must ensure that the design and construction of the Project does not preclude the provision of future vehicle, pedestrian, cycle or other access provision, identified in an approved or published plan including:
- (a) a link from Liverpool City Centre to the Georges River, including the proposed extension of the Liverpool Station concourse over the rail corridor to connect directly with the northern end of Lighthorse Park;
 - (b) provision of a shared cycle/ pedestrian walkway along the Georges River connecting the proposed Liverpool Station concourse extension with the Casula Arts Centre (the 'River Walk');
 - (c) extension of the 'River Walk' to Leacock Regional Park under the Glenfield Creek rail bridge;
 - (d) pedestrian/cycle access from the Liverpool City Centre, to the eastern bank of the Georges River;
 - (e) proposed extension of Farrow Road, Campbelltown to Blaxland Road and/ or Narellan Road.

The Proponent will consult with the Relevant Council to establish if it is feasible for the Relevant Council to undertake preparatory works, if necessary to facilitate the economic delivery of the works identified in (a) to (e) above.

36. Prior to construction, the Proponent in consultation with RailCorp shall consult with Liverpool City Council concerning the design of its proposed cycle path along the top of the Georges River bank, between Liverpool Hospital and Lighthorse Park. The primary purpose of the consultation is to assist Council assess options for establishing a cycle path along this steep section of the river bank, between the piled slab (which will support the Project at the top of the river bank) and the proposed boardwalk (along the edge of the Georges River), which will not effect the long term stability of the river bank and rail corridor. The assessment of options will address the feasibility of integrating the future cycle path with the Project's piled slab construction and establish if it is feasible for Council to undertake preparatory works to facilitate this or other options in the future. If the parties cannot agree on a feasible cycle path alignment, the matter will be referred to the Director-General for resolution.

Existing Facilities

Pre-Construction and Construction

37. The Proponent must ensure that:
 - (a) all existing infrastructure impacted by the Project is replaced to at least the existing standard and ensure that there is no net loss in access, parking, bus, cyclist and other traffic and transport facilities along the corridor; and
 - (b) station access impacted by the Project is provided to 'easy access' standards at the Leumeah, Minto, Cabramatta and Warwick Farm Station precincts and provision is made to allow for the future provision of lift(s) at the Casula and Sefton Station precincts.

Interactions with Existing and Planned Rail Infrastructure

Pre-Construction and Construction

38. The Proponent must consult with RailCorp and TIDC (where relevant) in developing, designing and operating all components of the Project that may interact with or impact on existing and proposed passenger rail infrastructure, including but not limited to the following:
 - (a) noise mitigation measures through Liverpool having regard to the requirements of the proposed Liverpool Turn Back project;
 - (b) operational and maintenance requirements associated with the stabling facilities at Liverpool and Campbelltown; and
 - (c) the proposed South West Rail Link.

NOISE AND VIBRATION

Pre-Construction

39. The Proponent must prepare a Construction Noise and Vibration Management Sub Plan (CNVMSP) as part of the CEMP in consultation with Relevant Government Departments, Councils and Stakeholders and the CLG(s) to provide a framework for managing and mitigating construction noise and vibration impacts. The CNVMSP must provide details of general noise and vibration control and management measures to be implemented during construction. Detailed analysis and assessment of potential noise impacts and/or mitigation measures must be undertaken for each construction stage, major construction activity and construction compound in Noise and Vibration Impact Statements required by CoA 40.
40. Noise and Vibration Impact Statement(s) (NVIS) are to be prepared for each construction stage, major construction activity and construction compound prior to commencement of construction. The NVIS(s) must be prepared by a recognised acoustic consultant and address proposed construction and construction-related works including but not limited to:
 - (a) a description of each construction activity including Ancillary Facilities, and their associated noise sources;
 - (b) identification of all potentially affected noise sensitive receivers;
 - (c) determination of appropriate noise and vibration objectives for each identified noise sensitive receiver;
 - (d) the construction vibration objective specified in these Conditions of Approval;

- (e) assessment of potential noise impacts from the proposed construction methods including noise from construction vehicles and noise impacts from required traffic diversions;
- (f) examination of all reasonable and feasible noise mitigation measures including the use of alternative construction methods where potential noise impacts exceed the relevant objectives;
- (g) description and commitment to work practices which limit noise;
- (h) description of specific noise mitigation treatments and time restrictions including respite periods. Where possible programming of night works affecting residential and other sensitive areas over consecutive nights in the same locality shall be avoided;
- (i) justification for any activities outside the construction hours specified in CoA 43 - 44;
- (j) noise monitoring proposed and consideration of additional Reasonable and Feasible noise mitigation measures where noise objectives are exceeded;
- (k) consideration of erecting operational stage Reasonable and Feasible noise mitigation measures prior to construction commencement;
- (l) noise audit systems including recording of daily hours of construction, progressive impact assessments as the work proceeds, conducting informal checks by the EMR, providing active and continuous communication links to relevant Councils, residents etc;
- (m) procedures for notifying residents of construction activities that are likely to affect their noise and vibration amenity; and
- (n) an education program for construction personnel about noise minimisation

With respect to (f) above, the Proponent shall consider the use of a range of structural and non-structural measures during construction including barriers, scheduling of construction activities to minimise impacts and temporary relocation of affected residents.

41. The CNVMSP will outline monitoring requirements for the project. This monitoring program will include the following measures:
- (a) Environmental noise and vibration monitoring will be undertaken within one week after commencement of each new stage of the construction works and monthly thereafter. This monitoring programme will be reviewed after six months, subject to the proposed construction activities;
 - (b) Noise monitoring will be undertaken using a calibrated sound level meter. The measurements would determine the LA10,15min airborne construction noise levels received external to any sensitive receiver. In respect of airborne noise, in many instances, existing ambient noise levels would be high due to traffic. Where required, an estimate of the LA10 levels may be made from spot checks of short duration maximum noise level emissions from the site (e.g. during breaks in traffic); and
 - (c) Vibration levels would be monitored using an appropriate vibration monitoring system when perceptible vibration levels are likely.

42. The Proponent must obtain independent verification of the adequacy of the noise impact assessment and proposed mitigation measures presented in the NVISs prior to submitting the report to the Director-General. The findings of the independent verification must be submitted to the Director-General with the CNVMSP.

Construction

43. Construction will be restricted to between the hours of 7:00am to 6:00pm (Monday to Friday), 8:00am to 1:00pm (Saturday) and at no time on Sundays or public holidays except:
- (a) for the delivery of materials required outside these hours by the Police or other authorities for safety reasons; or
 - (b) where it is required in an emergency to avoid the loss of lives, property and/or to prevent environmental harm; or
 - (c) where the work is identified in the Construction Noise and Vibration Management Plan and approved as part of the CEMP; or
 - (d) any works requiring track possessions subject to the following:
 - i the associated noise levels would be similar to the noise levels associated with programmed maintenance works;
 - ii works which do not include high noise generating works including sheet piling, pile driving, rock hammering/breaking etc. unless otherwise agreed by the director-general following consultation with the DEC; and
 - iii notification of the community at least 14 days in advance of such works including likely times and duration; or
 - (e) any works within the rail corridor (with the exception of track possessions), subject to the approval of the DEC as part of the process in developing the Construction Noise and Vibration Management Plan; or
 - (f) any other work as agreed by the Director-General in consultation with the DEC and considered essential to the project and where it can be demonstrated that it would achieve a better environmental outcome, through the Construction Noise and Vibration Management Sub Plan process.

Local residents will be informed of the timing and duration of work approved under item (c) at least 48 hours before that work commences.

44. Rock breaking, rock hammering, sheet piling, pile driving and any similar activity must only occur between the following hours unless otherwise approved in the Construction Noise and Vibration Management Sub Plan:
- (a) 9am to 12pm and 2pm to 5pm Monday to Friday; and
 - (b) 9am to 12pm Saturday.
45. The construction noise objective for the Project is to manage noise from Construction activities (as measured by a LA10 (15 minute) descriptor) so as to not exceed the background L90 noise level by more than 5 dB(A) at any residence or other noise sensitive receiver.

Where this cannot be achieved, all Reasonable and Feasible noise mitigation and management measures are to be implemented to achieve the construction noise objective to the greatest extent possible. Any activities that may cause noise emissions that exceed the objective shall be identified and managed in accordance with the Noise and Vibration Impact Statements.

For the purposes of the noise objective for this Condition, 5 dB(A) must be added to the measured level if the noise from the activity is substantially tonal or impulsive in nature in accordance with Chapter 4 of the *NSW Industrial Noise Policy*.

46. Vibration caused by Construction and received at any structure outside the Project must:
 - (a) For structural damage vibration be limited to German Standard DIN 4150 Part 3 *Structural Vibration in Buildings. Effects on Structures; and*
 - (b) For human exposure to vibration be limited to evaluation criteria presented in British Standard BS 6472 – *Guide to Evaluate Human Exposure to Vibration in Buildings* 1Hz to 80Hz) for low probability of comment.

These limits apply unless otherwise approved in the CNVMSP.

47. The Proponent must consult with education institutions and minimise the impact of noise generating Construction works in their vicinity. The Proponent must ensure that Construction works audible at an institution are not timetabled during important events, such as examination periods, unless arrangements acceptable to the affected institutions are made at no cost to the affected institutions.
48. The Proponent must ensure that public address systems used at any Construction work site are not used outside the Construction hours detailed in the Conditions of Approval unless otherwise approved through the Construction Noise and Vibration Management Sub Plan. Public address systems must be designed to minimise noise spillage off-site.
49. Wherever practical, piling activities must be completed using bored piles unless otherwise agreed by the Director-General. If driven piles are proposed, reasons they are required must be specified in the CEMP.
50. Blasting is not permitted during construction unless otherwise approved by the DEC in an Environmental Protection Licence.

Pre-Operation and Operation

51. The Proponent must prepare an Operation Noise and Vibration Management Plan (ONVMP) no later than 6 months from the commencement of construction (or as otherwise agreed by the Director-General). The Plan must confirm noise and vibration control measures in order to achieve the Director-General's Requirements for Environmental Assessment. The Plan must be prepared in consultation with Relevant Government Authorities, Relevant Councils, Stakeholders and the CLG(s) and approved by the Director-General.

The ONVMP must include details of noise and vibration control measures to be implemented during the Operation stages including:

- (a) identification of sensitive receivers (including those outside residential areas);
- (b) identification of the appropriate operational noise and vibration objectives and levels for sensitive receivers;
- (c) predictions of operational noise and vibration impacts at sensitive receivers;
- (d) examination of all Reasonable and Feasible noise and/or vibration mitigation measures;

- (e) identification of specific physical and managerial measures for controlling noise and vibration including location, type and timing of erection of permanent noise barriers and/or other noise mitigation measures demonstrating best practice;
- (f) a Source Control Plan which identifies strategies for source controls including:
 - i a program of condition monitoring for the purpose of minimising noise emissions from freight rolling stock and maintenance activities;
 - ii targets, assessment, action and review processes for incorporation and implementation of best practice measures;
- (g) procedures for complaints management, including investigation and monitoring (subject to complainant agreement); and
- (h) procedures for reviewing the adequacy of operational noise and vibration mitigation measures.

The Proponent is to implement the identified noise and vibration control measures and make the ONVMP publicly available.

- 52. Where required, the Proponent must install physical mitigation measures, subject to:
 - (a) consultation with directly affected property owners and the CLG; and
 - (b) detailed design taking into consideration:
 - i shadow analysis for north facing sites in residential areas;
 - ii assessment of local flooding impacts; and
 - iii assessment of potential for graffiti and other forms of vandalism.
- 53. All noise barriers installed must have absorptive surfaces on the rail side to minimise the impacts of noise reflection.
- 54. At 1, 2, 5 and 10 years from commencement of Project operations the Proponent must:
 - (a) monitor and review the adequacy and effectiveness of noise and vibration mitigation measures against noise objectives stated in the Operation Noise and Vibration Management Plan; and
 - (b) review, and revise if required, the Source Control Plan; and
 - (c) review advances in noise standards and best practice noise mitigation technology as well as any State or Federal Government initiatives to manage rail noise.

If monitoring indicates any substantial exceedance of stated or emerging noise and vibration objectives, as a result of the Project, the Proponent must identify and implement any additional Reasonable and Feasible mitigation measures.

A report of the monitoring and review must be submitted to the Director-General within 4 months of the relevant monitoring period, unless otherwise agreed to by the Director-General. Additional Reasonable and Feasible mitigation measures identified must be installed or implemented to the satisfaction of the Director-General in consultation with DEC and affected receivers.

The monitoring and review, and any subsequent mitigation measures must be verified by an independent noise and vibration expert at the Proponent's expense. The independent expert must be approved by the Director-General prior to the relevant review period.

For the purposes of this condition, a substantial exceedance is considered to be an exceedance of the LAeq objective by 2dBA, as measured or assessed over a one-week period, or exceedance of the L_{Amax} objective by 2dBA, measured or assessed as the energy-mean maximum noise.

TRAFFIC

Pre-Construction and Construction

55. The Proponent must prepare and implement a Construction Traffic Management Sub Plan (CTMSP) must be prepared and implemented as part of the CEMP. The CTMSP must be prepared by an approved traffic engineer in consultation with Relevant Government Departments, the relevant road authority, and other relevant stakeholders and include:
- (a) Traffic Management Reports;
 - (b) Traffic Management Plans; and
 - (c) Traffic Control Plans.

The CTMSP must be fully integrated with the Spoil and Fill Management Sub Plan.

56. Traffic Management Plans are to be prepared as part of the CTMSP where Construction will affect the operation of the road network. Plans will be prepared for at least:
- (a) the bridge upgrades identified in Section 10.3.1 of Volume 1 of the Environmental Assessment;
 - (b) the new rail bridges over roads identified in Section 10.3.2 of Volume 1 of the Environmental Assessment;
 - (c) the road network changes identified in Section 10.3.3 of Volume 1 of the Environmental Assessment; and
 - (d) Construction Compounds.

Traffic Management Plans will be prepared in accordance with RTA manuals including, but not limited to: *Road Occupancy Manual; RTA Delegation to Councils Regulation of Traffic; Preparing TMP and Traffic Control at Work Sites, Version 3, September 2003.*

Where road closures are proposed during the construction of bridges, the Traffic Management Plan(s) must include a detailed analysis of the impact on network operation and be referred to the appropriate road authority for comment. Such analysis should include:

- (e) network modelling where required;
- (f) traffic management measures to be provided to maintain optimum network operation and safety;
- (g) provisions for pedestrians and cyclists; and
- (h) parking control measures.

Where a significant number of truck movements are expected from work sites, the Traffic Management Plan(s) must include intersection modelling to ensure optimum intersection operation. Where applicable, these should include, but be not limited to:

- (i) Amy Street and Rookwood Road;
- (j) Auburn Road and Hume Highway;
- (k) Cabramatta Road East and Hume Highway; and
- (l) Glenfield Road and Campbelltown Road.

57. Traffic Management Plans must include:
- (a) identification of all public roads to be used by Construction traffic, in particular roads proposed to transport large quantities of Construction materials. The expected timing and duration of road usage will be stated;

- (b) management methods to ensure Construction traffic uses identified roads;
- (c) identification of all public roads that may be partially or completely closed during Construction and the expected timing and duration of these closures. Consideration will be given to programming Construction works to minimise road closures during peak hours and/or holiday periods;
- (d) impacts on existing traffic (including pedestrians, vehicles, cyclists and disabled persons);
- (e) temporary traffic arrangements including property access;
- (f) access to Construction work sites including entry and exit locations and measures to prevent Construction vehicles queuing on public roads;
- (g) a response plan for any Construction traffic incident;
- (h) monitoring, review and amendment mechanisms;
- (i) identification of any requirements for road occupancy licences;
- (j) identification of parking for Construction workers; and
- (k) identification of bus routes.

58. The Proponent must ensure that:

- (a) existing pedestrian/ cyclist access, parking, bus and other transport facilities are not removed or modified prior to alternative provisions being made for these facilities. Any temporary diversion of traffic and pedestrian cycle routes must be clearly sign posted. Priority must be given to pedestrians accessing public transport and where there are potential impacts to school zones and pedestrian crossings, consultation with affected schools should be undertaken;
- (b) the CTMSP has regard to cumulative impacts from, and shared access requirements for, the Liverpool Turnback Project in consultation with TIDC;
- (c) traffic impacts resulting from staff (including parking requirements) is considered as part of the preparation of CTMSP to ensure traffic impacts are minimised;
- (d) full road closures during Construction are limited to periods which would minimise disruption to road users and the local community (i.e. such as weekends or overnight), unless otherwise agreed to by the relevant road authority;
- (e) alternative access is available to Emergency Services during the full closure of any roads;
- (f) notwithstanding the requirement of (d) above, at least one lane of Auburn Road Bridge remains open to traffic at all times during construction unless otherwise agreed by the Director-General in consultation with Relevant Councils or the Roads and Traffic Authority (as relevant) ; and
- (g) closure of the Casula level crossing is minimised during construction and that:
 - i. any closure of the crossing is coordinated with the Casula Regional Arts Centre; and
 - ii. alternate vehicle access to the Casula Regional Arts Centre is provided for Emergency Services during any closures.

59. Construction vehicles using public roads will be maintained to prevent any loss of load, whether dust, liquid or soils. Facilities will be provided at exit points of all construction work sites to minimise tracking mud, dirt or other material onto a public road or footpath. In the event of any spillage, the Proponent will remove the spilled material as soon as practicable within the working day of the spillage.

FLORA AND FAUNA

Pre-Construction and Construction

60. The Proponent must prepare and implement a Biodiversity Management Sub Plan (BMSP) in consultation with Relevant Government Departments and Councils and the CLG and in accordance with the SoC as part of the CEMP. The BMSP must include:
- (a) plans showing:
 - i. terrestrial vegetation communities; important flora and fauna habitat areas; locations where threatened species, populations or ecological communities were recorded; and areas to be cleared. The plans will identify vegetation adjoining the Project where this contains important habitat areas and/or threatened species, populations or ecological communities;
 - ii. aquatic vegetation communities; important habitat areas; locations where threatened species, populations or ecological communities were recorded; and areas to be cleared. The plans will also identify vegetation adjoining the Project where this contains important habitat areas and/or threatened species, populations or ecological communities;
 - iii. identification of existing disturbed habitat areas (including riparian and aquatic habitat) along the SSFL corridor where rehabilitation, enhancement and landscaping works can be undertaken as part of Construction, to result in a net improvement of habitat and ecological values;
 - (b) methods to manage impacts on flora and fauna species (terrestrial and aquatic) and their habitat which may be directly or indirectly affected by the Project. These will include:
 - i. procedures for vegetation clearing, soil management and managing other habitat damage (terrestrial and aquatic) during Construction;
 - ii. methods to protect vegetation both retained within, and also adjoining, the Project from damage during Construction;
 - iii. a habitat tree management program including fauna recovery procedures and habitat maintenance (e.g. relocating hollows or installing nesting boxes);
 - iv. methods to minimise damage to aquatic habitats;
 - v. where possible, and where consistent with DEC or NSW Fisheries requirements, strategies for re-using in rehabilitation works individuals of any threatened plant species that would otherwise be destroyed by the Project;
 - vi. performance criteria against which to measure the success of the methods;
 - vii. where removal of threatened species is unavoidable, investigations of the potential for translocation or transplantation within the immediate area or another suitable donor site will be undertaken in consultation with the DEC, NSW Fisheries and RailCorp and, where Reasonable and Feasible, in accordance with the DEC's recovery plan and RailCorp's management plan for *Acacia pubescens*;
 - viii. no materials, spoil or machinery will be stored or parked within the drip lines of trees;
 - ix. boring of piles at Cabramatta Creek bridge to minimise impacts to an existing camp of the threatened Grey-headed Flying-fox at Cabramatta;
 - x. details on how the Proponent will ensure that no more than 2.1 ha of native vegetation including 0.4ha of Cumberland Plain Woodland and 1.7ha of Sydney Coastal River Flat Forest is cleared as part of the Project and only the *Acacia pubescens* population referred to as 'Population B: Regents Park Triangle, chainage 22.8km' in Section 2 (Flora & Fauna) of Technical Volume 1 of the EA, is removed as part of the Project.

- xi. methods to minimise damage to riparian and aquatic habitat, and fish passage including but not limited to:
 - a. designing and constructing waterway crossings and creek diversions having regard to the “*Guidelines for Design of Fish Friendly Waterway Crossings*” in consultation with DPI (Fisheries) and DNR;
 - b. designing realignments to Bow Bowing Creek and the drainage gully at Glenfield Junction in consultation with DPI (Fisheries) and DNR; and
 - c. ensuring that the existing alignments of Bow Bowing Creek and the drainage gully at Glenfield Junction are not significantly disturbed whilst realignments to these waterways are being constructed
- (c) rehabilitation, landscape and enhancement strategy, including:
 - i identification of measures that can be implemented at each site to result in a net improvement of habitat and ecological values;
 - ii provision of offset plantings at least equivalent to the area of EEC cleared using the same species native and indigenous to the area removed, including threatened species in consultation with the DEC and the Relevant Council;
 - iii identification of opportunities where local community groups (such as bush regeneration groups or Land Care groups) can be involved in the rehabilitation, enhancement and landscaping works;
 - iv identification of locally native species to be used in rehabilitation and landscaping works, including flora species suitable as a food resource for threatened fauna species;
 - v methods to remediate affected aquatic habitats or fish passages;
 - vi the source of all seed or tube stock to be used in rehabilitation and landscaping works including the identification of seed sources within the Project. Seed of locally native species within the Project will be collected before Construction commences to provide seed stock for revegetation;
 - vii methods to re-use topsoil (and where relevant subsoils) and cleared vegetation;
 - viii measures for the management and maintenance of all preserved, planted and rehabilitated vegetation (including aquatic habitats);
- (d) a weed management strategy including:
 - i identification of weeds within the Project and adjoining areas;
 - ii weed eradication methods and protocols for the use of herbicides;
 - iii methods to treat and re-use weed infested topsoil;
 - iv strategies to control the spread of weeds during Construction;
- (e) Performance and completion criteria for the management measures implemented as part of the BMSP (particularly the offset plantings) and a program for reviewing and monitoring the effectiveness of the implemented management measures against these performance and completion criteria. Management methods will be reviewed where found to be ineffective;
- (f) soil translocation methods for soils likely to contain a large soil seed bank, to be implemented, where reasonable, as part of the proposed works in Leacock Regional Park;
- (g) other management and mitigation measures contained in Section 12.3.4 of Volume 1 of the Environmental Assessment; and
- (h) If any class 1, 2 and 5 noxious weeds are to be removed, the Proponent will obtain a permit from the NSW Department of Primary Industries

SOILS AND HYDROLOGY

Pre-Construction and Construction

61. The Proponent must prepare a Soils and Water Management Sub Plan (SWMSP) in consultation with Relevant Government Departments, and Councils and the CLG and in accordance with the SoC as part of the CEMP. The SWMSP must be prepared in accordance with The Blue Book and must include:
- (a) an Erosion and Sedimentation Control Sub Plan that is fully integrated with the Spoil and Fill Management Sub Plan;
 - (b) an Acid Sulphate Soils Management Sub Plan;
 - (c) a Groundwater Management Sub Plan (CoA (e)); and
 - (d) a Surface and Ground Water Monitoring Program that is fully integrated with plans (a) to (c) above and the Hazard and Risk Management Sub Plan referred to in CoA 69.
 - (e) The Groundwater Management Sub Plan (GMSP) will include groundwater investigations and assessment in order to establish water levels, evaluate water quality and to assess the likely impacts of the Project on potential groundwater dependent ecosystems, and existing or project related structures and infrastructure within and adjoining the rail corridor. The GMSP will:
 - i detail further geological investigations by the installation of piezometers at representative locations along the project route to establish existing ground water levels and evaluate water quality;
 - ii determine whether the Construction and/ or Operation related changes to groundwater would affect surrounding bore users, groundwater dependent ecosystems and species (see CoA 60), or existing and project related structures and infrastructure within and adjoining the rail corridor;
 - iii evaluate water quality for salinity (total dissolved solids), major anions and cations, and where relevant for Construction purposes, corrosiveness;
 - iv identify measures that would be implemented to minimise, manage, mitigate and/ or offset groundwater impacts during Construction; and
 - v identify detailed design measures that would be implemented to minimise, management, mitigate and/ or offset groundwater impacts during Operation.
62. The Proponent must undertake a Flood Management Study in consultation with Relevant Government Departments, Councils and the CLG, and CoA 63 prior to construction. The Project will be designed to not worsen existing flooding characteristics upstream or downstream of the Project's elements. Not worsen is defined as:
- (a) a maximum increase in inundation levels upstream of the Project of 50 mm in a 1 in 100 year ARI rainfall event; and
 - (b) a maximum increase in inundation time of one hour in a 1 in 100 year ARI rainfall event.
63. The Flood Management Study must :
- (a) investigate lower return period (more frequent) events, including quantifying inundation levels and times likely to result from the project during a 1 in 5, 10, 20 and 100 year flood event;
 - (b) identify design and compensatory measures that would be implemented as part of the Project to not worsen existing flooding characteristics including:

- i an assessment of the hydraulic capacity of existing drainage structures, identifying where provision for upgrade would be made on the SSFL side of the corridor;
 - ii temporary structures required to maintain water flow across the rail line during Construction;
 - iii measures in relation to local flooding and ponding impacts (including the location and design of noise barriers, embankments etc); and
- (c) consider the requirements, principles and objectives of the Greater Metropolitan Environmental Management Plan No. 2 – Georges River Catchment (REP 2) and the Floodplain Development Manual (Department of Infrastructure, Planning and Natural Resources, 2005).

OTHER

General

Pre-Construction and Construction

64. Unless otherwise agreed to by the Director-General, the Proponent must in consultation with affected Stakeholders, including the relevant acquisition authority ensure that the Project is designed to minimise the compulsory acquisition of individual properties. The Proponent must in conjunction with the relevant acquisition authority, ensure that the compulsory acquisition of any land shall be in a responsive and sensitive manner.

Note: The process for the compulsory acquisition of land is set out in the Land Acquisition (Just Terms Compensation) Act 1991.

65. The Proponent must ensure that the following management plans referred to in the SoC are integrated:
- (a) Spoil and Fill Management Sub Plan and Waste Management Sub Plan; and
 - (b) Hazard and Risk Management Sub Plan (CoA 69) and Waste Management Sub Plan .

Construction and Operation

66. The Proponent shall maintain and operate all environmental control equipment installed or used for the Project in proper and efficient manner.

Greenhouse Gases and Sustainable Energy

Construction

67. The Proponent must use electrical energy derived from a renewable energy source accredited by the National Green Power Accreditation Steering Group (or equivalent) for the supply of at least 50% of the on-site electrical energy requirements for the Project's Construction. Power consumption (green power or other) must be reported in the Construction Compliance Reports.

Hazard and Risk

Pre-Construction

68. The Proponent must prepare at least one month prior to the commencement of Construction of the Project (or as otherwise agreed by the Director-General), the following studies/reports. Construction shall not commence until approval has been given by the Director-General.
- (a) A report of a peer review of the operational safety systems prepared by an independent qualified person approved by the Director General prior to the commencement of the report. The report shall verify that the principles and relevant matters in the Department of Planning's Hazardous Industry Planning Advisory Paper No. 8, "HAZOP Guidelines" have been adequately addressed in the safety related studies carried out under the rail safety protocols/design requirements. The report must confirm that the recommendations arising from the studies have been accepted for implementation in the design. If the Proponent intends to defer the implementation of a recommendation, justification must be included. In particular the peer review should include:
 - i the signalling and control system for the SSFL;
 - ii the interfacing of the signalling and control systems between the SSFL and the passenger system; and
 - iii adequacy of the fail safe systems.
 - (b) A Final Hazard Analysis (FHA) of the proposed Project prepared in accordance with the Department of Planning's Hazardous Industry Planning Advisory Paper No. 6, "Guidelines for Hazard Analysis". The FHA must be a Quantitative Risk Analysis and demonstrate that the risks to the most sensitive population along the route do not exceed the individual risk criteria in the Department's Hazardous Industry planning advisory Paper No. 4, Risk Criteria for Land Use Safety Planning. If the hazard related aspects of the proposal at final design stage are substantially the same as those detailed in the preliminary hazard analysis, the Proponent may request the Director-General, in writing, to waive this requirement.
69. As part of the CEMP, the Proponent must prepare and implement a Hazard and Risk Management Sub Plan (HRMSP) in accordance with the SoC. The HRMSP must include a Construction Safety Study prepared in accordance with the Department of Planning's Hazardous Industry Planning Advisory Paper No. 7, "Construction Safety Study Guidelines". Alternatively the Proponent may submit a report of a peer review prepared by an independent person, approved by the Director General, confirming that the documented construction safety related procedures have adequately addressed the principles and objectives detailed in the Department's guideline.

Operation

70. The Proponent must prepare an Operation Hazards and Risk Management Plan (OHRMP) no later than two months prior to the commencement of commissioning of the Project (or as otherwise agreed by the Director-General). As part of the OHRMP the Proponent shall develop, submit for the approval of the Director-General and implement the plans and systems set out as follows:
- (a) A comprehensive Emergency Plan and detailed emergency procedures for the proposed project. This plan will include detailed procedures for the safety of all people outside of the project who may be at risk from the project. The plan shall be in accordance with the Department of Planning's Hazardous Industry Planning Advisory Paper No. 1, "Industry Emergency Planning Guidelines. Alternatively the

Proponent may submit a report of a peer review prepared by an independent person, approved by the Director General, confirming that the Emergency Plan adopted by the Proponent has adequately addressed the principles and objectives detailed in the Department's guideline.

- (b) A document setting out a comprehensive Safety Management System, covering all operations associated with the Project including the interfaces with the existing system. The document shall clearly specify all safety related procedures, responsibilities and policies, along with details of mechanisms for ensuring adherence to procedures. Records shall be kept on-site and shall be available for inspection by the Director-General upon request. The Safety Management System shall be developed in accordance with the Department of Planning's Hazardous Industry Planning Advisory Paper No. 9, "Safety Management". Alternatively the Proponent may submit a report of a peer review prepared by an independent person, approved by the Director General, confirming that the documented safety management systems to be used by the Proponent have adequately included the principles and objectives detailed in the Department's guideline.

Commissioning shall not commence until approval has been given by the Director - General.

- 71. The Proponent shall comply with all reasonable requirements of the Director -General in respect of the implementation of any measures arising from the reports submitted in respect of CoA 68 - 70, within such time as the Director- General may agree.

The Proponent shall obtain and monitor records of dangerous goods movements by class. Prior to the dangerous goods movement quantities for the year 2018 assumed in the preliminary hazard analysis being exceeded, the Proponent should notify the Director -General giving projected data for the following 10 years together with a Quantitative Risk Analysis to demonstrate that the NSW risk criteria will not be exceeded.

Built Heritage

Pre-Construction and Construction

- 72. The Proponent must prepare a Built Heritage Management Sub Plan (BHMSPP), in consultation with DoP (Heritage Office) and Relevant Councils in accordance with the SoC as part of the CEMP. The BHMSPP must include:
 - (a) details of any investigations to be undertaken and any approvals required;
 - (b) procedures to be implemented if previously unidentified historical relics are discovered during Construction. If such relics are discovered, all work likely to affect the relic(s) will cease immediately and the Heritage Council will be notified in accordance with the Heritage Act 1977; and
 - (c) an education program for Construction Work Site personnel on their obligation for historic relics and heritage items.
 - (d) an interpretation strategy in accordance with the Interpreting Heritage Places and Items Guidelines (2005), which should incorporate the results of any historical archaeological investigations undertaken as part of the Project; and
 - (e) details for minimising impacts to heritage items including:
 - i designing all replacement structures having regard to heritage considerations; and
 - ii appropriate landscaping strategies.

73. As part of the BHMSPP, the Proponent is to undertake a Historical Archaeological Assessment (HAA) and Statement of Heritage Impact (SOHI) of the Early Liverpool Town Centre between Memorial Avenue and the intersection of Elizabeth Street and the rail corridor as identified in the Liverpool Archaeological Zoning and Management Plan (1996). The HAA is to be prepared in accordance with the Heritage Office and Urban Affairs and Planning Archaeological Assessment Guidelines (1996). The SOHI shall be prepared (in accordance with the Heritage Office revised 2002 guidelines) to assess the potential impacts of the Project to the archaeological resource.

Subject to the findings of the HAA and SOHI (where impacts to the potential archaeological resource have been identified), the Proponent shall ensure that an Archaeological excavation methodology and Research Design is prepared with consideration to the Department of Planning's Excavation Directors Assessment Criteria.

All documents and information required shall be prepared for the Department of Planning's (Heritage Office) review and the Director-General's approval prior to the commencement of excavation activities within the area of historical archaeological potential identified in the HAA. The Proponent will undertake Construction in accordance with any findings of the HAA and SOI and requirements issued by the Director-General.

74. Prior to the commencement of Construction (or as otherwise agreed to by the Director-General), the Proponent must prepare an archival and photographic record of any identified heritage item that is likely to be either directly or indirectly impacted by the Construction of the Project and lodge copies of the archival and photographic record with Relevant Council libraries, RailCorp and DoP (Heritage Office).

Indigenous Heritage

Pre-Construction and Construction

75. The Proponent must prepare an Aboriginal Heritage Management Sub Plan (AHMSP) in accordance with the SoC, in consultation with Relevant Government Departments and Stakeholders (including relevant Aboriginal Groups), and with regard to the DEC's *Interim Community Consultation Requirements for Applicants*, as part of the CEMP. The AHMSP will include:
- a) details of the archaeological investigations to be undertaken and any associated licences or approvals required;
 - b) procedures to be implemented if previously unidentified Aboriginal objects are discovered during Construction. If such objects are discovered, all work likely to affect the object(s) will cease immediately and the DEC informed in accordance with the *National Parks and Wildlife Act 1974*; and
 - c) an education program for Construction personnel on their obligations for Aboriginal cultural materials.

Air Quality

Pre-Operation and Operation

76. Prior to the Commencement of Operations, or as otherwise agreed to by the Director-General, the Proponent must prepare an Operational Air Quality Management Plan (OAQMP) as part of the OEMP to the satisfaction of the Director-General. The OAQMP would identify:
- a) emission criteria, including long term emission standards;
 - b) strategies and management measures to minimise air quality impacts, including the identification of options for preventing any exceedance of NO₂ criteria;
 - c) monitoring and assessment procedures;
 - d) auditing and reporting requirements; and
 - e) community consultation.

The OAQMP is to be prepared in consultation with RailCorp, the DEC and other freight rail operators (as required) as part of the OEMP.

Should any monitoring indicate substantial exceedance of identified emission criteria, the Proponent must implement Reasonable and Feasible mitigation measures.

ATTACHMENT 1 STATEMENTS OF COMMITMENT AS AMENDED

ATTACHMENT 2 SECTIONS OF EA REPORT REFERRED TO IN COA

Proposed urban and landscape design guidelines/principles (Table 3.2 of EA)

Theme	Guidelines/principles
Urban form	<ul style="list-style-type: none"> • Enhance local character and gateways using landscaping and built structures appropriate to the location. • Consider emphasising cultural heritage and past land uses where appropriate along the alignment. • Undertake community consultation to present the available options (e.g. level of screening and materials) for visual and/or noise barriers in the areas identified for implementing those measures. • Consider appropriate screening, including soft landscaping, which responds to the environment in which it is located (e.g. rural, residential, or recreational areas). Avoid changing the type or form of screens in a random manner, where the rationale for doing so is not apparent. • Coordinate with Councils to provide planting in the reserves along the rail corridor, especially where residential streets are adjacent to the corridor. • Consider off-sets in screen alignments along straight sections to avoid a monotonous appearance. • Consider earth mounding used in conjunction with screen walls to reduce their overall height. • Consider noise walls as three dimensional elements, recognising that they are often seen from both sides. Recognise potential for interaction of noise walls with earth mounding and vegetation, and to reflect local character. • Ensure noise walls are designed to suit the surroundings (e.g. transparent materials should be used for areas of scenic interest or earth mounding in more natural environments). • Select textiles and patterns in preference to plain or smooth finishes. • To reduce the occurrence of graffiti, place a line of plantings in front of walls to restrict access. • Apply graffiti-proof coatings on vulnerable surfaces, such as plain concrete surfaces.
Environment and biodiversity	<ul style="list-style-type: none"> • Retain/enhance views (e.g. of surrounding landscapes, of visual cues along the route, or to cultural icons). • Enhance existing Indigenous vegetation communities by appropriate revegetation of degraded areas, and linking of areas. • Instigate appropriate measures to protect retained vegetation both during and after construction, such as marking, fencing and diverting stormwater channels. • Coordinate with Councils to provide appropriate infill planting along creek corridors and areas of open space to better integrate the proposal into the surrounding landscape. • Ensure the areas of open space separated by the proposal are visually and physically linked. • Consider the location and form of sedimentation basins and associated stormwater controls in relation to the creation of wetlands. Coordinate with Councils. • For creek crossings, examine how habitats can be improved as a result of interventions at creek crossings (e.g. spans should allow for dry benches on the banks under the bridge to facilitate wildlife movement). Also provide vegetation cover on slopes and embankments, and aquatic planting, where appropriate, to control and reduce run-off.

The rail corridor	<ul style="list-style-type: none"> • Railway station precincts – proposed station construction works at Leumeah, Minto, Casula, Warwick Farm, Cabramatta and Sefton, to include hard and soft landscaping at the new entries to reflect local character. Integrate the design of new landscaping, bus shelters, canopies, signage, street furniture, pedestrian/cycle pathways so that the individual elements combine together to form a defined precinct. • Design new structures to acknowledge the rhythm and structure of existing adjacent bridges or viaducts. • Design new structures to integrate with the surrounding landform and vegetation. • Consider small or shorter bridge structures as an alternative to culverts, where the design could also accommodate the free movement of pedestrians and/or wildlife. • Use batters and a range of slopes within a cut to achieve integrated landscape and grading solutions. Batter slopes should be 1:3, where practical (to allow for planting) and where corridor reserve widths permit. • Rounded slopes should be considered to soften the look of earthworks. • Consider the aesthetic aspect of retained structures (e.g. rock facing or decorative treatments) in highly visible areas. • Consider using terracing, which can then be planted. Terracing can have irregular benching in semi-rural settings and formalised, geometric benching in more urban environments. • Use vegetation to stabilise exposed fill and cutting embankments.
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