Staging Report

Project Wide

Parramatta Light Rail – Stage 1 (SSI-8285) – Revision 6.03

PLR-TFNSW-CBD-PE-RPT-000001

April 2020

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Approval and authorisation

Title	Parramatta Light Rail – Stage 1 Staging Report – Program Wide PLR-TFNSW-CBD-PE-RPT-000001
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First Approval by the Secretary on	19 February 2019
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Refer to Attachments for Approval and Endorsement letters

Parramatta Light Rail – Stage 1 Staging Report – Program Wide

PLR-TFNSW-CBD-PE-RPT-000001

Version status

Revision	Revision Date	Status	Description	Author/ Company	Reviewer/ Approver
A	18 Jul 18	Draft	Update information for enabling	TfNSW Environment and Planning Officer	TfNSW Senior Manager Environment
B	05 Sep 18	Draft	For ER review	TfNSW Senior Environmental Manager	TfNSW Senior Manager Environment
C	7 Sep 18	Draft	Terminology updates	TfNSW Environment and Planning Manager	
D	17 Sep 18	Draft	Preconstruction Stage added	TfNSW Environment and Planning Officer	
E	25 Sep 18	Draft	Addressing ER comments	TfNSW Environment and Planning Officer	TfNSW Senior Manager Environment
F	5 Nov 18	Draft	Addressing ER comments & DP&E recommendations	TfNSW Senior Environmental Manager	
G	20 Nov 18	Draft	Addressing ER comments	TfNSW Environment and Planning Officer	TfNSW Senior Manager Environment
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2	4 Jan 19	Draft	Updated based on DP&E comments. Modify conditions as result of approved administrative modification.	TfNSW Environment and Planning Officer & TfNSW Senior Environmental Manager	
3	15 Jan 19	Draft	Updated based on DP&E comments.	TfNSW Senior Environmental Manager	
4	4 Feb 19	Draft	Updated based on DP&E comments.	TfNSW Senior Environmental Manager	
4.02	21 Feb 19	Final	Approved for use by DP&E	TfNSW Senior Environmental Manager	DP&E Director, Infrastructure Operations
5	21 Mar 19	Draft	Appendix B and C added. Updates to main report based on Appendices added.	TfNSW Environment and Planning Officer	TfNSW Senior Manager Environment Environmental Representative
5.01	30 May 19	Draft	Updated based on DP&E comments	TfNSW Environment & Planning Officer	DPE Director, Infrastructure Operations
5.02	23 July 19	Draft	Updated based on DPIE comments Removal of appendices	TfNSW Senior Manager Environment	DPIE Director, Infrastructure Operations
5.03	1 Aug 19	Final	Updated based on DPIE comments. Formatting for website publication.	TfNSW Senior Manager Environment	DPIE Director, Infrastructure Operations
6	18 Feb 20	Draft	Updated Staging for E46, E62, E87 and E88. Included ER endorsement of a minor amendment (Section 1.5)	TfNSW Environment & Planning Officer	TfNSW Senior Manager Environment

Revision	Revision Date	Status	Description	Author/ Company	Reviewer/ Approver
6.02	24 Feb 20	Draft	Updated based on ER comments	TfNSW Environment & Planning Officer	Environmental Representative
6.03	15 Apr 20	Draft	Updated based on DPIE comments. Updated to include Package 5 updates to Staging.	TfNSW Environment & Planning Officer	TfNSW Senior Manager Environment Environmental Representative

Glossary / Abbreviations

Abbreviation	Expanded text
AA	The Acoustics Advisor for the CSSI A suitably qualified and experienced person independent of the Contractor and Proponent, and design and construction personnel, employed for the duration of construction and for no less than six months following completion of construction of the CSSI. The Acoustics Advisor sits under the Independent Certifier.
CBD	Central Business District
CEMP	Construction Environmental Management Plan
CoA	Conditions of Approval
Conditions of Approval	Conditions of Infrastructure Approval SSI-8285
Construction	Includes all works required to construct the CSSI as described in the EIS/Submissions Report (incorporating Preferred Infrastructure Report), including commissioning trials of equipment and temporary use of part of the CSSI, but excluding the following low impact work: a) survey works including carrying out general alignment survey, installing survey controls (including installation of global positioning system (GPS)), installing repeater stations, carrying out surveys of existing and future utilities and building and road dilapidation surveys; b) investigations including investigative drilling, contamination investigations and excavation; c) establishment of ancillary facilities in approved locations including constructing ancillary facility access roads and providing utilities to the facility; d) operation of ancillary facilities if the ER has determined the operational activities will have minimal impact on the environment and community; e) minor clearing and relocation of native vegetation, as identified in the EIS/Submissions Report (incorporating Preferred Infrastructure Report); f) installation of mitigation measures including but not limited to erosion and sediment controls, temporary exclusion fencing for sensitive areas and acoustic treatments; g) property acquisition adjustment works including installation of property fencing, and relocation and adjustments of property utility connections including water supply and electricity; h) relocation and connection of utilities where the relocation or connection has a minor impact to the environment as determined by the ER; i) reconfiguration of Robin Thomas Reserve for the purposes of maintaining two sports playing fields; j) archaeological testing under the *Code of practice for archaeological investigation of Aboriginal objects in NSW* (DECCW, 2010), archaeological investigations to inform design or archaeological monitoring undertaken in association with [a]-[i] above to ensure that there is no impact to heritage items;

Abbreviation	Expanded text
	k) other activities determined by the ER to have minimal environmental impact which may include construction of minor access roads, temporary relocation of pedestrian and cycle paths and the provision of property access including access and egress to construction ancillary facilities; and l) maintenance of existing buildings and structures required to facilitate the carrying out of the CSSI. However, where heritage items, or threatened species, populations or ecological communities (within the meaning of the *Biodiversity Conservation Act 2016*) are affected or potentially affected by any low impact work, that work is construction, unless otherwise determined by the Secretary in consultation with OEH or DoI Fisheries (in the case of impact upon fish, aquatic invertebrates or marine vegetation). Construction does not include site establishment works where such works are included as part of a Site Establishment Management Plan approved under Condition C18 of CSSI 8285.
CoPC	City of Parramatta Council
CSSI	Critical State Significant Infrastructure
CSSI, the	Parramatta Light Rail – Stage 1 (Westmead to Carlingford)
DP&E*	Department of Planning and Environment*
ECM	Environmental Control Maps
EIS	Environmental Impact Statement
EMS	Environmental Management System
EP&A Act	*Environmental Planning and Assessment Act 1979 (NSW)*
ER	The Environmental Representative for the CSSI. A suitably qualified and experienced person independent of the Contractor and Proponent, and design and construction personnel, employed for the duration of the works until after the commencement of operation, or as agreed with the Secretary. The Environmental Representative sits under the Independent Certifier.
ETS	Electronic Ticketing System
IA	The Independent Arborist for the CSSI. A suitably qualified and experienced person independent of the Contractor and Proponent, and design and construction personnel, employed for the duration of development. The Independent Arborist sits under the Independent Certifier.
Independent Certifier	The Independent Certifier is the Transport for NSW contractor for all independent certifications including engagement the Environmental Representative, Acoustics Advisor and Independent Arborist.
LRV	Light Rail Vehicles
Minister, the	Minister for Planning
MM	Mitigation Measures
OCC	Operations Control Centre
OEH*	Office of Environment & Heritage*
OOHW	Out-of-Hours Work

Abbreviation	Expanded text
PLR	Parramatta Light Rail
Planning Approval	The Planning Approval includes the Conditions of Approval, the EIS and the Submissions and Preferred Infrastructure Report
Pre-construction	All work prior to, and in respect of the CSSI that is excluded from the definition of construction
SaM	Stabling and Maintenance Facility
SDG	TfNSW Sustainable Design Guidelines
SOM	Supply, Operate and Maintain
TfNSW	Transport for NSW
Work Location/Zone	A work location or zone is the maximum extent of affect in consideration of the manageable limit to the duration of affect.

*Where reference in the planning approval, this document and consultation has been made to OEH it should be noted that it has been abolished from 1 July 2019. The Environment section is construed as a reference to Department of Planning, Industry and Environment and the heritage component is construed as a reference to Department of Premier and Cabinet (DPC).

*Where reference in the planning approval/ this document and consultation has been made to DP&E it should be noted that it has been abolished from 1 July 2019. References made to the Department of Planning and Environment is construed as a reference to the Department of Planning, Industry and Environment.

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1 Introduction

1.1 Parramatta Light Rail (Stage 1)

Parramatta Light Rail is one of the NSW Government's major infrastructure projects being delivered to serve a growing Sydney.

Parramatta Light Rail Stage 1 ('the CSSI') will connect Westmead to Carlingford via Parramatta Central Business District (CBD) and Camellia. Stage 1 is expected to be operational in 2023.

The CSSI will create new communities, connect great places and help both local residents and visitors move around and explore what the region has to offer. The route will link Parramatta's CBD and train station to a number of key locations, including the Westmead Precinct, the Parramatta North Growth Centre, the new Western Sydney Stadium, the Camellia Town Centre, the new Powerhouse Museum and Riverside Theatre arts and cultural precinct, the private and social housing redevelopment at Telopea, the Rosehill Gardens Racecourse and the three Western Sydney University campuses.

In summary, the key features of the CSSI include:

- A new dual track light rail network of approximately twelve (12) kilometres in length, including approximately seven (7) kilometres within the existing road corridor and approximately five (5) kilometres within the existing Carlingford Line and Sandown Line, replacing current heavy rail services
- Sixteen (16) stops that are fully accessible and integrated into the urban environment including a terminus stop at each end of Westmead and Carlingford
- High frequency 'turn-up-and-go' services operating seven days a week from 5am to 1am. Weekday services will operate approximately every 7.5 minutes in the peak period between 7am and 7pm
- Modern and comfortable air-conditioned light rail vehicles, nominally 45 metres long and driver-operated, each carrying up to 300 passengers.
- Intermodal interchanges with existing public transport services at Westmead terminus, Parramatta CBD and the Carlingford terminus
- Creation of two light rail and pedestrian zones (no general vehicle access) within the Parramatta CBD along Church Street (generally between Market Street and Macquarie Street) and along Macquarie Street (generally between Horwood Place and Smith Street)
- A Stabling and Maintenance (SaM) Facility located in Camellia for light rail vehicles to be stabled, cleaned and maintained
- New bridge structures along the alignment including over James Ruse Drive and Clay Cliff Creek, Parramatta River (near the Cumberland Hospital), Kissing Point Road and Vineyard Creek, Rydalmere
- Alterations to the existing road network including line marking, additional traffic lanes and turning lanes, new traffic signals, and changes to traffic flows
- Relocation and protection of existing utilities

- Public domain and urban design works along the corridor and at Stop precincts
- Closure of the heavy rail line between Carlingford and Clyde
- Active transport corridors and additional urban design features along sections of the alignment and within Stop precincts
- Integration with the Opal Electronic Ticketing System (ETS)
- Real time information in light rail vehicles and at Stops via visual displays and audio.

An overview of Parramatta Light Rail Stage 1 route is shown in Figure 1-1.

Figure 1-1 Parramatta Light Rail Stage 1 Route

1.2 Statutory Context

The Parramatta Light Rail is subject to environmental impact assessment under the *Environmental Planning and Assessment Act 1979* (EP&A Act). It is classified as Critical State Significant Infrastructure (CSSI).

Detailed environmental impact assessments have been carried out and approved by the Minister for Planning ('the Minister'). The Planning Approval for the CSSI is described in Section 1.2.1.

1.2.1 Parramatta Light Rail Planning Approval

The Environmental Impact Statement (EIS) assessed impacts for Parramatta Light Rail Stage 1 (Westmead to Carlingford). This covered the light rail and associated works including road enabling work. It was approved by the Minister on 29 May 2018.

The Planning Approval (including Infrastructure approval SSI 8285 and related environmental assessment documents) is located at Department of Planning and Environment's major projects website:

https://www.planningportal.nsw.gov.au/major-projects/project/3581

This Staging Report identifies how Transport for NSW (TfNSW) and its Contractors will comply with the conditions of Infrastructure Approval SSI-8285 (Conditions of Approval).

1.2.2 Parramatta Light Rail Modifications

There have been two modifications to Infrastructure approval SSI 8285 since it was originally granted on 29 May 2018. These include:

- MOD1 – Administrative modification, approved by DP&E on 21 December 2018
- MOD2 – Correction to Administrative modification, approved by DP&E on 25 January 2019.

1.3 Proponent and Delivery

Transport for NSW (TfNSW) is the proponent for the Parramatta Light Rail (PLR), and will deliver the planning and concept design phases of the project, and the early works. The detailed design, construction, maintenance and operation of the project is being delivered through separate contracts on behalf of TfNSW.

1.4 Purpose of this Staging Report

The purpose of this Staging Report is to provide an outline of the proposed staging of works for the CSSI. This document intends to guide the reader through to the relevant Staging Report for each stage / package to understand how and when the Conditions of Approval (CoA) will be addressed throughout construction of the CSSI. Appendices A to C provide more detail for each stage.

This Staging Report has been prepared and structured to address the staging requirements in CoA A13, A14 and A18.

In accordance with this requirement, this Staging Report:

- Describes the construction stages and timing
- Identifies the relevance of the conditions to each sub-stage, and how and when they will be complied with
- Identifies how cumulative impacts would be managed

- Demonstrates how the duration of construction in any one location or zone is such that any receiver is impacted by construction works for the minimum, reasonably practicable time.

This Staging Report has been prepared to allow TfNSW to construct the CSSI in stages provided that those stages are undertaken consistently with the CoA (refer to Table 1-1). This Staging Report was first submitted to Secretary for approval on 20 November 2018. This was more than one month before commencement of construction on 11 March 2019 for the first proposed stage (package 1).

Preparation and submissions of the Project Wide Staging Report to date includes:

- Staging Report including Package 1 was submitted for approval on 20 November 2018. Revision 4 of the Staging Report was approved by the Secretary on 19 February 2019.
- The revised Staging Report was submitted to the Secretary on 17 July 2019. Revision 5.03 of the Staging Report (with appendices now transferred to the main body of the report) was approved by the Secretary on 5 September 2019.
- The revised Staging Report was submitted to the Secretary on 2 March 2020. Update with submission of Revision 6.

Table 1-1 Conditions of Approval relevant to the Staging Report

ID	Condition	Document Reference	How Addressed
A13	The CSSI may be constructed and operated in stages.	Section 1.4 and Section 2	The purpose of this Staging Report is to provide an outline of the proposed staging of works for the CSSI. Construction of the CSSI will be implemented in three Stages (five Packages) in addition to Stage 0 as described in Section 2.
A13	Where staged construction or operation is proposed, a Staging Report (for either or both construction and operation as the case may be) must be prepared and submitted to the Secretary for approval.	This document. Section 3.1 and Table 3-1	The Project Wide Staging Report (this document) has been provided for both construction and operation.
A13	The Staging Report must be submitted to the Secretary no later than one month before the commencement of construction of the first of the proposed stages of construction	Noted. Section 1.4 and Version Status table	This Staging Report was submitted to Secretary for approval on 20 November 2018. This was at least one month before the commencement of the first of the proposed stages.
A13	(or if only staged operation is proposed, one month before the commencement of operation of the first of the proposed stages of operation).	Noted Section 1.4 and Version Status table	This Staging Report was submitted to Secretary for approval on 20 November 2018.
A14	The Staging Report must: (a) if staged construction is proposed, set out how the construction of the whole of the CSSI will be staged, including details of construction (as defined in this instrument) to be carried out in each stage	Section 2 Sections 2.3 to 2.8	Details of the five (5) main contract packages are provided in Section 2. Whilst commencing at different times, each stage will have periods during which the works will overlap.

ID	Condition	Document Reference	How Addressed
A14	and the general timing of when construction of each stage will commence and finish	Section 2.2	The proposed timing for each stage of the CSSI is outlined in this section.
A14	(b) if staged operation is proposed, set out how the operation of the whole of the CSSI will be staged, including details of work and other activities to be carried out in each stage and the general timing of when operation of each stage will commence and finish (if relevant);	Not applicable	Staged operation is not currently proposed for the Project.
A14	(c) specify how compliance with conditions will be achieved across and between each of the stage of the CSSI; and	Section 2 and Table 3-1	Section 2 outlines show the Conditions of Approval have been addressed across each stage of the CSSI. Table 3-1 addresses the Conditions of Approval across the three stages of the CSSI.
A14	(d) set out mechanisms for managing any cumulative impacts arising from the proposed staging. *Note: nothing in this condition invalidates the timing requirements or triggers specified in other conditions of this approval.*	Section 2.9	Mechanisms in place to manage cumulative impacts are described in Section 2.9.
A15	The CSSI must be staged in accordance with the Staging Report, as approved by the Secretary	Noted This document	This document outlines the three Stages (five Packages) plus Stage 0 as described in Section 2.
A16	Where staging is proposed, the terms of this approval that apply or are relevant to construction to be carried out in a specific stage must be compiled with at the relevant time identified in the Staging Report for that stage.	Table 3-1	Table 3-1 addresses the Conditions of Approval across the three stages of the CSSI and identifies conditions that are triggered or not triggered by the specific packages.

ID	Condition	Document Reference	How Addressed
A17	Where changes are proposed to the staging of construction or operation, the Staging Report must be revised and submitted to the Secretary for approval no later than one month before the proposed change in staging.	Noted Section 3.1	This requirement is noted in Section 3.1
A18	The Proponent must use best endeavours to ensure that the duration of construction in any one location or zone, as defined to the Secretary's satisfaction, is such that any receiver is impacted by construction works for the minimum, reasonably practicable time.	Section 2, Section 2.9 and Section 3	The Proponent has used best endeavours to ensure that the duration of construction is for the minimum, reasonably practicable time. Section 2.9 defines work zones including maximum acceptable work zones.
A18	The Proponent must demonstrate the principles that would be adopted to minimise the duration of construction in zones as part of the Staging Report required by Condition A13.	Section 2 and Section 2.2	The principles are demonstrated in Section 2. Section 2.2 includes the proposed timeframes for construction.
EPO-TT-1	The project would implement measures to minimise impacts on the road network, including staging.	Sections 2 and 3	This staging report has been prepared using the principles of this Environmental Performance Outcome, particularly in relation to Staging Principle 2 which is discussed in Section 2 & 2.9 and further refined in Section 3.

2 Staging

This chapter outlines how the construction of the CSSI will be staged. The core principles of the Staging Report to construct the CSSI in the minimum, reasonable practicable time are:

1. Allow pre-construction minor work with negligible environmental impact to progress ahead of the main works program.
2. Prioritise enabling works in advance of the civil infrastructure construction to minimise disruption to receivers.
3. Implement construction of Stages 2: (Infrastructure) and 3: (Supply, Operate & Maintain) concurrently to reduce the duration of the project.
4. Where practicable, coordinate works to manage cumulative impacts of the CSSI and, if reasonable, other local construction projects.

Cumulative Impacts will be identified by considering any overlap in the extent of environmental impact by separate activities. For example: whether the maximum distance of noise impact intersects with other noise generating works; or the extent of modified pedestrian access may interface with another activity resulting in an undesirable outcome. Preference will be given to managing cumulative impacts within the project and external to the project, where possible, to reduce the length of disruption caused by environmental impacts in any affected area.

2.1 CSSI Overview

At the time of writing, it was envisaged that the CSSI will take place through five (5) main contract packages and various minor works. Whilst commencing at different times, each stage will have periods during which the works will overlap. The 5 main packages of works have been staged during construction to meet the core principles of this Staging Report as noted above in Section 2.

2.1.1 Main Works Methodology

The methodology for staging the main contract packages discussed in Section 2.1 is to achieve project completion in the minimum, practically reasonable time, while managing community and environmental impacts using suitably qualified and experienced sub-contractors for specialised components. This is further described consequently for Stages 0 to 3 in Sections 2.3 to 2.8.

2.1.1.1 Stage 0 – Pre-Construction

This stage has been defined to achieve the first staging principle of the project: *Allow pre-construction minor work with negligible environmental impact to progress ahead of the main works program.*

The intent of this stage is for all of TfNSW's sub-contractors to have the ability to complete pre-construction activities that are deemed to be low impact work as defined in the exclusions of the definition of Construction (refer to glossary, pages v and vi) including those works that can be determined by the Environmental Representative. The purpose of this Stage is to provide a streamlined approach to compliance with the Infrastructure approval CSSI 8285. The

justification for the proposed staging is to exclude conditions that will not be triggered or do not have a material benefit to reducing community or environmental impact for low impact work as defined by the exclusions to Construction within the Infrastructure approval CSSI 8285.

2.1.1.2 Stage 1 – Enabling Works

This stage has been defined to achieve the second staging principle of the project: *Prioritise enabling works in advance of the civil infrastructure construction to minimise disruption to receivers.*

The purpose of prioritising enabling work is to allow road diversion/widening work, demolition and remediation activities to be completed ahead of the civil infrastructure construction of the Project (i.e. the on-corridor civil infrastructure to be constructed under Stages 2 and 3 including rail, stops, pavement, signalling equipment etc.). Once the road and "off-corridor works" (including those under Stages 2 and 3) are complete it will be possible to divert road users away from "on-corridor" construction zones within the road reserve, thereby allowing the road network to continue to function during civil infrastructure construction. If traffic can be diverted from the civil infrastructure construction corridor it has the potential to reduce the need for work outside of standard hours which would otherwise be required to provide a safe working environment for construction personnel. This will reduce the duration of construction and reduce impacts to the community. Stage 1 will be implemented by various sub-contractors with qualified experience in the required enabling work activities, for example road reconfiguration, demolition or contamination remediation. Where possible activities have been sub-contracted to other parties to assist with the management of cumulative impacts in areas of major infrastructure delivery. For example, the enabling works within the Westmead and Cumberland Hospital Precinct.

2.1.1.3 Stage 2 –Infrastructure Delivery & Stage 3 – SOM

These stages have been defined to achieve the third staging principle of the project: *Implement construction of Stages 2: (Infrastructure) and 3: (Supply, Operate & Maintain) concurrently to reduce the duration of the project.*

The reasoning for dividing this work into two stages is to ensure that suitably qualified and experienced sub-contractors are in place for each specialised component; civil infrastructure, and operational systems. Stage 2 will deliver the civil infrastructure components of the project and will not trigger any operational conditions with the exception of those that relate to detailed design. Stage 3 will construct components and systems relating to the operation of the light rail and will trigger all operational conditions of the Infrastructure approval SSI 8285. Figure 2-1 portrays the scope relationship between Stage 2 and Stage 3.

While two sub-contractors have been selected to achieve these specialised components there is no restriction on construction progressing by both parties at the same, which has the ability to reduce the duration of the project.

Coordination of work under each of the stages discussed in this section is further discussed in Section 3, including the Proponent's role in ensuring compliance (Section 3.2), monitoring the project outcomes (Section 3.2.3) and managing cumulative impacts (Section 2.9).

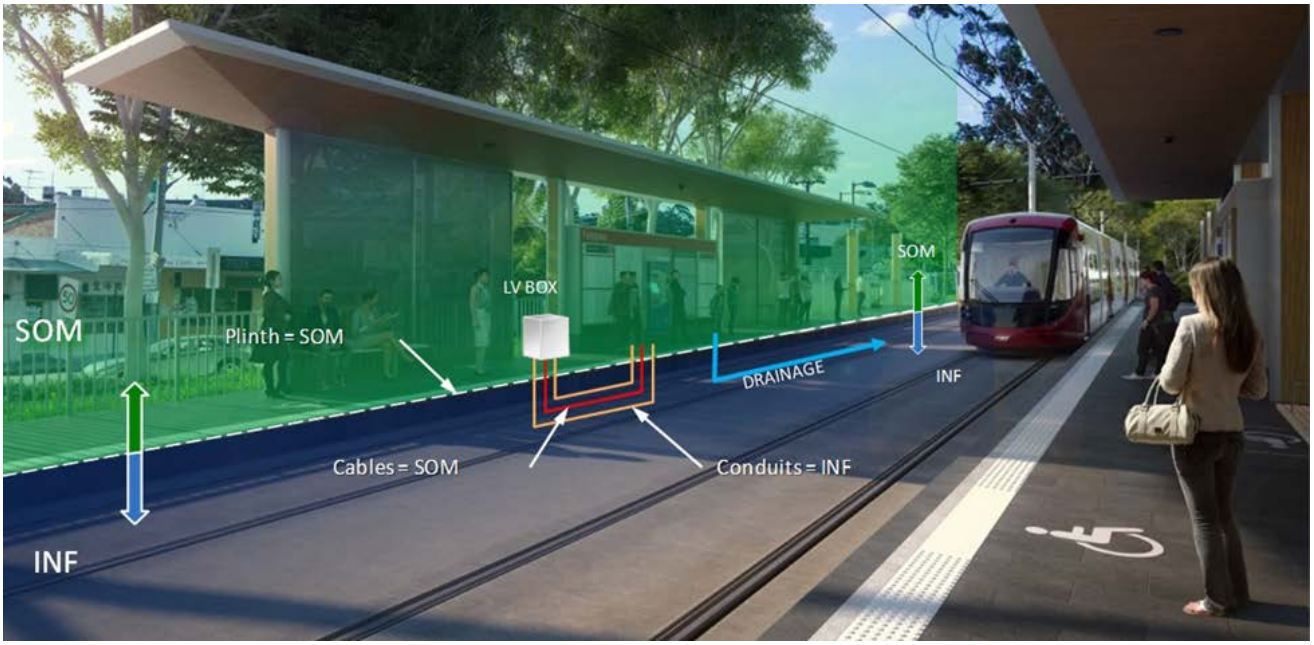

Figure 2-1 Example of Package 4 (INF) and Package 5 (SOM) Scope and Design Interface

The five main packages of works and how they fit into the Project Stages (1-3) are shown in Figure 2-2 and Figure 2-3, with a list of each contract package provided in Sections 2.3 to 2.8.

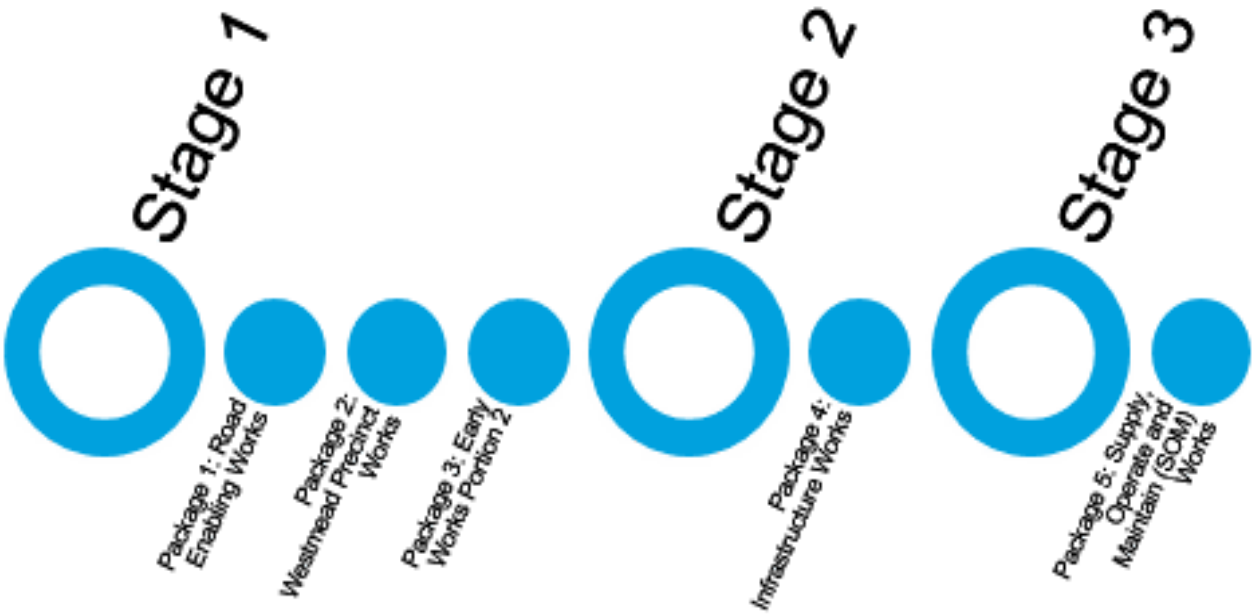

Figure 2-2 PLR Packages by Stage

- ***Preconstruction Activities Stage (Stage 0)***
- ***Enabling Stage (Stage 1)***
  - **Package 1: Road Enabling Works**
  - **Package 2: PLR Westmead Precinct Works**
    - **Activity A: Hawkesbury Road Widening**
    - **Activity B: Cumberland Hospital (East Campus) Demolition**
    - **Activity C: Cumberland Hospital (West Campus) Demolition**
  - **Package 3: Early Works Portion 2**
- ***Infrastructure Delivery Stage (Stage 2)***
  - **Package 4: Infrastructure Works**
- ***Supply, Operate & Maintain Stage (Stage 3)***
  - **Package 5: Supply, Operate and Maintain (SOM) Works**
    - **Activity A: Stabling and Maintenance Facility**
    - **Activity B: Remaining SOM Works**

The staged commencement of works will mean that development and submission for approval, where applicable, of project plans (environmental management plans, sub plans and reports)

will also be staged and reflect the complexity and degree of environmental risk associated with each stage of the CSSI. Plans relating to activities commencing later in the CSSI will be prepared and submitted prior to those stages commencing (and will exclude activities already undertaken).

Further detail of main packages

Works to be undertaken in each contract package is discussed in detail in Sections 2.3 to 2.8. The CSSI construction will be staged in accordance with the stages outlined in this document.

2.1.2 Additional planning approval pathways

Various mechanisms under the Environmental Planning & Assessment Act 1979 have been implemented to deliver supplementary minor works, including:

- *State Environmental Planning Policy (State and Regional Development) 2011*, Clause 7A which excludes certain activities from the project, which are:

  (a) Surveys, test drilling, test excavations, geotechnical investigations or other tests, surveys, sampling or investigation for the purposes of the design or assessment of the Parramatta Light Rail

  (b) Any remediation work at Lot 3, DP 843591 (known as 6 Grand Avenue, Rosehill) that has been the subject of a determination under Division 5.1 of the Act. This was considered through a Review of Environmental Factors.

- *Environmental Planning and Assessment Act 1979* Division 5.1 Approval (considered through Reviews of Environmental Factors) for scope outside the Parramatta Light Rail Stage 1 (also known as CSSI 8285), including:
  - Robin Thomas Reserve reconfiguration
  - Ancillary Car Parks
  - Ancillary bus stop reconfiguration

The supplementary minor works which will be assessed and implemented through the additional planning approval pathways are not subject to the requirements of the Staging Report as noted under conditions A13 to A18 of the CSSI.

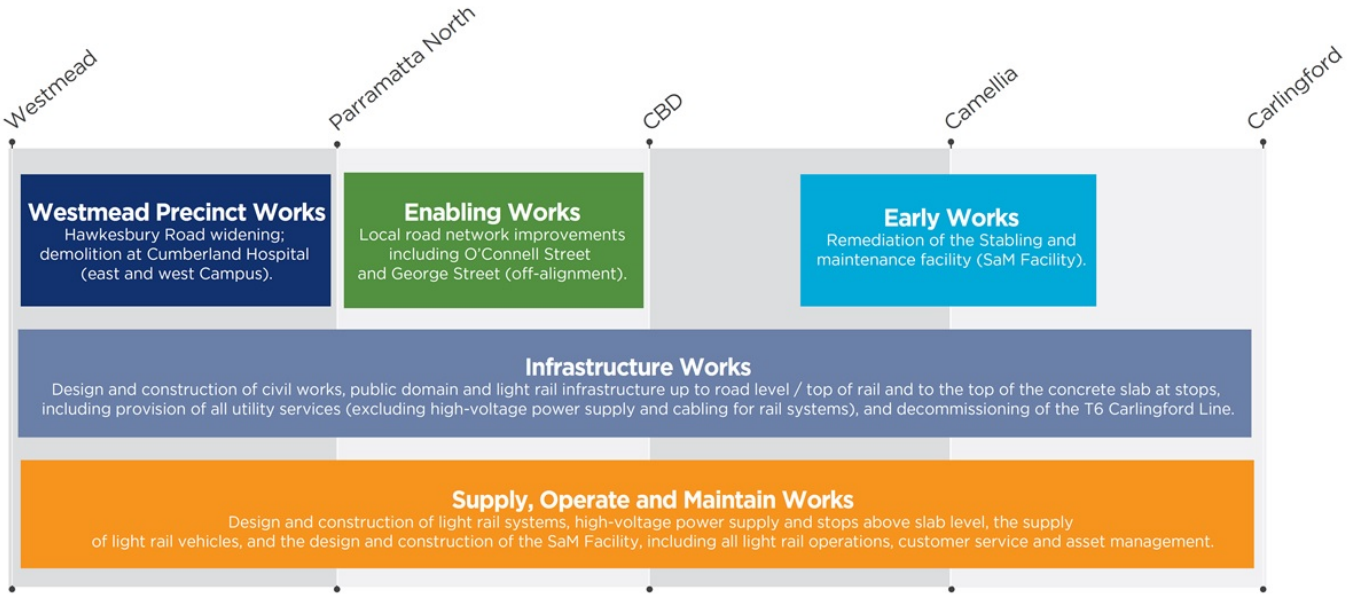

Figure 2-3 Summary of PLR Packages by Stage and Geographic Location

2.2 Timing

The proposed timing for each stage of the CSSI is outlined in Table 2-1: **Indicative timing of construction stages across the CSSI**.

Table 2-1: Indicative timing of construction stages across the CSSI

Stage	Package	Activity	Delivery Partner	Indicative Commencement Date	Estimated Completion Date
Stage 0	*Preconstruction Activities*	N/A	Various – Refer to Stages 1-3	Q1 2019	2023
Stage 1 Enabling Works	Road Enabling Work *Package 1*	N/A	Diona Ward Joint Venture	Q1 2019	Q2 2020
Stage 1 Enabling Works	PLR Westmead Precinct Work *Package 2*	N/A	Health Infrastructure	Q3 2019	2021
Stage 1 Enabling Works	*Package 2*	Activity A	Health Infrastructure (Ford Civil)	Q3 2019	Q3 2020
Stage 1 Enabling Works	*Package 2*	Activity B	Health Infrastructure (Renascent)	Q1 2020	Q2 2020

Stage	Package	Activity	Delivery Partner	Indicative Commencement Date	Estimated Completion Date
Stage 1 Enabling Works	*Package 2*	Activity C	Health Infrastructure (Donnelley Constructions)	Q1 2020 Q1 2021 (Boronia)	Q2 2021
Stage 1 Enabling Works	Early Works Portion 2 *Package 3*	N/A	Ventia	Q3 2019	Q4 2020
Stage 2 Infrastructure Delivery	Instructure Delivery *Package 4*	N/A	Downer and CPB Contractors Joint Venture	Q3 2019	2022
Stage 3 Supply, Operate and Maintain	Supply, Operate & Maintain *Package 5*	Activity A	Great River City Light Rail consortium	Q2 2020	2023
Stage 3 Supply, Operate and Maintain	Supply, Operate & Maintain *Package 5*	Activity B	Great River City Light Rail consortium	Q3 2021	Q4 2022

Stage 1 (packages 1-3) would need to be completed before Stages 2 and 3 to allow major construction (excluding preliminary work) to commence with minimum disruption to the public. It can be noted that Stage 2 and Stage 3 would run concurrently to reduce the duration of construction in any one location or zone so that any receiver is impacted by construction works for the minimum, reasonably practicable time, in accordance with A18.

2.3 Stage 0: Preconstruction Activities

The preconstruction activities stage would occur before each of the different packages as required. Therefore the stage would be ongoing as the project continues. The preconstruction activities are required to provide additional design information and, enable the area for construction and / or operation.

Activities that are proposed to be undertaken before construction works commence would include:

a) survey works;
b) investigations including investigative drilling, contamination investigations and excavation;
c) establishment of ancillary facilities in approved locations including constructing ancillary facility access roads and providing utilities to the facility;
d) operation of ancillary facilities if the ER has determined the operational activities will have minimal impact on the environment and community;
e) minor clearing and relocation of native vegetation, as identified in the EIS/Submissions Report (incorporating Preferred Infrastructure Report);

f) installation of mitigation measures;
g) property acquisition adjustment works;
h) relocation and connection of utilities where the relocation or connection has a minor impact to the environment as determined by the ER;
i) reconfiguration of Robin Thomas Reserve for the purposes of maintaining two sports playing fields;
j) archaeological testing under the *Code of practice for archaeological investigation of Aboriginal objects in NSW* (DECCW, 2010), archaeological investigations to inform design or archaeological monitoring undertaken in association with [a]-[i] above to ensure that there is no impact to heritage items;
k) other activities determined by the ER to have minimal environmental impact; and
l) maintenance of existing buildings and structures required to facilitate the carrying out of the CSSI.

These activities must align with the exemptions to the CSSI definition of Construction (refer to glossary, pages v and vi) and will be subject to TfNSW's guidelines and standards. Specifically, where heritage items, or threatened species, populations or ecological communities (within the meaning of the *Biodiversity Conservation Act 2016*) are affected or potentially affected by any low impact work, that work may only be implemented in Stage 0 if determined (approved) by the Secretary in consultation with OEH or DoI Fisheries (in the case of impact upon fish, aquatic invertebrates or marine vegetation). Table 3-1 identifies the applicable Conditions of Approval for this stage.

2.4 Package 1: Road Enabling Works

The Enabling Works will be carried out prior to the main Infrastructure Works (excluding preliminary works).

The Enabling Works are necessary to modify the existing road network in the Parramatta North and Parramatta CBD. Refer to Table 2-2 for Road Enabling Work activities.

The Road Enabling Works are required from the intersection of Barney Street with Church Street and continues along O'Connell Street, North Parramatta. The work would make O'Connell Street two lanes in both directions to increase capacity before Infrastructure construction on Church Street, North Parramatta and operation of PLR. Work would also be required on George Street, Parramatta to accommodate two way traffic, allowing for the required closure of Macquarie Street, Parramatta. Therefore, facilitating infrastructure works and operation of PLR. Local access will be maintained during construction works.

The scope of the Package 1: Road Enabling Works includes:

- Establishment of site and installation of safety barriers around the work sites and site compounds associated with The Project.
- Property access modifications along the project alignment, including the relocation of existing facilities
- Demolition of 4 buildings on Barney Street
- Relocation and protection of major services and utilities relocation
- Establishing ancillary facilities and construction sites

- Carrying out heritage investigations, protection and archival recordings
- Road modification works including kerb realignment, drainage works, line marking and signage
- Tree and vegetation removal and offset planting
- Kerb realignment and drainage improvement works
- Traffic signal works.

Table 2-2: Road Enabling Works Activities

Sub-Stage	Activities	Indicative Commencement	Estimated Completion
Preliminaries	Contract award, Project Team Assembled, Project Documentation Prepared, Design completed, Site investigations, Site Facilities established	Q2 2018	Q4 2018
Portion 1 - Macquarie Street Construction Enabling	Works on George St (from O'Connell St to Harris St) Utilities Relocation, Kerb Re-Alignment, Footpath Construction, TCS modification works, Installation of Drainage, Modification of Sewer Manholes, Backfilling, Installation of Road base, Laying Asphalt, Mill and Re-Sheet, Landscaping works	Q4 2018	Q3 2019
Portion 2- Church Street Construction Enabling	Works on: O'Connell St (from Victoria Road to Barney St and Church Street from Factory St to Barney St) Salvage of Heritage Kerbs, Utilities Relocation, Kerb Re-Alignment, Footpath Construction, TCS modification works, Installation of Drainage, Modification of Sewer Manholes, Backfilling, Installation of Road base, Laying Asphalt, Mill and Re-Sheet, Landscaping works	Q4 2018	Q1 2020
Portion 3 – Non Critical Works	Demolish underpass at George, Harris & MacArthur Streets, construct footpaths, tree planting and Landscaping.	Q3 2019	Q2 2020

2.5 Package 2: PLR Westmead Precinct Works

This Package includes three key activities which would be performed at different times across the package. Enabling work undertaken by Health Infrastructure on behalf of TfNSW will be completed under a single CEMP, including sub-plans and supporting documents. It is noted that not all deliverables will be triggered for the first programmed activities for this package (Activity A); therefore the CEMP will be updated as necessary and as conditions are triggered. The

revised CEMP will be submitted for review to the ER and as necessary to DP&E for approval (where new plans are prepared or material changes occur) and within the specified timeframes of the triggered conditions (i.e. one month prior to construction etc.), refer to Section 2.5.4

A dedicated ER was nominated and approved for CEMP development to manage the workload of ER tasks in 2019.

2.5.1 Package 2: Activity A – Hawkesbury Road Widening

The Hawkesbury Road Widening works is being delivered to enable construction of the PLR alignment through the Westmead Precinct. The scope includes the construction of a piled cantilever structure within the hospital site to support the footpath and entry slip lane. Associated with this work is the relocation of utilities, installation of new stormwater drainage, kerb and gutter, western road traffic lane and public domain works. To facilitate this work parking will be removed along Hawkesbury Road with two traffic lanes maintained along the road, with access maintained to the hospital and the properties on the eastern side of the road. The works will be delivered in three phases described below in Sections 2.5.2 and 2.5.3. Figure 2-4 visualises the road construction work occurring on Hawkesbury Road, Westmead.

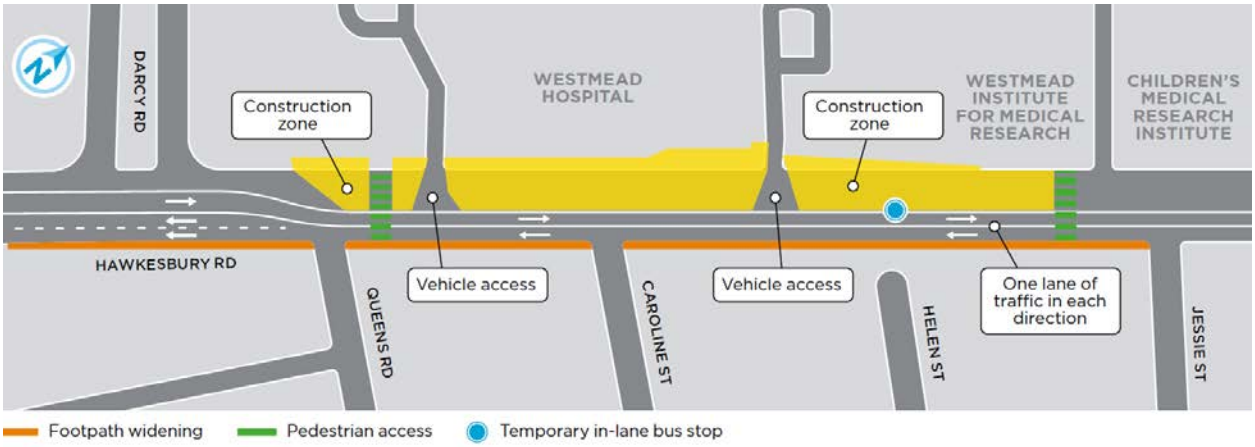

Figure 2-4: Visual representation of road construction works for Hawkesbury Road Widening (TfNSW, 2018)

Piled Structure and Utilities

The initial phase of works includes site establishment and construction of the piled structure and associated utility relocations. Key activities include:

- Site Establishment - Mons Rd and Hawkesbury Rd Compounds
- Island and Round-About Demolition including pavement reinstatement and creation of temporary traffic lane configuration
- Tree trimming, tree Removal and grubbing
- Hoardings
- Carpark Block Wall Construction & Backfill
- Southern Block Retaining Wall - Acacia House

- Utility relocation including Jemena gas main, Telstra, Optus, watermain, sewer works and Endeavour Energy lighting
- Piling for the new structure and construction of suspended structures & Waterproofing.

Stormwater Drainage and Road Works

The second phase of works includes the installation of stormwater drainage and the road works. Key activities include:

- Install stormwater drainage
- Suspended structure back fill works
- Install stone kerb and footpath works
- Install pavement & interface drains
- Roadworks, western side of road
- Construct road and footpath entry works to hospital.

The anticipated duration of construction for Phase 2 is Quarter 4 2019 to Quarter 1 2020.

Public Domain Works

The final phase of the works involves the installation of street lights, street furniture and landscaping. Key activities include:

- Smart Pole installation and cabling works
- Street furniture and finishes
- Granite paving
- Linemarking and Signage
- Site Demobilisation.

2.5.2 Package 2: Activity B –Cumberland Hospital (East Campus) Demolition

The Western Sydney Local Health District (WSLHD) will undertake demolition to the slab level of five buildings in Cumberland East, leaving only in-ground foundations and concrete slabs for each respective building. All services and utilities to the buildings will be capped off, and the demolished building and affected areas will be left in a state that is suitable for public use and access. Refer to Figure 2-5 and Table 2-3 for more detail.

Table 2-3: Cumberland Hospital East Campus buildings identified for demolition

Reference on Drawing (refer Figure 2-5)	Building Name
3	Life Skills/TMHC/Psychologists (incl. ancillary building)
4	Palm House
5	Bridgeway Centre
6	Emily's—ECAV Training Centre
8	Recreation Department Store

Figure 2-5 Five buildings in Cumberland East to be demolished (basemap: Google)

All building services and utilities will be terminated and capped off either flush to the floor slab or flush to natural ground. If any building is constructed from brick piers and timber floor frame (as opposed to a concrete slab) the demolition will be to the ground.

Floor slabs, hard stands and asphalt are not part of the demolition scope.

2.5.3 Package 2: Activity C – Cumberland Hospital (West Campus) Demolition

WSLHD will undertake demolition to the slab level of six buildings in Cumberland West, leaving only in-ground foundations and concrete slabs for each respective building. All services and utilities to the buildings will be capped off, and the demolished building and affected areas will

be left in a state that is suitable for public use and access. Refer to Figure 2-6 and Table 2-4 for more detail.

All building services and utilities will be terminated and capped off either flush to the floor slab or flush to natural ground. If any building is constructed from brick piers and timber floor frame (as opposed to a concrete slab) the demolition will be to the ground.

Floor slabs, hard stands and asphalt are not part of the demolition scope.

Table 2-4: Cumberland Hospital West Campus buildings identified for demolition

Reference on Drawing (refer Figure 2-6)	Building Name
1	Waratah and Willow Cottages 16 -20
2	Boronia

Figure 2-6 Six buildings in Cumberland West to be demolished (basemap: Google)

Table 2-5 provides a summary of indicative dates and activities for Package 2.

Table 2-5: Activities for Westmead Precinct Works

Sub-Stages	Indicative Commencement	Estimated Completion
Package 2A Hawkesbury Road Widening	Q3 2019	Q3 2020
Hawkesbury Road Widening Phase 1	Q2 2019	Q1 2020
Hawkesbury Road Widening Phase 2	Q1 2020	Q2 2020
Hawkesbury Road Widening Phase 3	Q2 2020	Q3 2020
Package 2B Cumberland Hospital East Demolitions	Q1 2020	Q2 2020
Package 2C Cumberland Hospital West Demolitions of five Waratah and Willow cottages	Q1 2020	Q2 2020
Package 2C Cumberland Hospital West Demolition of Boronia	Q4 2020	Q1 2021

2.5.4 Amendments to plans

Enabling work undertaken by Health Infrastructure on behalf of TfNSW will be completed under a single CEMP, including sub-plans and supporting documents where practical. It is noted that not all deliverables will be triggered for the first programmed activities for this package (Activity A); therefore the CEMP will be updated as necessary and as conditions are triggered.

The revised CEMP will be submitted for review to the ER and as necessary to DP&E for information/approval (where new plans are prepared or material changes occur) and within the specified timeframes of the triggered conditions (i.e. one month prior to construction etc.).

2.6 Package 3: Early Works Portion 2

The remediation (capping) of the TfNSW owned site at 6-8 Grand Avenue, Camellia. This is the allocated site for the SaM Facility. The works would occur after Portion 1 Early Works are complete (these are subject to separate approvals documents determined by TfNSW in December 2017).

The core activities of Early Works Portion 1 (now substantially complete) were: demolition of existing substation building and air-raid shelter; installation of a hydraulic containment wall around perimeter of site; and replacement of the groundwater treatment plant and extraction wells. This remediation work is being completed under a Part 5.1 Planning Approval known as the Parramatta Light Rail , 6 Grand Avenue, Camellia Site Remediation Determination Report (refer to Section 2.1.2) prior to the CSSI terms of approval. This Portion of supplementary works are due for completion in Quarter 3, 2019.

Package 3 includes the site to be remediated through a capping layer of compacted fill material and associated management activities in order to enable the safe redevelopment and future use of the Site as the SaM Facility for the PLR Project.

The Package 3 works include:

- Detailed design, construction and installation of an integrated capping system that includes a capillary break layer, vapour mitigation system, final site cap and vapour barrier(s) beneath the maintenance and administration buildings and enclosed structures
- The Temporary Works encompasses establishment of plant, equipment and facilities on the Site to support the delivery of the Works
- The Enabling Works encompasses establishment and management of utilities and other below-ground infrastructure on the Site to support the delivery of the Works
- The implementation of Ground Improvement Works to facilitate the design and planned future SaM Facility infrastructure
- Implementation of the monitoring and validation program for Package 3 in accordance with the Remediation Action Plan and an approved Remediation Works Validation Plan
- Preparation of Stage 2 Site Validation Report to the satisfaction of the Site Auditor
- Preparation of a Long Term Environmental Management Plan (LTEMP) to the satisfaction of the Site Auditor.

Table 2-6 provides a summary of indicative dates and activities for Package 3.

Table 2-6: Activities for Early Works Portion 2

Sub-Stage	Activities	Indicative Commencement	Estimated Completion
Temporary Works	Establishment of plant, equipment and facilities	Portion 1 Early Works (Prior to commencement of Package 3)	Q2 2019
Enabling Works	Establishment and management of utilities and other below-ground infrastructure on the Site	Q3 2019	Q3 2020
Integrated capping system	Construction and installation of the integrated capping system	Q3 2019	Q3 2020
Final site cap	Supply, construct, install and validate the final site cap, comprising suitable clean fill materials, above the integrated capping layer	Q3 2019	Q4 2020
Progress Reporting	Remediation Tracking Report and supporting documents	Start of each month	End of each month
Deliverables	Portion 2 Site Validation Report and Long Term Environmental Management Plan (LTEMP)	At the completion of Portion 2	20 days after the completion of Portion 2, Q4 2020

Sub-Stage	Activities	Indicative Commencement	Estimated Completion
Interim site management	Manage the Site in accordance with the LTEMP	At the completion of Portion 2	until the Site Auditor issues an ISAA
Handover works	• Site fencing/hoarding and security/access controls • Environmental controls including sedimentation controls, drainage, dust controls • Monitoring equipment • Services and utility supplies • Site access and temporary internal roads • Obligations as the Principal Contractor under the WHS Act, including site security • Site facilities.	At the completion of Portion 2	Until handover to Principal
Ground Improvement	• The provision of material, personnel, consumables and equipment to complete the ground improvement works • The demolition of slabs (If required to carry out ground improvement) • All ground improvement activities including testing and quality assurance • Stockpiling spoil for reuse if suitable. Any disposal must be agreed with the Principal (as required for Portion 1) • Localised soft spots must be excavated and backfilled with structural fill in accordance with the Arup Design Criteria report and the Earthwork Specification prior to placing the integrated capping layer.	Q3 2019	Q4 2020

2.7 Package 4: Infrastructure Contract

Package 4 involves the design and construction of civil works, public domain and light rail infrastructure up to road level/top of rail and to the top of the concrete slab at stops, including provision of utility services (excluding high-voltage power supply and cabling for rail systems), and decommissioning of the T6 Carlingford Line. The general extent of the work area is shown in Figure 2-7 and Figure 2-8.

For the purpose of construction, Package 4 is divided into portions and sub-portions. The portions, light rail stops and precincts are depicted in Figure 2-7.

The summary of works in each portion is detailed in Table 2-7.

In summary the Infrastructure Works include:

- Utility Services adjustment and relocation works (for more than minor impact)
- Property demolition to make space for the light rail tracks and ancillary facilities
- Decommissioning of the existing Carlingford T6 heavy rail line and disused Sandown Line
- Earthworks and retaining structures

- Drainage works
- Intersection signalling works
- The light rail civil infrastructure and Stop slabs
- Urban and architectural design and finishes of the corridor and public domain
- Rail, track slabs, ballasted track and grass tracks
- Footpath and kerb realignment including intersection works and road upgrades to accommodate light rail and other traffic (both temporary and permanent)
- New light rail bridges carrying the light rail over the Parramatta River (at Cumberland Hospital), James Ruse Drive, Vineyard Creek and Kissing Point Road and bridge strengthening and modifications to existing bridges as required
- Provision of the Active Transport Link for pedestrians and cyclists
- Staff and passenger facilities at each light rail terminus
- Rail/road interaction including traffic signals and road sharing
- Testing and commissioning of the Infrastructure Works.

Figure 2-7 Package 4 Portions, Precincts and Stations

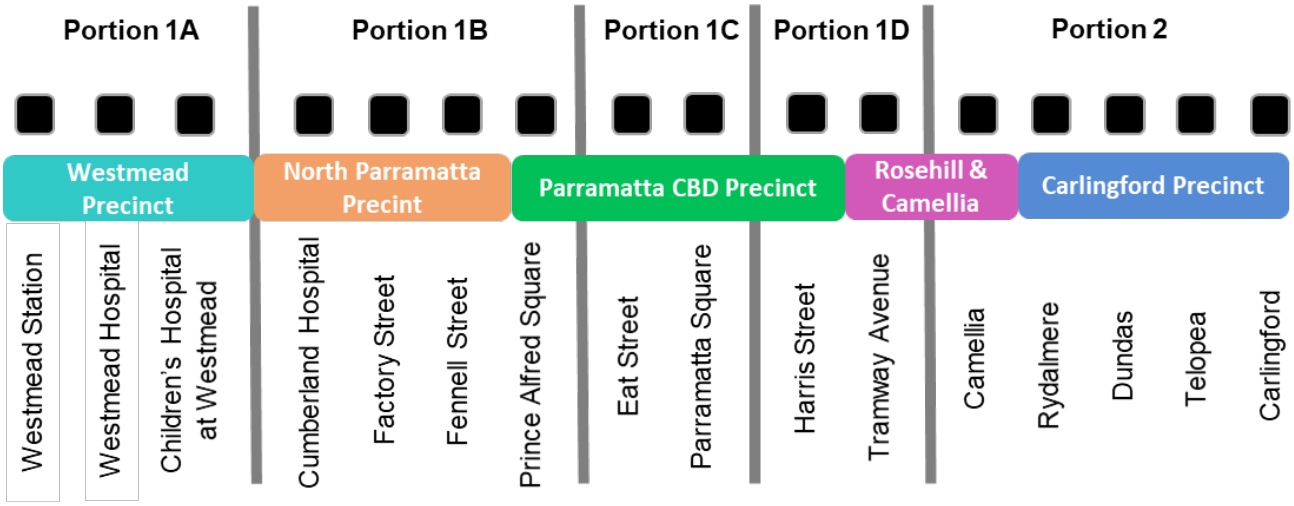

Table 2-7: Package 4 Works Portion Descriptions

Portion	Summary of Works
Portion 1A – Westmead	• 1.14km long dual light rail embedded track form and stop slabs • Two new sets of traffic signals at the intersections of Hawkesbury Road/Caroline Street and Hainsworth Street/Bridge Road • Signal modifications at Darcy Street/Hawkesbury Road intersection and Railway Parade/Hawkesbury Road intersection • New 2-span bridge over Parramatta River • Property demolition to make space for the light rail tracks and ancillary facilities • Urban and architectural design and finishes of the corridor and public domain • Footpath and kerb realignment including intersection works and road upgrades to accommodate light rail and other traffic (both temporary and permanent) • Utility Services adjustment/relocations and drainage works.
Portion 1B – Parramatta North	• 2.2km long dual light rail embedded track form, civil infrastructure and stop slabs • New track slab along the existing bridge deck of Lennox Bridge • Green track from approximately Warrinya Avenue to the Cumberland Stop • Roadworks at the Warrinya Avenue crossing and Greepup Drive • Property demolition to make space for the light rail tracks and ancillary facilities • Urban and architectural design and finishes of the corridor and public domain • Footpath and kerb realignment including intersection works and road upgrades to accommodate light rail and other traffic (both temporary and permanent) • Removal of 17 bus stops on Church Street; nine prior to commencement of construction and seven after the commencement of construction • Utility Services adjustment/relocations and drainage works.
Portion 1C – Parramatta CBD	• 1km long dual light rail embedded track form, civil infrastructure and stop slabs • Urban and architectural design and finishes of the corridor and public domain • Footpath and kerb realignment including intersection works and road upgrades to accommodate light rail and other traffic (both temporary and permanent) • Utility Services adjustment/relocations and drainage works.
Portion 1D – Parramatta South	• 1.5km long dual light rail embedded track form, civil infrastructure and stop slabs

Portion	Summary of Works
	• New single span bridge over Clay Cliff Creek and new 3-span bridge over James Ruse Drive • Green track on Harris Street, George Street (Harris Street to Purchase Street), Alfred Street and Tramway Avenue • Active Transport Link between Tramway Avenue stop and Camellia Station onwards • Upgrade of bus stop at Mercure Hotel in Hassall Street • Urban and architectural design and finishes of the corridor and public domain • Footpath and kerb realignment including intersection works and road upgrades to accommodate light rail and other traffic (both temporary and permanent) • Utility Services adjustment/relocations and drainage works.
Portion 2 – Carlingford Line	• Rail construction through existing high-rail alignment including stripping existing rail structure and installing new rail, ballast, sleepers, civil infrastructure and stop slabs • Light rail vehicle platforms at Camellia, Rydalmere, Dundas, Telopea and Carlingford • Active Transport Link continues from Camellia Station up to Carlingford Station • Upgrades to existing James Hardie underpass culvert structure and bridge structures over Parramatta River at Camellia, Vineyard Creek Bridge, Victoria Road Bridge, Kissing Point Road Bridge, Leamington Road Bridge, Adderton Road Bridge and Pennant Hills Rd Bridge • Urban and architectural design and finishes of the corridor and public domain • Utility Services adjustment/relocations and drainage works.

Table 2-8 provides a summary of indicative dates and activities for Package 4.

Table 2-8: Activities for Infrastructure

Sub-Stage	Indicative Commencement	Estimated Completion
Preliminaries	Q1 2019	Q1 2020
Detailed Design	Q1 2019	Q3 2020
Portion 1A – Westmead	Q4 2019	Q4 2021
Portion 1B – Parramatta North	Q4 2019	Q1 2022
Portion 1C – Parramatta CBD	Q4 2019	Q4 2021
Portion 1D – Parramatta South	Q4 2019	Q1 2022
Portion 2 – Carlingford Line	Q4 2019	Q2 2021

2.8 Package 5: Supply, Operate and Maintain

The Supply, Operate and Maintain (SOM) works include the following major elements:

- Stops
- Stabling and Maintenance Facility (SaM) facility (Package 5A)
- Substations
- High voltage (HV) traction works
- The Central Control System
- The light rail signalling system
- Elements of the road intersection signalling system
- The communications and passenger information systems
- The procurement of LRVs
- Supply of LRV maintenance vehicles.

2.8.1 Stops

Light rail stops would be constructed concurrently with the track infrastructure works or may be constructed separately, with works at each stop commencing progressively after the completion of the adjacent linear segment of track infrastructure. Cumulative impacts would be considered and managed as part of the work (refer to Section 2.9).

There are sixteen (16) stops that would be constructed under this stage. The stops are located in the following locations, subject to detailed design:

- Westmead Station
- Westmead Hospital
- Children's Hospital at Westmead
- Cumberland Hospital
- Factory Street
- Fennell Street
- Prince Alfred Square
- Eat Street
- Parramatta Square
- Harris Street
- Tramway Avenue
- Camellia
- Rydalmere
- Dundas
- Telopea
- Carlingford.

2.8.2 Stabling and Maintenance Facility

A stabling and maintenance facility (SaM) will be located at 6 Grand Avenue, Camellia on a former industrial site adjacent to the Rosehill Gardens Racecourse.

The facility will provide for maintenance, repair, refurbishing, upgrading, stabling, cleaning of light rail vehicles and a base for infrastructure maintenance activities and will operate 24 hours a day and 7 days a week.

Administration and staff facilities as well as the operations control centre for the light rail network will be located within the maintenance building. Parking for staff and visitors will be provided on site, including maintenance vehicle parking. An electrical substation will be located at the rear of the site to power the facility and light rail.

Remediation works will be completed prior to the commencement of construction of the facility at Camellia (refer to Early Works). This is identified as Package 5A.

2.8.3 Substations

Substations would generally comprise prefabricated structures, with the manufacture and fit-out of each substation occurring off-site. On-site works would typically comprise excavation, foundation preparation and construction, and the installation of conduits and other in-situ works (i.e. electrical works) prior to the installation of the prefabricated substation building and security fencing surrounding the site.

Table 2-9 provides a summary of indicative dates and activities for Package 5.

Table 2-9: Activities for SOM

Sub-Stage	Indicative Commencement	Estimated Completion
Preliminaries	Q1 2019	Q2 2020
Detailed Design	Q1 2019	Q3 2020
Activity A – SaM Facility	Q2 2020	Q2 2022
Activity B – Remaining elements such as Stops and Substations Portion 1A – Westmead	Q2 2022	Q4 2022
Activity B – Remaining elements such as Stops and Substations Portion 1B – Parramatta North	Q2 2022	Q4 2022
Activity B – Remaining elements such as Stops and Substations Portion 1C – Parramatta CBD	Q3 2021	Q4 2022
Activity B – Remaining elements such as Stops and Substations Portion 1D – Parramatta South	Q3 2021	Q4 2022
Activity B – Remaining elements such as Stops and Substations Portion 2 – Carlingford Line	Q3 2021	Q4 2022
Testing and Operation	Q3 2022	2023

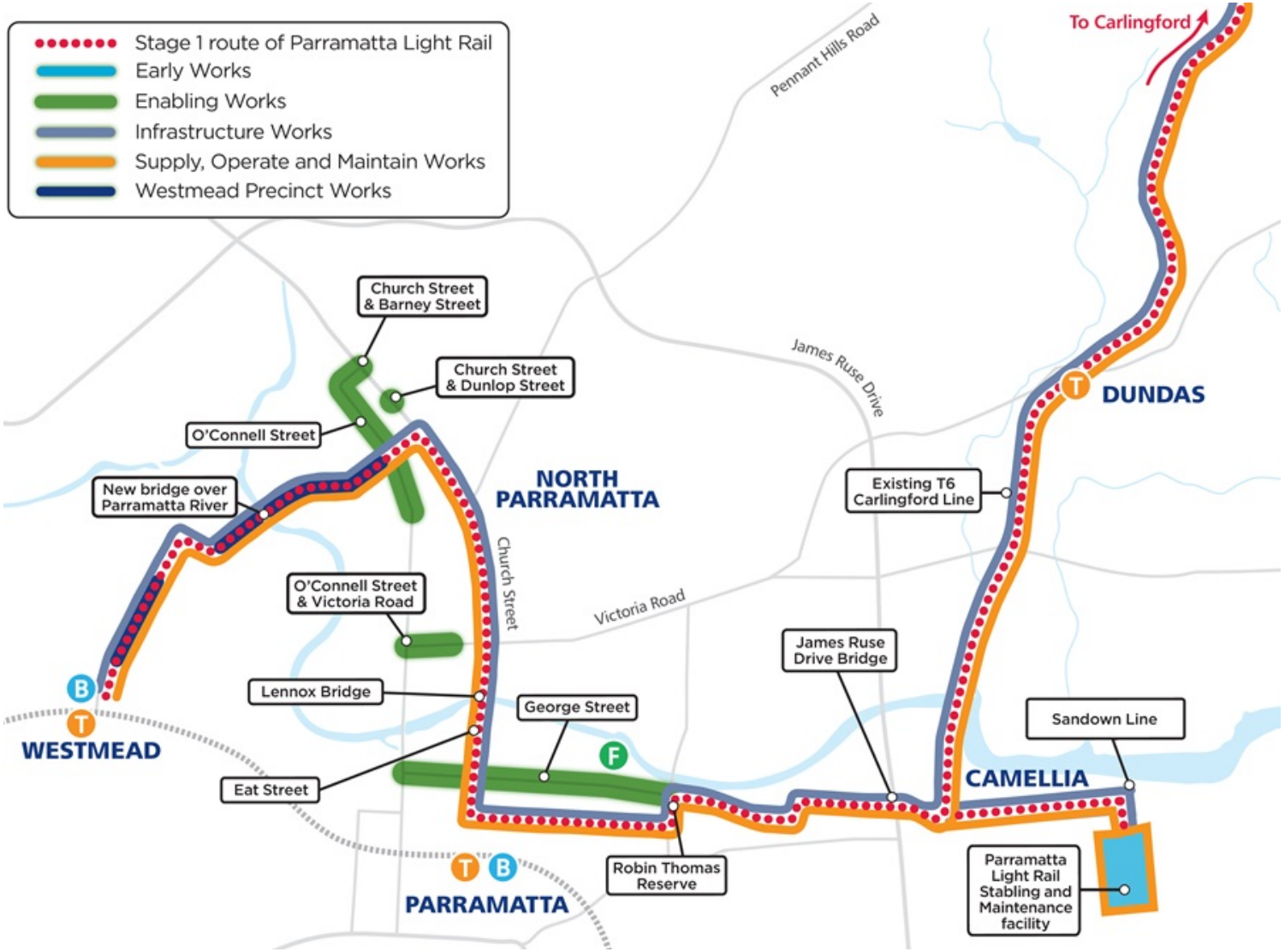

Figure 2-8 Simplified delineation of Packages by Geographic Location

2.9 Managing Cumulative Impacts

Condition A18 requires "…*best endeavours...in any one location or zone…such that any receiver is impacted by construction works for a minimum, reasonable practicable time.*"

Therefore the methodology provided in this the staging report includes:

1. A definition of "…*any one location or zone…"*
2. Commitment to coordination between Parramatta Light Rail and other major projects
3. Commitment to coordination within PLR between its concurrent stages.

2.9.1 Definition of '…any one location or zone…"

The extent of cumulative impacts varies with the impact to each environmental aspect whether that be, for example, generated noise, traffic disruption, dust or aesthetics (i.e. the total area affected). Similarly, the duration of impact can vary as a result of construction works along linear infrastructure routes. For example, the duration of affect will occur from the time a work zone has noticeable affects to "*the receiver*". However this period also captures the peak affect period, where construction impacts occur immediately adjacent to a receiver, before moving away from the receiver again and decreasing in noticeable affects until the impact of construction has passed.

Therefore a construction work location or zone can be defined as the maximum extent of affect in consideration of the manageable limit to the duration of affect.

Thus some flexibility will be needed in defining "*…any one location or zone…*", so that it is relevant to the receiver. PLR will adopt as the maximum extent of a work zone the precincts outlined in the EIS (see EIS Section 1.6.2.1) which took, "*…a regional and local (precinct-based) approach to assessment of potential environmental impacts…"* including:

- Recognising "*…distinctive characteristics*"
- Making "*…it clearer and easier for local communities' to determine how they might be affected by the project*"
- Facilitating, "*…regional planning and land use, traffic, transport and cumulative impacts*"

It is recognised that further subdivision of construction zones may be required to address the manageable limit to the duration of affect to the impacted neighbourhood. However the starting location or zone will be the PLR precincts see Figure 2-9.

2.9.2 Other major Projects

A number of major developments with the potential for cumulative impacts with the CSSI have been identified in the Environmental Impact Statement.

During the construction of the CSSI, TfNSW would seek to coordinate construction activities both within the Project, where concurrent staging applies, and in consideration of external construction projects. External construction projects in the road reserve will be coordinated through the Sydney Coordination Office and in consultation with the proponents of the other major projects in order to identify potential cumulative impacts and potential strategies to minimise these impacts.

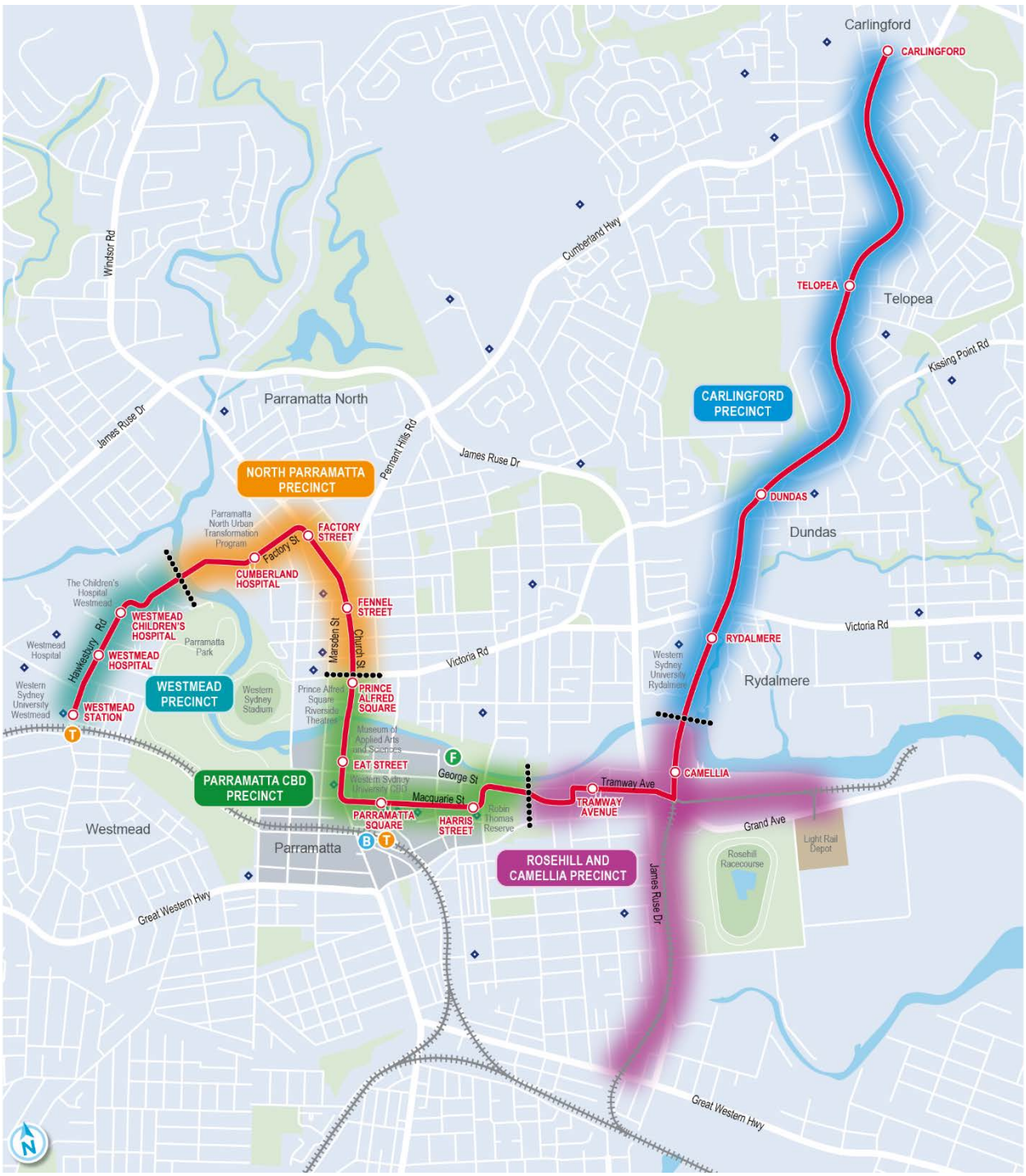

Figure 2-9 Parramatta Light Rail Precincts

In addition, ongoing consultation with key stakeholders and design integration with major development such as the Camellia Town Centre masterplan would be undertaken monthly, or as required. Construction management plans would incorporate measures where feasible to manage cumulative construction impacts.

2.9.3 Parramatta Light Rail Cumulative Impacts

PLR commits to coordinating work across and between Packages to manage cumulative construction impacts while minimising the duration of construction in any one location (area of

environmental impact as a result of the Project) as far as reasonably practicable. This will be achieved through governance/coordination meetings, review of package programs, review of PLR Package interface activities, such as shared work spaces, haulage routes and/or transport, traffic and access impacts and maintaining a register of Out of Hours Work (OOHW) Applications. This is further detailed in Table 2-10.

In general, representatives from each Package (either TfNSW or if nominated, the Contractor) must attend weekly Project Governance Meetings during periods of work or construction to discuss the delivery program and upcoming activities that require consultation with the community and stakeholders.

Each package contractor's environmental manager is required to attend fortnightly (or weekly if required) environmental management Governance meetings with TfNSW, the Environment Representative and if nominated, other interface contractors. During these meetings it will be discussed how concurrent works can be best managed to minimise impact such as coordinating out-of-hours work and respite periods.

In addition, they may be required to attend monthly environmental and sustainably reference group meetings chaired by TfNSW (i.e. Packages 1, 4 and 5). These meetings are held with key stakeholders to discuss and resolve environmental issues and are likely to include stakeholders from City of Parramatta Council, NSW Health, UrbanGrowth and Department of Planning and Environment.

During interface meetings key milestones of each Package's program will be discussed, any milestones that could be coordinated to minimise cumulative impacts between other packages or external construction projects shall be brought to the attention of the PLR Delivery Director to facilitate demonstrable, improved cumulative outcomes on behalf of the Proponent.

Where management of cumulative impacts results in interface requirements between packages (i.e. Packages 1, 2, 4 and 5), such as shared work spaces, similar haulage routes and/or combined transport, traffic and access impacts, the PLR Project Management team for each package shall monitor and report to the PLR Delivery Director. Monitoring and reporting shall capture construction progress, community & environmental outcomes and further recommendations of the interface agreement to minimise the duration of construction and its associated impacts in any one location as far as reasonably practicable.

A register of OOHW Applications shall be prepared and maintained by the PLR Planning & Environment Functional Group to ensure that mitigation measures across all packages can achieve the required noise and vibration outcomes, in particular provision of respite compliant with Conditions E36 to E40 inclusive. Where conflicts arise the competing OOHW Applications shall be brought to the attention of the PLR Delivery Director to facilitate demonstrable, improved cumulative outcomes on behalf of the Proponent. The potential for OOHW coordination shall apply to Packages 1, 2, 4 and 5.

2.9.4 Principles and mechanisms to minimise Cumulative Impacts

As outlined above the initial step to minimising cumulative impacts is to be aware of projects' construction programs and the identification of potential cumulative impacts as to the duration and nature (visual, noise, traffic, business disruptions). Once the potential impacts are identified, Parramatta Light Rail will trigger appropriate Management Measures (MMs) including; for example, hours of operation, respite and other noise mitigation measures (screening, community consultation as to alternate work programs etc.).

The suite of MMs best adapted to the impacted zone will be determined through community consultation. The steps to managing cumulative impacts are:

- PLR *Place Managers'* and Contactor's *Construction Zone Managers* to identify suite of REMMs to address cumulative impact via liaison with Sydney Coordinating Office and Councils, as appropriate, and identify the projects that will come on line over the zone's construction period
- Develop the most suitable suite of MM's applicable to the zone
- Separation of time and place, staging/phasing works to minimise cumulative impacts
- Progressively build cumulative MM suites into the respective CEMP/Sub plans (for example CNVIS, and Traffic Management Plans for zones
- Monitor complaints to identify unexpected/emerging cumulative impacts
- Up-date approach and revised CEMP and specific sub-plan updates, as needed.

Table 2-10: Cumulative aspects and their management measures

Cumulative Aspect	Management Measure	Accountable Organisation	Accountable Team/Role
Access	Coordination Meetings (SCO, CoPC, HAC, UGDC)	TfNSW/Stakeholder	PLR Delivery Director
	Governance Meetings	Delivery Partner/TfNSW	Construction Manager/Project Manager
	Property Access Plans	Delivery Partner	PLR Senior Project Manager/Property
	CEMP Implementation (Traffic, Transport & Access Management)	Delivery Partner	Construction Manager/Environmental Manager
	Community Consultation Strategy implementation	Delivery Partner/TfNSW	Construction Manager/Community Engagement Manager
Business disruption	Coordination Meetings (CoPC)	TfNSW/Stakeholder	PLR Delivery Director
	Governance Meetings	Delivery Partner/TfNSW	Construction Manager/Project Manager
	Business Reference Group Meeting	TfNSW	PLR Business Reference Group
	Community Consultation Strategy implementation	Delivery Partner/TfNSW	Construction Manager/Community Engagement Manager
Noise & vibration	Coordination Meetings (CoPC, SCO, HAC)	TfNSW/Stakeholder	PLR Delivery Director

Cumulative Aspect	Management Measure	Accountable Organisation	Accountable Team/Role
	Governance Meetings	Delivery Partner/TfNSW	Construction Manager/Project Manager
	CEMP Implementation and Construction Noise & Vibration Impact Statements	Delivery Partner	Construction Manager/Environmental Manager
	Community Consultation Strategy implementation	Delivery Partner/TfNSW	Construction Manager/Community Engagement Manager
OOHW Respite	PLR OOHW Register	TfNSW	PLR Delivery Director/Senior Manager Environment
	PLR OOHW Protocol	Delivery Partner/TfNSW	PLR Delivery Director/Senior Manager Environment
	Coordination Meetings (SCO, CoPC, HAC)	TfNSW/Stakeholder	PLR Delivery Director
	Governance Meetings	Delivery Partner/TfNSW	Construction Manager/Project Manager
	CEMP Implementation and Construction Noise & Vibration Impact Statements	Delivery Partner	Construction Manager/Environmental Manager
Parking	Parking Management Strategy	TfNSW/Delivery Partner (Package 4)	RMS/SCO Interface
	Coordination Meetings (SCO, CoPC, HAC, UGDC)	TfNSW/Stakeholder	PLR Delivery Director

Cumulative Aspect	Management Measure	Accountable Organisation	Accountable Team/Role
	Community Consultation Strategy implementation	Delivery Partner/TfNSW	Construction Manager/Community Engagement Manager
Respite periods	Coordination Meetings (CoPC, HAC, UGDC)	TfNSW/Stakeholder	PLR Delivery Director
	Governance Meetings	Delivery Partner/TfNSW	Construction Manager/Project Manager
	CEMP Implementation and Construction Noise & Vibration Impact Statements	Delivery Partner	Construction Manager/Environmental Manager
	Community Consultation Strategy implementation	Delivery Partner/TfNSW	Construction Manager/Community Engagement Manager
Traffic	Network Management Strategy	TfNSW	RMS/SCO Interface
	Coordination Meetings (SCO, CoPC, HAC, UGDC)	TfNSW/Stakeholder	PLR Delivery Director
	CEMP Implementation (Traffic, Transport & Access Management)	Delivery Partner	Construction Manager/Environmental Manager
	Community Consultation Strategy implementation	Delivery Partner/TfNSW	Construction Manager/Community Engagement Manager
Visual	Coordination Meetings (CoPC, SCO)	TfNSW/Stakeholder	PLR Delivery Director

Cumulative Aspect	Management Measure	Accountable Organisation	Accountable Team/Role
	Governance Meetings	Delivery Partner/TfNSW	Construction Manager/Project Manager
	CEMP Implementation	Delivery Partner	Construction Manager/Environmental Manager
	TfNSW Branding Guidelines	Delivery Partner/TfNSW	Construction Manager. Community Engagement Manager
	Community Consultation Strategy implementation	Delivery Partner/TfNSW	Construction Manager/Community Engagement Manager

3 Addressing the Conditions of Approval

The following section outlines show the Conditions of Approval have been addressed across each stage of the CSSI.

No aspect of the staged approach to construction will affect the ability of the CSSI to comply with the CoA. Generally, implementation of Conditions of Approval will be progressively completed as each Package is initiated and the condition is triggered.

3.1 Requirements of the Conditions of Approval

Many of the CoA require the preparation, consultation, submission and, in many cases, the Secretary's approval of various plans, protocols and strategies which govern the delivery and operation of the CSSI. The development and submission of plans will largely be the responsibility of TfNSW's Contractors responsible for each package. Some plans, or elements of specific plans will, remain the responsibility of TfNSW.

The CoA will be delivered as appropriate for the scope and timing of each package of works. Table 3-1 summarises the CoA which require plans, protocols and strategies applicable to detailed design, pre-construction and construction activities for the CSSI and how they will be delivered for each stage (note Stage 1 comprises of three packages (1-3)). This table also outlines the relevant consultation requirements. Table 3-2 summarises the revised mitigation measures and Table 3-3 summarises the Environmental Performance Outcomes. Where a condition or revised mitigation measure is applicable to a stage or the entire project, the relevance of the condition to each Package (or activity) will be determined through the Package-specific (or Activity-specific) CEMP and associated sub-plans. To clarify, any condition or revised mitigation measure that is triggered for a stage or the entire project may be listed as "not relevant" in a CEMP or associated sub-plan where there is a demonstrated justification that the Package/Activity Contractor has no ability or necessity to implement the requirement.

It is noted that most requirements under Part C – Construction Environmental Management Plan of the Conditions of Approval will be delivered for each package, (e.g. five (5) CEMPs will be prepared) as each Package is initiated. Although TfNSW will deliver specific program-wide deliverables such as; Part B – Community Information & Reporting, and this Staging Report (A13).

In accordance with Condition A17, if there are any proposed changes to the staging of the CSSI, the Staging Report will be revised and submitted for approval by the Secretary.

3.2 Compliance

3.2.1 Compliance Tracking Program

A Compliance Tracking Program has been prepared in accordance with Infrastructure approval CSSI-8285. The Compliance Tracking Program was endorsed by the Environmental Representative on 6 December 2018. TfNSW submitted the Program to DP&E for information on 6 December 2018. This was at least one month before the commencement of works.

The Compliance Tracking Program is anticipated to be endorsed once and used by all contractors in accordance with Condition A30. The Compliance Tracking Program has been prepared to be used by both TfNSW and each main contractor (package specific). The Conditions of Approval would be appropriately distributed across the relevant packages in accordance with this Staging Report.

It is the role of each contractor to ensure compliance with the Planning Approval as it relates to their specific package. The TfNSW Environmental Management Team's role is to oversee Package Contractors to ensure their maintained compliance with the Planning Approval at all times.

Where the conditions of the Planning Approval are non-package specific, or project-wide, it is the role of the TfNSW Environmental Management Team to ensure compliance as defined in Table 3-1.

The role of the Environmental Representative (ER) is defined in the Conditions of Approval. TfNSW will support the ER in fulfilling their role, particularly in relation to A23. Therefore the Compliance Tracking Program has been prepared in a manner that all Contractors must report on compliance every quarter, and the ER will endorse every six (6) months prior to submission of Construction Compliance Reports. TfNSW will be responsible for implementing project-wide Conditions of Approval throughout the project.

3.2.2 Compliance Reports

A Pre-Construction Compliance Report is required to be submitted to the Department one month before the commencement of construction. Each package would require a Pre-Construction Compliance Report to be prepared in accordance with Condition A34-A36 and aligned with this Staging Report.

Construction Compliance Reports are required to be submitted every six months to the Department. The Construction Compliance Reports would be prepared based on each package and therefore would be required every six months from each package's commencement date. However, TfNSW shall coordinate a single Construction Compliance Report with input from relevant contractors on active packages. As a result of this compliance reporting will fall on a calendar 6-month period rather than 6-months from commencement of construction (e.g. January-June and July-December).

A Pre-Operation Compliance Report is required to be submitted to the Department one month before the commencement of operation. Stage 3 would require a Pre-Operation Compliance Report to be prepared in accordance with Condition A38-A39.

All of these Compliance Reports will be published by TfNSW.

3.2.3 Monitoring

Several layers of compliance checking will be applied during the construction of the PLR. Contractors will maintain their own internal audit program to ensure they meet the requirements set out in the CoA and contract. TfNSW will conduct an additional auditing program across all stages with a specific focus on compliance with the conditions of approval. TfNSW will monitor compliance with the Planning Approval across all packages through surveillance, environmental inspections, record-keeping and compliance reporting.

The Independent Certifier has engaged the independent ERs for the CSSI. The ERs:

- Undertake regular site inspections with the Contractor's environmental managers and TfNSW representatives
- Review compliance with the approvals on a periodic basis
- Review management plans and provide advice in relation to the level of risk associated with construction works
- Provide independent advice on matters relating to compliance to the Contractors, TfNSW and DP&E if requested.

Table 3-1: Addressing Conditions of Approval across stages of the CSSI

CoA Ref.	Requirement	Stage 0 Preconstruction Activities	Stage 1 Enabling Work	Stage 2 Infrastructure Works	Stage 3 SOM Works & Operation
	Part A – Administrative Conditions				
A1	The CSSI must be carried out in accordance with the terms of this approval and generally in accordance with the description of the CSSI in the *Parramatta Light Rail (Stage 1) Westmead to Carlingford via Parramatta CBD and Camellia Environmental Impact Statement* (dated August 2017) (the EIS) as amended by: (a) the *Parramatta Light Rail (Stage 1) Westmead to Carlingford via Parramatta CBD and Camellia Submissions Report (incorporating Preferred Infrastructure Report)* (February 2018) (the SPIR); (b) SSI 8285 Administrative modification (November 2018) (MOD 1); and (c) SSI 8285 Correction to Administrative modification (January 2019) (MOD 2).	Condition not staged, compliance with condition to be provided in Construction Compliance Reports by the Proponent			
A2	The CSSI must be carried out in accordance with all procedures, commitments, preventative actions, performance criteria and mitigation measures set out in the EIS as amended by the Submissions Report (incorporating Preferred Infrastructure Report) unless otherwise specified in, or required under, this approval.	Condition not staged, compliance with condition to be provided in Construction Compliance Reports by the Proponent			
A3	In the event of an inconsistency between the EIS and the Submissions Report (incorporating Preferred Infrastructure Report) or any other document required under this approval, and a term of this approval, the term of this approval prevails to the extent of the inconsistency. *Note: For the purpose of this condition, there will be an inconsistency between a term of this approval and any document if it is not possible to comply with both the term and the document.*	Condition not staged, compliance with condition to be provided in Construction Compliance Reports by the Proponent			
A4	The Proponent must comply with all written requirements or directions of the Secretary, including in relation to: (a) the environmental performance of the CSSI; (b) any document or correspondence in relation to the CSSI; (c) any notification given to the Secretary under the terms of this approval; (d) any audit of the construction or operation of the CSSI; (e) the terms of this approval and compliance with the terms of this approval (including anything required to be done under this approval); and (f) the carrying out of any additional monitoring or mitigation measures.	Condition not staged, compliance with condition to be provided in Construction Compliance Reports by the Proponent			
A5	Where the terms of this approval require a document or monitoring program to be prepared or a review to be undertaken in consultation with identified parties, evidence of the consultation undertaken must be submitted to the Secretary with the document or monitoring program or review. The evidence must include: (a) documentation of the engagement with the party(ies) identified in the relevant condition of approval before submitting the document for approval; (b) log of the points of engagement or attempted engagement with the identified party(ies) and a summary of the issues raised by the identified party(ies); (c) documentation of any follow-up with the identified party(ies), where feedback has not been provided, to confirm that the identified party(ies) has none or has failed to provide feedback after repeated requests; (d) outline of the issues raised by the identified party(ies) and how they have been addressed, including evidence that the party(ies) is satisfied the issues have been addressed; and (e) where there are outstanding issues raised by the identified party(ies) that have not been adopted, the reasons why they have not been/could not be adopted must be provided, including evidence of consultation with the relevant party(ies).	Condition not staged, compliance with condition to be provided in Construction Compliance Reports by the Proponent			
A6	This approval lapses five (5) years after the date on which it is granted, unless works for the purpose of the CSSI are physically commenced on or before that date.	Condition not staged, compliance with condition to be provided in Construction Compliance Reports by the Proponent			

CoA Ref.	Requirement	Stage 0 Preconstruction Activities	Stage 1 Enabling Work	Stage 2 Infrastructure Works	Stage 3 SOM Works & Operation
A7	References in the terms of this approval to any guideline, protocol, Australian Standard or policy are to such guidelines, protocols, Standards or policies in the form they are in as at the date of this approval, unless otherwise agreed with the Secretary.	Condition not staged, compliance with condition to be provided in Construction Compliance Reports by the Proponent			
A8	In the event that there are differing interpretations of the terms of this approval, including in relation to a condition of this approval, the Secretary's interpretation is final.	Condition not staged, compliance with condition to be provided in Construction Compliance Reports by the Proponent			
A9	Where a condition of this approval requires the Proponent to submit a document or notification to the Secretary or obtain an approval from the Secretary within a specified time period, the Proponent may make a written request to the Secretary seeking an alternative timeframe. Any request must be made at least one (1) month before the submission timeframe stipulated in the condition of approval relating to the variation request. This condition does not apply to the immediate notification required in respect of an incident under **Condition A44**.	Condition not staged, compliance with condition to be provided in Construction Compliance Reports by the Proponent			
A10	Where the terms of approval provide the Secretary the discretion to alter the requirements of the approval, the Proponent must provide supporting evidence so that the Secretary can consider the need, environmental impacts and consistency of any request. *Note: Inaction and/or expedience will not be supported as justifications for need unless it can be demonstrated that there is beneficial environmental impact for the project and the affected environment.*	Condition not staged, compliance with condition to be provided in Construction Compliance Reports by the Proponent			
A11	Without limitation, all strategies, plans, programs, reviews, audits, report recommendations, protocols and the like required by the terms of this approval must be implemented by the Proponent in accordance with all requirements issued by the Secretary from time to time in respect of them.	Condition not staged, compliance with condition to be provided in Construction Compliance Reports by the Proponent			
A12	The Proponent may undertake the flexibility provisions outlined in Appendix A. Flexibility provisions in Table 5.1 of the EIS do not apply.	Condition not staged, compliance with condition to be provided in Construction Compliance Reports by the Proponent			
A13	The CSSI may be constructed and operated in stages. Where staged construction or operation is proposed, a **Staging Report** (for either or both construction and operation as the case may be) must be prepared and submitted to the Secretary for approval. The **Staging Report** must be submitted to the Secretary no later than one month before the commencement of construction of the first of the proposed stages of construction (or if only staged operation is proposed, one month before the commencement of operation of the first of the proposed stages of operation).	Condition not staged, compliance with condition to be provided in Construction Compliance Reports by the Proponent			
A14	The **Staging Report** must: (a) if staged construction is proposed, set out how the construction of the whole of the CSSI will be staged, including details of construction (as defined in this instrument) to be carried out in each stage and the general timing of when construction of each stage will commence and finish (b) if staged operation is proposed, set out how the operation of the whole of the CSSI will be staged, including details of work and other activities to be carried out in each stage and the general timing of when operation of each stage will commence and finish (if relevant); (c) specify how compliance with conditions will be achieved across and between each of the stage of the CSSI; and (d) set out mechanisms for managing any cumulative impacts arising from the proposed staging. *Note: nothing in this condition invalidates the timing requirements or triggers specified in other conditions of this approval.*	Condition not staged, compliance with condition to be provided in Construction Compliance Reports by the Proponent			
A15	The CSSI must be staged in accordance with the **Staging Report,** as approved by the Secretary.	Condition not staged, compliance with condition to be provided in Construction Compliance Reports by the Proponent			

CoA Ref.	Requirement	Stage 0 Preconstruction Activities	Stage 1 Enabling Work	Stage 2 Infrastructure Works	Stage 3 SOM Works & Operation
A16	Where staging is proposed, the terms of this approval that apply or are relevant to construction to be carried out in a specific stage must be complied with at the relevant time identified in the Staging Report for that stage.	Condition not staged, compliance with condition to be provided in Construction Compliance Reports by the Proponent			
A17	Where changes are proposed to the staging of construction or operation, the Staging Report must be revised and submitted to the Secretary for approval no later than one month before the proposed change in staging.	Condition not staged, compliance with condition to be provided in Construction Compliance Reports by the Proponent As required, the Project Wide Staging Report will be revised by the Proponent.			
A18	The Proponent must use best endeavours to ensure that the duration of construction in any one location or zone, as defined to the Secretary's satisfaction, is such that any receiver is impacted by construction works for the minimum, reasonably practicable time. The Proponent must demonstrate the principles that would be adopted to minimise the duration of construction in zones as part of the **Staging Report** required by **Condition A13.**	Condition not staged, compliance with condition to be provided in Construction Compliance Reports by the Proponent			
A19	Works must not commence until an ER has been approved by the Secretary and engaged by the Proponent.	Condition not staged, compliance with condition to be provided in Construction Compliance Reports by the Proponent			
A20	The Secretary's approval of an ER must be sought no later than one month before the commencement of works.	Condition not staged, compliance with condition to be provided in Construction Compliance Reports by the Proponent			
A21	The proposed ER must be a suitably qualified and experienced person who was not involved in the preparation of the EIS or Submissions Report (incorporating Preferred Infrastructure Report), and is independent from the design and construction personnel for the CSSI and those involved in the delivery of it.	Condition not staged, compliance with condition to be provided in Construction Compliance Reports by the Proponent			
A22	The Proponent may engage more than one ER for the CSSI, in which case the functions to be exercised by an ER under the terms of this approval may be carried out by any ER that is approved by the Secretary for the purposes of the CSSI.	Condition not staged, compliance with condition to be provided in Construction Compliance Reports by the Proponent			

CoA Ref.	Requirement	Stage 0 Preconstruction Activities	Stage 1 Enabling Work	Stage 2 Infrastructure Works	Stage 3 SOM Works & Operation
A23	For the duration of the works until after the commencement of operation, or as agreed with the Secretary, the approved ER must: (a) receive and respond to communication from the Secretary in relation to the environmental performance of the CSSI; (b) consider and inform the Secretary on matters specified in the terms of this approval; (c) consider and recommend to the Proponent any improvements that may be made to work practices to avoid or minimise adverse impact to the environment and the community; (d) review documents identified in Table 2 and any other documents that are identified by the Secretary, for consistency, in the opinion of the ER, with requirements in or under this approval and if so: i) make a written statement to this effect before submission of such documents to the Secretary (if those documents are required to be approved by the Secretary); or ii) make a written statement to this effect before the implementation of such documents (if those documents are required to be submitted to the Secretary for information or are not required to be submitted to the Secretary); (e) regularly monitor the implementation of the documents listed in Table 2 to ensure implementation is being carried out in accordance with the document and the terms of this approval; (f) as may be requested by the Secretary, help plan, attend or undertake audits of the CSSI commissioned by the Department including scoping audits, programming audits, briefings and site visits, but not independent environmental audits required under **Condition A41** of this approval; (g) as may be requested by the Secretary, assist the Department in the resolution of community complaints; (h) assess, and if acceptable, approve the impacts of minor ancillary facilities comprising lunch sheds, office sheds and portable toilet facilities, or other ancillary facilities determined by the ER to have a minor environmental impact; and (i) prepare and submit to the Secretary and other relevant regulatory agencies, for information, an **Environmental Representative Monthly Report** providing the information set out in the Environmental Representative Protocol under the heading “Environmental Representative Monthly Reports.” The Environmental Representative Monthly Report must be submitted within seven days following the end of each month for the duration of the ER’s engagement for the CSSI.	Condition not staged, compliance with condition to be provided in Construction Compliance Reports by the Proponent			
A24	The Proponent must provide the ER with all documentation requested by the ER in order for the ER to perform their functions specified in **Condition A23** (including preparation of the ER monthly report), as well as: (a) the complaints register (to be provided on a daily basis); and (b) a copy of any assessment carried out by the Proponent of whether proposed work is consistent with the approval (which must be provided to the ER before the commencement of the subject work).	Condition not staged, compliance with condition to be provided in Construction Compliance Reports by the Proponent			
A25	The Secretary may at any time commission an audit of an ER’s exercise of its functions under **Condition A23**. The Proponent must:(a) facilitate and assist the Secretary in any such audit; and(b) make it a term of their engagement of an ER that the ER facilitate and assist the Secretary in any such audit.	Condition not staged, compliance with condition to be provided in Construction Compliance Reports by the Proponent			
A26	A suitably qualified and experienced **Acoustics Advisor** (AA) must be engaged for the duration of construction and for no less than six months following completion of construction of the CSSI. The AA must provide a statutory declaration to the Secretary that they are independent of the design and construction personnel. The Proponent must cooperate with the AA by: (a) providing access to noise and vibration monitoring activities as they take place; (b) providing for review noise and vibration plans, assessments, monitoring reports and data analyses undertaken; and (c) considering any recommendations to improve practices and demonstrating, to the satisfaction of the AA, why any recommendation is not adopted.	Condition not staged, compliance with condition to be provided in Construction Compliance Reports by the Proponent			

CoA Ref.	Requirement	Stage 0 Preconstruction Activities	Stage 1 Enabling Work	Stage 2 Infrastructure Works	Stage 3 SOM Works & Operation
A27	The AA must meet the following minimum requirements: (a) relevant experience in the last ten years as a senior acoustic specialist on major infrastructure projects, including a fieldwork and construction management component; (b) tertiary qualifications in an acoustic related discipline or equivalent experience; and (c) proven understanding and application of NSW State and local legislation, relevant Australian standards, NSW environmental regulatory requirements and implementation of noise mitigation and environmental best practice.	Condition not staged, compliance with condition to be provided in Construction Compliance Reports by the Proponent			
A28	The Proponent must notify the Department in writing on the engagement of the AA including demonstrating the requirements of **Conditions A26 and A27.**	Condition not staged, compliance with condition to be provided in Construction Compliance Reports by the Proponent			
A29	The AA must: (a) receive and respond to communication from the Secretary about the performance of the CSSI in relation to noise and vibration; (b) consider and inform the Secretary on matters specified in the terms of this approval relating to noise and vibration; (c) consider and recommend, to the Proponent, improvements that may be made to work practices to avoid or minimise adverse noise and vibration impacts; (d) consider consultation outcomes with affected receivers to determine the adequacy of noise mitigation and management measures including work hours and respite periods; (e) review all noise and vibration documents required to be prepared under the terms of this approval and, should they be consistent with the terms of this approval, endorse them before submission to the Secretary (if required to be submitted to the Secretary) or before implementation (if not required to be submitted to the Secretary); (f) regularly monitor the implementation of all noise and vibration documents required to be prepared under the terms of this approval to ensure implementation is in accordance with what is stated in the document and the terms of this approval; (g) in conjunction with the ER, the AA must: i. as may be requested by the Secretary, help plan, attend or undertake audits of noise and vibration management of the CSSI including briefings, and site visits; ii. if conflict arises between the Proponent and the community in relation to the noise and vibration performance during construction of the CSSI, follow the procedure in the Community Communication Strategy approved under **Condition B3** of this approval to attempt to resolve the conflict, and if it cannot be resolved, notify the Secretary; iii. consider relevant minor amendments made to the CEMP, relevant sub-plans and noise and vibration monitoring programs that require updating or are of an administrative nature, and are consistent with the terms of this approval and the management plans and monitoring programs approved by the Secretary and, if satisfied such amendment is necessary, endorse the amendment. This does not include any modifications to the terms of this approval; iv. assess the noise impacts of minor construction ancillary facilities; and (h) prepare and submit to the Secretary and other relevant regulatory agencies, for information, a monthly **Noise and Vibration Report** detailing the AAs actions and decisions on matters for which the AA was responsible in the preceding month (or another timeframe agreed with the Secretary). The **Noise and Vibration Report** must be submitted within seven days following the end of each month for the duration of construction of the CSSI, or as otherwise agreed with the Secretary.	Condition not staged, compliance with condition to be provided in Construction Compliance Reports by the Proponent			
A30	A **Compliance Tracking Program** to monitor compliance with the terms of this approval must be prepared, taking into consideration any staging of the CSSI that is proposed in a **Staging Report** submitted in accordance with **Conditions A13** and **A14** of this approval.	Condition not staged, compliance with condition to be provided in Construction Compliance Reports by the Proponent			
A31	The **Compliance Tracking Program** must be endorsed by the ER and then submitted to the Secretary for information at least one (1) month before the commencement of works.	Condition not staged, compliance with condition to be provided in Construction Compliance Reports by the Proponent			

CoA Ref.	Requirement	Stage 0 Preconstruction Activities	Stage 1 Enabling Work	Stage 2 Infrastructure Works	Stage 3 SOM Works & Operation
A32	The **Compliance Tracking Program** in the form required under **Condition A30** of this approval must be implemented for the duration of works and for a minimum of one (1) year following commencement of operation, or for a longer period as determined by the Secretary based on the outcomes of independent environmental audits, **Environmental Representative Monthly Reports** and regular compliance reviews submitted through **Compliance Reports**. If staged operation is proposed, or operation is commenced of part of the CSSI, the **Compliance Tracking Program** must be implemented for the relevant period for each stage or part of the CSSI.	Condition not staged, compliance with condition to be provided in Construction Compliance Reports by the Proponent			
A33	The Proponent must make each compliance report publicly available and notify the Department in writing when this has been done.	Condition not staged, compliance with condition to be provided in Construction Compliance Reports by the Proponent			
A34	A **Pre-Construction Compliance Report** must be prepared and submitted to the Secretary for information no later than one (1) month before the commencement of construction (or each stage of construction identified in the Staging Report).	Not triggered by the Preconstruction Activities Stage. Activities during this Stage do not relate to construction of the CSSI.	Package-specific reports will be submitted within the stated timeframe prior to commencing construction of each specific package, as nominated in Table 2-1	A stage-specific report will be submitted prior to commencing construction of the specific package, anticipated Quarter 3, 2019.	A stage-specific report will be submitted prior to commencing construction of the specific package anticipated Quarter 4, 2020.
A35	The **Pre-Construction Compliance Report** must include: (a) details of how the terms of this approval that must be addressed before the commencement of construction have been complied with; and (b) the proposed commencement date for construction.	Not triggered by the Preconstruction Activities Stage. Activities during this Stage do not relate to construction of the CSSI.	Condition not staged compliance with condition to be provided in Pre-Construction Compliance Reports by the Package Contractors and the Proponent.		
A36	Construction must not commence until the **Pre-Construction Compliance Report** has been submitted to the Secretary.	Not triggered by the Preconstruction Activities Stage. Activities during this Stage do not relate to construction of the CSSI.	Condition not staged compliance with condition to be provided in Pre-Construction Compliance Reports by the Package Contractors and the Proponent.		
A37	**Construction Compliance Reports** must be prepared and submitted to the Secretary for information every six (6) months from the date of the commencement of construction for the duration of construction. The **Construction Compliance Reports** must include: (a) a results summary and analysis of environmental monitoring; (b) the number of complaints received, including a summary of main areas of complaint, action taken, response given and proposed strategies for reducing the recurrence of such complaints; (c) details of any review of, and minor amendments made to, the **CEMP** as a result of construction carried out during the reporting period; (d) a register of any reviews of consistency undertaken including outcome; (e) results of any independent environmental audits and details of any actions taken in response to the recommendations of an audit; (f) a summary of all incidents notified in accordance with **Conditions A44** and **A46** of this approval; and (g) any other matter relating to compliance with the terms of this approval or as requested by the Secretary.	Not triggered by the Preconstruction Activities Stage. Activities during this Stage do not relate to construction of the CSSI.	Condition not staged compliance with condition to be provided in Construction Compliance Reports by the Proponent. TfNSW shall coordinate the report with input from relevant contractors on active packages. As a result of this compliance reporting will fall on a calendar 6-month period rather than 6-months from commencement of construction (e.g. January-June and July-December).		

CoA Ref.	Requirement	Stage 0 Preconstruction Activities	Stage 1 Enabling Work	Stage 2 Infrastructure Works	Stage 3 SOM Works & Operation
A38	A **Pre-Operation Compliance Report** must be prepared and submitted to the Secretary for information no later than one (1) month before the commencement of operation. The **Pre-Operation Compliance Report** must include: (a) details of how the terms of this approval that must be addressed before the commencement of operation have been complied with; and (b) the commencement date for operation.	Not triggered by the Preconstruction Activities Stage. Activities during this Stage do not relate to construction of the CSSI.	Not triggered by the Enabling Work Stage	Not triggered by the Infrastructure Delivery Stage	Condition not staged.
A39	Operation must not commence until the **Pre-Operation Compliance Report** has been submitted to the Secretary for information.	Not triggered by the Preconstruction Activities Stage. Activities during this Stage do not relate to construction of the CSSI.	Not triggered by the Enabling Work Stage	Not triggered by the Infrastructure Delivery Stage	Condition not staged.
A40	An **Environmental Audit Program** for annual independent environmental auditing against the terms of this approval must be prepared in accordance with AS/NZS ISO 19011:2014 - Guidelines for Auditing Management Systems and submitted to the Secretary for information no later than one month before the commencement of construction.	Not triggered by the Preconstruction Activities Stage. Activities during this Stage do not relate to construction of the CSSI.	Condition not staged, compliance with condition to be provided in Construction Compliance Reports by the Proponent		
A41	The **Environmental Audit Program,** as submitted to the Secretary, must be implemented for the duration of construction and operation.	Not triggered by the Preconstruction Activities Stage. Activities during this Stage do not relate to construction of the CSSI.	**Partial** – for construction only, as operation of the CSSI is under Stage 3, Package 5 (SOM).	**Partial** – for construction only, as operation of the CSSI is under Stage 3, Package 5 (SOM).	The construction program will be implemented by the Proponent across all packages during Construction. A program will be developed for Operation, anticipated for submission by Quarter 4, 2023.
A42	All independent environmental audits of the CSSI must be conducted by a suitably qualified, experienced and independent auditor with, where required, a team of independent technical experts and be documented in an **Environmental Audit Report** which: (a) assesses the environmental performance of the CSSI, and its effects on the surrounding environment; (b) assesses whether the project is complying with the terms of this approval; and (c) recommends measures or actions to improve the environmental performance of the CSSI.	Not triggered by the Preconstruction Activities Stage. Activities during this Stage do not relate to construction of the CSSI.	Condition not staged, compliance with condition to be provided in Construction Compliance Reports by the Proponent.		

CoA Ref.	Requirement	Stage 0 Preconstruction Activities	Stage 1 Enabling Work	Stage 2 Infrastructure Works	Stage 3 SOM Works & Operation
A43	The Proponent must submit a copy of the **Environmental Audit Report** to the Secretary for information, with a response to any recommendations contained in the audit report within six (6) weeks of completing the audit.	Not triggered by the Preconstruction Activities Stage. Activities during this Stage do not relate to construction of the CSSI.	Condition not staged, compliance with condition to be provided in Construction Compliance Reports by the Proponent		
A44	The Department must be notified in writing to compliance@planning.nsw.gov.au immediately after the Proponent becomes aware of an incident. The notification must identify the CSSI (including the application number and the name of the CSSI if it has one), and set out the location and nature of the incident.	Condition not staged, compliance with condition to be provided in Construction Compliance Reports by the Proponent			
A45	Within one week of notification of an incident under **Condition A44** of this approval, the Proponent must submit a report to the Department providing the time and date of the incident, details of the incident and must identify any consequent non-compliance with this approval.	Condition not staged, compliance with condition to be provided in Construction Compliance Reports by the Proponent			
A46	All written requirements of the Secretary, which may be given at any point in time, to address the cause or impact of an incident, must be complied with, within any timeframe specified by the Secretary or relevant public authority.	Condition not staged, compliance with condition to be provided in Construction Compliance Reports by the Proponent			
A47	If an incident occurs or if statutory notification is given to the EPA as required under the Protection of the Environment Operations Act 1997 in relation to the CSSI, such notification must also be provided to the Secretary within 24 hours after the notification was given to the EPA.	Condition not staged, compliance with condition to be provided in Construction Compliance Reports by the Proponent			
	Part B – Community Information & Reporting				
B1	A **Community Communication Strategy** must be prepared to provide mechanisms to facilitate communication between the Proponent, the community (including adjoining affected landowners and businesses, and others directly impacted by the CSSI), the ER and Council during the design, establishment and construction of the CSSI and for a minimum of 12 months following the completion of construction of the CSSI.	Condition not staged, compliance with condition to be provided in Construction Compliance Reports by the Proponent			
B2	The **Community Communication Strategy** must: (a) identify people and organisations to be consulted during the design and work phases; (b) set out procedures and mechanisms for the regular distribution of accessible information about or relevant to the CSSI including use of construction hoardings to provide information regarding the progress of construction. The information to be distributed must include information regarding current site construction activities, schedules and milestones at each construction site; (c) provide for the formation of issue or location-based community forums that focus on key environmental management issues of concern to the relevant communities; and (d) set out procedures and mechanisms: i. through which the community can discuss or provide feedback to the Proponent; i. through which the Proponent will respond to enquiries or feedback from the community; and ii. to resolve any issues and mediate any disputes that may arise in relation to construction of the CSSI, including disputes regarding rectification or compensation.	**Partially staged** – It is noted that the identification of community stakeholders will be progressively developed as new work locations are identified and as informed by the staged Land Use Survey requirement of E20. Compliance with this condition including staged components to be provided in Construction Compliance Reports by the Proponent.			
B3	The **Community Communication Strategy** must be submitted to the Secretary for approval no later than one month before commencement of any works.	Condition not staged, compliance with condition to be provided in Construction Compliance Reports by the Proponent			

CoA Ref.	Requirement	Stage 0 Preconstruction Activities	Stage 1 Enabling Work	Stage 2 Infrastructure Works	Stage 3 SOM Works & Operation
B4	Works for the purposes of the CSSI must not commence until the **Community Communication Strategy** has been approved by the Secretary.	Condition not staged, compliance with condition to be provided in Construction Compliance Reports by the Proponent			
B5	The **Community Communication Strategy,** as approved by the Secretary, must be implemented for the duration of the works and for 12 months following the completion of construction of the CSSI.	Condition not staged, compliance with condition to be provided in Construction Compliance Reports by the Proponent			
B6	A **Complaints Management System** must be prepared before the commencement of any works in respect of the CSSI and be implemented and maintained for the duration of construction and for a minimum 12 months following completion of construction of the CSSI.	Condition not staged, compliance with condition to be provided in Construction Compliance Reports by the Proponent			
B7	The following information must be available to facilitate community enquiries and manage complaints within one (1) month from the date of this approval and for 12 months following the completion of construction: (a) a 24 hour telephone number for the registration of complaints and enquiries about the CSSI; (b) a postal address to which written complaints and enquires may be sent; (c) an email address to which electronic complaints and enquiries may be transmitted; and (d) a mediation system for complaints unable to be resolved. This information must be accessible to all in the community regardless of age, ethnicity, disability or literacy level.	Condition not staged, compliance with condition to be provided in Construction Compliance Reports by the Proponent			
B8	The telephone number, postal address and email address required under **Condition B7** of this approval must be published in a newspaper circulating in the local area and on-site hoarding at each construction site before commencement of construction and published in the same way again before the commencement of operation. This information must also be provided on the website required under **Condition B11** of this approval.	Condition not staged, compliance with condition to be provided in Construction Compliance Reports by the Proponent			
B9	A **Complaints Register** must be maintained to record information on all complaints received about the CSSI during the carrying out of any works for the purposes of the CSSI and for a minimum of 12 months following the completion of construction. The **Complaints Register** must record the: (a) number of complaints received; (b) number of people affected in relation to a complaint; (c) means by which the complaint was addressed and whether resolution was reached, with or without mediation.	Condition not staged, compliance with condition to be provided in Construction Compliance Reports by the Proponent			
B10	The **Complaints Register** must be provided to the Secretary upon request, within the timeframe stated in the request.	Condition not staged, compliance with condition to be provided in Construction Compliance Reports by the Proponent			

CoA Ref.	Requirement	Stage 0 Preconstruction Activities	Stage 1 Enabling Work	Stage 2 Infrastructure Works	Stage 3 SOM Works & Operation
B11	A website providing information in relation to the CSSI must be established before commencement of works and maintained for the duration of construction, and for a minimum of 24 months following the completion of construction. Up-to-date information (excluding confidential commercial information) must be published before the relevant works commence, and maintained on the website or dedicated pages including: (a) information on the current implementation status of the CSSI; (b) a copy of the documents listed in **Condition A1** and **Condition A2** of this approval, and any documentation relating to any modifications made to the CSSI or the terms of this approval; (c) a copy of this approval in its original form, a current consolidated copy of this approval (that is, including any approved modifications to its terms), and copies of any approval granted by the Minister to a modification of the terms of this approval; (d) a copy of each statutory approval, licence or permit required and obtained in relation to the CSSI; (e) a current copy of each approved document required under the terms of this approval and any endorsements, approvals or requirements from the ER, AA and Secretary, all of which must be published before the commencement of any works to which they relate or before their implementation as the case may be; and (f) a copy of the compliance reports required under **Condition A30** of this approval. Information relating solely to construction may be removed from the website 12 months following the completion of construction.	Condition not staged compliance with condition to be provided in Construction Compliance Reports by the Proponent. The website will be progressively updated by TfNSW with the required information.			
	Part C – Construction Environmental Management				
C1	A **Construction Environmental Management Plan** (CEMP) must be must be prepared to detail how the performance outcomes, commitments and mitigation measures specified in the documents listed in **Condition A1** will be implemented and achieved during construction.	Not triggered by the Preconstruction Activities Stage. Activities during this Stage do not relate to construction of the CSSI.	A Package-specific CEMP to be prepared for each Package prior to Construction by the Relevant Contractor, as nominated in Table 2-1 For Package 2, the CEMP will be prepared with the requirements for Package 2A and then revised to reflect the activities of Packages 2B and 2C prior to commencing Construction.	A Stage-specific CEMP will be prepared prior to Construction by the Relevant Contractor. Anticipated by Quarter 3, 2019	For Package 5, the CEMP will be prepared in two sub-stages: Stage 3 Activity A (Activity A CEMP – Stabling and Maintenance Facility (SaMF) is anticipated by Quarter 2, 2020 The CEMP will be updated for Stage 3 Activity B to include the remainder of the Stage 3 scope (for example, stops and substations). Update is anticipated by Quarter 1, 2021

CoA Ref.	Requirement	Stage 0 Preconstruction Activities	Stage 1 Enabling Work	Stage 2 Infrastructure Works	Stage 3 SOM Works & Operation
C2	The **CEMP** must provide: (a) a description of activities to be undertaken during construction (including the scheduling of construction); (b) details of environmental policies, guidelines and principles to be followed in the construction of the CSSI; (c) a program for ongoing analysis of the key environmental risks arising from the activities described in subsection (a) of this condition, including an initial risk assessment undertaken before the commencement of construction of the CSSI; (d) details of how the activities described in subsection (a) of this condition will be carried out to: i. meet the performance outcomes stated in the documents identified in **Condition A1;** and ii. manage the risks identified in the risk analysis undertaken in subsection (c) of this condition; (e) an inspection program detailing the activities to be inspected and frequency of inspections; (f) a protocol for managing and reporting any: i. incidents; and ii. non-compliances with this approval and with statutory requirements. (g) procedures for rectifying any non-compliance with this approval identified during compliance auditing, incident management or at any time during construction; (h) a list of all the **CEMP Sub-plans** required in respect of construction, as set out in **Condition C3**. Where staged construction of the CSSI is proposed, the **CEMP** must also identify which **CEMP Sub-plan** applies to each of the proposed stages of construction; (i) a description of the roles and environmental responsibilities for relevant employees and their relationship with the ER; (j) for training and induction for employees, including contractors and sub-contractors, in relation to environmental and compliance obligations under the terms of this approval; (k) for periodic review and update of the **CEMP** and all associated plans and programs.	Not triggered by the Preconstruction Activities Stage. Activities during this Stage do not relate to construction of the CSSI.	Condition not staged, compliance with condition to be provided in Construction Compliance Reports by the Proponent		

<table>
<tr><th>CoA Ref.</th><th>Requirement</th><th>Stage 0 Preconstruction Activities</th><th>Stage 1 Enabling Work</th><th>Stage 2 Infrastructure Works</th><th>Stage 3 SOM Works & Operation</th></tr>
<tr><td>C3</td><td>The following CEMP Sub-plans must be prepared in consultation with the relevant government agencies identified for each CEMP Sub-plan and be consistent with the CEMP referred to in Condition C1:

Required CEMP Sub-plan Secretary Approval/ Information — Relevant government agencies to be consulted for each CEMP Sub-plan
(a) Traffic, transport and access Information — Relevant Council(s), Roads and Maritime Services, Emergency Services
(b) Noise and vibration Approval — Relevant Council(s), EPA, NSW Health
(c) Flood Management Information — Relevant Council(s), OEH. Sydney Water
(d) Heritage Approval — Relevant Council(s), OEH
(e) Flora and Fauna / Biodiversity Information — Relevant Council(s), OEH</td><td>Not triggered by the Preconstruction Activities Stage. Activities during this Stage do not relate to construction of the CSSI. Further consultation would be undertaken where preconstruction activities would occur within an area of heritage significance to identify appropriate mitigation measures.</td><td>Package-specific CEMP sub-plans to be prepared for each Package by the Relevant Contractor[1].

For Package 2, the CEMP Sub-plans will be prepared with the requirements for Package 2A and then revised to reflect the activities of Packages 2B and 2C prior to commencing Construction.

Note; C3(c) Flooding, C3 (d) Heritage and C3 (e) Flora Fauna not triggered for Package 3 due to nature of works. Consultation to support approach provided in CEMP.</td><td>The Contractor shall prepare Stage-specific CEMP sub-plans.</td><td>For Package 5, the CEMP Sub-plans will be prepared in two sub-stages: Stage 3 Activity A (Activity A CEMP – Stabling and Maintenance Facility (SaMF) is anticipated by Quarter 2, 2020

The CEMP Sub-plans will be updated (if required) for Stage 3 Activity B to include the remainder of the Stage 3 scope (for example, stops and substations). Update is anticipated by Quarter 1, 2021.</td></tr>
<tr><td>C4</td><td>The CEMP Sub-plans must state how:
(a) the environmental performance outcomes identified in the documents listed in Condition A1 will be achieved;
(b) the mitigation measures identified in the documents listed in Condition A1 will be implemented;
(c) the relevant terms of this approval will be complied with; and
(d) issues requiring management during construction, as identified through ongoing environmental risk analysis, will be managed.</td><td>Not triggered by the Preconstruction Activities Stage. Activities during this Stage do not relate to construction of the CSSI.</td><td colspan="3">Condition not staged, compliance with condition to be provided in Construction Compliance Reports by the Proponent</td></tr>
<tr><td>C5</td><td>The CEMP Sub-plans must be developed in consultation with relevant government agencies (including Relevant Council(s)). Details of all information requested by an agency to be included in a CEMP Sub-plan as a result of consultation, including all copies of correspondence from those agencies, must be provided to the Secretary with the relevant CEMP Sub-plan.</td><td>Not triggered by the Preconstruction Activities Stage. Activities during this Stage do not relate to construction of the CSSI.</td><td>Package-specific CEMP sub-plans including consultation to be prepared for each Package by the Relevant Contractor.</td><td>The Contractor shall prepare Stage-specific CEMP sub-plans including consultation.</td><td>The Contractor shall prepare Stage-specific CEMP sub-plans including consultation.</td></tr>
</table>

[1] Enabling work undertaken by NSW Health on behalf of TfNSW will be completed under a single CEMP, including sub-plans and supporting documents. It is noted that not all deliverables will be triggered for the first programmed activity for this package (Activity A); therefore the CEMP will be updated as necessary and as conditions are triggered. The revised CEMP will be submitted for review to the ER and if necessary to DP&E for approval (where new plans are prepared or material changes occur) and within the specified timeframes of the triggered conditions (i.e. one month prior to construction etc.).

CoA Ref.	Requirement	Stage 0 Preconstruction Activities	Stage 1 Enabling Work	Stage 2 Infrastructure Works	Stage 3 SOM Works & Operation
C6	Any of the **CEMP Sub-plans** may be submitted along with, or subsequent to, the submission of the **CEMP** but in any event, no later than one month before construction.	Not triggered by the Preconstruction Activities Stage. Activities during this Stage do not relate to construction of the CSSI.	Condition not staged compliance with condition to be provided in Construction Compliance Reports by the Proponent.		
C7	The **CEMP** must be endorsed by the ER and then submitted to the Secretary for approval no later than one month before the commencement of construction.	Not triggered by the Preconstruction Activities Stage. Activities during this Stage do not relate to construction of the CSSI.	Condition not staged compliance with condition to be provided in Construction Compliance Reports by the Proponent.		
C8	Construction must not commence until the **CEMP** and any **CEMP Sub-plan** specified in **Condition C3** have been submitted to or approved by the Secretary. The **CEMP** and **CEMP Sub-plans**, as submitted to or approved by the Secretary, including any minor amendments approved by the ER, must be implemented for the duration of construction. Where construction of the CSSI is staged, construction of a stage must not commence until the **CEMP** and **Sub-plans** for that stage have been approved by the Secretary. *Note: the requirement to submit or have a CEMP or CEMP Sub-plan approved is specified in Condition C3.*	Not triggered by the Preconstruction Activities Stage. Activities during this Stage do not relate to construction of the CSSI.	Condition not staged compliance with condition to be provided in Construction Compliance Reports by the Proponent.		

CoA Ref.	Requirement	Stage 0 Preconstruction Activities	Stage 1 Enabling Work	Stage 2 Infrastructure Works	Stage 3 SOM Works & Operation
C9	The following **Construction Monitoring Programs** must be prepared in consultation with the relevant government agencies for each to compare actual performance of construction of the CSSI against performance predicted in the documents listed in **Condition A1** or in the CEMP: **Required Construction Monitoring Programs** **Relevant government agencies to be consulted for each Construction Monitoring Program** (a) Water Quality (Turbidity) Monitoring — DoI Water, EPA, Relevant Council(s) (b) Noise and Vibration Monitoring — Relevant Council(s), EPA, NSW Health (as relevant) (c) Grey-headed flying fox Monitoring — OEH	Not triggered by the Preconstruction Activities Stage. Activities during this Stage do not relate to construction of the CSSI.	**Partial** – Note, part (a) of the condition which is not applicable as noted below There is very limited potential for activities during the enabling stage to impact water quality; therefore it is proposed that all enabling stage water monitoring be in compliance with the requirements of the TfNSW Water Discharge and Reuse Guideline or as per the EPA/Site Auditor requirements for remediation activities. A Grey-headed Flying Fox monitoring program has been prepared by TfNSW's ecologist and in consultation with OEH and PPT. This package specific monitoring program will be implemented for Package 1 for construction located within 300 metres of the camp site (also refer to Condition E101). The grey-headed monitoring program is considered not triggered for Package 2 Activity A and Package 3 as these sites are outside the 300 metre radius identified in Condition E101.	The Grey-headed Flying Fox monitoring program will be revised to reflect activities for Stages 2 and 3 and implemented by TfNSW and where relevant the contractor..	For Package 5, the monitoring programs will be prepared in two sub-stages: Stage 3 Activity A (Activity A monitoring program – Stabling and Maintenance Facility (SaMF) is anticipated by Quarter 2, 2020 The monitoring programs will be updated (if required) for Stage 3 Activity B to include the remainder of the Stage 3 scope (for example, stops and substations). Update is anticipated by Quarter 1, 2021. A Grey-headed Flying Fox monitoring program has been prepared by TfNSW. The program will be implemented by TfNSW and where relevant, the contractor. Package 5A is outside the 300m radius identified in Condition E101.

CoA Ref.	Requirement	Stage 0 Preconstruction Activities	Stage 1 Enabling Work	Stage 2 Infrastructure Works	Stage 3 SOM Works & Operation
C10	Each **Construction Monitoring Program** must provide: (a) details of baseline data available; (b) details of baseline data to be obtained and when; (c) details of all monitoring of the project to be undertaken; (d) the parameters of the project to be monitored; (e) the frequency of monitoring to be undertaken; (f) the location of monitoring; (g) the reporting of monitoring results against relevant criteria; (h) procedures to identify and implement additional mitigation measures where results of monitoring are unsatisfactory; and (i) any consultation to be undertaken in relation to the monitoring programs.	Not triggered by the Preconstruction Activities Stage. Activities during this Stage do not relate to construction of the CSSI.	**Partially Applicable,** There is very limited potential for activities during the enabling stage to impact water quality; therefore it is proposed that all enabling stage water monitoring be in compliance with the requirements of the TfNSW Water Discharge and Reuse Guideline or as per the EPA/Site Auditor requirements for remediation activities	Applicable	Applicable
C11	The noise and vibration monitoring data collected during monitoring required by **Condition C9** must be available to the Proponent, ER, AA, Relevant Council(s) and the community to inform construction scheduling, the level of impacts and whether additional mitigation is required. The Department must also be provided access to this data if specifically requested.	Not triggered by the Preconstruction Activities Stage. Activities during this Stage do not relate to construction of the CSSI.	Condition not staged, compliance with condition to be provided in Construction Compliance Reports by the Proponent		
C12	The **Construction Monitoring Programs** must be developed in consultation with relevant government agencies and Relevant Council(s) as identified in **Condition C9** of this approval and must include, information requested by an agency to be included in a **Construction Monitoring Programs** during such consultation. Details of all information requested by an agency, including copies of all correspondence from those agencies, must be provided with the relevant **Construction Monitoring Program**.	Not triggered by the Preconstruction Activities Stage. Activities during this Stage do not relate to construction of the CSSI.	Package-specific Construction Monitoring Programs including consultation to be prepared for each Package by the Relevant Contractor.	The Contractor shall prepare Stage-specific Construction Monitoring Programs including consultation.	The Contractor shall prepare Stage-specific Construction Monitoring Programs including consultation.
C13	The **Construction Monitoring Programs** must be endorsed by the ER and submitted to the Secretary for information at least one month before the commencement of construction.	Not triggered by the Preconstruction Activities Stage. Activities during this Stage do not relate to construction of the CSSI.	Package-specific programs shall be submitted prior to Construction. Package 1 anticipated Quarter 4, 2018 and Quarter 1 2019.	The Stage-specific program shall be submitted prior to Construction, anticipated Quarter 3, 2019	The Stage-specific program shall be submitted prior to Construction, anticipated Quarter 3, 2020
C14	Construction must not commence until the Secretary has received all of the required **Construction Monitoring Programs**, and all relevant baseline data for the specific construction activity has been collected.	Not triggered by the Preconstruction Activities Stage. Activities during this Stage do not relate to construction of the CSSI.	Condition not staged compliance with condition to be provided in Construction Compliance Reports by the Proponent.		

CoA Ref.	Requirement	Stage 0 Preconstruction Activities	Stage 1 Enabling Work	Stage 2 Infrastructure Works	Stage 3 SOM Works & Operation
C15	The **Construction Monitoring Programs**, as submitted to the Secretary including any minor amendments approved by the ER must be implemented for the duration of construction and for any longer period set out in the monitoring program or specified by the Secretary, whichever is the greater.	Not triggered by the Preconstruction Activities Stage. Activities during this Stage do not relate to construction of the CSSI.	Condition not staged, compliance with condition to be provided in Construction Compliance Reports by the Proponent		
C16	The results of the **Construction Monitoring Programs** must be submitted to the Secretary, and relevant regulatory agencies, for information in the form of a **Construction Monitoring Report** at the frequency identified in the relevant **Construction Monitoring Program**.	Not triggered by the Preconstruction Activities Stage. Activities during this Stage do not relate to construction of the CSSI.	Condition not staged, compliance with condition to be provided in Construction Compliance Reports by the Proponent		
C17	Where a relevant **CEMP Sub-plan** exists, the relevant **Construction Monitoring Program** may be incorporated into that **CEMP Sub-plan.**	Not triggered by the Preconstruction Activities Stage. Activities during this Stage do not relate to construction of the CSSI.	Condition not staged, compliance with condition to be provided in Construction Compliance Reports by the Proponent		
C18	**Site Establishment Management Plan** Before establishment of any construction ancillary facility as identified in the EIS and SPIR (and excluding minor construction ancillary facilities), the Proponent must prepare a **Site Establishment Management Plan** which outlines the environmental management practices and procedures to be implemented for the establishment of the construction ancillary facilities. The **Site Establishment Management Plan** must be prepared in consultation with the relevant council(s) and relevant government authorities. The Plan must be submitted to the Secretary for approval one (1) month before establishment of any construction ancillary facilities. The **Site Establishment Management Plan** must detail the management of the construction ancillary facilities and include: (a) a description of activities to be undertaken during establishment of the construction ancillary facility (including scheduling and duration of works to be undertaken at the site); (b) figures illustrating the proposed operational site layout(s); (c) a program for ongoing analysis of the key environmental risks arising from the site establishment activities described in subsection (a) of this condition, including an initial risk assessment undertaken before the commencement of site establishment works; (d) details of how the site establishment activities described in subsection (a) of this condition will be carried out to: (i) meet the performance outcomes stated in the documents listed in the documents identified **Condition A1**, (ii) to address traffic, pedestrian access and amenity around each site, and (iii) manage the risks identified in the risk analysis undertaken in subsection (c) of this condition; and (e) a program for monitoring the performance outcomes, including a program for construction noise monitoring consistent with the requirements of **Conditions C9 and C11**. Nothing in this condition prevents the Proponent from preparing individual **Site Establishment Management Plans** for each construction ancillary facility.	A Package-specific SEMP will be prepared for each Package, as required.	**Partial -** Package-specific SEMPs will be prepared for each Package prior to establishing ancillary facilities. Package 1 anticipated Quarter 4, 2018. Note; C18 not triggered for Package 2 and 3, no construction ancillary facilities to be established.	The Contractor shall prepare a Stage-specific SEMP, anticipated by Quarter 3, 2019.	The Contractor shall prepare a Stage-specific SEMP, anticipated by Quarter 2, 2020.

<table>
<tr><th>CoA Ref.</th><th>Requirement</th><th>Stage 0 Preconstruction Activities</th><th>Stage 1 Enabling Work</th><th>Stage 2 Infrastructure Works</th><th>Stage 3 SOM Works & Operation</th></tr>
<tr><td>C19</td><td>Boundary fencing that incorporates screening must be erected around all construction ancillary facilities that are adjacent to sensitive receivers for the duration of site establishment and construction of the CSSI unless otherwise agreed with Relevant Council(s), affected residents, business operators and/or landowners and in accordance with Condition B2(b).</td><td colspan="4">Condition not staged, compliance with condition to be provided in Construction Compliance Reports by the Proponent</td></tr>
<tr><td>C20</td><td>Boundary screening required under Condition C19 of this approval must reduce visual, noise and air quality impacts on adjacent sensitive receivers.</td><td colspan="4">Condition not staged, compliance with condition to be provided in Construction Compliance Reports by the Proponent</td></tr>
<tr><td>C21</td><td>All construction spoil haulage vehicles and construction plant must be clearly marked as being for the CSSI in such a manner to enable immediate identification within at least 50 metres of the vehicles and plant.</td><td colspan="4">Condition not staged, compliance with condition to be provided in Construction Compliance Reports by the Proponent</td></tr>
<tr><td></td><td colspan="5">Part D – Operational Environmental Management</td></tr>
<tr><td>D1</td><td>An Operational Environmental Management Plan (OEMP) must be prepared to detail how the performance outcomes, commitments and mitigation measures made and identified in the documents listed in Condition A1 will be implemented and achieved during CSSI operation. This condition does not apply if Condition D2 of this approval applies.</td><td>Not triggered by the Preconstruction Activities Stage. Activities during this Stage do not relate to operation of the CSSI.</td><td>Not triggered by the Enabling Works Stage. Activities during this stage do not relate to operation of the CSSI.</td><td>Not triggered by the Infrastructure Delivery Stage. Activities during this stage do not relate to operation of the CSSI.</td><td>Condition not staged.</td></tr>
<tr><td>D2</td><td>An OEMP is not required for the CSSI if the Proponent has an Environmental Management System (EMS) or equivalent as agreed with the Secretary, and can demonstrate, to the written satisfaction of the Secretary, that through the EMS:
(a) the performance outcomes, commitments and mitigation measures made and identified in the documents listed in Condition A1 and these conditions of approval can be achieved;
(b) issues identified through ongoing risk analysis can be managed; and
(c) procedures are in place for rectifying any non-compliance with this approval identified during compliance auditing, incident management or any other time during operation.</td><td>Not triggered by the Preconstruction Activities Stage. Activities during this Stage do not relate to operation of the CSSI.</td><td>Not triggered by the Enabling Works Stage. Activities during this stage do not relate to operation of the CSSI.</td><td>Not triggered by the Infrastructure Delivery Stage. Activities during this stage do not relate to operation of the CSSI.</td><td>Condition not staged.</td></tr>
<tr><td>D3</td><td>Where an OEMP is required, the Proponent must include the following OEMP Sub-plans in the OEMP.
<table>
<tr><th></th><th>Required OEMP Sub-plan</th><th>Relevant government agencies to be consulted for each OEMP Sub-plan</th><th>Secretary Approval/ Information</th></tr>
<tr><td>(a)</td><td>Light rail Operations during Special Events (including access)</td><td>Relevant Council(s), RMS, Police, Western Sydney Stadium, Rosehill Racecourse and Parramatta Park Trust</td><td>Information</td></tr>
</table></td><td>Not triggered by the Preconstruction Activities Stage. Activities during this Stage do not relate to operation of the CSSI.</td><td>Not triggered by the Enabling Works Stage. Activities during this stage do not relate to operation of the CSSI.</td><td>Not triggered by the Infrastructure Delivery Stage. Activities during this stage do not relate to operation of the CSSI.</td><td>Condition not staged.</td></tr>
<tr><td>D4</td><td>Each of the OEMP Sub-plans must include the information set out in Condition D2 of this approval.</td><td>Not triggered by the Preconstruction Activities Stage. Activities during this Stage do not relate to operation of the CSSI.</td><td>Not triggered by the Enabling Works Stage. Activities during this stage do not relate to operation of the CSSI.</td><td>Not triggered by the Infrastructure Delivery Stage. Activities during this stage do not relate to operation of the CSSI.</td><td>Condition not staged.</td></tr>
</table>

CoA Ref.	Requirement	Stage 0 Preconstruction Activities	Stage 1 Enabling Work	Stage 2 Infrastructure Works	Stage 3 SOM Works & Operation
D5	The **OEMP Sub-plans** must be developed in consultation with relevant government agencies as identified in **Condition D3** and must include information requested by an agency. Details of all information requested by an agency or Council(s) to be included in an **OEMP Sub-plan** as a result of consultation**,** including copies of all correspondence from those agencies, must be provided with the relevant **OEMP Sub-Plan**.	Not triggered by the Preconstruction Activities Stage. Activities during this Stage do not relate to operation of the CSSI.	Not triggered by the Enabling Works Stage. Activities during this stage do not relate to operation of the CSSI.	Not triggered by the Infrastructure Delivery Stage. Activities during this stage do not relate to operation of the CSSI.	Condition not staged.
D6	The **OEMP Sub-plans** must be submitted to the Secretary as part of the **OEMP**.	Not triggered by the Preconstruction Activities Stage. Activities during this Stage do not relate to operation of the CSSI.	Not triggered by the Enabling Works Stage. Activities during this stage do not relate to operation of the CSSI.	Not triggered by the Infrastructure Delivery Stage. Activities during this stage do not relate to operation of the CSSI.	Condition not staged.
D7	The **OEMP or EMS** or equivalent as agreed with the Secretary**,** must be submitted to the Secretary for information no later than one month before the commencement of operation.	Not triggered by the Preconstruction Activities Stage. Activities during this Stage do not relate to operation of the CSSI.	Not triggered by the Enabling Works Stage. Activities during this stage do not relate to operation of the CSSI.	Not triggered by the Infrastructure Delivery Stage. Activities during this stage do not relate to operation of the CSSI.	Condition not staged.
D8	The **OEMP or EMS** or equivalent as agreed with the Secretary, as submitted to the Secretary and amended from time to time, must be implemented for the duration of CSSI operation and the **OEMP** must be made publicly available before the commencement of operation.	Not triggered by the Preconstruction Activities Stage. Activities during this Stage do not relate to operation of the CSSI.	Not triggered by the Enabling Works Stage. Activities during this stage do not relate to operation of the CSSI.	Not triggered by the Infrastructure Delivery Stage. Activities during this stage do not relate to operation of the CSSI.	Condition not staged.
	Part E – Key Issue Conditions				
E1	The CSSI must be designed, constructed and operated so that it does not adversely impact network connectivity, or the safety and efficiency of the transport system near the CSSI in a manner which is consistent with the impacts predicted in the documents referred to in **Condition A1**.	Condition not staged, compliance with condition to be provided in Construction Compliance Reports by the Proponent			
E2	In relation to new or modified road, parking, pedestrian and cycle infrastructure, the CSSI must be designed: (a) in consultation with the relevant road authority; (b) in consideration of existing and future demand, road safety and traffic network impacts; (c) to meet relevant design, engineering and safety guidelines, including Austroads Guides; and (d) is certified by an appropriately qualified and experienced person that the above matters have been appropriately considered.	Not triggered by the Preconstruction Activities Stage. Activities during this Stage do not include any CSSI design.	Condition not staged compliance with condition to be provided in Construction Compliance Reports by the Proponent This condition is not triggered for Packages 2B, 2C or 3.	Condition not staged, compliance with condition to be provided in Construction Compliance Reports by the Proponent	Condition not staged, compliance with condition to be provided in Construction Compliance Reports by the Proponent. This condition is not triggered for Package 5A

CoA Ref.	Requirement	Stage 0 Preconstruction Activities	Stage 1 Enabling Work	Stage 2 Infrastructure Works	Stage 3 SOM Works & Operation
E3	An independent **Road Safety Audit(s)** must be undertaken by an appropriately qualified and experienced person in accordance with Guidelines for Road Safety Audit Practices (RTA, 2011), to assess the safety performance of any new or modified local road, parking, pedestrian and cycle infrastructure provided as part of the CSSI (including ancillary facilities) to ensure that the requirements of **Condition E2** are met. Audit findings and recommendations must be actioned and must be made available to the Secretary on request.	Not triggered by the Preconstruction Activities Stage. Activities during this Stage do not include any CSSI design.	Condition not staged compliance with condition to be provided in Construction Compliance Reports by the Proponent This condition is not triggered for Packages 2B, 2C or 3.	Condition not staged, compliance with condition to be provided in Construction Compliance Reports by the Proponent	Condition not staged, compliance with condition to be provided in Construction Compliance Reports by the Proponent. This condition is not triggered for Package 5A
E4	Where bus stops are required to be temporarily closed or relocated, such closure must not occur until bus stops of equivalent capacity, of comparable stop type and which meet accessibility standards (where practicable), are relocated within 400 metres walking distance of the existing bus stop and are operating, unless agreed otherwise with the Relevant Council(s) and bus services provider(s). Closure and relocation of bus stops during construction must be undertaken in consultation with the relevant bus service providers and relevant council(s). Wayfinding signage must be provided to direct commuters to relocated bus stops.	Condition not staged, compliance with condition to be provided in Construction Compliance Reports by the Proponent	Condition not staged compliance with condition to be provided in Construction Compliance Reports by the Proponent This condition is not triggered for Packages 2B, 2C or 3.	Condition not staged, compliance with condition to be provided in Construction Compliance Reports by the Proponent	
E5	**Construction Traffic and Access** Construction vehicles (including staff vehicles) associated with the CSSI must: (a) minimise parking or queuing on public roads and utilise the light rail corridor for construction vehicle and staff movements to the greatest extent practicable; (b) not idle or queue in local residential streets; (c) minimise use of routes on local roads that directly pass schools or childcare centres, or where no alternative route is available, restrict heavy vehicle movements between 8:00am and 9:30am and between 2:30pm and 4:00pm Monday to Friday, during the school term; (d) not use local roads (including residential streets) to gain access to construction sites and compounds unless no alternatives are available. Construction sites must be accessed from arterial roads and the rail corridor used for transportation of construction materials and the like to work sites to the greatest extent practicable; and (e) adhere to the nominated haulage routes identified in the **Construction Traffic, Transport and Access Management Plan** required under **Condition C3**.	Condition not staged, compliance with condition to be provided in Construction Compliance Reports by the Proponent			

CoA Ref.	Requirement	Stage 0 Preconstruction Activities	Stage 1 Enabling Work	Stage 2 Infrastructure Works	Stage 3 SOM Works & Operation
E6	**Condition Reports** Current condition reports for all existing roads and all existing property and infrastructure in the road reserve where the physical condition is likely to be adversely affected during works must be prepared before commencement of such works. The report must state the current condition of the asset. A copy of the report must be provided to the asset owner no later than one month before the commencement of works of the CSSI.	Not triggered by Preconstruction Activities Stage. Condition reports would not be applicable, however TfNSW always requires the relevant contractor for pre-construction activities to rectify any defects arising from their works. There would not typically be a requirement for a Condition Report	Condition reports shall be progressively prepared for each construction location and provided to the asset owner in the nominated timeframe. Note; completed for Package 3 in 2018.	Condition reports shall be progressively prepared for each construction location and provided to the asset owner in the nominated timeframe.	Condition reports shall be progressively prepared for each construction location and provided to the asset owner in the nominated timeframe.
E7	If damage occurs to any item outlined in **Condition E6** resulting from the works, aside from that resulting from normal wear and tear, the Proponent must either (at the asset owner's discretion): (a) compensate the asset owner for the damage so caused. The amount of compensation may be agreed with the asset owner, but compensation must be paid even if no agreement is reached; or (b) rectify the damage so as to restore the item to at least the condition it was in pre-works. Any repairs must be completed before the commencement of CSSI operations.	Not triggered by Preconstruction Activities Stage. Condition reports would not be applicable, however TfNSW always requires the relevant contractor for pre-construction activities to rectify any defects arising from their works. There would not typically be a requirement for a Condition Report	Condition not staged compliance with condition to be provided in Construction Compliance Reports by the Proponent.		
E8	**Property Access** The Proponent must maintain access to all properties during construction and operation, unless otherwise agreed by the relevant property owner or occupier, and reinstate any access physically affected by the CSSI to at least an equivalent standard at no cost to the property owner, unless otherwise agreed with the property owner. The Proponent must provide copies of plans to the Secretary on request.	Condition not staged compliance with condition to be provided in Construction Compliance Reports by the Proponent. Note; not triggered for Package 3.			

CoA Ref.	Requirement	Stage 0 Preconstruction Activities	Stage 1 Enabling Work	Stage 2 Infrastructure Works	Stage 3 SOM Works & Operation
E9	Access plans must be prepared and implemented for individual properties and accesses that will be impacted by construction and operation of the CSSI. The access plans must be developed in consultation with affected parties (property owner and/or occupier, as relevant) and the Proponent must make reasonable endeavours to obtain agreement from the relevant affected parties, and evidence of consultation demonstrating this must be provided to the Secretary on request. The access plans must establish: (a) road and access closures and provision of alternative routes; (b) provision for pedestrian and cyclist access; (c) special event strategies; (d) provision of servicing and delivery requirements for loading zones and waste disposal; (e) access periods or alternative access arrangements for businesses, landowners or tenants affected by the CSSI; (f) strategies to maintain emergency and incident response access at all times; (g) potential future access strategies for the Westmead Hospital and Westmead Railway Station; and (h) access to taxi ranks and loading zones. If access is not deemed to be adequate by the property owner and/or occupier and a dispute ensues, procedures and mechanisms must be followed in accordance with **Condition B2**.	Not triggered by Preconstruction Activities Stage. Activities during this stage do not relate to construction of the CSSI.	Access Plans shall be progressively prepared for each access point prior to construction. Note; not triggered for Package 3 – works limited to TfNSW owned property.	Access Plans shall be progressively prepared for each access point prior to construction.	Access Plans shall be progressively prepared for each access point prior to construction and prior to operation.
E10	**Traffic Network Management** The Proponent must prepare and implement a **Network Management Strategy** for construction of the CSSI, in consultation with RMS, Sydney Coordination Office and Relevant Council(s) before impacts on the road network (including intersections) occur. The Strategy must determine appropriate measures to manage impacts to traffic identified in the documents listed in **Condition A1** and must include: (a) details of impacts to the network from road closures, directional changes, night works and traffic diversions; (b) details of further appropriate network/intersection modelling and analysis undertaken since the EIS and/or Submissions Report was prepared; (c) consideration of cumulative impacts from other construction projects; (d) details of the required intersection upgrades and traffic management measures by precinct to minimise the impacts identified above; (e) vehicular access changes (f) special event management; and (g) changes to bus services. The Strategy must focus on the management of construction related traffic impacts and be provided to the Secretary for information before construction commences.	Not triggered by Preconstruction Activities Stage. There would be limited impact to the traffic network during this stage. It is proposed that any impact to the network would be in accordance with any Road Occupancy Licences and managed accordingly with TfNSW's Environmental Management System.	The strategy shall provide a governance framework to meet the requirements for network management that will be progressively implemented throughout the Project including all Packages and to inform each Traffic, Transport and Access Management Sub-Plan.		

CoA Ref.	Requirement	Stage 0 Preconstruction Activities	Stage 1 Enabling Work	Stage 2 Infrastructure Works	Stage 3 SOM Works & Operation
E11	**Parking Management Strategy** A **Parking Management Strategy** must be prepared before permanent or long term loss of parking i.e. greater than three (3) months. The Strategy must be implemented in consultation with the relevant road authority and Relevant Council(s) to manage car parking impacts and kerbside parking access, particularly for the Westmead, Parramatta North and Parramatta CBD precincts, as a result of the CSSI. The **Parking Management Strategy** must include, but not be limited to: (a) confirmation of the timing of the removal of on and off-street parking associated with the construction of the CSSI; (b) comprehensive parking surveys of all parking spaces to be removed to determine current demand during peak, off-peak, school drop-off and pick-up, and weekend periods; (c) assessment of the impacts of changes to on and off-street parking taking into consideration outcomes of consultation with affected stakeholders; (d) identification of measures to manage any reduction in parking including staged removal, resident parking schemes, managed staff parking arrangements and provision of alternative parking arrangements for accessible and service spaces; (e) replacement parking for specific impacted kerbside uses (e.g. accessible parking and loading zones) within the local vicinity with consideration of the *Disability Discrimination Act 1992* (DDA) *Public Transport Standards and the DDA Access Code* (2010); and (f) monitoring on the efficacy of these measures, including potential unintended traffic impacts and contingencies in the event that the measures implemented are not adequate. The **Parking Management Strategy** must be submitted to the Secretary for information and the results of monitoring reported in the Operational Traffic, Transport and Access Performance Review required by **Condition E18.**	Not triggered by Preconstruction Activities Stage. There would be limited impact to any parking during preconstruction activities. It is proposed that any impact to parking would be managed accordingly with TfNSW's Environmental Management System and consulted with affected stakeholders as required.	The Strategy shall be progressively prepared to meet requirements for parking management prior to permanent or long term loss of parking. The Strategy will be updated progressively for each Package (where required) based on a precinct-specific basis. Each update of the Parking Management Strategy will be submitted to the Secretary for information before relevant parking impacts occur. Note; not triggered for Package 3 – works limited to TfNSW owned property.		
E12	**Pedestrian and Cyclist Access** Safe pedestrian and cyclist access must be maintained around work sites during construction. In circumstances where pedestrian and cyclist access is restricted or removed due to construction activities, an alternate equivalent route which complies with the relevant standards must be provided and signposted.	Condition not staged compliance with condition to be provided in Construction Compliance Reports by the Proponent. Note; not triggered for Package 3.			
E13	Bicycle parking/rack facilities are required to be installed at all light rail stops within the Carlingford precinct, unless these facilities already exist.	Not triggered by Preconstruction Activities Stage.	Not triggered by Enabling Works Stage.	Condition not staged, compliance with condition to be provided in Construction Compliance Reports by the Proponent	

CoA Ref.	Requirement	Stage 0 Preconstruction Activities	Stage 1 Enabling Work	Stage 2 Infrastructure Works	Stage 3 SOM Works & Operation
E14	**Pedestrian and Cyclist Network and Facilities Strategy** A **Pedestrian and Cyclist Network and Facilities Strategy** must be prepared in consultation with Relevant Council(s), RMS, Pedestrian Council of Australia and Bicycle NSW. The Strategy must identify safe and accessible pedestrian and cycle paths, during construction and operation, including facilitation of future cycle paths and dedicated cycleways as identified in the documents listed in **Condition A1**, state and local government plans, with the objective of providing seamless, coherent, visible, and safe pedestrian and cycle access throughout and adjacent to the CSSI corridor. The Strategy must consider: (a) existing and proposed local and regional pedestrian and cycle facilities and strategies; (b) safety for pedestrians in pedestrianised zones; (c) alternative cycle routes during construction, based on safety and efficiency, and contingencies in the event that relocated routes are found to be inadequate; (d) pedestrian and cycle access, including local and regional pedestrian and bicycle connections; (e) demand for pedestrian and cycle facilities with consideration of measures to encourage an increased pedestrian and cycle mode share; (f) signage and way finding; (g) cycle storage facilities on light rail vehicles; and (h) the requirements of relevant design standards, including Austroads and NSW bicycle guidelines. The **Pedestrian and Cyclist Network and Facilities Strategy** must be submitted to the Secretary before construction of pedestrian/cyclist permanent built works (including the Active Transport Link) commences and implemented to ensure that all works are operational no later than the commencement of CSSI operations.	Not triggered by Preconstruction Activities Stage. Activities during this stage do not relate to construction of the CSSI.	Not triggered by Enabling Works Stage, safe pedestrian and cyclist networks and facilities to be maintained through E12.	A Stage-specific strategy will be prepared within the nominated timeframe, anticipated Quarter 4, 2019. The stage specific strategy will exclude (g) which will be triggered by Stage 3	A Stage specific strategy addressing (f) where relevant and (g) will be prepared within the nominated timeframe, anticipated Quarter 3, 2020.
E15	**Emergency Vehicle Access** The Proponent must maintain emergency vehicle access, in consultation with emergency services and NSW Health, to Westmead Hospital (along Hawkesbury Road) and between the two parts of the Cumberland Hospital site as long as patients continue to be located at each facility at all times throughout the life of the CSSI. Measures must be outlined in the relevant access plan required under **Condition E9**.	Condition not staged compliance with condition to be provided in Construction Compliance Reports by the Proponent. Note; not triggered for Package 3 – works limited to TfNSW owned property.			
E16	**Access to Businesses** During works, the Proponent must ensure all practicable measures are implemented to maintain pedestrian and vehicular access to, and parking near, businesses and affected properties.	Condition not staged compliance with condition to be provided in Construction Compliance Reports by the Proponent. Note; not triggered for Package 3 – works limited to TfNSW owned property.			
E17	Alternative pedestrian and vehicular access, and servicing arrangements must be developed in consultation with affected businesses and implemented before the disruption. Adequate wayfinding to businesses must be provided before, and for the duration of, any disruption in consultation with the Relevant Council(s) and/or road authority and as outlined in the Business Activation Plan required by **Condition E110.** The Proponent must make reasonable endeavours to obtain agreement from the relevant affected parties, and evidence of consultation demonstrating this must be provided to the Secretary on request. If access is not deemed to be adequate by the affected business and a dispute ensues, procedures and mechanisms must be followed in accordance with **Condition B2**.	Condition not staged compliance with condition to be provided in Construction Compliance Reports by the Proponent. Note; not triggered for Package 3 – works limited to TfNSW owned property.			

CoA Ref.	Requirement	Stage 0 Preconstruction Activities	Stage 1 Enabling Work	Stage 2 Infrastructure Works	Stage 3 SOM Works & Operation
E18	**Operational Traffic, Transport and Access Performance Review** The Proponent must prepare an **Operational Traffic, Transport and Access Performance Review** in consultation with RMS and Relevant Council(s). The monitoring and review shall be undertaken outside a school holiday period one month and twelve months after the commencement of CSSI operations. The review shall include, but not necessarily be limited to: (a) collection of traffic count data from key signalised intersections; (b) monitoring of changes to traffic flows, pedestrian flows, bus network changes and infrastructure associated with the CSSI; (c) results of monitoring and performance of traffic flows, pedestrian flows, bus network changes and infrastructure associated with the CSSI; (d) details of any complaints received relating to traffic, transport and access impacts; and (e) an assessment of the performance and effectiveness of the traffic, transport and access management and mitigation measures comparing actual network performance against modelled network performance.	Not triggered by the Preconstruction Activities Stage. Activities during this Stage do not relate to operation of the CSSI.	Not triggered by the Enabling Works Stage. Activities during this stage do not relate to operation of the CSSI.	Not triggered by the Infrastructure Delivery Stage. Activities during this stage do not relate to operation of the CSSI.	Condition not staged.
E19	The **Operational Traffic, Transport and Access Performance Review** must be submitted to the Secretary for information and the relevant road authorities within one month of its completion. If the assessment indicates ongoing traffic, transport and access issues attributable to the CSSI (such as from intersection level of service, queue lengths, road safety, and other relevant parameters of performance), which are not consistent with the outcomes predicted in the documents listed in **Condition A1**, the Proponent must implement additional measures to mitigate these impacts in consultation with the relevant road authority.	Not triggered by the Preconstruction Activities Stage. Activities during this Stage do not relate to operation of the CSSI.	Not triggered by the Enabling Works Stage. Activities during this stage do not relate to operation of the CSSI.	Not triggered by the Infrastructure Delivery Stage. Activities during this stage do not relate to operation of the CSSI.	Condition not staged.
E20	**Land Use Survey** A detailed land use survey must be undertaken to confirm sensitive receivers (including critical working areas such as operating theatres, precision laboratories housing sensitive equipment and drama theatres) potentially exposed to construction noise and vibration, construction ground-borne noise and operational noise and vibration. The survey may be undertaken on a progressive basis but must be undertaken in any one area before the commencement of works which generate construction or operational noise, vibration or ground-borne noise in that area. The results of the survey must be used to develop the **Noise and Vibration Management Sub-Plan** required by **Condition C3** and **Construction Noise and Vibration Impact Statements** required by **Condition E42.**	Not triggered by the Preconstruction Activities Stage. During this stage only impacted sensitive receivers will be surveyed and impacts will be managed through the TfNSW Construction Noise & Vibration Strategy, in conjunction with the Conditions of Approval.	Package-specific surveys will be progressively developed for each package to inform the package-specific Noise & Vibration Management Sub-Plan and update the Community Consultation Strategy.	The survey will be progressively developed for this Stage to inform the stage-specific Noise & Vibration Management Sub-Plan and update the Community Consultation Strategy.	The survey will be progressively developed for this Stage to inform the stage-specific Noise & Vibration Management Sub-Plan and update the Community Consultation Strategy.
E21	**Hours of Works** Works must be undertaken during the following hours: (a) 7:00am to 6:00pm Mondays to Fridays, inclusive; (b) 8:00am to 12:00pm Saturdays; and (c) at no time on Sundays or public holidays.	Compliance with condition to be provided in Construction Compliance Reports by the Proponent.	**Partially applicable**, Note: Condition E23 will apply to Package 3.	Compliance with condition to be provided in Construction Compliance Reports by the Proponent.	Compliance with condition to be provided in Construction Compliance Reports by the Proponent.

CoA Ref.	Requirement	Stage 0 Preconstruction Activities	Stage 1 Enabling Work	Stage 2 Infrastructure Works	Stage 3 SOM Works & Operation
E22	Notwithstanding **Condition E21,** and with the exception of 'Eat Street', works may be undertaken during the following hours: (a) 6.00pm to 7:00pm Mondays to Fridays, inclusive; and (b) 12.00pm to 6:00pm Saturdays.	Compliance with condition to be provided in Construction Compliance Reports by the Proponent.	**Partially applicable**, Note: Condition E23 will apply to Package 3.	Compliance with condition to be provided in Construction Compliance Reports by the Proponent.	Compliance with condition to be provided in Construction Compliance Reports by the Proponent.
E23	Notwithstanding **Condition E21**, works may be undertaken in the Camellia and Rosehill precincts (east of James Ruse Drive) and the Carlingford precinct (from Parramatta River to Victoria Road) 24 hours a day, seven days a week provided that sensitive receivers are not affected by noise levels of greater than 5 dBA above the rating background level at any residence in accordance with the *Interim Construction Noise Guideline* (DECC, 2009), between 10.00pm and 7.00am.	Compliance with condition to be provided in Construction Compliance Reports by the Proponent.	**Partially applicable**, Note: Condition E23 will apply to Package 3.	Compliance with condition to be provided in Construction Compliance Reports by the Proponent. Note: Condition E23 will apply to Packages 4 and 5, when works occur in the Camellia and Rosehill Precincts.	
E24	Construction outside the hours identified in **Condition E21** along 'Eat Street' must be established through consultation with affected businesses as outlined in the Business Activation Plan required by **Condition E110**.	Compliance with condition to be provided in Construction Compliance Reports by the Proponent	**Partially applicable** **C**ompliance with condition to be provided in Construction Compliance Reports by the Proponent Not triggered by the Enabling Works Stage, Packages 2 or 3 as they do not occur in Eat Street.	Compliance with condition to be provided in Construction Compliance Reports by the Proponent	
E25	Works may be undertaken outside of the hours defined in **Conditions E21 to E22**, as applicable, but only if one or more of the following applies: (a) for the delivery of materials required by the NSW Police Force or other authority for safety reasons; or (b) where it is required in an emergency to avoid injury or the loss of life, to avoid damage or loss of property or to prevent environmental harm; or (c) where different hours of works are permitted or required under an EPL in force in respect of the CSSI; or (d) works approved under an Out-of-Hours Work Protocol for works not subject to an EPL; or (e) construction that causes LAeq(15 minute) noise levels: i) no more than 5 dB(A) above the rating background level at any residence in accordance with the Interim Construction Noise Guideline (DECC, 2009), and ii) no more than the 'Noise affected' noise management levels specified in Table 3 of the Interim Construction Noise Guideline (DECC, 2009) at other sensitive land uses, and iii) no more than 15dBA above the night-time rating background level at any residence during the night time period, when measured using the LA1(1 minute) noise descriptor, and iv) continuous or impulsive vibration values, measured at the most affected residence are no more than the maximum values for human exposure to vibration, specified in Table 2.2 of Assessing Vibration: a technical guideline (DEC, 2006), and v) intermittent vibration values measured at the most affected residence are no more than the maximum values for human exposure to vibration, specified in Table 2.4 of Assessing Vibration: a technical guideline (DEC, 2006).	Condition not staged, compliance with condition to be provided in Construction Compliance Reports by the Proponent. Note: Condition E23 will apply to Package 3.			

CoA Ref.	Requirement	Stage 0 Preconstruction Activities	Stage 1 Enabling Work	Stage 2 Infrastructure Works	Stage 3 SOM Works & Operation
E26	On becoming aware of the need for emergency construction works, the Proponent must notify the ER of the need for those activities or works. The Proponent must also use best endeavours to notify all affected sensitive receivers of the likely impact and duration of those works.	Condition not staged, compliance with condition to be provided in Construction Compliance Reports by the Proponent			
E27	**Highly Noise Intensive Works** Except as permitted by an EPL, or through the **Out-of-Hours Work Protocol**, Highly Noise Intensive Works that result in an exceedance of the applicable NML at the same receiver must only be undertaken: (a) between the hours of 8:00 am to 6:00 pm Monday to Friday; (b) between the hours of 8:00 am to 1:00 pm Saturday; and (c) in continuous blocks not exceeding three (3) hours each with a minimum respite from those activities and works of not less than one (1) hour between each block. For the purposes of this condition, 'continuous' includes any period during which there is less than a one (1) hour respite between ceasing and recommencing any of the work that are the subject of this condition. *Note: A trial period of the Highly Noise Intensive Work undertaken with the approval of the Out of Hours Work Protocol may be established.*	Condition not staged, compliance with condition to be provided in Construction Compliance Reports by the Proponent. Note: Condition E23 will apply to Package 3, although the requirements of Condition E27 (c) will apply at all times.			
E28	**Out of Hours Works Protocol** An Out-of-Hours Work Protocol must be prepared to identify a process for the consideration, management and approval of works which are outside the permitted hours defined in **Conditions E21 to E22**, where an EPL does not apply. The Protocol must be approved by the Secretary before commencement of out-of-hours works. The Protocol must be prepared and implemented in consultation with AA. The Protocol must: (a) provide a process for the consideration of out-of-hours works against the relevant noise and vibration criteria; (b) provide a process for the identification and implementation of mitigation and management measures for residual impacts, in consultation with the community at each affected location, consistent with the requirements of **Condition E39**; (c) identify an approval process that considers the risk level of activities (in accordance with AS/NZS ISO 31000:2009 “Risk Management”), proposed mitigation, management, and coordination, including where: i) low and moderate risk activities can be approved by the ER in consultation with the AA, and ii) high risk activities that are approved by the Secretary; and (d) identify Department and community notification arrangements for approved out of hours works, which will be detailed in the Communication Strategy. *Note: This condition does not apply where work is required for an emergency (as defined in Condition E25 (b)).*	Condition not staged, compliance with condition to be provided in Construction Compliance Reports by the Proponent. Note: Condition E23 will apply to Package 3.			
E29	Out-of-hours works that may be regulated through an EPL or the **Out of Hours Work Protocol** as per **Condition E28** include, but are not limited to: (a) carrying out works that during standard hours would result in a high risk to construction personnel or public safety, based on a risk assessment carried out in accordance with AS/NZS ISO 31000:2009 “Risk Management”; or (b) the relevant road authority has advised the Proponent in writing that carrying out the works and activities during standard hours would result in a high risk to road network operational performance and a road occupancy licence will not be issued; or (c) the relevant utility service operator has advised the Proponent in writing that carrying out the works and activities during standard hours would result in a high risk to the operation and integrity of the utility network; or (d) where the TfNSW Transport Management Centre (or other road authority) has advised the Proponent in writing that a road occupancy licence is required and will not be issued for the works or activities during the hours specified in **Condition E21 and Condition E22**; or (e) where Sydney Trains (or other rail authority) has advised the Proponent in writing that a Rail Possession is required.	Condition not staged, compliance with condition to be provided in Construction Compliance Reports by the Proponent. Note: Condition E23 will apply to Package 3.			

CoA Ref.	Requirement	Stage 0 Preconstruction Activities	Stage 1 Enabling Work	Stage 2 Infrastructure Works	Stage 3 SOM Works & Operation
E30	**Construction Noise Mitigation Measures** Mitigation measures must be applied to construction activities that are predicted to result in the following residential ground-borne noise levels being exceeded as a result of the CSSI: (a) Evening (6.00pm to 10.00pm) – internal LAeq(15 minute): 40 dBA; and (b) Night (10.00pm to 7.00am) – internal LAeq(15 minute): 35 dBA. The mitigation measures must be outlined in the **Construction Noise and Vibration Management Sub-Plan** and the **Out of Hours Works Protocol.**	Condition not staged, compliance with condition to be provided in Construction Compliance Reports by the Proponent. Note; Package 3 has no activities forecast to trigger nominated noise levels.			
E31	Noise generating works near places of worship, educational institutions and noise and vibration-sensitive businesses and critical working areas (such as theatres, laboratories, operating theatres, and mental health services and accommodation) must not be timetabled within sensitive periods, unless otherwise agreed with the affected institutions, and at no cost to the affected institution. This must be determined through ongoing consultation with the community during construction.	Condition not staged, compliance with condition to be provided in Construction Compliance Reports by the Proponent			
E32	The Proponent must consult with proponents or applicants of other State Significant development and infrastructure works near the CSSI and take reasonable steps to coordinate works to minimise cumulative impacts of noise and vibration and maximise respite for affected sensitive receivers.	Condition not staged, compliance with condition to be provided in Construction Compliance Reports by the Proponent			
E33	Construction noise mitigation measures must be implemented in accordance with Tables 4, 5, 6 and 7 of TfNSW's *Construction Noise and Vibration Strategy* (2018), regardless of the number of sensitive receivers impacted.	Condition not staged, compliance with condition to be provided in Construction Compliance Reports by the Proponent			
E34	Piling activities that affect sensitive receivers must be undertaken using quieter alternative methods than impact or percussion piling, such as bored piles or vibrated piles, where practicable.	Not triggered by the Preconstruction Activities Stage,	Condition not staged compliance with condition to be provided in Construction Compliance Reports by the Proponent. Not triggered by the Enabling Works Stage, Packages 1, 2B, 2C and 3 as they do not include any piling activities.	Condition not staged, compliance with condition to be provided in Construction Compliance Reports by the Proponent	
E35	Nothing in this approval permits blasting for construction of the CSSI.	Condition not staged, compliance with condition to be provided in Construction Compliance Reports by the Proponent. No blasting activities are proposed for any stage of the Project.			
E36	**Construction Noise Mitigation – Respite** The Proponent must provide respite periods for sensitive receivers where any construction activity during the hours specified in **Condition E21** results in noise levels that exceed the Highly Noise Affected Level of 75 dB (LAeq,15 minute).	Condition not staged, compliance with condition to be provided in Construction Compliance Reports by the Proponent			

CoA Ref.	Requirement	Stage 0 Preconstruction Activities	Stage 1 Enabling Work	Stage 2 Infrastructure Works	Stage 3 SOM Works & Operation
E37	Where works are undertaken outside hours specific in Condition E21 and E22 and construction noise levels exceed 65 dB(A) LAeq (15 mins) at the façade of the building of a residential receiver, the Proponent must only work 4 nights in any 7 day period. The 4 nights worked must be informed by community consultation referenced in Condition E39. Outcomes of the community consultation, the identified works and respite periods and the scheduling of the likely out-of-hour works must be provided to the AA, ER and the Secretary for information. Relocation of work following 4 nights of works in any 7 day period must be sufficiently removed so as to provide clear respite of 3 days. Works in areas of respite must be subject to noise levels of no more than 5 dB(A) above the rating background level at any residence in accordance with the *Interim Construction Noise Guideline* (DECC, 2009). The requirements of this condition may be varied with the approval of the Secretary following the Secretary's review of community consultation outcomes, construction noise and vibration impacts and the implementation of noise management and mitigation measures.	Condition not staged, compliance with condition to be provided in Construction Compliance Reports by the Proponent. Note; Package 3 has no activities forecast to trigger nominated noise levels.			
E38	All works undertaken for the delivery of the CSSI, including those undertaken by utility contractors, must be coordinated to ensure respite, including the respite required by **Condition E37**. The Proponent must: (a) schedule any works to provide respite to impacted noise sensitive receivers so that all respite periods are achieved; or (b) consider the provision of alternative mitigation, including the provision of at receiver treatments and alternative accommodation to impacted noise sensitive receivers; and (c) provide documentary evidence to the AA in support of any decision made by the Proponent in relation to respite or mitigation.	Condition not staged, compliance with condition to be provided in Construction Compliance Reports by the Proponent			
E39	In order to undertake out-of-hours work described in **Condition E25(c) and (d)**, the Proponent must identify appropriate work and respite periods for the works in consultation with the community at each affected precinct at three monthly intervals. This consultation must be ongoing and include (but not be limited to) providing the community with: (a) a schedule of likely out-of-hours work for a period of no less than two (2) months for medium and high risk work (as defined in the **Out-of-Hours Work Protocol (Condition E28)**); (b) a schedule of likely out-of-hours work for a period of no less than seven (7) days for low risk work (as defined in the **Out-of-Hours Work Protocol**); (c) the potential works, location and duration; (d) the noise characteristics and likely noise levels of the works; and (e) likely mitigation and management measures. The Proponent shall consider and respond to the affected community's preference for alternative hours and/or durations. The outcomes of the community consultation, the identified respite periods and the scheduling of the likely out-of-hour works must be provided to the AA, ER and the Secretary.	Condition not staged, compliance with condition to be provided in Construction Compliance Reports by the Proponent			
E40	The provision of respite periods does not preclude the application of other construction noise management measures, including the provision of at receiver treatments and or alternate accommodation.	Condition not staged, compliance with condition to be provided in Construction Compliance Reports by the Proponent			
E41	**Workplace Health and Safety for Nearby Workers** At no time can noise generated by construction exceed the National Standard for exposure to noise in the occupational environment of an eight-hour equivalent continuous A-weighted sound pressure level of LAeq,8h, of 85dB(A) for any employee working at a location near the CSSI.	Condition not staged, compliance with condition to be provided in Construction Compliance Reports by the Proponent			

CoA Ref.	Requirement	Stage 0 Preconstruction Activities	Stage 1 Enabling Work	Stage 2 Infrastructure Works	Stage 3 SOM Works & Operation
E42	**Construction Noise and Vibration Impact Statements** **Construction Noise and Vibration Impact Statements** must be prepared and implemented for each construction site before construction noise and vibration impacts commence and include specific mitigation measures identified through consultation with affected sensitive receivers. Each **Construction Noise and Vibration Impact Statement** will supplement the **Noise and Vibration Management Sub-Plan** and must specifically address each of the major construction sites and must include but not be limited to: (a) a description of the proposed activities; (b) predicted noise and vibration levels based on background noise levels; (c) examination of alternative methods of construction that would potentially reduce noise and vibration if the potential noise and vibration exceeds the relevant criteria; (d) description and commitment to work practices which limit noise and vibration; (e) description of specific noise and vibration mitigation treatments and time restrictions, including respite periods, duration, and frequency; (f) justification for any activities to be undertaken outside the specified construction hours defined in **Conditions E21 and E22**; (g) internal noise audit systems including recording of daily hours of construction, progressive impact assessments as work proceeds, conducting informal checks by the AA, providing active and communication links to Council and surrounding residents and sensitive receivers; (h) assessment of potential noise from the proposed construction methods including noise from construction vehicles and noise impacts from required traffic diversions; (i) community consultation and notification; (j) all reasonable and feasible measures including adopting the least noisy available construction methods, systems and equipment; (k) additional noise and vibration mitigation measures as negotiated with affected residents and other sensitive receivers. *Note: Existing noise levels, pre-construction noise levels, or the like for the purposes of identifying rating background noise levels, noise management levels and construction noise impacts are noise levels that do not include any other construction related noise.*	Not triggered by the Preconstruction Activities Stage, Activities during this stage will be of a limited scale, therefore noise and vibration statements and impacts will be managed through the TfNSW Construction Noise & Vibration Strategy, including the use of the TfNSW Noise Estimator. All noise and vibration management will be in compliance with the Conditions of Approval Tool	Package-specific CNVIS will be progressively developed by the Contractor to inform the program of works in alignment with relevant conditions including nominated timelines such as E39.	Stage-specific CNVIS will be progressively developed by the Contractor to inform the program of works in alignment with relevant conditions including nominated timelines such as E39.	Stage-specific CNVIS will be progressively developed by the Contractor to inform the program of works in alignment with relevant conditions including nominated timelines such as E39.
E43	**Vibration** The Proponent must conduct vibration testing before and during vibration generating activities that have the potential to impact on heritage items to identify minimum working distances to prevent cosmetic damage. In the event that the vibration testing and monitoring shows that the preferred dose values for vibration are likely to be exceeded, the Proponent must review the construction methodology and, if necessary, implement additional mitigation measures.	Package-specific vibration testing will be progressively developed prior to vibration generating activities.	**Partial -** Package-specific vibration testing will be progressively developed prior to vibration generating activities. Note; vibration testing has previously been completed in 2018 for Package 3 as part of remediation activities by TfNSW.	Stage-specific vibration testing will be progressively developed prior to vibration generating activities.	Stage-specific vibration testing will be progressively developed prior to vibration generating activities.
E44	The Proponent must seek the advice of a heritage specialist on methods and locations for installing equipment used for vibration, movement and noise monitoring of heritage-listed structures.	Condition not staged compliance with condition to be provided in Construction Compliance Reports by the Proponent. Note; not triggered for Package 3 as works do not interact with heritage listed structures.			

CoA Ref.	Requirement	Stage 0 Preconstruction Activities	Stage 1 Enabling Work	Stage 2 Infrastructure Works	Stage 3 SOM Works & Operation
E45	**Building Condition Survey** Before commencement of any construction and with the agreement of the landowner, a structural engineer must undertake building condition surveys of all buildings identified in the documents listed in **Condition A1** as being at risk of damage. The results of the surveys must be documented in a **Building Condition Survey Report** for each building surveyed. Copies of **Building Condition Survey Reports** must be provided to the landowners of the buildings surveyed, and if agreed by the landowner, the relevant Council within three weeks of completing the surveys and no later than one month before the commencement of construction.	Not triggered by the Preconstruction Activities Stage, Building Condition Survey would not be applicable to preconstruction works. However the Proponent would repair any damage that is identified during the work. It is noted that any previously unanticipated vibration impacts are identified in Condition E47.	**Partial -** Package-specific Building Condition Survey Reports shall be progressively implemented prior to commencement of active construction zones within the threshold identified in the documents listed in A1. Note; Building Condition Survey previously completed for Package 3 in 2018 as part of remediation work by TfNSW	Stage-specific Building Condition Survey Reports shall be progressively implemented prior to commencement of active construction zones within the threshold identified in the EIS for buildings at risk of damage.	Stage-specific Building Condition Survey Reports shall be progressively implemented prior to commencement of active construction zones within the threshold identified in the EIS for buildings at risk of damage.
E46	After completion of construction and with the agreement of the landowner, **Building Condition Surveys** of all buildings for which building condition surveys were undertaken in accordance with **Condition E45** of this approval must be undertaken by a structural engineer. The results of the surveys must be documented in a **Building Condition Survey Report** for each building surveyed. Copies of **Building Condition Survey Reports** must be provided to the landowners of the buildings surveyed, and if agreed by the landowner, the relevant Council within three weeks of completing the surveys and no later than three (3) months following the completion of construction.	Not triggered by the Preconstruction Activities Stage, Refer to E45 above.	After completion, package specific Building Condition Surveys completed in accordance with E45 shall be progressively completed but no later than three months following the completion of the Package.	After completion, stage specific Building Condition Surveys completed in accordance with E45 shall be progressively completed but no later than three months following the completion of this Stage.	After completion, stage specific Building Condition Surveys completed in accordance with E45 shall be progressively completed but no later than three months following the completion of Construction under this Stage.
E47	Any physical damage caused to a property as a result of the CSSI shall be rectified or the property owner compensated, within a timeframe agreed to by the property owner with the costs borne by the Proponent. This condition is not intended to limit any claims that the property owner may have against the Proponent.	Condition not staged, compliance with condition to be provided in Construction Compliance Reports by the Proponent.			

CoA Ref.	Requirement	Stage 0 Preconstruction Activities	Stage 1 Enabling Work	Stage 2 Infrastructure Works	Stage 3 SOM Works & Operation
E48	**Noise Mitigation - Operational Noise Mitigation Measures** The Proponent must prepare an **Operational Noise and Vibration Review (ONVR)** to confirm noise and vibration mitigation measures that would be implemented for the operation of the CSSI. The ONVR must be prepared in consultation with the Department, relevant council(s), other relevant stakeholders and the community and must: (a) identify specific noise and vibration criteria applicable to each component of the CSSI; (b) predict the operational noise and vibration levels at affected receivers; (c) identify the proposed mitigation measures to be used to meet the applicable noise and vibration criteria; (d) ensure uncertainties in the design process (e.g. engineering performance tolerances, modelling assumptions, transmission path assumptions etc) are identified and conservatively quantified; and (e) include a consultation strategy with directly affected receivers on mitigation measures. Where the noise and vibration criteria cannot be achieved, the assessment shall present an analysis of reasonable and feasible noise and vibration mitigation measures, and the 'best practice' achievable noise and vibration outcome for each component of the CSSI. The **ONVR** is to be verified by a suitably qualified and experienced noise and vibration expert. The **ONVR** is to be undertaken at the Proponent's expense and submitted to the Secretary for approval before the implementation of mitigation measures. The Proponent must implement the identified noise and vibration control measures and make the **ONVR** publicly available.	Not triggered by the Preconstruction Activities Stage, Activities during this stage do not relate to the operation of the CSSI.	Not triggered by the Enabling Works Stage. Activities during this stage do not relate to operation of the CSSI.	Not triggered by the Infrastructure Delivery Stage. Activities during this stage do not relate to operation of the CSSI. The ONVR shall be prepared during the SOM Stage. Concurrent to the Infrastructure Delivery Stage to allow early implementation of operational noise mitigation measures where reasonable and feasible. Refer to Stage 3 SOM.	Not staged. The ONVR shall be prepared during this stage; however it will be prioritised to occur during the concurrent infrastructure construction stage to allow early implementation of operational noise mitigation measures where reasonable and feasible.
E49	Noise mitigation measures as identified in **Condition E48** that will not be physically affected by works must be implemented within eighteen (18) months of the commencement of construction in the vicinity of the impacted receiver to minimise construction noise impacts, and detailed in the **Construction Noise and Vibration Management Sub-plan** for the CSSI.	Not triggered by the Preconstruction Activities Stage, Activities during this stage will not be concurrent with the preparation of the ONVR, see Condition E48. However, construction noise shall be managed in accordance with the TfNSW Construction Noise & Vibration Strategy.	Not triggered by the Enabling Works Stage, Activities during this stage will not be concurrent with the preparation of the ONVR, see Condition E48. However, construction noise shall be managed in accordance with the TfNSW Construction Noise & Vibration Strategy.	Not triggered by the Infrastructure Delivery Stage, Commencement of construction of Light Rail infrastructure will occur in this stage. However, the ONVR and any associated mitigation will be completed concurrently under the SOM package.	Condition not staged compliance with condition to be provided in Construction Compliance Reports by the Proponent.
E50	**Operational Noise from Light Rail Services** The CSSI must be designed and operated with the objective of not exceeding the air-borne and ground-borne noise trigger levels as defined in the *Rail Infrastructure Noise Guideline* (EPA, 2012) and the vibration levels defined in the *Assessing Vibration: A Technical Guideline* (DEC, 2006).	Not triggered by the Preconstruction Activities Stage. Activities during this stage do not relate to operation of the CSSI.	Not triggered by the Enabling Works Stage. Activities during this stage do not relate to operation of the CSSI.	Condition not staged compliance with condition to be provided in Construction Compliance Reports by the Proponent.	

<table>
<tr><th>CoA Ref.</th><th>Requirement</th><th>Stage 0 Preconstruction Activities</th><th>Stage 1 Enabling Work</th><th>Stage 2 Infrastructure Works</th><th>Stage 3 SOM Works & Operation</th></tr>
<tr><td>E51</td><td>The Proponent must reassess operational noise impacts from the CSSI in accordance with the Rail Infrastructure Noise Guideline (EPA, 2012) and in addition, if light rail service frequencies increase as part of normal operations (i.e. excluding special events) within the first 10 years of operation. More frequent services are defined as:
(a) a light rail service more frequent than one every 10 minutes between 5.00am and 7.00am Monday to Friday; or
(b) a light rail service more frequent than one every 7.5 minutes between 7.00am and 7.00pm Monday to Friday; or
(c) a light rail service more frequent than one every 15 minutes between 11.00pm and 1.00am Monday to Friday; or
(d) a light rail service more frequent than one every 15 minutes between 5.00am and 7.00am and 11.00pm and 1.00am on weekends and public holidays; or
(e) a light rail service more frequent than one every 10 minutes between 7.00am and 11.00pm on weekends and public holidays.

If the reassessment shows that the trigger levels are exceeded, reasonable and feasible mitigation measures shall be identified in consultation with the affected property owner. Any required mitigation measures shall be implemented before the change to service frequency.</td><td>Not triggered by the Preconstruction Activities Stage. Activities during this stage do not relate to operation of the CSSI.</td><td>Not triggered by the Enabling Works Stage. Activities during this stage do not relate to operation of the CSSI.</td><td>Not triggered by the Infrastructure Delivery Stage. Activities during this stage do not relate to operation of the CSSI.</td><td>Condition not staged compliance with condition to be provided in Construction Compliance Reports by the Proponent.</td></tr>
<tr><td>E52</td><td>Operational Noise from Stationary Sources
Noise emanating from stationary sources must comply with the noise limits at the nearest sensitive receivers in accordance with the Noise Policy for Industry (2017) or as specified in Table E1 and Table E2. Noise generated from these facilities must also include associated traffic movements.</td><td>Not triggered by the Preconstruction Activities Stage. Activities during this stage do not relate to operation of the CSSI.</td><td>Not triggered by the Enabling Works Stage. Activities during this stage do not relate to operation of the CSSI.</td><td>Not triggered by the Infrastructure Delivery Stage. Activities during this stage do not relate to operation of the CSSI.</td><td>Condition not staged compliance with condition to be provided in Compliance Reports by the Proponent.</td></tr>
<tr><td>E52 cont.</td><td>Table E1: Operational Noise Limits for the Camellia Stabling and Maintenance Facility at Sensitive Receivers (dBA)
<table>
<tr><th>Day
$L_{Aeq\ (15\ min)}$</th><th>Evening
$L_{Aeq\ (15\ min)}$</th><th>Night
$L_{Aeq\ (15\ min)}$</th><th>Night (sleep disturbance)
L_{Amax}</th></tr>
<tr><td>52</td><td>48</td><td>46</td><td>56</td></tr>
</table>
Table E2: Operational Noise Limits for Substations at Sensitive Receivers (dBA)
<table>
<tr><th>Location</th><th>$L_{Aeq\ (15\ min)}$ at all Times</th><th>Receiver Description</th></tr>
<tr><td>TPS1 – Westmead Station Stop</td><td>65
47</td><td>Commercial
Residential</td></tr>
<tr><td>TPS2 – Factory Street Stop</td><td>65
42</td><td>Commercial
Residential</td></tr>
<tr><td>TPS3 – Barrack Lane</td><td>65</td><td>Commercial</td></tr>
<tr><td>TPS4 – Camellia Stop</td><td>65</td><td>Commercial</td></tr>
<tr><td>TPS5 – Dundas Stop</td><td>65
40</td><td>Commercial
Residential</td></tr>
<tr><td>TPS6 – Adderton Road</td><td>36</td><td>Residential</td></tr>
<tr><td>TPS7 – Carlingford Stop</td><td>65
44</td><td>Commercial
Residential</td></tr>
<tr><td>TPS8 – Colquhoun Street</td><td>65</td><td>Commercial</td></tr>
</table>
Note: The design of the Camelia Stabling and Maintenance Facility must demonstrate consideration of the relevant criteria for the future land use proposed under the Camellia Masterplan, where sufficient detail is available at the time of design.</td><td>Not triggered by the Preconstruction Activities Stage. Activities during this stage do not relate to operation of the CSSI.</td><td>Not triggered by the Enabling Works Stage. Activities during this stage do not relate to operation of the CSSI.</td><td>Not triggered by the Infrastructure Delivery Stage. Activities during this stage do not relate to operation of the CSSI.</td><td>Condition not staged.</td></tr>
</table>

<table>
<tr><th>CoA Ref.</th><th>Requirement</th><th>Stage 0 Preconstruction Activities</th><th>Stage 1 Enabling Work</th><th>Stage 2 Infrastructure Works</th><th>Stage 3 SOM Works & Operation</th></tr>
<tr><td>E53</td><td>Where practicable, audible alarm systems at the stabling facility are required to be non-tonal, and any permanent vehicles on site are required to be fitted with non-tonal reversing alarms.</td><td>Not triggered by the Preconstruction Activities Stage. Activities during this stage do not relate to operation of the CSSI.</td><td>Not triggered by the Enabling Works Stage. Activities during this stage do not relate to operation of the CSSI.</td><td>Not triggered by the Infrastructure Delivery Stage. Activities during this stage do not relate to operation of the CSSI.</td><td>Condition not staged, compliance with condition to be provided in Construction Compliance Reports by the Proponent</td></tr>
<tr><td>E54</td><td>Operational Noise from Rail Traffic (adjacent to existing T6 Carlingford rail corridor – Carlingford to Camellia)
Ground-borne noise from rail traffic must not result in increases in existing noise levels by 3 dBA or more and exceedances of the criteria outlined in Table E3 at the nearest receiver. If exceedances are identified, the Proponent must implement mitigation measures which may include at-receiver property treatments:</td><td>Not triggered by the Preconstruction Activities Stage. Activities during this stage do not relate to operation of the CSSI.</td><td>Not triggered by the Enabling Works Stage. Activities during this stage do not relate to operation of the CSSI.</td><td>Not triggered by the Infrastructure Delivery Stage. Activities during this stage do not relate to operation of the CSSI.</td><td>Condition not staged.</td></tr>
<tr><td>E54 cont.</td><td>Table E3: Operational Noise Trigger Levels for Sensitive Receivers adjacent to the Carlingford Corridor (dBA)
<table>
<tr><th>Receiver type</th><th>Time of day</th><th>Internal Noise Trigger Level (dBA)</th></tr>
<tr><td>Residential</td><td>Daytime 7.00am to 10.00pm
Night time 10.00pm to 7.00am</td><td>40 L_{ASmax}[1]
35 L_{ASmax}</td></tr>
<tr><td>Schools, educational institutions, places of worship</td><td>When in use</td><td>40-45 L_{ASmax}[2]</td></tr>
<tr><td>Medical</td><td>When in use</td><td>35 L_{ASmax}[1]</td></tr>
<tr><td>Public buildings</td><td>When in use</td><td>40 L_{ASmax}[1]</td></tr>
<tr><td>Theatres</td><td>When in use</td><td>NR 25[3]</td></tr>
</table>
General Note: Ground-borne noise level values are relevant only where they are higher than the airborne noise from railways and where the ground-borne noise levels are expected to be, or are, audible within habitable rooms (RING, EPA 2013).

Note 1: L_{ASmax} refers to the maximum noise level not exceeded for 95 percent of rail pass-by events and is measured using the ‘slow’ response setting on a sound level meter.
Note 2: The lower value of the range is applicable where low internal noise levels are expected, such as in areas assigned to studying, listening and praying.
Note 3: NR curves are used for rating noise levels and are a set of octave band curves which provide limiting sound pressure level values. NR 15 is equivalent to approximately 20 dBA and NR 25 is approximately 30 dBA.</td><td>Not triggered by the Preconstruction Activities Stage. Activities during this stage do not relate to operation of the CSSI.</td><td>Not triggered by the Enabling Works Stage. Activities during this stage do not relate to operation of the CSSI.</td><td>Not triggered by the Infrastructure Delivery Stage. Activities during this stage do not relate to operation of the CSSI.</td><td>Condition not staged, compliance with condition to be provided in Construction Compliance Reports by the Proponent</td></tr>
<tr><td>E55</td><td>Operational Noise from Rail Traffic (outside existing T6 Carlingford rail corridor – Camellia to Westmead)
Ground-borne noise from rail traffic must not exceed the criteria outlined in Table E4 as measured at the nearest receiver. If exceedances are identified, the Proponent must implement mitigation measures which may include at-receiver property treatments:</td><td>Not triggered by the Preconstruction Activities Stage. Activities during this stage do not relate to operation of the CSSI.</td><td>Not triggered by the Enabling Works Stage. Activities during this stage do not relate to operation of the CSSI.</td><td>Not triggered by the Infrastructure Delivery Stage. Activities during this stage do not relate to operation of the CSSI.</td><td>Condition not staged, compliance with condition to be provided in Construction Compliance Reports by the Proponent</td></tr>
</table>

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<tr><td>E55 cont.</td><td>Table E4: Operational Noise Trigger Levels for Sensitive Receivers between Camellia and Westmead (dBA)
<table>
<tr><th>Receiver type</th><th>Time of day</th><th>Internal Noise Trigger Level (dBA)</th></tr>
<tr><td>Residential</td><td>Daytime 7.00am to 10.00pm
Night time 10.00pm to 7.00am</td><td>40 L_{ASmax}[1]
35 L_{ASmax}</td></tr>
<tr><td>Schools, educational institutions, places of worship</td><td>When in use</td><td>40-45 L_{ASmax}[2]</td></tr>
<tr><td>Medical</td><td>When in use</td><td>35 L_{ASmax}[1]</td></tr>
<tr><td>Public buildings</td><td>When in use</td><td>40 L_{ASmax}[1]</td></tr>
<tr><td>Theatres</td><td>When in use</td><td>NR 25[3]</td></tr>
</table>
General Note: Ground-borne noise level values are relevant only where they are higher than the airborne noise from railways and where the ground-borne noise levels are expected to be, or are, audible within habitable rooms (RING, EPA 2013).

Note 1: L_{ASmax} refers to the maximum noise level not exceeded for 95 percent of rail pass-by events and is measured using the ‘slow’ response setting on a sound level meter.
Note 2: The lower value of the range is applicable where low internal noise levels are expected, such as in areas assigned to studying, listening and praying.
Note 3: NR curves are used for rating noise levels and are a set of octave band curves which provide limiting sound pressure level values. NR 15 is equivalent to approximately 20 dBA and NR 25 is approximately 30 dBA.</td><td>Not triggered by the Preconstruction Activities Stage. Activities during this stage do not relate to operation of the CSSI.</td><td>Not triggered by the Enabling Works Stage. Activities during this stage do not relate to operation of the CSSI.</td><td>Not triggered by the Infrastructure Delivery Stage. Activities during this stage do not relate to operation of the CSSI.</td><td>Condition not staged, compliance with condition to be provided in Construction Compliance Reports by the Proponent</td></tr>
<tr><td>E56</td><td>Operational Noise from Ancillary Systems
The Proponent must ensure that, unless they are required for safety reasons, no public-address system is to be used as part of normal operations of the CSSI. Any emergency public address system must be designed to minimise noise spillage from the site. Speakers must be installed with their pointing axis directed away from residential buildings and sensitive receivers unless otherwise specified in the Operational Noise and Vibration Management Sub-Plan.</td><td>Not triggered by the Preconstruction Activities Stage. Activities during this stage do not relate to operation of the CSSI.</td><td>Not triggered by the Enabling Works Stage. Activities during this stage do not relate to operation of the CSSI.</td><td>Not triggered by the Infrastructure Delivery Stage. Activities during this stage do not relate to operation of the CSSI.</td><td>Condition not staged, compliance with condition to be provided in Construction Compliance Reports by the Proponent</td></tr>
<tr><td>E57</td><td>Testing of warning bells in the stabling and maintenance facility must be undertaken in an enclosed space or with all doors of the facility closed. No testing of warning bells is permitted to take place at the stabling facility unless it meets the noise goals (including for sleep disturbance) outlined in the Noise Policy for Industry (2017) at the nearest residential receiver as outlined in Condition E52.</td><td>Not triggered by the Preconstruction Activities Stage. Activities during this stage do not relate to operation of the CSSI.</td><td>Not triggered by the Enabling Works Stage. Activities during this stage do not relate to operation of the CSSI.</td><td>Not triggered by the Infrastructure Delivery Stage. Activities during this stage do not relate to operation of the CSSI.</td><td>Condition not staged, compliance with condition to be provided in Construction Compliance Reports by the Proponent</td></tr>
<tr><td>E58</td><td>Operational Noise and Vibration Compliance Monitoring
The Proponent must undertake noise and vibration monitoring to assess noise from the light rail, ancillary facilities and stationary sources and the adequacy of noise mitigation measures to demonstrate compliance with the noise and vibration limits and/or goals specified in this approval. This must be developed in consultation with the EPA and Relevant Council(s) and be undertaken within six months of the commencement of operation of the CSSI. A Noise and Vibration Compliance Assessment Report providing the results of the monitoring must be submitted to the Secretary and Relevant Council(s), for information, within one month of its completion. The report must also detail any complaints received relating to operational noise and vibration impacts in the preceding six months. If the report indicates an exceedance of the limits and/or goals specified in this approval, the Proponent must implement additional measures to mitigate these exceedances in consultation with affected property owners and/or occupiers.</td><td>Not triggered by the Preconstruction Activities Stage. Activities during this stage do not relate to operation of the CSSI.</td><td>Not triggered by the Enabling Works Stage. Activities during this stage do not relate to operation of the CSSI.</td><td>Not triggered by the Infrastructure Delivery Stage. Activities during this stage do not relate to operation of the CSSI.</td><td>Condition not staged, compliance with condition to be provided in Compliance Reports by the Proponent</td></tr>
</table>

CoA Ref.	Requirement	Stage 0 Preconstruction Activities	Stage 1 Enabling Work	Stage 2 Infrastructure Works	Stage 3 SOM Works & Operation
E59	In the event of a change to the frequency of services outlined in **Condition E51**, the Proponent must monitor noise and vibration to assess the adequacy of implemented mitigation measures against the limits and/or goals specified in this approval and present these in an updated **Noise and Vibration Compliance Assessment Report**. If the monitoring indicates an exceedance of the noise and vibration limits and/or goals specified, the Proponent must implement further measures to mitigate these exceedances in consultation with affected property owners and/or occupiers. A copy of the updated **Noise and Vibration Compliance Assessment Report** must be submitted to the Secretary, for information, within one month of its completion.	Not triggered by the Preconstruction Activities Stage. Activities during this stage do not relate to operation of the CSSI.	Not triggered by the Enabling Works Stage. Activities during this stage do not relate to operation of the CSSI.	Not triggered by the Infrastructure Delivery Stage. Activities during this stage do not relate to operation of the CSSI.	Condition not staged.
E60	The Proponent must not destroy, modify or otherwise physically affect heritage items (including Aboriginal objects), outside of the CSSI footprint.	Condition not staged, compliance with condition to be provided in Construction Compliance Reports by the Proponent			
E61	Nothing in this approval permits the Proponent to harm, modify, or otherwise impact human remains uncovered during the construction and operation of the CSSI.	Condition not staged, compliance with condition to be provided in Construction Compliance Reports by the Proponent			
E62	An **Unexpected Heritage Finds Procedure** must be: (a) prepared to manage unexpected heritage finds in accordance with any guidelines and standards prepared by the Heritage Council of NSW or OEH; and (b) certified by a suitably qualified and experienced archaeologist or heritage specialist. The Procedure must be included in the **Heritage Management Sub-plan** required by **Condition C3.** *Note: Human remains that are found unexpectedly during works are under the jurisdiction of the NSW State Coroner and must be reported to the NSW Police immediately.*	Not triggered by the Preconstruction Activities Stage. Preconstruction activities identified to have an impact to heritage items and heritage conservation areas would be identified as construction activities. The Proponent's Unexpected Heritage Finds Guideline would be implemented for preconstruction works. This document would not be included within the Heritage Management Sub-Plan which is required for construction.	A package specific Unexpected Heritage Finds Procedure would be developed and included in the Heritage Management Sub-plan as required by Condition C3.	A stage specific Unexpected Heritage Finds Procedure would be developed and included in the Heritage Management Sub-plan as required by Condition C3.	A stage specific Unexpected Heritage Finds Procedure would be developed and included in the Heritage Management Sub-plan as required by Condition C3.

CoA Ref.	Requirement	Stage 0 Preconstruction Activities	Stage 1 Enabling Work	Stage 2 Infrastructure Works	Stage 3 SOM Works & Operation
E63	The **Unexpected Heritage Finds Procedure**, as submitted to the Secretary, must be implemented for the duration of construction and during operational maintenance works.	Not triggered by the Preconstruction Activities Stage. Preconstruction activities identified to have an impact to heritage items and heritage conservation areas would be identified as construction activities. The Proponent's Unexpected Heritage Finds Guideline would be implemented for preconstruction works. This document would not be included within the Heritage Management Sub-Plan which is required for construction.	Condition not staged, compliance with condition to be provided in Construction Compliance Reports by the Proponent		

E64	The Proponent must prepare a **Heritage Interpretation Strategy** before work (excluding archaeological excavation required under Conditions E70 and E71) which impact on the items identified below commence which identifies and interprets the heritage values and stories of Aboriginal and non-Aboriginal heritage items, archaeology and heritage conservation areas associated with the CSSI. The **Heritage Interpretation Strategy** must be prepared and implemented in consultation with OEH and the Heritage Council of NSW (or its delegate). The **Heritage Interpretation Strategy** must be submitted to the Secretary for information and include, but not be limited to a discussion of the key interpretive themes, stories, archaeological results, and messages proposed to interpret the history and significance of affected heritage items and heritage conservation areas including: a) Parramatta Female Factory and Institutions Precinct within the Cumberland District Hospital Group b) Lennox Bridge; c) St Patrick's Roman Catholic Cemetery; d) The Convict Lumberyard (Arthur Phillip High School site) e) Ancient Aboriginal and Early Colonial Landscape (Robin Thomas Reserve); f) Queen's Wharf Reserve and stone wall and potential archaeological site; g) Dundas Railway Station Group; h) Prince Alfred Square (and potential archaeological site); i) Royal Oak Hotel and stables (and potential archaeological site); j) Clyde Carlingford Rail Bridge abutments (Northern); and k) Clyde Carlingford Rail Bridge abutments (Southern)	Not triggered by the Preconstruction Activities Stage. Preconstruction activities identified to have an impact to heritage items and heritage conservation areas would be identified as construction activities. There is limited opportunity for heritage interpretation during the preconstruction activities due to the limitations of the scope of work. There is no anticipated impact to heritage fabric as a result of these activities. It is proposed that any unexpected archaeological heritage matters be managed in accordance with Condition of Approval E63.	The Heritage Interpretation Strategy would be triggered for: a) Parramatta Female Factory and Institutions as part of Package 2B. f) Queen's Wharf Reserve as part of Package 1: Road Enabling Works. Package 1 anticipated Quarter 1, 2019. Package 2B anticipated Quarter 3, 2019. For the remaining packages, there is limited opportunity for heritage interpretation during the Enabling Works Stage due to the limitations of the enabling work areas and scope of work. There is no anticipated impact to heritage fabric identified in E64a as a result of management in accordance with Condition of Approval E63. Note; not triggered for Package 3 – Outside of listed heritage conservation areas. Any heritage interpretation at this location to be completed in Stage 3.	A Stage-specific Heritage Interpretation Strategy will be prepared for this Stage, anticipated by Quarter 3, 2019.	A Stage-specific Heritage Interpretation Strategy will be prepared for this Stage, anticipated by Quarter 4, 2019.

CoA Ref.	Requirement	Stage 0 Preconstruction Activities	Stage 1 Enabling Work	Stage 2 Infrastructure Works	Stage 3 SOM Works & Operation
E64A	Within six (6) months of completion of any archaeological excavation and archival recording, the Heritage Interpretation Strategy in **Condition E64** must be updated to include any additional heritage items identified and their interpretation. *Note: Archaeological excavation and archival recording includes but is not limited to that required by **Conditions E70 to E71** inclusive.*	Not triggered by the Preconstruction Activities Stage. Note E64.	**Partial** – where triggered as noted in E64	The Stage-specific Heritage Interpretation Strategy will be updated on completion of archaeological excavation and recording.	The Stage-specific Heritage Interpretation Strategy will be updated on completion of archaeological excavation and recording.
E65	Identified impacts to heritage items and heritage conservation areas must be minimised through both detailed design and construction in consultation with the Heritage Council (or its delegate). The measures to manage this must be detailed in the **Heritage Management Sub-Plan** required by **Condition C3.**	Not triggered by the Preconstruction Activities Stage. Preconstruction activities identified to have an impact to heritage items and heritage conservation areas would be identified as construction activities. Unless otherwise agreed that mitigation measures in place would be able to acceptably limit impact during preconstruction activities by a suitably qualified and experienced archaeological or heritage specialist.	**Partial -** It is noted that Package-specific consultation will take place to inform the package-specific Heritage Management Sub-Plans within the nominated timeline of Condition C3. Package 1 anticipated by Quarter 1, 2019. Note; not triggered for Package 3 as works do not interact with heritage conservation areas. Consultation to support approach to be provided in CEMP.	It is noted that Stage-specific consultation will take place to inform the stage-specific Heritage Management Sub-Plan within the nominated timeline of Condition C3, anticipated by Quarter 3, 2019.	It is noted that Stage-specific consultation will take place to inform the stage-specific Heritage Management Sub-Plan within the nominated timeline of Condition C3, anticipated by Quarter 1, 2020.

CoA Ref.	Requirement	Stage 0 Preconstruction Activities	Stage 1 Enabling Work	Stage 2 Infrastructure Works	Stage 3 SOM Works & Operation
E66	**Non-Aboriginal Heritage** The Proponent must not destroy, modify or otherwise physically affect any structures within the Cumberland District Hospital Group or the curtilage of the Parramatta Female Factory and Institutions Precinct, except as identified in the documents listed in **Condition A1**.	Condition not staged compliance with condition to be provided in Construction Compliance Reports by the Proponent. Note; Note; not triggered for Package 3 – works outside of listed location, Remediation site is at Camellia.			
E67	The proponent must prepare an analysis of alternatives to demolition of CHIP Hostel No. 1 before the commencement of construction in Cumberland Hospital (East Campus) or any work in the Fleet/Factory Street intersection which would preclude consequential rail realignment if the CHIP Hostel No. 1 were to be retained. The analysis must be submitted to the Secretary stating a preferred option for approval. If demolition of the CHIP Hostel No. 1 is proposed, justification must be provided which considers the following guidelines included in the Parramatta North Urban Transformation Consolidated Conservation Management Plan (UrbanGrowth NSW, 2017): (a) that there is no prudent or feasible alternative; (b) demolition would result in no or minimal impacts on the heritage significance of the place or the wider Parramatta North Historic Sites; and (c) demolition would be of an overall benefit to the heritage significance of the place and the wider Parramatta North Historic Sites. Nothing in this approval permits the demolition of the CHIP Hostel No. 1 without the written approval of the Secretary.	Not triggered by the Preconstruction Activities Stage. Activities during this stage do not relate to construction of the CSSI.	Not triggered by the Enabling Work Stage. The CHIP Hostel is to be retained.	Not triggered by the Infrastructure Delivery Stage. The CHIP Hostel is to be retained.	Not triggered by the SOM Stage. The CHIP Hostel is to be retained.
E68	The detailed design of the CSSI must have regard to the following heritage items to ensure that the design respects and responds to the heritage value of the items: (a) Lennox Bridge; (b) Cumberland District Hospital Group; (c) St Patrick's Roman Catholic Cemetery; (d) Prince Alfred Square (and potential archaeological site); (e) Ancient Aboriginal and Early Colonial Landscape (Robin Thomas Reserve); (f) Queen's Wharf Reserve and stone wall and potential archaeological site and (g) Dundas Railway Station Group.	Not triggered by the Preconstruction Activities Stage. Activities do not include detailed design of the CSSI in its scope.	**Partial –** The Enabling Work Package 1 would include the detailed design of (f) Queen's Wharf Reserve and a small portion of (e) Robin Thomas Reserve. Packages 2B-2C would have regard to (b) Cumberland District Hospital Group for its scope of works. Note; not triggered for Package 3 – Outside of listed heritage conservation areas.	**Partial –** Detailed design of the light rail infrastructure would be conducted under this stage. All heritage items identified in this condition would be applicable to this Stage.	**Partial –** Detailed design of stops and power supply would be conducted under this stage. Items (b), (c), (d), and (g) would be applicable to this package.
E69	Before installing acoustic treatment at any heritage item identified in the documents listed in **Condition A1** the advice of a suitably qualified heritage architect or heritage engineer with specific experience in built heritage must be obtained and implemented to ensure any such work does not have an adverse impact on the heritage significance of the item.	Not triggered by the Preconstruction Activities Stage. No permanent acoustic treatment shall be installed during this stage.	Not triggered by the Enabling Works Stage. No permanent acoustic treatment shall be installed during this stage.	Condition not staged, compliance with condition to be provided in Construction Compliance Reports by the Proponent	

CoA Ref.	Requirement	Stage 0 Preconstruction Activities	Stage 1 Enabling Work	Stage 2 Infrastructure Works	Stage 3 SOM Works & Operation
E70	**Heritage Archival Recording and Salvage** The Proponent must prepare a **Heritage Archival Recording and Salvage Report**, including photographic recording of heritage items which have been identified for demolition or modification in the documents referred to in **Condition A1** and outline the salvage to be undertaken from these items. Archival recording must be undertaken by a suitably qualified heritage specialist and prepared in accordance with NSW Heritage Office's *How to Prepare Archival Records of Heritage Items* (1998) and *Photographic Recording of Heritage Items Using Film or Digital Capture* (2006). Within 12 months of completing the archival recording, or as otherwise agreed with the Secretary, the Proponent must submit the **Heritage Archival Recording and Salvage Report** to the Department, the OEH, Heritage Council of NSW, Relevant Council(s), relevant local libraries and local historical societies in the local government area.	Not triggered by the Preconstruction Activities Stage. Preconstruction activities identified to have an impact to heritage items and heritage conservation areas would be identified as construction activities. Activities during this stage do not relate to construction of the CSSI. Demolition of heritage items is not included in the scope of the preconstruction activities.	Heritage Archival Recording and Salvage Reports shall be progressively prepared prior to demolition activities where triggered by each Package. Note; not triggered for Package 3 – works do not interact with heritage items.	Heritage Archival Recording and Salvage Reports shall be progressively prepared prior to demolition activities where triggered by this stage.	Heritage Archival Recording and Salvage Reports shall be progressively prepared prior to demolition activities where triggered by this stage. Note; not triggered for Package 5A – works do not interact with heritage items.
E71	The Proponent must salvage material from heritage items identified in **Condition E70**. Following archival recording, the Proponent must identify options for sympathetic reuse of salvaged material (including integrated heritage displays) on the project or for other options for repository, reuse and display. Suitable repository location(s) must be established in consultation with Relevant Council(s) (or registered Aboriginal Parties, where relevant). For any State Heritage-listed items or elements suitable for salvage, suitable repository location(s) must be determined in consultation with the Heritage Division of the OEH. Any residual items and materials (where appropriate) are to be made available, through a process to be developed by the Proponent in consultation with the relevant council(s), to landowners within the locality from where the material originated.	Not triggered by the Preconstruction Activities Stage. Activities during this stage do not relate to construction of the CSSI. Demolition of heritage items is not included in the scope of the preconstruction activities. If any unidentified heritage items are uncovered during these activities, they would be appropriately recorded.	Condition not staged compliance with condition to be provided in Construction Compliance Reports by the Proponent. Note; not triggered for Package 3 –do not interact with heritage items.		Condition not staged compliance with condition to be provided in Construction Compliance Reports by the Proponent. Note; not triggered for Package 5A –do not interact with heritage items.

CoA Ref.	Requirement	Stage 0 Preconstruction Activities	Stage 1 Enabling Work	Stage 2 Infrastructure Works	Stage 3 SOM Works & Operation
E72	**Historical Archaeology** Before works within Zones 1 and 2 Historical Archaeological Management Units (HAMUs), the Proponent must engage a suitably qualified archaeologist whose experience complies with the NSW Heritage Council's *Criteria for Assessment of Excavation Directors* (July, 2011) (referred to as the Excavation Director) to oversee and advise on matters associated with historical archaeology (i.e. non-Aboriginal) and to prepare a **Historical Archaeological Research Design and Excavation Methodology**. Where the unexpected heritage finds procedure required by **Condition E62** is triggered in a Zone 3 location, the Excavation Director must oversee its implementation.	Condition not staged compliance with condition to be provided in Construction Compliance Reports by the Proponent. Note; not triggered for Package 3 – works limited to property at Camellia, the HAMU for the SaM facility requires no archaeological management. Package 3 will comply with Condition E62.			
E73	The **Historical Archaeological Research Design and Excavation Methodology** must to be submitted to the Heritage Council of NSW (or its delegate) for review and comment before finalisation. The **Historical Archaeological Research Design and Excavation Methodology** must: (a) be consistent with NSW Heritage Council Guidelines including: i) Archaeological Assessments (1996); ii) Assessing Significance for Historical Archaeological Sites and Relics (2009), iii) Skeletal Remains (1998), and iv) Historical Archaeological Code of Practice (2009); (b) include provision for early physical investigation of areas of impact identified as likely to contain State significant archaeology in the research design to inform detailed design in these areas to avoid State significant archaeology. This shall include, but not be limited to: i) St Patrick's Roman Catholic Cemetery; ii) Ancient Aboriginal and Early Colonial Landscape / Robin Thomas Reserve; and iii) The Parramatta Town Drains (where these alignments are unclear); (c) provide for the detailed analysis of any archaeological relics discovered during the investigations; (d) include management options for discovered archaeological relics (including options for avoidance, salvage, and display or interpretation); (e) include procedures for notifying the Heritage Council of NSW (or its delegate) and Secretary of any relic as required under s146 of the *Heritage Act 1977*; and (f) if the findings of the investigations are significant, provide for the preparation and implementation of a heritage interpretation strategy.	Not triggered by the Preconstruction Activities Stage (refer to Condition E72). The Historical Archaeological Research Design and Excavation Methodology would be complied with as part of Stages 1-3.	**Partial -** Package-specific Excavation Methodologies will be prepared by each Package within the nominated timeline of E72. Package 1 anticipated Quarter 1, 2019. Note; not triggered for Package 3 – works do not involve excavation. Consultation to support approach to be provided in CEMP.	A Stage-specific Excavation Methodology will be prepared for this stage within the nominated timeline of E72, anticipated Quarter 3, 2019.	A Stage-specific Excavation Methodology will be prepared for this stage within the nominated timeline of E72, anticipated Quarter 2, 2020.
E74	Where excavation works are required in the vicinity of potential archaeological sites, the Excavation Director must be present to advise on archaeological issues and oversee excavation works. The Excavation Director must be given the authority to advise on the duration and extent of oversight required during excavation.	Condition not staged, compliance with condition to be provided in Construction Compliance Reports by the Proponent. Note; not triggered for Package 3 – works will not occur in the vicinity of potential archaeological sites.			
E75	In the event that non-Aboriginal or post-contact archaeological relics are discovered, the Proponent must prepare an **Archaeological Excavation Report** containing the findings of any excavations, including artefact analysis and the identification of a final repository of any relics. The report must be submitted to the Secretary, for information, within 12 months of completing all archaeological investigations, unless otherwise agreed with the Secretary. The **Archaeological Excavation Report** must also be submitted to the NSW Heritage Council, the local library and the local Historical Society in the local government area. A copy of the **Archaeological Excavation Report** must be provided with the relics.	Where triggered, Package-specific Excavation Reports will be prepared by the relevant Package Contractor within the nominated timeline.	Where triggered, Package-specific Excavation Reports will be prepared by the relevant Package Contractor within the nominated timeline.	Where triggered, a Stage-specific Excavation Reports will be prepared by the relevant Contractor within the nominated timeline.	Where triggered, a Stage-specific Excavation Reports will be prepared by the relevant Contractor within the nominated timeline.
E76	**Aboriginal Heritage** The Proponent must not harm, modify or otherwise impact Aboriginal objects associated with the CSSI except as authorised by this approval.	Condition not staged compliance with condition to be provided in Construction Compliance Reports by the Proponent.			

CoA Ref.	Requirement	Stage 0 Preconstruction Activities	Stage 1 Enabling Work	Stage 2 Infrastructure Works	Stage 3 SOM Works & Operation
E77	Where previously unidentified Aboriginal objects are discovered during construction of the CSSI, all work should stop in the affected area and a suitably qualified and experienced Aboriginal heritage expert should be contacted to provide specialist heritage advice. The measures to consider and manage this process must be specified in the **Heritage Management Sub-Plan** required by **Condition C3** and, where relevant, include registration in the OEH's Aboriginal Heritage Information Management System (AHIMS) register.	**Partial –** a Heritage Management Sub-Plan will not be prepared for this package. An Aboriginal Heritage Expert shall be contacted for advice, if triggered.	It is noted that the Package-specific Heritage Management Sub-Plans will include this detail, where triggered.	It is noted that the Stage-specific Heritage Management Sub-Plan will include this detail.	. It is noted that the Stage-specific Heritage Management Sub-Plan will include this detail.
E78	The Excavation Director must oversee and advise on work in the following locations: (a) Cumberland Hospital East; (b) Harris Street Footpath / Robin Thomas Reserve; (c) PLR AFT 2; and (d) Sydney Turf Club Carpark. *Note: Work in the locations referenced in **Condition E78(a)-(d)** that impacts Aboriginal archaeological sites is construction as defined in this approval. Any mitigation and salvage measures required to manage or mitigate impacts must be specified in the Heritage Management Sub-Plan required by **Condition C3**.*	Not triggered by the Preconstruction Activities Stage. Preconstruction activities may include archaeological salvage and test pits. Where these occur within these locations, mitigation measures would be implemented accordingly by the heritage consultant. However the Heritage Management Sub-plan would be developed for construction as part of Stages 1-3.	**Partial –** Item a) would be impacted by Package 2B Cumberland (East Campus) Demolitions. Item b) would be impacted by Package 1 Road Enabling Works. It is noted that the Package-specific Heritage Management Sub-Plans will include this detail. Note; not triggered for Package 3 – works do not occur within the listed locations.	Detailed design of the light rail infrastructure would be conducted under this stage. All Aboriginal items identified in this condition would be applicable to this Stage. It is noted that the Stage-specific Heritage Management Sub-Plan will include this detail.	**Partial** – The identified items would not be specifically impacted by this Stage. It is noted that the Stage-specific Heritage Management Sub-Plan will include this detail.

CoA Ref.	Requirement	Stage 0 Preconstruction Activities	Stage 1 Enabling Work	Stage 2 Infrastructure Works	Stage 3 SOM Works & Operation
E79	Any Aboriginal objects discovered must be identified in the **Heritage Interpretation Strategy** required by **Condition E65** and, where relevant, include registration in the OEH's Aboriginal Heritage Information Management System (AHIMS) register.	Not triggered by the Preconstruction Activities Stage. There is limited opportunity for heritage interpretation during the preconstruction activities due to the limitations of the scope of work. It is proposed that any unexpected archaeological heritage matters be managed in accordance with Condition of Approval E63. Where relevant, registration would be included in the AHIMS register.	It is noted that the Package-specific Heritage Interpretation Plans will include this detail, where triggered.	It is noted that the Stage-specific Heritage Interpretation Plans will include this detail.	It is noted that the Stage-specific Heritage Interpretation Plans will include this detail.
E80	The Proponent must design and construct the CSSI in a manner that reduces visual and heritage setting impacts and ensures consolidation and rationalisation of kerbside infrastructure to avoid visual clutter.	Condition not staged compliance with condition to be provided in Construction Compliance Reports by the Proponent.			
E81	Operational safety requirements must form an integral part of the design process and be considered throughout the detailed design to avoid the need for later additions that unduly compromise the urban design objectives as set out in the Urban Design Requirements Report specified in **Condition E87.**	Not triggered by the Preconstruction Activities Stage. Activities during the preconstruction activities stage do not relate to detailed design of the CSSI or operation	Not triggered by the Enabling Works Stage. Activities during the Enabling stage do not relate to the light rail detailed design or operation	Condition not staged compliance with condition to be provided in Construction Compliance Reports by the Proponent.	
E82	Nothing in this approval permits advertising on any element of the CSSI.	Condition not staged compliance with condition to be provided in Construction Compliance Reports by the Proponent.			
E83	The Proponent must design and construct the CSSI in a manner that minimises opportunities for graffiti.	Not triggered by the Preconstruction Activities Stage. Activities during the preconstruction activities stage do not relate to detailed design of the CSSI.	Condition not staged, compliance with condition to be provided in Construction Compliance Reports by the Proponent		

CoA Ref.	Requirement	Stage 0 Preconstruction Activities	Stage 1 Enabling Work	Stage 2 Infrastructure Works	Stage 3 SOM Works & Operation
E84	The Proponent must investigate the feasibility of wire-free running along 'Eat Street', across Lennox Bridge, past Riverside Theatres and Prince Alfred Park and through the Parramatta North precinct with the objective of minimising visual impacts to the heritage values and physical impacts to the heritage fabric of these items. The Proponent must provide the results of the feasibility investigation to the Secretary, for information, before construction commences in these locations. If a decision is made not to provide wire-free running in the identified locations, supporting evidence must be provided in the feasibility assessment.	Not triggered by the Preconstruction Activities Stage. Activities during this stage do not relate to wire-free running.	Not triggered by the Enabling Works Stage. Activities during this stage do not relate to wire-free running.	TfNSW will coordinate the Feasibility Assessment in the nominated timeline of this condition.	Not triggered by Stage 3. The feasibility assessment for the project will be provided during Stage 2.
E85	The Proponent must investigate the feasibility of grass track treatment running through the Parramatta North precinct and Ancient Aboriginal and Early Colonial Landscape/Robin Thomas Reserve with the objective of minimising visual impacts to the heritage values and physical impacts to the heritage fabric of these items. The Proponent must provide the results of the feasibility investigation to the Secretary, for information, before construction commences in these locations. If a decision is made not to provide grass track treatment in the identified locations, supporting evidence must be provided in the feasibility assessment.	Not triggered by the Preconstruction Activities Stage. Activities during this stage do not relate to grass track running.	Not triggered by the Enabling Works Stage. Activities during this stage do not relate to grass track running.	TfNSW will coordinate the Feasibility Assessment in the nominated timeline of this condition..	Not triggered by Stage 3. The feasibility assessment for the project will be provided during Stage 2.
E86	The CSSI must be constructed in a manner that minimises visual impacts resulting from construction sites, including protecting and retaining existing vegetation around the perimeter of compound sites, providing temporary landscaping and screening where appropriate to soften views of the construction sites and minimising light spill to adjacent residential areas.	Condition not staged compliance with condition to be provided in Construction Compliance Reports by the Proponent.			
E87	**Urban Design Requirements** The Proponent must prepare and implement an **Urban Design Requirements Report** for public domain, architecture, landscape architecture, identity and place making with a specific focus on stop access and design. The **Urban Design Requirements Report** must consider crime prevention through environmental design principles and relevant design standards such as: (a) Better Placed (NSW Government Architect, 2017); (b) Greener Places (NSW Government Architect, 2018); (c) Guidelines for the Development of Public Transport Interchange Facilities (Ministry of Transport, 2008); (d) Water Sensitive Urban Design, NSW Sustainable Design Guidelines Version 4 (TfNSW, 2017); (e) AS4282-1997 Control of the obtrusive effects of outdoor lighting; and (f) relevant agency and Council design standards including those set out in the Parramatta Strategic Planning Framework. The Urban Design and Requirements Report must incorporate: (g) design principles and objectives; (h) identification of relevant land use changes, masterplans and initiatives; (i) analysis and mapping of local context and character; and (j) analysis and mapping of transport and land use integration and system functionality in the context of precincts.	Not triggered by the Preconstruction Activities Stage. There is limited opportunity for urban design input during this stage due to the limited scope of work. Any tree plantings identified as preconstruction work would be conducted in accordance with Condition E107.	Not triggered by the Enabling Works Stage. There is limited opportunity for urban design input during this stage due to restrictions for asset standards and specifications and the limited scope of work. It is proposed urban design review during the enabling stage be completed by TfNSW resources.	A combined Stage 2 and Stage 3 Urban Design Requirements Report will be prepared for this condition.	

CoA Ref.	Requirement	Stage 0 Preconstruction Activities	Stage 1 Enabling Work	Stage 2 Infrastructure Works	Stage 3 SOM Works & Operation
E88	The **Urban Design Requirements Report** must inform the detailed design of the CSSI to: (a) demonstrate responsiveness to local streetscape and landscape character; (b) integrate with, or allow for, known land use changes, masterplans and developments; (c) contribute to the character and identify of the local area; (d) respond to the character, setting and fabric of heritage elements and landscapes; (e) demonstrate material selection and detailing (including consideration of anti-graffiti measures); (f) achieve a safe, secure, functional and efficient transport network for all street users; (g) maintain community amenity and privacy; (h) maintain local access and circulation for residents, business and road users; (i) address sensitive receivers to minimise noise, vibration, electromagnetic interference, light spill and nuisance; (j) minimise the loss of existing trees, maximise urban tree canopy, including street trees and soft landscaping; (k) address flooding and drainage issues; (l) contribute to the activation of precincts; (m) maximise local connectivity and minimise barriers; (n) maximise walk-in catchments and offer legible, direct pedestrian connections; (o) demonstrate clear wayfinding; (p) maximise user safety, crime prevention and comfort; and (q) consider the Camellia Town Centre Masterplan and the Telopea Masterplan, and Westmead Alliance master planning. The **Urban Design Requirements Report** must be submitted to the Secretary for approval, following review by the **Design Review Panel** required by **Condition E90**, including recommendations provided by the **Design Review Panel** and the way these have been addressed.	Not triggered by the Preconstruction Activities Stage. Activities during this stage do not include detailed design but may include activities that would inform the detailed design. Detailed design for the CSSI would be undertaken as part of Stages 2 and 3.	Not triggered by the Enabling Works Stage. There is limited opportunity for urban design input during the enabling stage due to restrictions for asset standards and specifications and the limited scope of work. It is proposed urban design review during the enabling stage be completed by TfNSW resources.	Condition not staged, compliance with condition to be provided in Construction Compliance Reports by the Proponent	
E89	Construction of light rail stops, tracks and associated facilities must not commence before the Urban Design Requirements Report has been approved by the Secretary. The detailed design development of light rail stops and associated light rail infrastructure within or in proximity to Heritage listed items must be undertaken in consultation with the Heritage Council (or its delegate).	Not triggered by the Preconstruction Activities Stage. There is limited opportunity for urban design input during this stage due to the limited scope of work. Design for these elements would be undertaken as part of Stages 2 and 3.	Not triggered by the Enabling Works Stage. There is limited opportunity for urban design input during the enabling stage due to restrictions for asset standards and specifications and the limited scope of work. Design for these elements would be undertaken as part of Stages 2 and 3.	Stage-specific consultation will be undertaken to inform the Stage-specific Urban Design Requirements Report.	Stage-specific consultation will be undertaken to inform the Stage-specific Urban Design Requirements Report.

CoA Ref.	Requirement	Stage 0 Preconstruction Activities	Stage 1 Enabling Work	Stage 2 Infrastructure Works	Stage 3 SOM Works & Operation
E90	**Design Review Panel** The Proponent must establish an independent **Design Review Panel** before development of the detailed design and before construction commences.	Not triggered by the Preconstruction Activities Stage. There is limited opportunity for urban design input during this stage due to the limited scope of work. Design for these elements would be undertaken as part of Stages 2 and 3.	Not triggered by the Enabling Works Stage. There is limited opportunity for urban design input during the enabling stage due to restrictions for asset standards and specifications and the limited scope of work. It is proposed urban design review during the enabling stage be completed by TfNSW resources. [2]	Condition not staged, compliance with condition to be provided in Construction Compliance Reports by the Proponent TfNSW would establish the independent Design Review Panel for Stages 2-3, anticipated by Quarter 1, 2019.	

[2] Additional information regarding the packages within Stage 1 is provided as follows (and on the subsequent page):

Package 1 does not include any buildings or light rail design elements. Key elements such as place making and architecture would not be applicable to this package. The road enabling work design is constrained by road asset standards and specifications. The main landscaping for these works is for street tree plantings including a small landscaped area in Queens Wharf Reserve and near Parramatta Gaol. Based on the nature of the work (limited to road work, no design for light rail), the Design Review Panel is considered not to be triggered by this package.
As an additional measure, Transport for NSW has identified the areas adjacent Parramatta Gaol and Queens Wharf Reserve for consideration by its Design and Sustainable Review Panel (DSRP). The DSRP has operated since 2005 and consists of eminent independent design leaders, chaired by the NSW Government Architect. The DSRP includes expertise in architecture, urban design and landscape architecture. The DSRP has previously worked on Sydney Light Rail, Newcastle Light Rail and concept design elements for Parramatta Light Rail.

Package 2A involves the design of about 200 metres of Hawkesbury Road between Darcy Road and Jessie Street. This package would also include an interim design which the Stage 2 contractor would take over, therefore items that would impact on the light rail such as place making and light rail architecture would be considered during Stage 2 and 3. There would be limited landscape design during this package, with street tree plantings the main feature. Note that there is no known built heritage or known Aboriginal heritage in proximity to these works. The road widening aspect is constrained by the property boundaries, asset standards and specifications. The interface footpath of the western side of Hawkesbury Road and NSW Health developments has been designed in consultation with City of Parramatta Council. This footpath would have limited design elements as there are many confounding elements and required width which limits design potential in this minimal location. Due to the limited scope and temporary nature of this work, the Design Review Panel is considered not triggered for this package. No elements of Package 2A are considered relevant for the DSRP.

Package 2B and 2C involve the demolition of heritage buildings at Cumberland Hospital campuses. There are no design elements in this portion. Any heritage interpretation / salvage of these buildings would be conducted in accordance with Condition E64 and E70. As the scope for design is absent, the Design Review Panel is considered not triggered by this package. Further work in the Cumberland Hospital area would be conducted during Stages 2 and 3. No elements of Package 2B or 2C are considered relevant for the DSRP.

Package 3 involves remediation (capping) of 6-8 Grand Avenue, Camellia (site of the SaM facility). This has limited design opportunities and is constrained by the requirement to address contamination on site. The design for the SaM facility would be considered as part of Stage 3. Due to the limited scope at this site, the Design Review Panel is considered not triggered by this package. No elements of Package 3 are considered relevant for the DSRP.

CoA Ref.	Requirement	Stage 0 Preconstruction Activities	Stage 1 Enabling Work	Stage 2 Infrastructure Works	Stage 3 SOM Works & Operation
E91	During design development of the CSSI, the **Design Review Panel** must provide advice and recommendations on the detailed design. The responsibilities of the Design Review Panel include : (a) review the design to assess whether it is consistent with the commitments and outcomes made in the documents listed in **Condition A1**, as amended by the terms of this approval including the **Urban Design Requirements Report** required by **Condition E87**; and (b) provide advice on the application of the objectives to key design elements in relation to place making, architecture, heritage, urban and landscape design and artistic aspects of the CSSI.	Not triggered by the Preconstruction Activities Stage. There is limited opportunity for urban design input during this stage due to the limited scope of work. Design for these elements would be undertaken as part of Stages 2 and 3.	Not triggered by the Enabling Works Stage. There is limited opportunity for urban design input during the enabling stage due to restrictions for asset standards and specifications and the limited scope of work. It is proposed urban design review during the enabling stage be completed by TfNSW resources.	Condition not staged, compliance with condition to be provided in Construction Compliance Reports by the Proponent. The Panel will be provided information in the form or presentations and reports by the Stage 2 contractor. The information presented would be in accordance with Conditions E91-E96. Any key design issues would be presented to the panel by key technical advisors from both the contractor and Proponent (as required). The Panel can request design options to be explored further and presented back to the Panel.	
E92	The **Design Review Panel** must be chaired by the NSW Government Architect (or its nominee), and must be comprised of, where relevant, a suitably qualified, experienced and independent professional in each of the fields of: (a) architecture; (b) urban design and place making; (c) landscape design; (d) Aboriginal cultural heritage and (e) non-Aboriginal heritage. The Chair is to invite Relevant Councils, technical experts, key stakeholders, and NSW government agencies to observe **Design Review Panel** meetings and to provide advice on local issues, context, and city outcomes. This includes the Heritage Council (or its delegate). The Proponent and its contractor(s) may be invited onto the Panel as observers only and to provide technical advice. Observers or advisors should not be present while the Panel is deciding upon its recommendations. The Proponent must provide independent secretarial resources to the Panel.	Not triggered by the Preconstruction Activities Stage. There is limited opportunity for urban design input during this stage due to the limited scope of work. Design for these elements would be undertaken as part of Stages 2 and 3.	Not triggered by the Enabling Works Stage. There is limited opportunity for urban design input during the enabling stage due to restrictions for asset standards and specifications and the limited scope of work. It is proposed urban design review during the enabling stage be completed by TfNSW resources.	Condition not staged compliance with condition to be provided in Construction Compliance Reports by the Proponent.	
E93	The **Design Review Panel** members must be nominated by the Proponent and approved by the Secretary in accordance with the timeframes in **Condition E90**.	Not triggered by the Preconstruction Activities Stage. There is limited opportunity for urban design input during this stage due to the limited scope of work. Design for these elements would be undertaken as part of Stages 2 and 3.	Not triggered by the Enabling Works Stage. There is limited opportunity for urban design input during the enabling stage due to restrictions for asset standards and specifications and the limited scope of work. It is proposed urban design review during the enabling stage be completed by TfNSW resources.	Condition not staged compliance with condition to be provided in Construction Compliance Reports by the Proponent.	

CoA Ref.	Requirement	Stage 0 Preconstruction Activities	Stage 1 Enabling Work	Stage 2 Infrastructure Works	Stage 3 SOM Works & Operation
E94	Nomination and appointments of the **Design Review Panel** must comply with the Public Service Commission's *Appointment Standards: Boards and Committees in the NSW Public Sector* guideline.	Not triggered by the Preconstruction Activities Stage. There is limited opportunity for urban design input during this stage due to the limited scope of work. Design for these elements would be undertaken as part of Stages 2 and 3.	Not triggered by the Enabling Works Stage. There is limited opportunity for urban design input during the enabling stage due to restrictions for asset standards and specifications and the limited scope of work. It is proposed urban design review during the enabling stage be completed by TfNSW resources.	Condition not staged compliance with condition to be provided in Construction Compliance Reports by the Proponent.	
E95	Once the **Design Review Panel** is formed a **Design Review Panel Terms of Reference** must be developed and endorsed by all panel members and then approved by the Secretary. The Terms of Reference must: (a) establish best practice governance and protocols for the operation of the **Design Review Panel;** (b) include a Code of Conduct; (c) outline the agreed frequency of **Design Review Panel** meetings (d) outline secretariat functions and administration including the recording and storing of meeting agenda, minutes and actions; and (e) identify cessation arrangements.	Not triggered by the Preconstruction Activities Stage. There is limited opportunity for urban design input during this stage due to the limited scope of work. Design for these elements would be undertaken as part of Stages 2 and 3.	Not triggered by the Enabling Works Stage. There is limited opportunity for urban design input during the enabling stage due to restrictions for asset standards and specifications and the limited scope of work. It is proposed urban design review during the enabling stage be completed by TfNSW resources.	Condition not staged compliance with condition to be provided in Construction Compliance Reports by the Proponent.	
E96	The **Design Review Panel** must be operated and managed in accordance with the approved **Design Review Panel Terms of Reference** and in accordance with the NSW Government *Boards and Committees Guidelines* (Department of Premier and Cabinet, September 2015).	Not triggered by the Preconstruction Activities Stage. There is limited opportunity for urban design input during this stage due to the limited scope of work. Design for these elements would be undertaken as part of Stages 2 and 3.	Not triggered by the Enabling Works Stage. There is limited opportunity for urban design input during the enabling stage due to restrictions for asset standards and specifications and the limited scope of work. It is proposed urban design review during the enabling stage be completed by TfNSW resources.	Condition not staged compliance with condition to be provided in Construction Compliance Reports by the Proponent.	

CoA Ref.	Requirement	Stage 0 Preconstruction Activities	Stage 1 Enabling Work	Stage 2 Infrastructure Works	Stage 3 SOM Works & Operation
E97	**Lighting and CCTV** All lighting to be implemented as part of the CSSI must have regard to the location of nearby residential dwellings. Lighting impacts must be minimised to the extent possible including the use of shields to reduce light spill and annoyance to adjacent residences.	Not triggered by the Preconstruction Activities Stage. Activities during this stage do not relate to operation of the CSSI.	Condition not staged compliance with condition to be provided in Construction Compliance Reports by the Proponent. Note; not triggered for Package 3 – no permanent lighting to be installed in this package and temporary lighting will not impact upon nearest residential dwellings (over 1km buffer).		
E98	The Proponent must ensure that all external lighting associated with the operation of the CSSI (excluding light rail vehicles) is mounted, screened and directed in such a manner so as not to create nuisance to residences. The lighting must be the minimum level of illumination necessary and shall comply with *AS 4282:1997 – Control of the Obtrusive Effects of Outdoor Lighting* and relevant Australian Standards in the series *AS/NZ 1158 – Lighting for Roads and Public Spaces.*	Not triggered by the Preconstruction Activities Stage. Activities during this stage do not relate to operation of the CSSI.	Condition not staged compliance with condition to be provided in Construction Compliance Reports by the Proponent. Note; Not triggered for Package 3 –temporary lighting for construction works only. Permanent lighting will be installed at the SaM facility in Stage 3 (Package 5).	Compliance with condition to be provided in Construction Compliance Reports by the Proponent.	Compliance with condition to be provided in Construction Compliance Reports by the Proponent.
E99	The placement, obstruction and removal of CCTV cameras must be undertaken in consultation with the relevant public authority and relevant Council(s).	Condition not staged compliance with condition to be provided in Construction Compliance Reports by the Proponent. Note; Not triggered for Package 3, no permanent CCTV cameras installed for Package 3.			
E100	The Proponent must avoid and/or minimise the removal of native vegetation or other bushland that provides habitat for native fauna with the objective of reducing impacts to threatened species, populations and ecological communities. Impacted vegetation must be rehabilitated in proximity to the area of disturbance with a diversity of endemic species (in the first instance) and locally native tree, shrub and groundcover species to the greatest extent practicable or offset in accordance with the Proponent's Biodiversity Offset Strategy and the Flora and Fauna Management Sub-Plan required by **Condition C3**, in consultation with OEH, DPI Fisheries, and the Biodiversity Conservation Trust.	Condition applies compliance with condition to be provided in Construction Compliance Reports by the Proponent.	**Partial -** TfNSW shall coordinate the Biodiversity Offset Strategy across all stages. The Package-specific Flora & Fauna Management Sub-Plans shall align with the TfNSW Biodiversity Offset Strategy. Note; not triggered for Package 3 as no vegetation is proposed to be removed and thus nil consultation required.	TfNSW shall coordinate the Biodiversity Offset Strategy across all stages. The Stage-specific Flora & Fauna Management Sub-Plan shall align with the TfNSW Biodiversity Offset Strategy.	TfNSW shall coordinate the Biodiversity Offset Strategy across all stages. The Stage-specific Flora & Fauna Management Sub-Plan shall align with the TfNSW Biodiversity Offset Strategy

CoA Ref.	Requirement	Stage 0 Preconstruction Activities	Stage 1 Enabling Work	Stage 2 Infrastructure Works	Stage 3 SOM Works & Operation
E101	During construction near the Parramatta River and Cumberland Hospital East and West, the Proponent must engage a suitably qualified and experienced fauna specialist to monitor the behaviour of the Grey-headed Flying-fox camp that resides in Parramatta Park in accordance with the Grey-headed Flying Fox Monitoring Program required by **Condition C9** and implement mitigation measures, as required to minimise potential impacts to the camp. Monitoring must commence at least 12 months before the commencement of construction within 300 metres, unless otherwise agreed with the Secretary, of the camp to establish baseline behaviour. Monitoring must be undertaken regularly during construction (in consultation with OEH) with the results compiled in a monitoring report submitted to OEH each month. Monitoring should include species present, numbers, a map of the extent of the camp, breeding status, and condition of animals. If monitoring suggests that construction associated with the CSSI is changing the behaviour of the camp, the Proponent must consult with OEH to determine whether additional mitigation measures are required.	Condition applies, compliance with condition to be provided in Construction Compliance Reports by the Proponent	A package-specific monitoring program is currently being prepared by TfNSW's ecologist and in consultation with OEH and PPT. The program will include a method to use past data, where possible, to reduce the timeframe of the baseline assessment, if possible. The radius of activities shall also be reviewed in this program in light of significant changes to the landscape around the camp in recent times. Agreement with the Secretary shall be sought once the consultation and program is complete. Not triggered for Package 2A and Package 3 as they are outside the 300 metres.	A monitoring program will be developed by TfNSW for the remaining stages of the project once the construction details of Stages 1, 2 & 3 are known, such as construction methodology, timing and duration. The Submission of the GHFF Monitoring Program for Stages 2 & 3 is anticipated by Quarter 3, 2019.	A monitoring program will be developed by TfNSW for the remaining stages of the project once the construction details of Stages 1, 2 & 3 are known, such as construction methodology, timing and duration. The Submission of the GHFF Monitoring Program for Stages 2 & 3 is anticipated by Quarter 3, 2019. This condition does not apply to operations.
E102	**Streetscape Trees** The Proponent must commission a suitably qualified and experienced Arborist with a minimum AQF Level 5 qualification in Arboriculture that is independent of the design and construction personnel for the duration of construction. The Arborist must be approved by the Secretary before works commence and commissioned for the duration of construction.	Condition not staged compliance with condition to be provided in Construction Compliance Reports by the Proponent. Note; Not triggered for Package 3 as no trees to be removed for works.			

CoA Ref.	Requirement	Stage 0 Preconstruction Activities	Stage 1 Enabling Work	Stage 2 Infrastructure Works	Stage 3 SOM Works & Operation
E103	The Arborist must: (a) be the principal point of advice in relation to the assessment and management of CSSI impacts on trees; (b) prepare a **Tree Register** of all trees within the CSSI footprint (either for the entire CSSI or separate areas where tree removal and/or pruning is proposed) before the removal of any trees; (c) identify those trees within the footprint that must be removed for construction to proceed or for CSSI operations; and (d) identify those trees where their fate is uncertain and may be retained or may be pruned (either for construction or for ongoing maintenance during operation).	The Tree Register will be delivered by the Independent Arborist (engaged by the Independent Certifier) in stages to reflect the staged construction of the CSSI.	The Tree Register will be delivered by the Independent Arborist (engaged by the Independent Certifier) in stages to reflect the staged construction of the CSSI. Note; Not triggered for Package 3 as no trees to be removed for works.	The Tree Register will be delivered by the Independent Arborist (engaged by the Independent Certifier) in stages to reflect the staged construction of the CSSI.	The Tree Register will be delivered by the Independent Arborist (engaged by the Independent Certifier) in stages to reflect the staged construction of the CSSI.
E104	The **Tree Register** must include: (a) the georeferenced location of each tree; (b) those attributes as defined in AS 4970-2009 Protection of trees on development sites; (c) the tree retention value; (d) the outcomes of a visual assessment of the condition of the tree; (e) where a tree requires removal, whether, in the opinion of the Arborist, it can be successfully transplanted; (f) the extent of the proposed impact (complete removal or extent of pruning); (g) measures for the management, protection and monitoring of compensatory vegetation, for a minimum of two years from being planted; and (h) timing and responsibilities for the implementation of compensatory vegetation.	Condition applies compliance with condition to be provided in Construction Compliance Reports by the Proponent.	The tree register would be managed by the Independent Arborist and updated during the detailed design phase. During construction a tree impact form will be filled out by the contractors and submitted to the Independent Arborist. Through this form, package contractors would be required to demonstrate the requirements of Condition E105 before the removal, damage or pruning of a tree in accordance with E106. Note; Not triggered for Package 3 as no trees to be removed for works.	The tree register would be managed by the Independent Arborist and updated during the detailed design phase. During construction a tree impact form will be filled out by the contractors and submitted to the Independent Arborist. Through this form, package contractors would be required to demonstrate the requirements of Condition E105 before the removal, damage or pruning of a tree in accordance with E106.	The tree register would be managed by the Independent Arborist and updated during the detailed design phase. During construction a tree impact form will be filled out by the contractors and submitted to the Independent Arborist. Through this form, package contractors would be required to demonstrate the requirements of Condition E105 before the removal, damage or pruning of a tree in accordance with E106.

CoA Ref.	Requirement	Stage 0 Preconstruction Activities	Stage 1 Enabling Work	Stage 2 Infrastructure Works	Stage 3 SOM Works & Operation
E105	For those trees identified as requiring removal in the **Tree Register,** the Proponent must demonstrate consideration of options to avoid or minimise impacts on trees through the detailed design and construction planning process. The options considered must include, but not be limited to: (a) consideration of operational requirements with existing tree locations; (b) consideration of the health of each tree, including its vigour and likely ability to survive in situ pruning or transplanting; (c) review of the construction methodology and layout to identify any options to avoid or minimise impacts on trees; (d) considering opportunities to narrow/move footpaths; (e) modification of the design to reduce impact to the tree (e.g. use of porous pavement); (f) reduction in the standard offsets required for underground services; and (g) where fencing, other ancillary infrastructure or services affect tree retention, relocation or alternative construction methods are considered to reduce impacts (e.g. from strip footings to pier footings for posts).	Not triggered by the Preconstruction Activities Stage. This stage does not include any detailed design. Detailed design would be undertaken as part of Stages 1 to 3. Pre-construction methods shall be selected to avoid/minimise damage or loss of trees.	Condition not staged compliance with condition to be provided in Construction Compliance Reports by the Proponent. Note; Not triggered for Package 3 as no trees to be removed for works.		
E106	The **Tree Register** and any evidence required by **Condition E105** must be submitted to the Secretary before the removal or damage (as defined by the Independent Arborist) of a tree for the purposes of the CSSI. The recommendations of the Independent Arborist must be outlined in the **Tree Register** and implemented by the Proponent, unless otherwise agreed by the Secretary.	The register shall be maintained and updated in stages to reflect the staged construction of the CSSI.	The register shall be maintained and updated in stages to reflect the staged construction of the CSSI. Note; Not triggered for Package 3 as no trees to be removed for works.	The register shall be maintained and updated in stages to reflect the staged construction of the CSSI.	The register shall be maintained and updated in stages to reflect the staged construction of the CSSI.

CoA Ref.	Requirement	Stage 0 Preconstruction Activities	Stage 1 Enabling Work	Stage 2 Infrastructure Works	Stage 3 SOM Works & Operation
E107	**Tree Offset Package** The Proponent must prepare and implement a **Tree Offset Package** for the CSSI in consultation with the independent Arborist required by **Condition E102**, and Relevant Council(s). The Package must consider the objectives and opportunities identified in Sydney Green Grid West Central District (Department of Planning and Environment, 2017), Greener Places (NSW Government Architect, 2017), and Parramatta Ways (Implementing Sydney's Green Grid) (City of Parramatta, 2017). The package must: (a) identify how impacts on trees and vegetation will be mitigated, managed, and compensated; (b) ensure that where trees are removed they are replaced at the following ratios regardless of their value, near the impact or, where this is not practicable, within other areas of the LGA or surrounding LGAs, in consultation with the relevant authority(s): i) large trees (DBH greater than 60cm) – plant minimum of eight trees; ii) medium trees (DBH greater than 15 cm, but less than 60 cm) – plant minimum of four trees; and iii) small young trees (DBH less than 15cm) – plant minimum of two trees. (c) ensure a mix of species and a range of mature heights to provide visual diversity and benefits, in consultation with the Relevant Council(s); (d) street tree plantings are to have a minimum pot size of: i) 200 litres in the Parramatta CBD precinct; and ii) 75 litres in other streets; (e) tree planting in parks, open space, bushland, and within the Carlingford Line corridor, should be sized to suit the location, species and planting style, in consultation with the relevant authority(s); and (f) ensure at least 80% offset works must be completed before CSSI operations commence. Where the requirements of this condition cannot be met, the Proponent must provide documented evidence demonstrating how the matters in (a) to (f) were considered and provide information and justification for an alternative offset option for the Secretary's approval.	Condition not staged compliance with condition to be provided in Construction Compliance Reports by the Proponent. Note; not triggered for Package 3 as no trees to be removed for works.			
E108	**Operational Maintenance** The ongoing maintenance and operation costs of urban design and landscaping items (including tree offsets) and works implemented as part of this approval remain the Proponent's responsibility until satisfactory arrangements have been put in place for transfer to the relevant authority. Before the transfer, the Proponent must maintain items and works to the design standards established by the **Urban Design Requirements Report,** and the **Tree Offset Package**.	Not triggered by the Preconstruction Activities Stage. There is limited opportunity for urban design input during this stage due to the limited scope of work. Design for these elements would be undertaken as part of Stages 2 and 3.	Not triggered by the Enabling Works Stage. There is limited opportunity for urban design input during the enabling stage due to restrictions for asset standards and specifications and the limited scope of work. It is proposed urban design review during the enabling stage be completed by TfNSW resources.	Compliance with condition to be demonstrated in detailed design and compliance will be demonstrated in the final Construction Compliance Report by the Proponent.	Compliance with condition to be demonstrated in detailed design and compliance will be demonstrated in the Pre-Operation Compliance Report by the Proponent.
E109	The Proponent must design and construct the CSSI with the objective of minimising impacts to, and interference with third party property and infrastructure, and that such infrastructure and property is protected during construction.	Condition not staged compliance with condition to be provided in Construction Compliance Reports by the Proponent.			

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E110	**Business Activation Plan** The Proponent must prepare and implement a **Business Activation Plan** to manage impacts to businesses on streets affected by construction of the CSSI, including those where access is altered. The Plan must be prepared before construction and must include but not necessarily be limited to: (a) measures to address amenity, vehicular and pedestrian access during business hours and visibility of the business appropriate to its reliance on such, and other reasonable matters raised in consultation with affected business; (b) Business Management Strategies for each stage of construction (and/or activity), identifying affected businesses and associated management strategies, including the employment of place managers and specific measures to assist small business owners adversely impacted by the construction of the CSSI; (c) Business Support Services Program to assist small business owners adversely impacted by construction of the CSSI. The Program must assist local businesses to develop proactive business strategies including: i) marketing and promotion; ii) business diversification and business planning; and iii) engagement of specialists to run workshops both before and during construction. (d) establishment of business reference groups to provide, but not be limited to, the following services: i) provide information on the CSSI; ii) discuss mitigation measures to minimise impacts; and iii) consult on out of hours works ('Eat Street' only) where required by **Condition E24**. (e) a monitoring program to assess the effectiveness of the measures including business feedback against which effectiveness of the measures will be measured; and (f) provision for reporting of monitoring results to the Secretary, as part of the **Compliance Monitoring and Reporting Program** required in **Condition A30**.	Condition applies compliance with condition to be provided in Construction Compliance Reports by the Proponent.	The plan shall be updated by TfNSW in package-specific stages to reflect the staged construction of the CSSI.	The plan shall be updated by TfNSW in stages to reflect the staged construction of the CSSI.	The plan shall be updated by TfNSW in stages to reflect the staged construction of the CSSI.
E111	**Water Quality** Before undertaking any works and during maintenance or construction activities, erosion and sediment controls must be implemented and maintained to prevent water pollution consistent with LandCom's *Managing Urban Stormwater* series (The Blue Book).	Condition not staged compliance with condition to be provided in Construction Compliance Reports by the Proponent.			
E112	The CSSI must be designed, constructed and operated so as to maintain the *NSW Water Quality Objectives* where they are being achieved as at the date of this approval, and contribute towards achievement of the *NSW Water Quality Objectives* over time where they are not being achieved as at the date of this approval, unless an EPL in force in respect of the CSSI contains different requirements in relation to the *NSW Water Quality Objectives*, in which case those requirements must be complied with.	Not triggered by the Preconstruction Activities Stage. Preconstruction activities will be minor in scope and water shall be managed in compliance with Condition E11 and the TfNSW Water Reuse and Discharge Guideline.	Not triggered by the Enabling Stage. Enabling activities will be minor in scope and water shall be managed in compliance with Condition E11 and the TfNSW Water Reuse and Discharge Guideline.	Condition not staged compliance with condition to be provided in Construction Compliance Reports by the Proponent.	

CoA Ref.	Requirement	Stage 0 Preconstruction Activities	Stage 1 Enabling Work	Stage 2 Infrastructure Works	Stage 3 SOM Works & Operation
E113	**Flooding** A **Flood Management Design Report** must be prepared and implemented in respect of the flood prone land and overland flow paths for the waterways and catchments in the CSSI's vicinity. The Plan must be prepared during detailed design to identify the potential adverse impacts of the operation of the CSSI on existing flooding characteristics for a full range of flood events up to and including the probable maximum flood (PMF). The Plan must include but not be limited to: (a) the results of further modelling to identify the potential impacts of the CSSI on flood behaviour including consideration of increased rainfall intensity and sea level rise under climate change conditions, consistent with the requirements of the *Floodplain Development Manual* (2005) and *Practical Consideration of Climate Change* (2007); (b) the identification of design measures that would be implemented to manage the impacts of flooding on the operation of the CSSI and not worsen the existing flood characteristics. Design of mitigation measures must consider the full range of design events up to the 1% AEP; (c) demonstration of constructability of proposed management measures; (d) sensitivity analyses to assess the risk that additional properties or infrastructure could be subject to changes in existing flood behaviour as a result of the CSSI (i.e. beyond those identified as being impacted in point a) above), for design events up to and including the 1% AEP flood event, namely: i) assessment of 100% blockage of pits for the pre-development (existing) and post-development (with the CSSI) scenarios; ii) assessment of the impact of local and regional coincident flood peaks; and iii) assessment of cumulative impacts of the CSSI and other state significant developments and/or infrastructure in the CBD being constructed or that have received approval (and for which sufficient design detail is available at the time). (e) the identification of measures to be implemented to minimise scour and dissipate energy at locations where flood velocities are predicted to increase as a result of the CSSI; (f) identification of stormwater drainage system upgrades including those upgrades considered as mitigation measures; and (g) identification of the timing and maintenance responsibility of any necessary works. Not worsen existing flooding characteristics within and in the vicinity of the CSSI means the following: (a) a material increase in the duration of inundation for all design events up to and including a 1% AEP flood event; (b) an increase in flood levels of more than 10 mm at properties for all design events up to and including the 1% AEP flood event; and (c) no increase in high hazard flooding as defined in Appendix L of the NSW Government's Floodplain Development Manual (2005). The **Flood Management Design Report** must be prepared by a suitably qualified and experienced person in consultation with directly affected landowners, Sydney Water, OEH, NSW State Emergency Services and the Relevant Council(s). The Plan must be independently peer reviewed by a suitably qualified and experienced hydrological engineer to confirm that the management of and response to flood events is appropriate. The Plan and results of the peer review must be submitted to the Secretary, for information, and Relevant Council(s) at each design stage associated with the CSSI where there is potential to cause adverse flooding impacts.	Not triggered by the Preconstruction Activities Stage. Preconstruction activities do not include the design of any elements. This would be undertaken as part of Stages 1-3.	Not triggered by the Enabling Works Stage. At this stage of the design process there is a low risk for work in the Enabling Works Stage to impact flood management within the operational configuration of the light rail (Arup, 2018). Proposed flood modelling will continue and be completed as per the standard design gateway procedure for TfNSW.	The stage specific plan is anticipated by Quarter 4, 2019.	The stage specific plan is anticipated by Quarter 1, 2020.

CoA Ref.	Requirement	Stage 0 Preconstruction Activities	Stage 1 Enabling Work	Stage 2 Infrastructure Works	Stage 3 SOM Works & Operation
E114	An **Operational Flood Management Plan** must be prepared and implemented before the commencement of CSSI operations. The Operational Flood Management Plan must identify measures to be implemented during the operational phase to minimise risks and maximise safety during flooding events, particularly for passengers and staff. The **Operational Flood Management Plan** must be prepared by a suitably qualified and experienced person in consultation with OEH, NSW State Emergency Service and the Relevant Council(s). It should take into account the outcomes of the sensitivity analyses undertaken in the **Flood Management Design Report** required by **Condition E113**.	Not triggered by Preconstruction Activities Stage. An Operational Flood Management Plan would be conducted as part of Stage 3.	Not triggered by Enabling Works Stage. An Operational Flood Management Plan would be conducted as part of Stage 3.	Not triggered by Infrastructure Delivery Stage. An Operational Flood Management Plan would be conducted as part of Stage 3.	Condition not staged compliance with condition to be provided in Construction Compliance Reports by the Proponent.
E115	All relevant flooding information must be provided to the Relevant Council(s), DPE (Urban Renewal), OEH and the NSW State Emergency Service, to assist in the preparation of any new or necessary update(s) to the relevant plans and documents relating to flooding, to reflect changes in flooding levels, flows and characteristics as a result of the CSSI. The Council, OEH and SES must be notified in writing that the information is available no later than one month following the completion of construction. Information requested by the Council, OEH or the SES must be provided no later than six months following the completion of construction or within another timeframe agreed with the relevant Council, OEH and the SES.	Not triggered by Preconstruction Activities Stage. No flooding information would be received during the scope of these preconstruction activities.	Flooding information would be provided in accordance with this condition by the contractors of each relevant package, compiled by TfNSW and submitted for the Enabling Stage. Note; not triggered for Package 3 as no change to flooding conditions will occur as a result of works. Any changes to flooding levels, flows and characteristics at the SaM Facility will be prepared during Stage 3 by the SOM Contractor within the specified timeframe.	Flooding information would be provided in accordance with this condition by the contractor of this stage for all relevant sites except for facilities constructed by the SOM Contractor.	Flooding information would be provided in accordance with this condition by the contractor of this stage for the SaM Facility and other facilities constructed by the SOM Contractor.
E116	To inform the detailed design of light rail infrastructure, the Proponent must identify EMI susceptible devices that may potentially be affected by CSSI operations and establish baseline electromagnetic field levels at the relevant EMI susceptible devices near the CSSI. Targeted consultation must be carried out with the owners/operators of the identified EMI susceptible devices. The outcomes of these consultations must be documented as part of the **Electromagnetic Management Plan** required by **Condition E117**.	Not triggered by Preconstruction Activities Stage. Preconstruction activities do not include the design of any light rail infrastructure. This would be undertaken as Stages 2 and 3.	Not triggered by Enabling Works, which do not include the design of any light rail infrastructure. This would be undertaken as Stage 2-3.	A Stage-specific baseline survey including consultation shall be completed and included in the Program-wide Electromagnetic Management Plan.	A Stage-specific baseline survey including consultation shall be completed and included in the Program-wide Electromagnetic Management Plan.

CoA Ref.	Requirement	Stage 0 Preconstruction Activities	Stage 1 Enabling Work	Stage 2 Infrastructure Works	Stage 3 SOM Works & Operation
E117	Before commencement of CSSI operations, the Proponent must prepare an **Electromagnetic Management Plan** in consultation with NSW Health and other owner/operators of potentially EMI susceptible devices and submit it to the Secretary for information. The Plan must identify how operational electromagnetic fields attributable to the CSSI could affect the operation of NSW Health or other existing EMI susceptible devices near the CSSI. The Plan must include, but not be limited to: (a) identification of existing EMI susceptible devices; (b) established baseline electromagnetic field levels at existing EMI susceptible devices; (c) predicted operational electromagnetic field levels at existing EMI susceptible devices potentially affected by CSSI operations; (d) identification of electromagnetic field reduction strategies, technologies, design and operational measures that will be implemented to manage potential impacts; (e) identification of appropriate limits/criteria to minimise operational interference to existing EMI susceptible devices within the operational tolerance of the device; (f) internal audits of compliance of electromagnetic field levels; and (g) details of an electromagnetic field monitoring program to be completed within 18 months from commencement of CSSI operations, unless otherwise agreed with the owners/operators of the EMI susceptible device(s).	Not triggered by Preconstruction Activities Stage. Activities during the preconstruction stage do not relate to operation	Not triggered by Enabling Works Stage. Activities during this stage do not relate to operation	Not triggered by Infrastructure Delivery Stage. Activities during this stage do not relate to operation	Condition not staged compliance with condition to be provided in Construction Compliance Reports by the Proponent.
E118	Notification must be provided and, where relevant, approvals must be sought directly from the EPA before commencement of any works which will intersect or disturb the surface of sites which are regulated by the EPA under the *Contaminated Land Management Act 1997.*	Condition not staged compliance with condition to be provided in Construction Compliance Reports by the Proponent.			
E119	Before commencement of any activities that would result in the disturbance of land and/or soil in Areas of Environmental Interest (AEI) identified as having a high risk of contamination, or identified as medium risk subject to further desktop assessment as specified in the documents listed in **Condition A1**, a **Site Contamination Report** must be prepared by a suitably qualified person(s) in accordance with the requirements of the *Contaminated Land Management Act 1997* and associated guidelines. The Site Contamination Report must outline the potential contamination risks from the AEIs to human health and receiving waterways and detail, where relevant, whether the land is suitable (for the intended land use) or can be made suitable through remediation. For AEIs where there is insufficient information and data available to draw such conclusions, the **Site Contamination Report** must also detail the outcomes of Phase 2 site contamination investigations within those AEIs.	Not triggered by Preconstruction Activities Stage. Where investigations are required for this condition as preconstruction activities, mitigation measures as identified by a suitably experienced land management expert would be in place before activities commence.	Site Contamination reports will be progressively developed prior to disturbance of the nominated AEIs.	Site Contamination reports will be progressively developed prior to disturbance of the nominated AEIs.	Site Contamination reports will be progressively developed prior to disturbance of the nominated AEIs.
E120	For those AEIs where a **Site Contamination Report** is to be prepared in accordance with **Condition E119**, where the investigations identify that the site is suitable for the intended operations and that there is no need for a specific remediation strategy, measures to identify, handle and manage potential contaminated soils, materials and groundwater must be identified in the **Site Contamination Report** and incorporated into the **CEMP** or relevant sub-plan.	Condition applies compliance with condition to be provided in Construction Compliance Reports by the Proponent.	The CEMP will be progressively updated in response to any recommended measures of Site Contamination Reports as they are prepared.	The CEMP will be progressively updated in response to any recommended measures of Site Contamination Reports as they are prepared.	The CEMP will be progressively updated in response to any recommended measures of Site Contamination Reports as they are prepared.

CoA Ref.	Requirement	Stage 0 Preconstruction Activities	Stage 1 Enabling Work	Stage 2 Infrastructure Works	Stage 3 SOM Works & Operation
E121	For those AEIs where a **Site Contamination Report** concludes the site can be made suitable for its intended land use subject to remediation, the **Site Contamination Report** must include a **Remediation Action Plan** to address disturbed areas, and how the environmental and human health risks will be managed during the disturbance, remediation and/or removal of contaminated soil or groundwater.	If triggered, Remediation Action Plans (RAPs) will progressively be prepared for each AEI prior to disturbance.	**Partial** – for relevant AEIs only if triggered under E119 and E120. If triggered, RAPs will progressively be prepared for each AEI prior to disturbance.	If triggered, RAPs will progressively be prepared for each AEI prior to disturbance.	If triggered, RAPs will progressively be prepared for each AEI prior to disturbance.
E122	For those AEIs where remediation is required, the **Site Contamination Report** and **Remediation Action Plan** must be accompanied by a **Site Audit Statement(s)**, prepared by a NSW EPA Accredited Site Auditor under the *Contaminated Land Management Act 1997*, verifying that the disturbed area has been or can be remediated to a standard consistent with the intended land use. Where land is remediated, a final **Site Audit Statement(s)** must be prepared by an accredited Site Auditor, certifying that the contaminated and disturbed areas have been remediated to a standard consistent with the intended land use. *Note: Terms used in Condition E121 and E122 have the same meaning as in the Contaminated Land Management Act 1997.*	Condition may apply, compliance with condition to be provided in Construction Compliance Reports by the Proponent	**Partial** – for relevant AEIs only if triggered under E119 and E120.	Condition not staged, compliance with condition to be provided in Construction Compliance Reports by the Proponent.	
E123	For those AEIs where remediation is required, the land must not be used for the purpose approved under the terms of this approval until a **Site Audit Statement** determines that the land is suitable for that purpose and any conditions on the **Site Audit Statement** have been complied with.	Condition may apply, compliance with condition to be provided in Construction Compliance Reports by the Proponent	**Partial** – for relevant AEIs only if triggered under E119 and E120.	Condition not staged, compliance with condition to be provided in Construction Compliance Reports by the Proponent.	
E124	A copy of the final **Site Audit Statement** must be submitted to the Secretary and relevant Council no later than one month before the commencement of CSSI operations.	Condition may apply, compliance with condition to be provided in Construction Compliance Reports by the Proponent	**Partial** – for relevant AEIs only if triggered under E119 and E120.	Condition not staged, compliance with condition to be provided in Construction Compliance Reports by the Proponent.	

CoA Ref.	Requirement	Stage 0 Preconstruction Activities	Stage 1 Enabling Work	Stage 2 Infrastructure Works	Stage 3 SOM Works & Operation
E125	An **Unexpected Contaminated Land and Asbestos Finds Procedure** must be prepared and must be implemented should unexpected contaminated land or asbestos be excavated or otherwise discovered during construction. This can be provided as part of the **CEMP** or relevant sub-plan.	Not triggered by Preconstruction Activities Stage. This stage does not include 'construction' works. However a similar procedure to that described in this condition would be developed by the contractor for the duration of the activities. This would not be documented within the CEMP or relevant sub-plan but noted in an Environmental Controls Map and implemented by the contractor for the duration of the activities.	Package-specific procedures would be developed for each Package prior to construction.	A Stage-specific procedure would be developed for this Stage prior to construction.	A Stage-specific procedure would be developed for this Stage prior to construction.
E126	The **Unexpected Contaminated Land and Asbestos Finds Procedure** must be implemented throughout construction.	Not triggered by Preconstruction Activities Stage. This stage does not include 'construction' works. The similar procedure to that described in E125 would be noted in an Environmental Controls Map and implemented by the contractor for the duration of the activities.	Condition not staged compliance with condition to be provided in Construction Compliance Reports by the Proponent.		

CoA Ref.	Requirement	Stage 0 Preconstruction Activities	Stage 1 Enabling Work	Stage 2 Infrastructure Works	Stage 3 SOM Works & Operation
E127	Waste generated during construction and operation must be managed in accordance with the following priorities: (a) waste generation must be avoided and where avoidance is not reasonably practicable, waste generation must be reduced; (b) where avoiding or reducing waste is not possible, waste must be re-used, recycled, or recovered; and (c) where re-using, recycling or recovering waste is not possible, waste must be treated or disposed of.	Condition not staged compliance with condition to be provided in Construction Compliance Reports by the Proponent.			
E128	The importation of and storage of Virgin Excavated Natural Material (VENM), and the treatment, processing, reprocessing or disposal of any other waste must comply with the *Protection of the Environment Operations Act 1997 and the Protection of the Environment Operations (Waste) Regulation 2014*, where orders or exemptions apply under the regulation.	Condition not staged compliance with condition to be provided in Construction Compliance Reports by the Proponent.			
E129	Waste must only be exported to a site licensed by the EPA for the storage, treatment, processing, reprocessing or disposal of the subject waste, or in accordance with a Resource Recovery Exemption or Order issued under the *Protection of the Environment Operations (Waste) Regulation 2014*, or to any other place that can lawfully accept such waste. Disposal of waste at these facilities must include GPS tracking of waste vehicles, audits of waste facility receipts and cross verification with the facility. All asbestos waste over 10m3 must be tracked through EPA's WasteLocate service.	Condition not staged compliance with condition to be provided in Construction Compliance Reports by the Proponent.			
E130	All waste must be classified in accordance with the EPA's Waste Classification Guidelines, with appropriate records and disposal dockets retained for audit purposes.	Condition not staged compliance with condition to be provided in Construction Compliance Reports by the Proponent.			
E131	Asbestos or asbestos-contaminated materials uncovered during demolition and construction activities of the CSSI must be strictly managed in accordance with the requirements under the *Protection of the Environment Operations (Waste) Regulation 2014* and any guidelines or requirements in force at the date of this approval and issued by the EPA in relation to those materials.	Condition not staged compliance with condition to be provided in Construction Compliance Reports by the Proponent.			
E132	At least one month before the commencement of construction of any hazardous works or works adjacent to hazardous infrastructure, the Proponent must prepare and submit for the approval of the Secretary, the following: (a) A **Final Hazard Analysis** of the development consistent with the Department's *Hazardous Industry Planning Advisory Paper No. 6, 'Hazard Analysis*'. The study must be prepared based on the final detailed design of the development and include: i) a quantitative risk assessment; ii) details of all safeguards to be implemented, in particular those at the locations of pipeline crossing; iii) findings and recommendations from the Safety Management Study undertaken in consultation with the relevant dangerous goods pipeline operators and pipeline licensees; iv) demonstrate that the risks from the development satisfy relevant NSW Risk Criteria as set out in HIPAP 10. (b) A **Construction Safety Study,** prepared consistent with *Hazardous Industry Planning Advisory Paper No. 7 'Construction Safety'*. The **Construction Safety Study** must be prepared in consultation with the relevant dangerous goods pipeline operators and licensees and include details of the proposed safety measures to ensure the relevant underground pipelines will not be impacted by the construction of the development.	Not triggered by Preconstruction Activities Stage. Activities during the preconstruction activities stage do not relate to construction of the CSSI.	Not triggered by Enabling Works, this condition relates to the dangerous goods pipeline (Hunter Pipeline at Camellia). Packages 1 – 3 are not within the area of the Hunter Pipeline. Package-specific Final Hazard Analysis' will be prepared prior to commencing hazardous (including potential) work.	A Stage-specific Final Hazard Analysis will be prepared prior to commencing hazardous (including potential) work.	A Stage-specific Final Hazard Analysis will be prepared prior to commencing hazardous (including potential) work.

CoA Ref.	Requirement	Stage 0 Preconstruction Activities	Stage 1 Enabling Work	Stage 2 Infrastructure Works	Stage 3 SOM Works & Operation
E133	One month before the commencement of CSSI operations, the Proponent must submit to the Secretary for information, a **Pre-Startup Compliance Report** detailing compliance with **Condition E132**, including: (a) dates of study/plan/system submission, approval, commencement of construction and commissioning; (b) actions taken or proposed, to implement recommendations made in the studies/plans/systems; and (c) responses to any requirement imposed by the Secretary.	Not triggered by Preconstruction Activities Stage. Activities during the preconstruction activities stage do not relate to operation of the CSSI.	Not triggered by Enabling Works Stage. Activities during the preconstruction activities stage do not relate to operation of the CSSI.	Not triggered by Infrastructure Delivery Stage. Activities during the preconstruction activities stage do not relate to operation of the CSSI.	Condition not staged compliance with condition to be provided in Construction Compliance Reports by the Proponent.
E134	Three (3) months after the commencement of CSSI operations, the Proponent must submit to the Secretary, for information, a **Post-Start-up Compliance Report,** which reports on the implementation of all recommendations raised in the C**onstruction Safety Study** required under **Condition E132.**	Not triggered by Preconstruction Activities Stage. Activities during the preconstruction activities stage do not relate to operation of the CSSI.	Not triggered by Enabling Works Stage. Activities during the preconstruction activities stage do not relate to operation of the CSSI.	Not triggered by Infrastructure Delivery Stage. Activities during the preconstruction activities stage do not relate to operation of the CSSI.	Condition not staged compliance with condition to be provided in Construction Compliance Reports by the Proponent.
E135	**Infrastructure Property and Utilities** The Proponent must identify utilities, services and other infrastructure and property potentially affected by construction to determine requirements for access to, diversion, protection, and/or support. Consultation with the relevant owner and/or provider of services that are likely to be affected by the CSSI must be undertaken to make suitable arrangements for access to, diversion, protection, and/or support of the affected infrastructure as required. The Proponent must ensure that any disruption to any service is minimised and shall be responsible for advising impact to service recipients before any planned disruption of service. The cost of any such arrangements must be borne by the Proponent, unless otherwise agreed with the utility/service provider.	Condition not staged compliance with condition to be provided in Construction Compliance Reports by the Proponent.			

CoA Ref.	Requirement	Stage 0 Preconstruction Activities	Stage 1 Enabling Work	Stage 2 Infrastructure Works	Stage 3 SOM Works & Operation
E136	**Sustainability** A **Sustainability Strategy** must be prepared to achieve a minimum project score of 65 for 'Design' and 'As built' rating under the Infrastructure Sustainability Council of Australia infrastructure rating tool.	Not triggered by Preconstruction Activities Stage. Preconstruction activities would comply with sustainability initiatives where applicable, however the Sustainability Strategy under the ISCA tool would be prepared for Stages 1-3.	There is limited opportunity during the enabling stage to achieve an ISCA rating due to restrictions for asset standards and specifications and the limited scope of work. It is proposed that the TfNSW Sustainable Design Guidelines be implemented during the enabling stage excluding Package 1 and monitored by TfNSW resources and the ER. These Sustainability initiatives shall contribute to the overall ISCA rating of the CSSI. A Sustainability Strategy has been prepared by TfNSW for all construction activities.	A Sustainability Strategy has been prepared by TfNSW for all construction activities	The Proponent acknowledges and complies with this condition. A Sustainability Strategy has been prepared by TfNSW for all construction activities Submission of the Stage 3 Strategy (Operation) is anticipated by Quarter 4, 2023.
E137	The **Sustainability Strategy** must be submitted to the Secretary, for information, within six months of the date of this approval, or within another timeframe agreed with the Secretary, an must be implemented throughout the design, construction and operation of the CSSI.	Not triggered by Preconstruction Activities Stage. Preconstruction activities would comply with sustainability initiatives where applicable, however the Sustainability Strategy under the ISCA tool would be implemented for Stages 1-3.	**Partial** Condition applies for Construction & Design, compliance with condition to be provided in Construction Compliance Reports by the Proponent		Condition applies in full, compliance with condition to be provided with an Operation specific strategy, anticipated Quarter 4, 2023.

CoA Ref.	Requirement	Stage 0 Preconstruction Activities	Stage 1 Enabling Work	Stage 2 Infrastructure Works	Stage 3 SOM Works & Operation
E138	Opportunities to reduce operational greenhouse gas emissions must be investigated during detailed design. The sustainability initiatives identified in the documents identified in **Condition A1** must be regularly reviewed, updated and implemented throughout the design development and construction, and annually during operation of the CSSI.	Not triggered by Preconstruction Activities Stage. This stage does not include any operational activities.	Not triggered by Enabling Works Stage. There is limited opportunity during this stage to achieve a reduction in operational greenhouse gases. The light rail detailed design would be done during Stages 2 and 3.	Detailed design of the light rail infrastructure would be conducted under this stage.	Detailed design of the light rail stops and operational ancillary facilities would be conducted under this stage.
	End of Conditions				

Table 3-2: Addressing Revised Environmental Mitigation and Management Measures (REMMMs) across the CSSI

ID Ref.	Requirement	Precinct	Stage 0 Preconstruction Activities	Stage 1: Package 1 Enabling Works	Stage 1: Package 2 Westmead Precinct Works	Stage 1: Package 3 Early Works Portion 2	Stage 2: Package 4 Infrastructure Delivery	Stage 3: Package 5 SOM
AB-1	Aboriginal heritage interpretation would be incorporated into the design of the project in consultation with registered Aboriginal stakeholders.	All Precincts	Not Triggered	Not Triggered	Not Triggered	Not Triggered	Applicable	Applicable
AB-2	An Aboriginal and non-Aboriginal heritage management plan would be prepared as part of the CEMP. Specific measures would be identified in consultation with NSW Office of Environment and Heritage (OEH) and other relevant government agencies. As relevant, the plan would be developed in consultation with Registered Aboriginal Parties. The objectives and strategies of the plan would include the following: • Minimise impacts on items or places of heritage value. • Procedures for carrying out salvage or excavation of heritage relics or sites (where relevant) and any recordings of heritage relics prior to works commencing that would impact the heritage relic or site. • Procedures for interpretation of heritage values uncovered during salvage or excavation during detailed design. • Details on management measures to be implemented to prevent and minimise impacts on heritage items (including further heritage investigations, archival recordings and/or measures to protect unaffected sites during construction works in the vicinity). • Procedures for unexpected heritage finds, including procedures for dealing with human remains (and burials). The Transport for NSW Unexpected Heritage Finds Guideline (2014) would be implemented. • Procedures for the reinstatement of areas of heritage value that would be temporarily impacted by construction following the completion of construction. • Heritage monitoring and auditing requirements.	All Precincts	Not Triggered A TfNSW Unexpected Finds Procedure would be in place for any preconstruction activities	Applicable Heritage Management Plan to be prepared. Consultation with the RAPs would be as applicable.	Applicable Heritage Management Plan to be prepared. Consultation with the RAPs would be as applicable.	Not triggered for Package 3, nil heritage values occur on-site. Consultation to support approach provided in CEMP.	Applicable	Applicable
AB-3	Archaeological salvage excavation (in accordance with the methodology detailed in Technical Paper 4 – Parramatta Light Rail: Aboriginal Cultural Heritage Assessment) would be carried out for the following sites prior to the commencement of construction: • Cumberland Hospital East. • Harris Street Footpath/Robin Thomas Reserve. • PLR AFT 2 (formerly PLR PAD 4).* • Sydney Turf Club car park. ** Note PAD 2 was referred to in error in the SPIR revised mitigation measures. PLR AFT 2 is the same site as the former PLR PAD 4, which is the correct reference here.*	Parramatta North; Parramatta CBD; Rosehill and Camellia	Not Triggered Salvage works would be considered construction	Not Triggered	Not Triggered Package 2: Activity B is within Cumberland Hospital East area however does not include any excavation work in the nominated salvage areas and is enabling the area for Stage 2.	Not Triggered, outside of locations.	Applicable	Applicable if excavation works required in areas not previously salvaged by Stage 2.

ID Ref.	Requirement	Precinct	Stage 0 Preconstruction Activities	Stage 1: Package 1 Enabling Works	Stage 1: Package 2 Westmead Precinct Works	Stage 1: Package 3 Early Works Portion 2	Stage 2: Package 4 Infrastructure Delivery	Stage 3: Package 5 SOM
AB-4	Exclusion zones would be established during construction for the following partially impacted sites to protect the portion of the site located outside the project construction disturbance boundary: • Cumberland Hospital East. • Harris Street Footpath/Robin Thomas Reserve. Suitable controls would be identified in the heritage management plan and shown on the Environmental Control Maps (refer Transport for NSW Guide to Environmental Control Map), which may include barrier fencing to delineate the exclusion zones.	Parramatta North; Parramatta CBD	Applicable in conjunction with E76, control measures to be implemented	Applicable in conjunction with E76, control measures to be implemented	Applicable in conjunction with E76, control measures to be implemented	Not triggered.	Applicable in conjunction with E76, control measures to be implemented	Applicable in conjunction with E76, control measures to be implemented
AQ-1	An air quality and dust management plan would be developed and implemented as part of the CEMP. This plan would identify triggers and procedures for dealing with significant dust generating activities, with the aim of minimising impacts on surrounding sensitive receivers. Air quality and dust management measures that would be identified in the CEMP would include: • Apply wheel-wash or rumble grid facilities as appropriate to remove loose material and prevent the tracking of spoil debris onto local roads. • Clean loose materials and debris from the tailgate of vehicles unloading materials to stockpiles prior to departure from site. • Conduct routine servicing and maintenance, and subsequent inspections to ensure that equipment continues to operate efficiently. • Ensure that all loads are covered when materials are being hauled to and from site. • Ensure that compound area surfaces are well compacted or sealed to limit the potential for dust generation. • Ensure that structures are inspected by a suitably qualified person to confirm that they do not contain any hazardous materials (e.g. asbestos) which could be broken and mobilised during demolition. Where such materials are identified, adhere to the requirements for removal and disposal listed in the Work Health and Safety Act 2011, and Work health and Safety Regulation 2011. • Impose low speeds limits around compound sites to limit the generation of dust from vehicle movements. • Install dust monitoring devices to quantify dust levels and determine whether control measures are adequate or whether further actions are required. • Installation of perimeter screening around areas where there is a potential to generate emissions to air and around long-term compound and stockpile locations.	All Precincts	Not Triggered	Applicable	Applicable	Applicable	Applicable	Applicable

ID Ref.	Requirement	Precinct	Stage 0 Preconstruction Activities	Stage 1: Package 1 Enabling Works	Stage 1: Package 2 Westmead Precinct Works	Stage 1: Package 3 Early Works Portion 2	Stage 2: Package 4 Infrastructure Delivery	Stage 3: Package 5 SOM
	• Plan activities and avoid adversely windy conditions which may result in the generation of off-site dust impacts. • Position stockpiling areas as far as possible from surrounding receivers. • Regularly water exposed and disturbed areas and stockpiles especially during inclement weather conditions. • Water demolition areas as necessary to minimise the generation of dust. • Wherever possible and practical, limit the amount of materials stockpiled, extent of disturbed and exposed surfaces. Restoration of cleared areas is to occur as soon as possible. • Apply odour supressing agents to materials as necessary to minimise related impacts should any contaminated or hazardous materials be uncovered during the works. • Construction plant and equipment would be well maintained and regularly serviced so that vehicular emissions remain within relevant air quality guidelines and standards. • All vehicles used on site, for transporting materials to or from site, or for any other activities associated with the project, shall be maintained to avoid the emission of excessive air impurities in accordance with Part 5.8 of the *Protection of the Environment Operations Act 1997* and the Protection of the Environment Operations (Clean Air) Regulation 2010. • All on-road trucks would comply with the relevant Australian emission standards. • All chemicals and fuels would be stored in sealed containers as per appropriate regulations and guidelines. • The on-site storage of fuel would be kept to a minimum. • Unloading of fuels (diesel or liquefied nitrogen gas (LNG)) would be vented via return hoses that recirculate vapours from delivery to receiver. • On dry days, unsurfaced haul roads would be watered to aid dust suppression. • Stockpiles left for extended periods would be grassed or covered with appropriate material. • Chemical/fuel storage tanks would be fitted with a conservation vent (to prevent air inflow and vapour escape until a pre-set vacuum or pressure develops).							
AQ-2	Potential air quality impacts associated with the operation of the following environmental management measures, to be specified in the project OEMP:	All Precincts	Not Triggered	Not Triggered	Not Triggered	Not Triggered	Not Triggered	Applicable

ID Ref.	Requirement	Precinct	Stage 0 Preconstruction Activities	Stage 1: Package 1 Enabling Works	Stage 1: Package 2 Westmead Precinct Works	Stage 1: Package 3 Early Works Portion 2	Stage 2: Package 4 Infrastructure Delivery	Stage 3: Package 5 SOM
	• Conduct routine maintenance to clear debris and loose materials from around the light rail operating area. • Plan and coordinate the removal of sand to avoid inclement weather conditions which may result in emissions being blown towards nearby receivers. • Inspect plant/equipment prior to commencement of maintenance activities to ensure that equipment continues to operate efficiently. • Conduct routine servicing and maintenance, and subsequent inspections to ensure that the light rail transport infrastructure continues to operate efficiently (such as replacing any wearing parts). • Ancillary maintenance service vehicles and equipment would be maintained and operated in accordance with the manufacturers requirements. • Conduct maintenance activities within planned enclosures as appropriate. • Wherever possible, complete emission-generating maintenance activities away from the perimeter of the stabling and maintenance facility.							
BI-1	The detailed design would demonstrate in the reporting for detailed design, consideration of measures to minimise potential biodiversity impacts include: • Consideration of DPI's Policy and guidelines for fish habitat conservation and management (2013 update) and the NSW Office of Water's Guidelines for controlled activities for the design of instream structures or riparian works. These elements of the design would be developed in consultation with DPI – Crown Lands and Water and DPI - Fisheries. • Options for minimising impacts on habitat connectivity, including establishment of native vegetation and habitat elements such as rock piles and large woody debris under the bridges to provide cover for fauna. • Opportunities for minimising the potential for injury and mortality of wildlife associated with OHW and fences would be investigated in consultation with an ecologist and implemented where practicable. • Investigating opportunities for collaborating with organisations and stakeholders to rehabilitate existing waterways along the project alignment (such as Vineyard Creek) as part of the Vegetation Offset Strategy.	All Precincts	Not Triggered	Not Triggered	Not Triggered	Not Triggered	Applicable	Not Triggered
BI-2	Transport for NSW would discuss the requirements for entering into a voluntary planning agreement with the NSW Office of Environment and Heritage and Department of Planning and Environment during detailed design.	All Precincts	Not Triggered	Not Triggered	Not Triggered	Not Triggered	Applicable	Applicable

ID Ref.	Requirement	Precinct	Stage 0 Preconstruction Activities	Stage 1: Package 1 Enabling Works	Stage 1: Package 2 Westmead Precinct Works	Stage 1: Package 3 Early Works Portion 2	Stage 2: Package 4 Infrastructure Delivery	Stage 3: Package 5 SOM
BI-3	A flora and fauna management plan would be prepared as part of the CEMP. Specific measures would be identified in consultation with relevant government agencies. The flora and fauna management plan would include the following: • A requirement to prepare Environmental Control Maps in accordance with Transport for NSW's Guide to Environmental Control Map. The maps would delineate ecologically sensitive areas (such as habitat areas or locations of threatened species, populations or ecological communities), clearing extents, vegetation to be retained, and any other no go areas. • Procedures for the clearing of vegetation and the relocation of flora and fauna. Where possible, the removal of native vegetation would be minimised as far as practicable. Measures to minimise the removal of native vegetation would include: – Use of high visibility fencing (such as barrier mesh) to delineate vegetation to be retained or limits of clearing. – A trained ecologist would accompany clearing crews in order to ensure disturbance is minimised and to assist any native animals to relocate to adjacent habitat. – Measures to reduce disturbance to sensitive fauna. • Rehabilitation requirements, including identification of flora species and sources, and measures for the management and maintenance of rehabilitated areas (including for example a program of weed removal and monitoring). • Weed management measures focusing on monitoring for early identification of invasive weeds and pathogens and detailed effective management controls for minimising the risk of introducing weeds and pathogens. • Procedure for dealing with unexpected identification of Endangered Ecological Communities or threatened species during construction. • Auditing and monitoring of the plan.	All Precincts	Not Triggered	Applicable in conjunction with C3 (c)	Applicable in conjunction with C3 (c)	Not Triggered, no ecologically sensitive areas on site. Vegetation to be managed in accordance with the Remediation Action Plan.	Applicable in conjunction with C3 (c)	Applicable in conjunction with C3 (c)
BI-4	The following measures would be adopted in the flora and fauna management plan to mitigate impacts on aquatic habitats during construction: • Implementing the soil and water mitigation and management measures HY-7, SG-3, SG-4 and CM-3. • Preparation of acid sulfate soils/contaminated soils management plan. • Minimising the works footprint in and adjacent to watercourses, including establishment and marking of	All Precinct	Not Triggered	Applicable	Applicable	Not triggered, no aquatic habitats or riparian zones on site.	Applicable	Applicable

ID Ref.	Requirement	Precinct	Stage 0 Preconstruction Activities	Stage 1: Package 1 Enabling Works	Stage 1: Package 2 Westmead Precinct Works	Stage 1: Package 3 Early Works Portion 2	Stage 2: Package 4 Infrastructure Delivery	Stage 3: Package 5 SOM
	vegetation buffer zones in areas of vegetation removal in riparian zones. • Crossing design would adhere to relevant policies and guidelines including the fish friendly passage guidelines (Fairfull and Witheridge, 2003) for waterway crossings and avoid/minimise disruption to fish movements and the Policy and guidelines for fish habitat conservation and management (Department of Primary Industries, 2013). • Construction compounds would where feasible be located within previously disturbed areas, away from riparian vegetation (to the extent possible). • Use of platforms/temporary wharfs in preference to weirs for instream construction works. • Use of floating booms around work zones. • Use of silt curtains around new piers during piling to restrict turbidity. • Bund integrity of equipment wash-downs would be maintained for all works on/near river banks. • Prohibition dumping of excavated materials or untreated runoff water in the river. • Remediation and revegetation of disturbed watercourse bed banks and aquatic habitats as soon as possible following disturbance in accordance with the Guidelines for watercourse crossings on waterfront land (Department of Primary Industries, 2012) and the Policy and guidelines for fish habitat conservation and management (Department of Primary Industries, 2013). The relevant mitigation and management measures would be shown on Environmental Control Maps in accordance with Transport for NSW's Guide to Environmental Control Map.							
BI-5	In addition to the mitigation and management measures described in BI-4, the following mitigation and management measures to avoid and minimise the risk to mangroves would be implemented during construction as part of the flora and fauna management plan. This would include (but is not limited to): • Work area planning and management of activities to avoid removing existing mangrove plants. • Temporary wharf/platforms and vessel routes would be planned to avoid pneumatophore zones and minimise erosion. • Remediation of disturbed banks with mangroves/native vegetation, and if required, use of mangrove shrubs/seedlings transplanted from disturbed areas.	All Precincts	Not Triggered	Applicable	Applicable	Not triggered, no mangrove vegetation on site.	Applicable	Not triggered
BI-6	To mitigate fragmentation and reduced habitat connectivity, plant species chosen for revegetation under the bridges would	All Precincts	Not Triggered	Not Triggered	Not triggered	Not triggered	Applicable	Applicable

ID Ref.	Requirement	Precinct	Stage 0 Preconstruction Activities	Stage 1: Package 1 Enabling Works	Stage 1: Package 2 Westmead Precinct Works	Stage 1: Package 3 Early Works Portion 2	Stage 2: Package 4 Infrastructure Delivery	Stage 3: Package 5 SOM
	be selected for their shade tolerance (e.g. rainforest understorey species native to the Sydney Basin Bioregion) even if these species are not usually found in the Alluvial Woodland/Riparian Forest vegetation types. This requirement would be translated into the UDLP, where appropriate.							
BI-7	The flora and fauna management plan would include measures to mitigate habitat loss as a result of the project. These measures would be confirmed during preparation of the plan, and would include: • Consideration would be given to fitting roost boxes to the bridges over existing creek crossings to provide roost sites for the Large-footed Myotis and other species of microbats (e.g. Eastern Bentwing-bat) which may utilise such structures. The quantity and location of roost boxes would be determined in consultation with an ecologist to meet the specific needs for the targeted species and would be installed prior to structure disturbance. • Nest boxes of a variety of designs would be installed including boxes suitable for roosting by microbats. Relocation of natural hollows by either affixing them to existing live retained trees or to poles/trunks of felled trees installed in revegetated areas would also be considered as an alternative to nest box installation. The quantity and location of roost boxes would be determined in consultation with an ecologist to meet the specific needs for the targeted species and would be installed prior to disturbance in the area. • Important habitat elements (e.g. large woody debris) would be moved from the construction area to locations outside the clearing area in native vegetation remnants or to stockpiles for later use in vegetation/habitat restoration. • Development of contingency measures with relation to the potential impacts to the Parramatta Grey-headed Flying-fox camp. Suitable winter-flowering vegetation would be preferentially planted in landscaped areas of the site to provide a winter foraging resource for migratory and nomadic nectar-feeding birds and the Grey-headed Flying-fox.	All Precincts	Not Triggered	**Partially Applicable** Planting program to consider winter flowering vegetation.	Not triggered.	Not triggered	Applicable	**Partially Applicable** Planting program to consider winter flowering vegetation in accordance with Condition E87 and E107.
BI-8	The flora and fauna management plan would include measures to minimise the likelihood of fauna injury or death during the clearing of vegetation including a staged habitat removal protocol incorporating the following measures: • All habitat trees in the area to be cleared would be identified (by an arborist) and marked. • A pre-clearing procedure that encourages animals to leave prior to clearing.	All Precincts	Not Triggered	Applicable	Applicable	Not triggered There will be no vegetation clearing or habitat loss as a result of the construction of Package 3.	Applicable	**Partially Applicable** Not triggered for Package 5A. There will be no vegetation clearing or habitat loss as a result of the

ID Ref.	Requirement	Precinct	Stage 0 Preconstruction Activities	Stage 1: Package 1 Enabling Works	Stage 1: Package 2 Westmead Precinct Works	Stage 1: Package 3 Early Works Portion 2	Stage 2: Package 4 Infrastructure Delivery	Stage 3: Package 5 SOM
	• Pre-clearing surveys would be conducted at least 12 to 48 hours prior to vegetation clearing to search for native wildlife (e.g. reptiles, frogs) which can be captured and relocated. • Where practical, felled habitat trees would be left on the ground for a further 24-hour waiting period prior to removal from the construction area or immediately moved to the edge of retained vegetation at the discretion of the supervising ecologist. • All contractors would have the contact numbers of wildlife rescue groups in case animals are injured or orphaned during clearing and require veterinary assistance and/or extended care prior to release. • Relocation of animals to adjacent retained habitat would be carried out by an ecologist during the supervision of vegetation removal.							construction of Package 5A.
BI-9	The potential for translocation of threatened plant species as individuals or as part of a soil translocation process would be considered during the detailed development of the flora and fauna management plan prepared as part of the CEMP.	All Precincts	Not Triggered	Applicable	Applicable	Not triggered. There will be no impact to threatened species as a result of the construction of Package 3.	Applicable	**Partially Applicable** Not triggered for Package 5A. There will be no vegetation clearing or habitat loss as a result of the construction of Package 5A.
CC-1	A climate change risk assessment supported by an economic analysis would be undertaken during detailed design to identify the level of risk to the project from climate change and, where necessary, identify risk treatments that could be incorporated into the detailed design of the project.	All Precincts	Not Triggered	Applicable	Applicable	Not triggered	Applicable	Applicable
CC-2	Construction-related climate change risks (e.g. increased frequency and severity of extreme rainfall events placing increased pressure on construction water quality control measures) would be considered during the development of environmental management measures as part of the CEMP.	All Precincts	Not Triggered	Applicable	Applicable	Not triggered	Applicable	Applicable
CC-3	Operational procedures would be developed and implemented to enable the light rail system to be maintained and managed efficiently in order to appropriately respond to extreme climate events (temperature, winds or rainfall), as identified in the updated climate change risk assessment.	All Precincts	Not Triggered	Not triggered	Not triggered	Not triggered	Not triggered	Applicable
CM-1	During detailed design, a desktop risk assessment would be carried out for the following Areas of Environmental Interest (AEI) to confirm high or medium risk of contamination: • 435 Church Street, Parramatta (AEI 9). • 1A Barrack Lane, Parramatta (AEI 13).	Parramatta North; Parramatta CBD; Rosehill	Not Triggered	Not triggered	Not triggered	Applicable	Applicable	Applicable

ID Ref.	Requirement	Precinct	Stage 0 Preconstruction Activities	Stage 1: Package 1 Enabling Works	Stage 1: Package 2 Westmead Precinct Works	Stage 1: Package 3 Early Works Portion 2	Stage 2: Package 4 Infrastructure Delivery	Stage 3: Package 5 SOM
	• 142-154 Macquarie Street, Parramatta (AEI 14). • 127 Alfred Street Parramatta (AEI 16). • Former James Hardie Property at 181 James Ruse Drive, Rosehill and 1 Grand Avenue, Rosehill (AEI 21 and AEI 22). • 6 Grand Avenue, Rosehill (former Akzo Nobel site) (AEI 27). This would involve a review of available data, collaboration with stakeholders and consideration of the extent of disturbance by the project in the vicinity of the AEI. Based on the results of this assessment: • Mitigation and management measure CM-2 would apply to AEIs classified as high risk • Mitigation CM-4 would apply to AEIs classified as medium risk.	and Camellia						
CM-2	Prior to the commencement of construction in the vicinity of these sites, site investigations would be carried out at the following high risk AEI: • Former gas works at Queens Wharf Reserve (AEI 15) • 13A Grand Avenue, Camellia (AEI 21). The results from the site investigations would be assessed against criteria contained within the National Environment Protection (Assessment of Site Contamination) Measure 1999 (2013) to determine any need for remediation. Remediation works would be performed in accordance with the hierarchy of preferred strategies in the Guidelines for the NSW Site Auditor Scheme (DECCW 2006). Where practical, remediation works would be integrated with excavation and development works performed during construction.	Parramatta CBD; Rosehill and Camellia	Not Triggered	Applicable	Not triggered	Applicable, determined as high risk site during detailed design, see CM-1	Applicable	Applicable
CM-3	For low and medium risk sites, environmental management measures would be applied as detailed in a Construction Contaminated Land Management Plan (CCLMP), as a sub-plan to the CEMP. The measures would be tailored to address any specific locations where contamination is identified through the current contaminated land investigations. This includes worker health and safety measures.	All Precincts	Not Triggered	Applicable	Applicable	Not triggered	Applicable	Applicable
CM-4	Visual inspections and monitoring would be performed during excavation activities at medium risk AEIs to identify potential indicators of contamination. If suspected contamination is encountered, the materials would be subject to sampling and analysis to determine management requirements and suitability for reuse, recycling or remediation.	All Precincts	Not Triggered	Applicable	Applicable	Not triggered	Applicable	Applicable

ID Ref.	Requirement	Precinct	Stage 0 Preconstruction Activities	Stage 1: Package 1 Enabling Works	Stage 1: Package 2 Westmead Precinct Works	Stage 1: Package 3 Early Works Portion 2	Stage 2: Package 4 Infrastructure Delivery	Stage 3: Package 5 SOM
CM-5	Construction activities within AEI 23 (Sandown Line, including 27 Grand Avenue, Camellia) would be carried out under asbestos control and removal conditions by an appropriately licensed asbestos contractor.	Rosehill and Camellia	Not Triggered	Not triggered	Not triggered	Not triggered	Applicable	Applicable
CM-6	An unexpected finds procedure would be developed and implemented as part of the project CCLMP, outlining a set of potential contamination issues which could be encountered, and detailing the corrective actions to be implemented.	All Precincts	Applicable Although not part as CCLMP	Applicable	Applicable	Applicable	Applicable	Applicable
CM-7	Ongoing management measures would be implemented for any areas within the permanent light rail corridor where minor residual contamination remains following construction.	All Precincts	Not Triggered	Applicable For locations within the light rail corridor	Applicable	Applicable	Applicable	Applicable
GEN -1	A construction environmental management plan (CEMP) would be prepared for the construction phase of the project. The CEMP would provide a centralised mechanism through which all potential environmental impacts would be managed. The CEMP would document mechanisms for demonstrating compliance with the commitments made in the Environmental Impact Statement), the submissions report, as well as any other relevant statutory approvals (e.g. conditions of approval, licences and permits). The CEMP would outline a framework for the management of environmental impacts during construction, including further details on the following: • Traffic, transport and access management. • Noise and vibration management. • Heritage management. • Air quality and dust management. • Soil and water management. • Flora and fauna management. • Waste and resource management. • Site compound and ancillary works management. • Landscape and temporary works management. • Emergency and incident response management. The CEMP would be prepared by the responsible contractor(s) and approved by the Secretary of the NSW Department of Planning and Environment.	All Precincts	Not Triggered	Applicable	Applicable	Applicable	Applicable	Applicable
GEN -2	A construction compounds plan would be prepared for the project as part of the overall CEMP. This sub-plan would set out details for each of the approved construction compounds, including stockpile areas, laydown areas and other ancillary activities required to construct the project. The sub-plan would supplement, in greater detail, the information provided in the main body of the CEMP. The objectives and strategies of the construction compounds and ancillary facilities management sub-plan would include the following: • Minimise the impact of construction compounds on surrounding land uses and sensitive receivers.	All Precincts	Not Triggered	Applicable in conjunction with C1 and C3.	Applicable, with the exception of re-instatement on completion of Package Construction. Construction shall continue to Stages 2 and 3.	Not triggered	Applicable in conjunction with C1 and C3.	Applicable in conjunction with C1 and C3.

ID Ref.	Requirement	Precinct	Stage 0 Preconstruction Activities	Stage 1: Package 1 Enabling Works	Stage 1: Package 2 Westmead Precinct Works	Stage 1: Package 3 Early Works Portion 2	Stage 2: Package 4 Infrastructure Delivery	Stage 3: Package 5 SOM
	• Locate construction compounds away from sensitive land uses and receivers, wherever practical and feasible, or configure internal compound layouts in a manner that considers noise and light sensitive receivers (e.g. use of buildings to shield noisy activities, minimising the requirement for reversing vehicles, or locating noise intensive activities to maximise the distance to noise sensitive receivers). • Manage stockpile areas to minimise potential pollution of watercourses, groundwater and local air quality. • Minimise the clearing of vegetation (e.g. street trees and trees within public open spaces) to the minimum amount necessary to construct the project, particularly where construction compounds are proposed in public open spaces/parkland areas. • Locate construction compounds away from (or able to be managed in such a way so as to not impact on) heritage items and high retention value trees. • Locate construction compounds away from or implement management measures so as to not impact on waterways. • Flood response measures for compounds that are located on land affected by the 20 year ARI flood level (e.g. bridge support construction compounds). • Situate construction compounds and ancillary facilities on relatively level ground, and avoid excavation in construction compounds where risk of heritage impacts or disturbance of contaminated material. • Minimise the visual impact of construction compounds and ancillary facilities through either siting such facilities away from sensitive receivers (where practical and feasible) and/or providing screening. • Reinstatement strategies for construction compounds. As a minimum, this would include: – At the completion of construction, all plant, temporary buildings or vehicles would be removed. – All land, including roadways, footpaths or other land having been occupied temporarily would be returned to their pre-existing condition or better. – Reinstatement of community spaces, infrastructure and services would occur as soon as possible after completion of construction. Environmental management measures for construction compounds would be developed as part of the overall CEMP, with the construction compounds sub-plan identifying where such measures are documented within the CEMP.							

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GEN -3	Incident management procedures would be developed as part of the CEMP. The procedures would clearly outline the process to be followed in the event of an environmental incident or noncompliance, including (but not limited to) the following: • Classification of the incident (e.g. minor, moderate, serious) based on the severity of the likely impact on the surrounding environment and community. • Emergency response procedures. • Notification requirements (e.g. Transport for NSW and/or other regulatory authorities, or owners/occupiers in the vicinity of the incident). • Mechanisms for improving environmental controls to reduce the likelihood of a similar incident occurring. • Incident reporting and tracking.	All Precincts	Partially applicable Incident procedures would be in place but not as part of CEMP, in compliance with C8	Applicable in conjunction with A44-47.	Applicable in conjunction with A44-47.	Applicable in conjunction with A44-47.	Applicable in conjunction with A44-47.	Applicable in conjunction with A44-47.
GG-1	During detailed design, an energy and greenhouse gas strategy would be developed that documents the greenhouse reduction targets for the construction and operational stages of the project. The strategy would be prepared in line with the Infrastructure Sustainability Council of Australia (ISCA) and government resource efficiency policy (GREP) requirements, and would identify the key initiatives that would be explored further to meet these targets in accordance with the carbon emissions management hierarchy. It would be continually reviewed throughout the project lifecycle. Performance would be measured in terms of a percentage reduction target in greenhouse gas emissions from a defined reference footprint as documented in the energy and greenhouse gas strategy. Opportunities to reduce operational greenhouse gas emissions would be investigated during detailed design including: • Purchasing electricity derived from a renewable energy source (where available). • The use of regenerative braking on rolling stock. • Promoting the selection of energy efficient rolling stock (such as air conditioning, ventilation fans with smart temperature set points, insulation and weight considerations for rolling stock). • Selection of energy efficient maintenance vehicles. • Selection of energy efficient electrical equipment as per government resource efficiency policy (GREP). » Energy efficient design of buildings within the stabling and maintenance facility (such as natural ventilation designs and use of insulation). • Achieving the minimum improvement for operational energy for buildings as per the GREP.	All Precincts	Not Triggered	**Partially applicable** where scope allows.	Not triggered, nil scope to implement.	Not triggered, nil scope to implement.	Applicable	Applicable

ID Ref.	Requirement	Precinct	Stage 0 Preconstruction Activities	Stage 1: Package 1 Enabling Works	Stage 1: Package 2 Westmead Precinct Works	Stage 1: Package 3 Early Works Portion 2	Stage 2: Package 4 Infrastructure Delivery	Stage 3: Package 5 SOM
	• The use of photovoltaic cells at the stabling and maintenance facility. • Use of low embodied energy and recycled materials at light rail stops. Evaluation and reporting on the feasibility of identified opportunities would also be carried out during detailed design and would be documented in an energy and greenhouse gas strategy.							
GG-2	An iterative process of greenhouse gas assessments and design refinements would be carried out during detailed design and construction to identify opportunities to minimise greenhouse gas emissions during construction and operation. Evaluation and reporting on the feasibility of identified opportunities would also be carried out during detailed design.	All Precincts	Not Triggered	**Partially Applicable** where scope allows	**Partially Applicable** where scope allows using CERT tool.	**Partially Applicable** where scope allows using CERT tool.	Applicable	Applicable
GG-3	Management of emissions would be incorporated into site inductions, training and pre-start talks.	All Precincts	Applicable	Applicable	Applicable	Applicable	Applicable	Applicable
GG-4	The CEMP would incorporate measures to minimise the emission of greenhouse gases during construction. Activities with the potential to cause substantial emissions (such as material delivery and loading and bulk earthworks) would be identified in the energy and greenhouse gas emissions strategy. Emissions management actions would be investigated and applied where reasonable and feasible. These would potentially include: • The use of biodiesel and other low carbon fuels in vehicles and equipment. • The use of fuel-efficient construction equipment. • The use of energy efficient construction practices. • Use of energy efficient or solar powered lighting for temporary construction facilities.	All Precincts	Not Triggered	Applicable	Applicable	Applicable	Applicable	Applicable
GG-5	Local procurement of construction services and materials would be undertaken (where feasible and cost effective) to reduce fuel consumption for transport. Where practical and reasonable, construction planning would ensure that deliveries are managed in an efficient manner to minimise the number of trips required and therefore reduce the amount of emissions.	All Precincts	Applicable	Applicable	Applicable	Applicable	Applicable	Applicable
GG-6	Energy efficient work practices, such as switching off construction plant, vehicles and equipment when not in use to minimise idling, would be implemented during construction.	All Precincts	Applicable	Applicable	Applicable	Applicable	Applicable	Applicable
GG-7	Regular monitoring, auditing and reporting on energy, resource use and associated greenhouse gas emissions would form part of the environmental reporting requirements specified within the CEMP, and would be carried out.	All Precincts	Not Triggered	Applicable	**Partially Applicable** where scope allows using CERT tool.	**Partially Applicable** where scope allows using CERT tool.	Applicable	Applicable

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GG-8	Selection of materials during detailed design and construction planning to ensure products with low embodied carbon or recycled materials are considered and used.	All Precincts	Applicable	Applicable	**Partially Applicable** where scope allows using SDG Checklist.	**Partially Applicable** where scope allows using SDG Checklist.	Applicable	Applicable
GG-9	During construction, greenhouse gas emissions associated with consumption of electricity of the project would be offset to the target specified in the energy and greenhouse gas strategy.	All Precincts	Not Triggered	**Partially Applicable** where scope allows (Package 1)	Not triggered, nil scope to implement.	Not triggered, nil scope to implement.	Applicable	Applicable
GG-10	During operation, a 100 per cent offset of the greenhouse gas emissions associated with consumption of electricity of the project would be targeted.* * Note - this mitigation measure was identified as GG-9 in the revised mitigation measures, but has been changed to GG-10 here to avoid confusion with GG-09 above.	All Precincts	Not Triggered	Not Triggered	Not Triggered	Not Triggered	**Partially Applicable,** design to consider target.	Applicable
GW-1	The design of embankments would incorporate adequate drainage to reduce compaction and/or sealing of the underlying aquifer.	All Precincts	Not Triggered	Applicable	Not Triggered, nil embankments in package.	Not Triggered, required to achieve remediation.	Applicable	Not Triggered
GW-2	A condition assessment of existing buildings and infrastructure located in those areas that may potentially be affected by groundwater drawdown as a result of the project would be carried out prior to and following construction to monitor the risk of settlement from groundwater drawdown.	All Precincts	Not Triggered	**Partially Applicable**, building condition assessment required by E6	**Partially Applicable**, building condition assessment required by E6	Not Triggered, groundwater treated on site for remediation.	Applicable	Not Triggered, Package 5A groundwater treated on site in accordance with long term environmental management plan.
GW-3	Excavation techniques would be adopted to minimise impacts on aquifers	All Precincts	Not Triggered	Applicable	Applicable	Not Triggered, groundwater treated on site for remediation.	Applicable	Not Triggered,
GW-4	Hazardous material procedures (including procedures for managing spills and refuelling and maintaining construction vehicles/equipment) would be developed and implemented as part of the CEMP to minimise potential for groundwater quality impacts due to chemical spills.	All Precincts	Not Triggered	Applicable	Applicable	Applicable	Applicable	Applicable
GW-5	No new wells would be drilled to extract water for construction use.	All Precincts	Applicable	Applicable	Applicable	Applicable	Applicable	Applicable
GW-6	[Left intentionally blank - there is no GW-6 in the SPIR]	Left blank	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
GW-7	Hazardous material procedures (including procedures for managing spills and the refuelling and maintenance of vehicles/equipment) would be developed and implemented during the operation of the project to minimise potential for groundwater quality impacts associated with chemical spills and leaks. These procedures would adequately address activities at the stabling and maintenance facility, as well as	All Precincts	Not Triggered	Not Triggered	Not Triggered	Not Triggered	Not triggered	Applicable

ID Ref.	Requirement	Precinct	Stage 0 Preconstruction Activities	Stage 1: Package 1 Enabling Works	Stage 1: Package 2 Westmead Precinct Works	Stage 1: Package 3 Early Works Portion 2	Stage 2: Package 4 Infrastructure Delivery	Stage 3: Package 5 SOM
	other general maintenance facilities that would occur along the project alignment.							
HE-1	Three archaeological management zones have been developed for the project to manage archaeology with varying levels of significance throughout the project corridor. The general mitigation and management measures to be applied to each management zone are outlined below. The precinct-specific measures identify which management zone(s) measures apply to each archaeological management unit (HAMU) within a precinct. • The following mitigation and management measures would be implemented for Zone 1 – State significant historical archaeology: – A heritage induction would be carried out for all contractors, to be developed as part of the heritage management plan. – An Archaeological Research Design (ARD) would be prepared by a qualified archaeologist in accordance with Heritage Division requirements, prior to the commencement of works. The ARD would outline a methodology for the investigation, monitoring and/or salvage of archaeological resources. – An excavation director who meets the NSW Heritage Branch requirements for directing State significant archaeological investigations must manage the works. – Impact or removal is generally unacceptable for State significant archaeology identified as being highly intact and if proposed should be justified appropriately by the excavation director. – In situ retention of archaeological remains would be considered in accordance with the ARD as required. – The NSW Heritage Division would be notified should intact State significant relics be unexpectedly identified. – Public engagement, such as open days or media releases, would be considered where feasible to inform the public of the archaeological findings and proposed management measures. – Post-excavation reporting, artefact analysis and relics conservation would be carried out if relics are identified. • The following mitigation and management measures would be implemented for Zone 2 – Locally significant historical archaeology: – A heritage induction would be carried out for all contractors, to be developed as part of the heritage management plan.	All Precincts	Applicable	Applicable	Applicable	**Partially Applicable**, archival recording and salvage completed as Portion 1.	Applicable	Applicable

ID Ref.	Requirement	Precinct	Stage 0 Preconstruction Activities	Stage 1: Package 1 Enabling Works	Stage 1: Package 2 Westmead Precinct Works	Stage 1: Package 3 Early Works Portion 2	Stage 2: Package 4 Infrastructure Delivery	Stage 3: Package 5 SOM
	– An ARD would be prepared by a qualified archaeologist in accordance with Heritage Division requirements, prior to the commencement of works. The ARD would outline a methodology for the investigation, monitoring and/or salvage of archaeological resources. – Archaeological monitoring would be carried out by a suitably qualified excavation director, followed by open area salvage (if required). – Impact or removal is likely to be considered acceptable if appropriate mitigation and management measures are followed as outlined in the ARD. – Public engagement, such as open days, would be considered where feasible to inform the public of the archaeological findings and proposed management measures. – Post-excavation reporting, artefact analysis and relics conservation would be carried out if relics are identified. • The following mitigation and management measures would be implemented for Zone 3 – Nil-low archaeological resource present: – A heritage induction would be carried out for all contractors, to be developed as part of the heritage management plan. – Works are unlikely to impact on significant archaeological resources; however, an archaeologist would be engaged should any unexpected potential archaeological remains be encountered in accordance with an unexpected finds procedure.							
HE-2	Archaeological salvage excavation would not be carried out prior to the preparation of an archaeological research design. For this project, it is likely that the archaeological research designs would recommend archaeological salvage in the following instances: Where detailed archival research and understanding of modern disturbance (such as information to show the extent of previous sub-surface excavation, for example plans or drawings of a building's basement level(s)) needs to be supplemented with more site-specific (on-ground) information to better define the archaeological potential and/or significance of the site. • In areas where access for excavation activities is not restricted by buildings or other structures. • Salvage excavation would generally be recommended in areas where there is a moderate to high potential for relics of local or State significance to be present. It would involve locating and recording any relics found prior to their	All Precincts	Applicable	**Partially applicable**: Refer to E72-73, control measures to be implemented	**Partially applicable**: Refer to E72-73, control measures to be implemented	Not triggered, archival recording and salvage completed as Portion 1.	**Partially applicable**: Refer to E72-73, control measures to be implemented	**Partially applicable for Package 5B**: Refer to E72-73, control measures to be implemented Not triggered for Package 5A. As identified for Package 3, archival recording and salvage at SAM Facility completed as Portion 1.

ID Ref.	Requirement	Precinct	Stage 0 Preconstruction Activities	Stage 1: Package 1 Enabling Works	Stage 1: Package 2 Westmead Precinct Works	Stage 1: Package 3 Early Works Portion 2	Stage 2: Package 4 Infrastructure Delivery	Stage 3: Package 5 SOM
	removal by construction. Staged salvage excavation would be carried out after project approval.							
HE-3	Archaeological monitoring (i.e. the monitoring of construction excavation activities by a qualified archaeologist) would be carried out as required by the archaeological research design. Examples of where archaeological monitoring may be required include: • Low impact construction activities (such as narrow trenching) in areas of moderate to high potential for local or State significant relics. • Areas with low potential to contain remains of State significance.	All Precincts	Superseded by Conditions E72-74.	Superseded by Conditions E72-74.	Superseded by Conditions E72-74.	Not triggered, archival recording and salvage completed as Portion 1.	Superseded by Conditions E72-74.	Superseded by Conditions E72-74.
HE-4	As detailed design progresses, opportunities to avoid or further minimise impacts to identified archaeological sites of State and local significance would be considered and documented in the design report. The project design would be sympathetic to identified potential archaeological resources items (i.e. in archaeological management Zones 1 and 2) and, where reasonable and feasible, minimise impacts to those resources. The detailed design for sections of the project that would impact on known archaeological resources would be developed in consultation with a qualified archaeologist and relevant stakeholders as advised (e.g. the OEH and City of Parramatta Council).	All Precincts	Not Triggered	Applicable, in conjunction with E65.	Applicable, in conjunction with E65.	Not triggered, design to protect sub-surface relics completed under Portion 1.	Applicable, in conjunction with E65.	Applicable, in conjunction with E65.
HE-5	An Exhumation Policy and Guideline would be prepared prior to construction as part of the heritage management plan, and would inform the unexpected finds procedure in relation to the unexpected discovery of human remains. It would be developed in accordance with the Guidelines for Management of Human Skeletal Remains (NSW Heritage Office, 1998).	All Precincts	Not Triggered	Applicable in conjunction with E63.	Applicable in conjunction with E63.	Applicable in conjunction with E63.	Applicable in conjunction with E63.	Applicable in conjunction with E63.
HE-6	The mitigation and management measures for Zone 1 – State significant historical archaeology would apply to the following HAMU: • HAMU 4 – Cumberland Hospital (east). • HAMU 8 – Roman Catholic Cemetery. • HAMU 13 – Prince Alfred Square. • HAMU 18 – The Town Drain – Macquarie Street and Barrack Lane. • HAMU 20 – Robin Thomas. • HAMU 21 – Commissariat and barracks (George Street east). • HAMU 31 – Grave of Eliner Magee and Child. The mitigation and management measures for Zone 2 – Locally significant historical archaeology would apply to the following HAMUs:	All Precincts	Applicable	Applicable	Applicable	Not triggered, outside of HAMUs.	Applicable	Applicable

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	• HAMU 1 – Eastern side of Hawkesbury Road including the road corridor. • HAMU 2 – Western side of Hawkesbury Road including the road corridor. • HAMU 3 – Cumberland Hospital (west). • HAMU 5 – Factory Street. • HAMU 7 – Church Street. • HAMU 9 – Parramatta North Public School. • HAMU 10 – Church Street west (between Fennell and Harold Street). • HAMU 11 – Royal Oak Hotel. • HAMU 12 – Parramatta North off-corridor works. • HAMU 14 – Phillip Street. • HAMU 15 – George Street. • HAMU 16 – Macquarie Street. • HAMU 17 – Horwood Place. • HAMU 19 – Barrack Lane. • HAMU 22 – Smith Street. • HAMU 23 – Charles Street. • HAMU 24 – Parramatta CBD off-corridor works. • HAMU 25 – Tramway Avenue. • HAMU 27 – Carlingford Railway Line. • HAMU 28 – Sandown Line. • HAMU 29 – Rosehill Gardens Racecourse. • HAMU 32 – Female Orphan School. • HAMU 33 – The Ponds and Rydalmere Station. • HAMU 34 – Dundas Railway Station. • HAMU 35 – Carlingford Stock Feeds. The mitigation and management measures for Zone 3 – Nil-low archaeological resource present would apply to the following HAMUs: • HAMU 6 – Westmead off-corridor works. • HAMU 25 – The former Wunderlich Tile Factory. • HAMU 26 – James Ruse Drive.							
HE-7	In relation to HAMU 4 − Cumberland Hospital (east), the following mitigation and management measures would be implemented: • Thorough archaeological investigation of potential archaeological remains associated with Mrs Bett's House and the Lunatic Asylum would be required prior to the proposed excavation works commencing in these areas as required in accordance with the Zone 1 archaeological management measures.	Parramatta North	Partial – For any work within applicable site only	Not triggered, outside of HAMU	**Partially applicable**, Package 2: Activity B is within HAMU 4, which includes limited excavation work to enable Stage 2.	Not triggered, outside of HAMU	Applicable	Applicable

ID Ref.	Requirement	Precinct	Stage 0 Preconstruction Activities	Stage 1: Package 1 Enabling Works	Stage 1: Package 2 Westmead Precinct Works	Stage 1: Package 3 Early Works Portion 2	Stage 2: Package 4 Infrastructure Delivery	Stage 3: Package 5 SOM
	• Alternative construction methods would be identified and considered for the Grose Street Drain (local significance). Should impact to a section of the drain be unavoidable, archaeological investigation of this area would be carried out prior to excavation works.							
HE-8	In relation to HAMU 18 − The Town Drain − Macquarie Street and Barrack Lane, alternative construction methods would be investigated and considered for works in the location of the town drain in George Street in order to retain this section of the drain where feasible.	Parramatta CBD	Partial – For any work within applicable site only.	**Partially Applicable** – Package 1 is located in close proximity to HAMU 18.	Not triggered, outside of HAMU	Not triggered, outside of HAMU	Applicable	Applicable
HE-9	Appropriate heritage interpretation would be incorporated into the detailed design of the project and would include results of archaeological investigations. An interpretation plan would be prepared for the project in accordance with the NSW Heritage Manual, the NSW Heritage Office's Interpreting Heritage Places and Items: Guidelines (August 2005), and the NSW Heritage Council's Heritage Interpretation Policy. This would apply across the project, in particular in relation to the following items: • Cumberland District Hospital Precinct. • Royal Oak Hotel and Stables. • Ancient Aboriginal and Early Colonial Landscape (Robin Thomas Reserve). • Camellia Underbridge Abutments (south and north). • Dundas Railway Station Group. • Carlingford Stock Feeds.	All Precincts	Not Triggered	**Partially Applicable**, in conjunction with E64 –may trigger for impacts on Queen Wharf Reserve.	**Partially Applicable**, in conjunction with E64 –Activities B and C are located within Cumberland District Hospital Precinct. Where required, content from this package would be considered in the INF Heritage Interpretation Plan	Not triggered, outside of heritage curtilage.	Applicable in conjunction with E64.	Applicable in conjunction with E64.
HE-10	The platforms, stops and substations would be designed to remain non-obtrusive with limited bulk to minimise visual impacts on heritage items in the vicinity to respect the historical landscape of the project. Form, fabric and palette would respond to place and context, and respect the heritage values of the area. Where possible, the recommendations of the interpretation plan would be incorporated into design. Ancillary works required by the project related to power supply, drainage facilities, railway tracks, OHW and any other works would be designed to minimise impacts on heritage items and areas of archaeological potential as much as feasible within the context of the project. This would apply across the project, in particular, with respect to the following heritage items: • Western Sydney University. • Cumberland District Hospital Precinct. • Alfred Square (and potential archaeological site). • Lennox Bridge.	All Precincts	Not Triggered	Not Triggered	Not triggered	Not triggered	**Partially Applicable**, to be considered in design of infrastructure scope of works.	Applicable

ID Ref.	Requirement	Precinct	Stage 0 Preconstruction Activities	Stage 1: Package 1 Enabling Works	Stage 1: Package 2 Westmead Precinct Works	Stage 1: Package 3 Early Works Portion 2	Stage 2: Package 4 Infrastructure Delivery	Stage 3: Package 5 SOM
	• Anthony Malouf and Co. • St Peter's Uniting Church and studio theatre. • Shop (and potential archaeological site) (item I663). • Shop (item I662). • Shop (item I661). • Parramatta House (and potential archaeological site). • Westpac Bank. • Warders Cottages. • Convict Barracks Wall. • Dundas Railway Station Group. • Carlingford Stock Feeds.							
HE-11	During detailed design and construction planning, opportunities to minimise impacts on the Cumberland District Hospital Precinct would be explored including: • Considering a wire-free design in this area to reduce visual impacts. • Design of the Parramatta North Bridge to minimise visual impacts and retain significant views and vistas to the nineteenth century heritage landscape. A high-quality design would be prepared in consultation with an experience heritage architect. • The light rail stop would be designed to minimise visual impacts. Appropriate tree plantings would be included in the design to soften the relationship of the light rail stop in the existing environment. • Design of roadworks would seek to prioritise the retention and protection of kerbing. • Impacts significant trees and plantings would be avoided where possible. The Heritage Division (as delegate of the NSW Heritage Council) would be consulted during detailed design.	Westmead; Parramatta North	Not Triggered	Not Triggered	Not Triggered Activities B and C are within the Cumberland District Hospital Precinct but does not include the design of items in HE-11.	Not Triggered	Applicable	Applicable
HE-12	An appropriately qualified and experienced heritage architect would provide independent review periodically throughout detailed design in relation to the following heritage items: • Cumberland District Hospital Precinct. • Alfred Square (and potential archaeological site). • Lennox Bridge. • Dundas Railway Station Group. The detailed design report(s) prepared for the project would document how the recommendations of the heritage architect / engineer have been considered and actioned.	Westmead; Parramatta North; Parramatta CBD; Carlingford	Not Triggered	Not Triggered	Not Triggered Activities B and C are within the Cumberland District Hospital Precinct but does not include detailed design. This would be part of Stage 2 and 3.	Not Triggered	Applicable	Applicable

ID Ref.	Requirement	Precinct	Stage 0 Preconstruction Activities	Stage 1: Package 1 Enabling Works	Stage 1: Package 2 Westmead Precinct Works	Stage 1: Package 3 Early Works Portion 2	Stage 2: Package 4 Infrastructure Delivery	Stage 3: Package 5 SOM
HE-13	A moveable heritage item strategy would be prepared by a suitably qualified heritage consultant and include a comprehensive record of all moveable heritage. The moveable heritage item strategy would form part of a broader interpretation strategy for the project and would include the following items: • Cumberland District Hospital Precinct. • Royal Oak Hotel and stables. • Dundas Railway Station Group.	Parramatta North; Carlingford	Not Triggered	Not triggered	**Partially applicable** Activities B and C would trigger this measure for Cumberland District Hospital Precinct. Where required, content from this package would be considered in the INF Heritage Interpretation Strategy.	Not triggered	Applicable	Applicable
HE-14	Prior to the commencement of construction, photographic archival recording and reporting would be carried out in accordance with the NSW Heritage Office's How to Prepare Archival Records of Heritage Items (1998), and Photographic Recording of Heritage Items Using Film or Digital Capture (2006). The record would be prepared by a suitably qualified heritage consultant using archival-quality material. Records for State Heritage Register (SHR) listed items would be held at the NSW Heritage Council, the State Library and the owner of the asset. Records for locally-listed items would be held by the local council, the local library/studies and the owner of the asset. Specific items subject to archival recording would be documented as part of the heritage management plan and would include: • Cumberland District Hospital Precinct. • St Patrick's Roman Catholic Cemetery. • Royal Oak Hotel and Stables. • Alfred Square (and potential archaeological site). • Ancient Aboriginal and Early Colonial Landscape (Robin Thomas Reserve). • Camellia Underbridge Abutments (south and north). • Dundas Railway Station Group.	Parramatta North; Parramatta CBD, Rosehill and Camellia; Carlingford	Applicable	**Partially Applicable** – triggered for Robin Thomas Reserve. Package 2, Activity B and C would trigger this measure for Cumberland District Hospital Precinct.	**Partially Applicable** – Activities B and C for Cumberland District Hospital Precinct.	Not triggered, archival recording completed under Portion 1.	**Partially Applicable** – triggered for remaining items following Stage 1 enabling work.	Not triggered, completed by others.
HE-15	Prior to total or partial demolition of heritage items or elements located within the boundaries of a heritage item, heritage fabric would be identified for salvage and reuse opportunities considered. Components of high and exceptional significance recommended for conservation and reuse would be listed within a salvage schedule to be incorporated within a Salvage Scheme for the project. The scheme would indicate appropriate storage locations as well as appropriate types of buildings and structures where the salvaged elements may be reused. This would apply to the following items: • Cumberland District Hospital Precinct.	Parramatta North; Rosehill and Camellia; Carlingford	Not Triggered	**Partially Applicable**, Items I362, I363, I329.	**Partially Applicable**, triggered by Activities B and C including demolition.	Not triggered	Applicable	**Partially Applicable**, Not triggered for Package 5A.

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	• Stone kerbing and trees (I362). • Stone kerb and gutter (I353). • Stone kerb and gutter (I329). • Camellia Underbridge Abutments (south and north). • Dundas Railway Station Group (platforms).							
HE-16	For State Heritage Register items, existing Conservation Management Plans (CMPs) would inform the design and construction methodology in that area. Where impacts to SHR items would modify the item or impact significant elements, updated CMPs would be prepared which would include recommendations on amendments to curtilage. This would apply to the following items: • Cumberland District Hospital Precinct. • St Patrick's Roman Catholic Cemetery. • Alfred Square (and potential archaeological site) (when listed). • Lennox Bridge. • Ancient Aboriginal and Early Colonial Landscape (Robin Thomas Reserve). • Sewage Pumping Station 67. • Rydalmere Hospital Precinct (former). • Dundas Railway Station Group.	Parramatta North; Parramatta CBD; Rosehill and Camellia; Carlingford	Not Triggered	**Partially Applicable** – Package 1 is located in close proximity to Robin Thomas Reserve.	**Partially Applicable** – construction methodology triggered by Activities B and C.	Not triggered	Applicable	Applicable
HE-17	During detailed design and construction planning, opportunities to reduce direct impacts on trees where they contribute to the heritage character of a location would be investigated in accordance with the tree mitigation and management measures, including trees and plantings associated with the following heritage items: • Cumberland District Hospital Precinct. • Street trees along O'Connell Street that form part of heritage item (I362). • St Patrick's Roman Catholic Cemetery. • Alfred Square (and potential archaeological site). • Ancient Aboriginal and Early Colonial Landscape (Robin Thomas Reserve) • Queen's Wharf Reserve and stone wall and potential archaeological site. • Wetlands. • Trees in median strip. • Rydalmere Hospital Precinct.	Parramatta North; Parramatta CBD; Rosehill and Camellia; Carlingford	Not Triggered	**Partially Applicable** – Package 1 is located in close proximity to Robin Thomas Reserve, Queen's Wharf Reserve and Street Trees along O'Connell Street.	Not triggered, Activity A will not impact trees in heritage areas. Activities B and C do not include design or the removal of any trees.	Not triggered, nil design or the removal of trees.	Applicable	Applicable
HE-18	During detailed design and construction planning, opportunities to appropriately reuse the Camellia underbridge abutments would be explored in consultation with a heritage architect.	Rosehill and Camellia; Carlingford	Not Triggered	Not Triggered	Not Triggered	Not Triggered	Applicable	Not Triggered

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HE-19	During detailed design and construction planning, opportunities to reduce impacts on Dundas Railway Station Group would be explored including improving the interface design between the proposed light rail infrastructure and the existing heritage infrastructure, including the potential adaptive reuse of original heritage infrastructure as part of the light rail stop. Any adaptive reuse would be developed in consultation with a heritage architect.	Carlingford	Not Triggered	Not Triggered	Not Triggered	Not Triggered	Applicable	Applicable
HE-20	[Left intentionally blank - there is no HE-20 in the SPIR]	Left blank	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
HE-21	An Aboriginal and non-Aboriginal Management Plan would be prepared as described in AB-2. In addition, archaeological monitoring of construction excavation activities would be carried out by a qualified archaeologist based on the archaeological research design to record any significant remains uncovered by excavation (in accordance with HE-3). Examples of where archaeological monitoring may be required include: • Low impact construction activities (such as narrow trenching) in areas of moderate to high potential for local or State significant relics. • Areas with low potential to contain remains of State significance.	All Precincts	Not Triggered	Applicable	Applicable	Not triggered, nil potential.	Applicable	Applicable
HE-22	The construction methodology (including for demolition of existing buildings and/or structures) would be developed to minimise direct and indirect impacts on adjacent and/or adjoining heritage items. This would include consideration of potential (vibration related impacts, where identified in the Construction Noise and Vibration Management Plan.	All Precincts	Not Triggered	Applicable	Applicable	Not triggered, completed under Portion 1.	Applicable	Applicable
HE-23	In relation to HAMU 31 – Grave of Eliner Magee and Child, the grave site would be identified in the Environmental Control Maps and protected and avoided during construction works.	Rosehill and Camellia	Applicable	Not Triggered	Not Triggered	Not Triggered	Applicable	Applicable
HR-1	All electromagnetic equipment for the project would be designed and constructed to: • Be compatible with the existing electromagnetic environment along the light rail route. • Ensure that no part of the light rail system interferes electromagnetically with the safe and proper operation of any other parts of the light rail system. Further opportunities to minimise potential electromagnetic impact would be investigated during detailed design including consideration of: • Wire-free technology and on-board energy storage. • Reduction of the current-loop circuit created between the substation and LRVs.	All Precincts	Not Triggered	Not Triggered	Not Triggered	Not Triggered	Applicable	Applicable

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	• Reduce traction control demand.							
HR-2	The project would be designed to comply with appropriate standards for the management of EMI including the international European Standards EN 50121 Electromagnetic Compatibility series and AS 7722:2016 EMC Management. The light rail would be designed so that electromagnetic emissions comply with the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) guidelines for emitted radiation.	All Precincts	Not Triggered	Not Triggered	Not Triggered	Not Triggered	Applicable	Applicable
HR-3	Targeted consultation with identified sensitive receivers for EMI (such as the Westmead Health Precinct) would be carried out to inform the detailed design. Any issues identified would be resolved on a case by case basis with solutions such as monitoring and, if necessary, protective screening at the site of the sensitive equipment. Additional mitigation strategies would be considered and, where required, implemented. These may include: • Minimisation of electromagnetic fields through the design and engineering of the project. During detailed design, considerations for magnetic field reduction at substations would include: – Locating major magnetic field sources within the substation to increase separation distances including transformer secondary terminations, cable runs to the switch room, capacitors, reactors, busbars, and incoming and outgoing feeders. – Locating areas with the lowest magnetic fields closest to the site boundaries (e.g. control rooms, equipment rooms, amenities, fire stairs, lifts, walkways, transformer roadway, oil containment, air vents/ducts and pilot isolation rooms). – Orienting equipment so that magnetic fields are minimised. • Earthing and bonding. • Increasing the separation distance between the source and equipment. • If mitigation is required at the receiver (building or the equipment itself), Transport for NSW would work with the operator/owner to resolve the potential impact.	All Precincts	Not Triggered	Not Triggered	Not Triggered	Not Triggered	Applicable	Applicable
HR-4	All project electronic and electrical equipment would comply with the limits such as defined in the Australian Radiation Protection and Nuclear Safety Agency Radiation Protection Standard for Maximum Exposure Levels to Radiofrequency Fields.	All Precincts	Not Triggered	Not Triggered	Not Triggered	Not Triggered	Applicable	Applicable

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HR-5	Environmental management measures relating to hazards and risk would be developed and implemented as part of the CEMP. These would include: • Potential environmental hazards and risks associated with construction activities would be identified prior to construction. • The storage of hazardous materials, and refuelling/maintenance of construction plant and equipment would be carried out in clearly marked and bunded areas within the construction site that are designed to contain spills and leaks in accordance with Australian Standards and DECCW guidelines. • Hazardous materials would not be stored below the ten per cent AEP flood level flood level. • Chemical spill kits would be readily available and accessible to construction workers. Kits would be kept at site compounds and on specific construction vehicles, and all hazardous materials spills and leaks would be reported to site managers and actions would be immediately taken to remedy spills and leaks. • Employees would be trained in the correct use of spill kits.	All Precincts	**Partially applicable** – but would not be included in the CEMP	Applicable	Applicable	Applicable	Applicable	Applicable
HR-6	A process for regularly reviewing work practices/procedures would be implemented throughout construction to identify, report and respond to any new environmental hazards/risks.	All Precincts	Not Triggered	Applicable	Applicable	Applicable	Applicable	Applicable
HR-7	Targeted safety campaigns to raise awareness around the operation of LRVs would be used in the lead up to the opening of the project and during operation to promote the safe operation of the project. This would focus on raising awareness and promoting safe behaviours around the project.	All Precincts	Not Triggered	Not Triggered	Not Triggered	Not Triggered	Not Triggered	Applicable
HR-8	All cables would be buried within ducts and would adhere to all International and Australian electrical standards in terms of distances from surrounding cables (i.e. adjacent high voltage cables require minimum separation in accordance with industry standards).	All Precincts	Not Triggered	Not Triggered	Not Triggered	Not Triggered	Applicable	Applicable
HR-9	Storage of chemicals associated with the operation and maintenance of the LRVs would be designed in line with the appropriate EPA guidelines and legislative requirements. All hazardous substances that may be required for operation would be stored and managed in accordance with the Storage and Handling of Dangerous Goods Code of Practice (WorkCover NSW, 2005) and Hazardous and Offensive Development Application Guidelines: Applying SEPP 33 (Department of Planning, 2011).	All Precincts	Not Triggered	Not Triggered	Not Triggered	Not Triggered	Not Triggered	Applicable
HR-10	Hazardous material procedures (including procedures for managing spills and the refuelling and maintenance of vehicles/equipment) would be developed and implemented	All Precincts	Not triggered	Not triggered	Not triggered	Not triggered	Not triggered	Applicable

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	during the operation of the project to minimise potential for impacts associated with chemical spills and leaks. These procedures would adequately address activities at the stabling and maintenance facility, as well as other general maintenance facilities that would occur along the project alignment.							
HR-11	During high demand periods, such as special events, measures to minimise potential safety risks associated with overcrowding at stops would be implemented, such as more regular services, additional LRVs and/or crowd control at stops.	All Precincts	Not triggered	Not triggered	Not triggered	Not triggered	Not triggered	Applicable
HR-12	An emergency response strategy would be developed for the operation of the light rail which would ensure risks to the project are minimised in event of possible explosion from the known high pressure petroleum pipeline that extends along Grand Avenue and adjacent to the existing T6 Carlingford Line between Grand Avenue and the Western Sydney University (Parramatta) campus.	Rosehill and Camellia; Carlingford	Not triggered	Not triggered	Not triggered	Not triggered	Not triggered	Applicable
HY-1	A water quality management program would be developed in consultation with the Department of Industry (Lands and Water) and the EPA, and established prior to construction to ensure compliance with identified water quality objectives and enable potential impacts on surface and groundwater to be identified, controlled and reported. This would include targeted baseline monitoring of receiving waters and shallow groundwater prior to construction to identify baseline water quality conditions.	All Precincts	Not Triggered	Not Triggered – refer to Condition C9(a) in Table 3-1	Not Triggered – refer to Condition C9(a) in Table 3-1	Not Triggered – refer to Condition C9(a) in Table 3-1	**Partially Applicable**, in conjunction with C9(a).	**Partially Applicable**, in conjunction with C9(a).
HY-2	Contemporary good practice guidelines would be followed to ensure stormwater runoff from the project area receives adequate water quality treatment, where required. Water quality guidelines to be followed include the Water Sensitive Urban Design Guideline. Applying water sensitive urban design to NSW Transport projects (Transport for NSW, 2017, Managing Urban Stormwater, Environmental Targets Consultation Draft (DECCW, 2007) and Managing Urban Stormwater: Council Handbook (EPA, 1997). This would include consideration of water quality treatment devices into the drainage design, such as Gross Pollutant Traps (GPTs) and other Water Sensitive Urban Design (WSUD) treatment measures such as water quality basins and biofiltration swales, where required to achieve the relevant targets. The location and specification for these would be determined through the detailed design and documented in the design report.	All Precincts	Not Triggered	Applicable	Applicable	Not trigged, requirements for remediation prevent run-off.	Applicable	Applicable
HY-3	Opportunities to improve existing flood impacts along the project alignment would be considered during the detailed design of the project. Measures considered would include improved drainage, streetscape design and integration of WSUD measures.	All Precincts	Not Triggered	Applicable	Applicable	Not trigged, requirements for remediation prevent run-off.	Applicable	Applicable

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	Adequate drainage and runoff management would be incorporated into the design of the stabling and maintenance facility.							
HY-4	A Flood Management Strategy would be prepared for the project, to include an update of the flood impact assessment undertaken for the EIS (refer Technical Paper 7) to inform the detailed design, re-assess the level of flood immunity of the project and to identify potential impacts of the project on flood behaviour. The strategy would demonstrate how the project design achieves the desired Performance Criteria (refer to Table 17.5 of the EIS) The Flood Management Strategy would identify design responses and construction management measures that would be implemented in design or during construction. Construction management procedures would be detailed in the Construction Environmental Management Plan. The Flood Management Strategy would be prepared in consultation with the City of Parramatta Council.	All Precincts	Not Triggered	Not Triggered – Refer to Condition E113 in Table 3-1	Not Triggered – Refer to Condition E113 in Table 3-1	Not Triggered – Refer to Condition E113 in Table 3-1	**Partially Applicable**, in conjunction with E113	**Partially Applicable**, in conjunction with E113
HY-5	The CEMP would include soil and water management measures to manage the risk of sedimentation, littering and chemical pollution of the Parramatta River, Clay Cliff Creek, Vineyard Creek and other nearby waterways within the study area during construction.	All Precincts	Not Triggered	Applicable	Applicable	Applicable	Applicable	Applicable
HY-6	A soil and water management plan would be prepared as part of the CEMP. Specific measures would be identified in consultation with relevant government agencies and would be consistent with the principles and practices detailed in Landcom's (2004) Managing Urban Stormwater: Soils and Construction. The objectives and strategies of the soil and water management sub-plan would include the following: • Minimise the extent and duration of exposed surfaces (particularly those works that have the greatest potential to disturb soils that are contaminated or have a high erosion and runoff hazard). • Develop and implement adequate water quality control measures prior to the carrying out of significant earthwork or bridge construction activities. • Minimise and manage impacts on water quality and downstream receiving environments during instream activities. • Flood response measures for activities located on land affected by the 20 year ARI flood level (e.g. bridge support construction compounds), or works within waterways (such as bridge works). • Where possible, reuse excavated materials as fill on other parts of the project in preference to disposing off-site in accordance with OEH's Waste Classification Guidelines (2016).	All Precincts	Not Triggered	Applicable	Applicable	Applicable	Applicable	Applicable

ID Ref.	Requirement	Precinct	Stage 0 Preconstruction Activities	Stage 1: Package 1 Enabling Works	Stage 1: Package 2 Westmead Precinct Works	Stage 1: Package 3 Early Works Portion 2	Stage 2: Package 4 Infrastructure Delivery	Stage 3: Package 5 SOM
	• Areas of potential contamination concern would be identified and works in these areas managed to minimise disturbance. • Excavate pre-classified contaminated materials and transfer such materials directly into haulage trucks for off-site disposal at a waste facility licensed to accept the contaminated material. • Transport for NSW would also undertake consultation with DPI Fisheries with respect to the development for the CEMP, and Erosion and Sediment Control Plan for the project. • Develop procedures for the assessment, handling and stockpiling of potentially contaminated materials, in accordance with OEH's Waste Classification Guidelines (2016).							
HY-7	During construction, any water collected from the worksites would be treated and discharged in accordance with current guidelines to avoid any potential contamination or local stormwater system impacts. These guidelines include: • The Blue Book - Managing Urban Stormwater: Soils and Construction (Landcom, 2004 and DEC 2008). • Transport for NSW Water Discharge and Reuse Guideline 7TP-SD-024. • All water (including groundwater) requiring disposal during construction would be tested and treated in accordance with the Transport for NSW Water Discharge and Reuse Guideline 7TP-SD-024 and the Waste Classification Guidelines (OEH, 2016) prior to disposal. If required, water treatment would occur to ensure guidelines are met prior to water disposal. Treatments may include sediment basins and pH neutralisation.	All Precincts	Not Triggered	Applicable	Applicable	Not triggered, managed under a trade waste agreement.	Applicable	Applicable
HY-8	Large areas of disturbance such as compound areas and stockpile sites would, where feasible and reasonable, be located away from any surface runoff flow paths and above the 10% AEP flood levels.	All Precincts	Applicable	Applicable	Applicable	Applicable	Applicable	Applicable
HY-9	The design of stormwater outlets would consider the need for scour protection measures. Typical scour protection might include concrete energy dissipating structures or dumped stone rip rap.	All Precincts	Not Triggered	Applicable	Applicable	Applicable	Applicable	Applicable
HY-10	The construction planning will demonstrate that it has considered measures for construction of new or modification of existing bridges that minimise impacts on waterways (e.g. in a design report or constructability assessment). This would include consideration of: • Maximising use of pre cast elements to minimise construction works within the floodplain.	All Precincts	Not Triggered	Not Triggered	Not Triggered	Not Triggered	Applicable	Not Triggered

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	• Minimising temporary formwork requirements and removal of formwork as soon as possible after completion of each work stage. • Minimising extent and duration of use of temporary structures required within the waterway. • Staging works to minimise the duration of construction activities within the waterway.							
HY-11	A Flood Operational Management Plan (FOMP) would be prepared to describe the project operational procedure for the network during flood events.	All Precincts	Not Triggered	Not Triggered	Not Triggered	Not Triggered	Not Triggered	Applicable
LU-1	The overall disturbance footprint would be refined during detailed design to identify areas where the footprint could be minimised to reduce impacts on existing land uses. Detailed staging of the project would also be determined during detailed design and would aim to minimise the time that affected land uses are impacted during construction.	All Precincts	Applicable	Applicable	Applicable	Applicable	Applicable	Applicable
LU-2	Consultation and collaboration would continue with relevant stakeholders including NSW Health and City of Parramatta Council to maximise integration of stops with transport infrastructure (rail and bus) and surrounding developments, including public domain works.	All Precincts	Not Triggered	Applicable	Applicable	Not triggered, nil public domain.	Applicable	Applicable
LU-3	Consultation would be carried out prior to and throughout construction with the surrounding businesses, the local community and key stakeholders including City of Parramatta Council, Western Sydney University, NSW Health, UrbanGrowth NSW Development Corporation, Greater Sydney Commission and other potentially impacted stakeholders to advise them in advance of proposed works and any temporary access arrangements that may be required.	All Precincts	Applicable	Applicable	Applicable	Applicable	Applicable	Applicable
LU-4	Transport for NSW would undertake works required to realign of the existing playing fields to mitigate the direct impact of the project on the ongoing use of the playing fields.	Parramatta CBD	Applicable	Not Triggered	Not Triggered	Not Triggered	Applicable	Not Triggered
NV-1	A Construction Noise and Vibration Management Plan (CNVMP) would be developed in accordance with the requirements of Transport for NSW's Construction Noise Strategy and the Interim Construction Noise Guidelines (DECC 2009). It would document all necessary measures to manage and mitigate potential noise and vibration levels during standard working hours and for all out-of-hours construction activities (refer to section 17.2.3 of the EIS). The CNVMP would also provide the framework and mechanisms for: • The mitigation and management of the noise and vibration impacts from the project. • Development of site specific construction noise management plans.	All Precincts	Not Triggered	Applicable	Applicable	Applicable	Applicable	Applicable

ID Ref.	Requirement	Precinct	Stage 0 Preconstruction Activities	Stage 1: Package 1 Enabling Works	Stage 1: Package 2 Westmead Precinct Works	Stage 1: Package 3 Early Works Portion 2	Stage 2: Package 4 Infrastructure Delivery	Stage 3: Package 5 SOM
	• Out-of-hours work associated with the project.							
NV-2	The CVNMP prepared for the project would include mitigation and management measures for the works with reference to the NSW Interim Construction Noise Guideline (ICNG) and Transport for NSW Construction Noise Strategy (CNS). Mitigation and management measures which would be considered include: • For construction concentrated in a single area, such as at the stops, worksites, substation construction sites, bridge sites and the stabling and maintenance facility location, temporary acoustic fencing/barriers around the site perimeter would be considered where feasible and reasonable to mitigate off-site noise levels. • Given the potentially high noise levels at residential receivers, adherence to daytime construction hours would be used for excavation, demolition or rock breaking activities, and for activities concentrated in a single area (i.e. activities that do not move along the alignment, and do not require out-of-hours activities for safety reasons or to minimise disruption to road networks). • Where possible, noisy works would be scheduled to minimise impacts to adjacent businesses and commercial properties, such as avoiding undertaking noisy activities on Eat Street during lunch and dinner periods. • Out of hours works would be programmed to minimise the number of consecutive out of hour work periods impacting the same receptors. • Consultation would be carried out with local schools and other educational facilities prior to noise intensive works to ensure impacts are minimised during examination periods and/or other critical periods in the school calendar (where works are predicted to exceed the relevant construction noise management level for this receiver). Consultation with nearby childcare centres would be carried out to potentially avoid noisy works during rest periods at the centres (where possible). • Simultaneous operation of noisy plant in close proximity to sensitive receptors would be avoided (where possible). • Equipment which is used intermittently would be shut down when not in use. • Where possible, the offset distance between noisy plant items and nearby noise sensitive receptors would be as great as possible. • Where possible, equipment with directional noise emissions would be oriented away from sensitive receptors.	All Precincts	Applicable, in conjunction with E21 and E22, as relevant.	Applicable, in conjunction with E21 and E22, as relevant.	Applicable, in conjunction with E21 and E22, as relevant.	Applicable, in conjunction with E21, E22 and E23, as relevant.	Applicable, in conjunction with E21, E22 and E23, as relevant.	Applicable, in conjunction with E21, E22 and E23, as relevant.

ID Ref.	Requirement	Precinct	Stage 0 Preconstruction Activities	Stage 1: Package 1 Enabling Works	Stage 1: Package 2 Westmead Precinct Works	Stage 1: Package 3 Early Works Portion 2	Stage 2: Package 4 Infrastructure Delivery	Stage 3: Package 5 SOM
	• Construction compounds would use 2.4 metre high hoarding of solid construction where required to minimise noise on sensitive receivers, where safe to do so. • Structures such as site sheds would be positioned to further shield sensitive and residential receivers from works activities. • Regular compliance checks for noise emissions from all plant and machinery used for the project would be carried out to indicate whether noise emissions from plant items are higher than predicted. This would also identify defective silencing equipment on the items of plant. • Ongoing noise monitoring would be carried out during construction at sensitive receptors during critical periods to identify and assist in managing high risk noise events. • Where possible heavy vehicle movements should be limited to daytime hours. • Reversing of equipment should be minimised so as to prevent nuisance caused by reversing alarms, which would be limited to the use of non-tonal reversing alarms. • Loading and unloading should be carried out away from sensitive receptors, where practicable. • Work should be scheduled to provide respite periods from the noisiest activities, and impacted residents should be communicated with to clearly explain the duration and noise levels for the works.							
NV-3	In the event of predicted exceedances of the noise goals, particularly during out-of-hours works, additional noise mitigation and management measures to be considered in the CNVMPs as described in the CNS. Additional mitigation and management measures would be determined on a site specific basis and are dependent upon the level of predicted impact. Additional mitigation and management measures which would be considered include: • Periodic notifications – These include regular newsletters, letterbox drops or advertisements in local papers to provide an overview of current and upcoming works and other topics of interest. • Website updates – The project website would form a resource for members of the community to seek further information, including CNVPs and current and upcoming construction activities. • Project info-line and construction response line – Transport for NSW will operate a construction response line and a project info-line (1800 775 465). These numbers will provide a dedicated 24-hour contact point for any complaints regarding construction works and for any	All Precincts	Applicable, in conjunction with E28 (b), E33, E37 and E39.	Applicable, in conjunction with E28 (b), E33, E37 and E39.	Applicable, in conjunction with E28 (b), E33, E37 and E39.	Applicable, in conjunction with E28 (b), E33, E37 and E39.	Applicable, in conjunction with E28 (b), E33, E37 and E39.	Applicable, in conjunction with E28 (b), E33, E37 and E39.

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	project enquiries. All complaints require a verbal response within two hours. All enquiries require a verbal response within 24 hours during standard construction hours, or on the next working day during out-of-hours work (unless the enquirer agrees otherwise). • Email distribution list – An email distribution list would be used to disseminate project information to interested stakeholders. • Signage – Signage on construction sites would be provided to notify stakeholders of project details and project emergency or enquiry information. • Specific notifications – Specific notifications would be letterbox dropped or hand distributed to the nearby residences and other sensitive receptors no later than seven days ahead of construction activities that are likely to exceed the noise objectives. This form of communication is used to support periodic notifications, or to advertise unscheduled works. • Phone calls – Phone calls may be made to identified/affected stakeholders within seven days of proposed work. For these works considering the large numbers of receptors, phone calls are not likely to be considered a reasonable mitigation and management measure in all cases, but could be used to inform specific receptors if requested (after notification of the works as above). • Individual briefings – Individual briefings may be used to inform stakeholders about the impacts of high noise activities and mitigation and management measures that would be implemented. Communications representatives from the contractor(s) would visit identified stakeholders at least 48 hours ahead of potentially disturbing construction activities. Considering the large numbers of potentially affected receptors, individual briefings may not be considered a reasonable mitigation and management measure in all cases, but could be used for specific receptors if requested (after notification of the works as above). • Monitoring – Ongoing noise monitoring during construction at sensitive receptors during critical periods would be used to identify and assist in managing high risk noise events. Monitoring of noise would also be carried out in response to complaints. All noise monitoring would be carried out by an appropriately trained person in the measurement and assessment of construction noise and vibration, who is familiar with the requirements of the relevant standards and procedures.							

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	• Project specific respite offer – Residents subjected to lengthy periods of noise or vibration may be eligible for a project specific respite offer. The purpose of such an offer is to provide residents with respite from an ongoing impact. An example of a respite offer might be pre-purchased movie tickets. The provision of this measure would be determined on a case-by-case basis. Project specific respite offers are unlikely to be reasonable and feasible in the CBD precinct. This is partly due to the impracticability of providing respite offers to large numbers of people during the proposed 24-hour works, but also reflects the existing evening and weekend noise environment in the Parramatta CBD precinct. • Alternative accommodation – As described in the CNS, provision of alternative accommodation for residents should be considered in the event that highly intrusive noise impacts are predicted during the night-time period (between 10 pm and 7 am). However, as the project is likely to require night-time works at many locations (particularly in the Parramatta CBD precinct), provision of alternative accommodation in all cases may not always be feasible or reasonable.							
NV-4	For sensitive receivers that operate outside standard construction hours, for example hospitals which operate on a 24-hour basis, feasible and reasonable noise mitigation options and measures would be developed in consultation with the sensitive receiver.	All Precincts	Not triggered, superseded by E31	Not triggered, superseded by E31	Not triggered, superseded by E31	Not triggered, superseded by E31	Not triggered, superseded by E31	Not triggered, superseded by E31
NV-5	The use of noise intensive plant items would be scheduled for normal working hours. If the works cannot be carried out during the daytime, it has been recommended to complete them before 11 pm, where practicable. This would be particularly relevant for works impacting the following noise catchment areas (NCAs) where a number of activities have been predicted to result in high impacts on many residential receivers during the night-time: • NCA04 in the Westmead precinct • NCA06 and NCA07 in the Parramatta North precinct • NCA11 in the Rosehill and Camellia precinct.	All Precincts	Applicable, in conjunction with E27 and E28.	Applicable, in conjunction with E27 and E28.	Applicable, in conjunction with E27 and E28.	Applicable, in conjunction with E27 and E28.	Applicable, in conjunction with E27 and E28.	Applicable, in conjunction with E27 and E28.
NV-6	Opportunities to reduce road traffic noise during construction would be investigated during construction planning, including restricting heavy vehicle movements to standard construction hours and/or to routes with fewer sensitive receivers.	All Precincts	Applicable	Applicable	Applicable	Applicable	Applicable	Applicable
NV-7	Where vibration intensive construction activities are proposed within 100 metres of sensitive receivers, these works would be confined to the less sensitive daytime period where possible. The potential impacts from vibration are to be considered in the site-specific Construction Noise and Vibration Impact	All Precincts	Applicable, in conjunction with E6.	Applicable, in conjunction with E6 and E42	Applicable, in conjunction with E6 and E42	Applicable, in conjunction with E6 and E42	Applicable, in conjunction with E6 and E42	Applicable, in conjunction with E6 and E42

ID Ref.	Requirement	Precinct	Stage 0 Preconstruction Activities	Stage 1: Package 1 Enabling Works	Stage 1: Package 2 Westmead Precinct Works	Stage 1: Package 3 Early Works Portion 2	Stage 2: Package 4 Infrastructure Delivery	Stage 3: Package 5 SOM
	Statements (to be developed during detailed design). In general, mitigation and management measures that would be considered include: • Relocate vibration generating plant and equipment to areas within the site in order to lower the vibration impacts. • Investigate the feasibility of rescheduling the hours of operation of major vibration generating plant and equipment. • Use lower vibration generating items of excavation plant and equipment (e.g. smaller capacity rock breaker hammers). • Minimise consecutive works in the same locality (if applicable). • Use dampened rock breakers to minimise the impacts associated with rock breaking works. If vibration intensive works are required within the safe working distances, vibration monitoring or attended vibration trials would be carried out to ensure that levels remain below the cosmetic damage criterion. Building condition surveys would be completed both prior to the commencement of construction works and following the completion of construction works to identify existing damage and any damage due to the works. Measurements of existing ambient vibration levels would be carried out at receivers with vibration sensitive equipment during the detailed design. This information would be used to inform the site-specific Construction Noise and Vibration Impact Statements for works near these locations.							
NV-8	Mitigation and management measures to address potential noise and vibration impacts to facilities within the Westmead Research Zone would be implemented during construction. Mitigation and management measures would be determined in consultation with the facility operator / owner and informed by the sensitivity of impacted spaces prior to the commencement of construction. The mitigation and management measures (in addition to those provided in NV-1 to NV-7) could include: • Consultation with the affected facilities to determine periods when noise and/or vibration intensive works can occur with least impact. • Relocation of vibration sensitive equipment to less impacted locations within the facilities. • Vibration isolation of sensitive equipment predicted to have potential impacts. • Unattended noise and vibration monitoring within the facilities to ensure noise and/or vibration levels are within acceptable levels.	Westmead	Not Triggered	Not Triggered	Applicable	Not Triggered	Applicable	Applicable

ID Ref.	Requirement	Precinct	Stage 0 Preconstruction Activities	Stage 1: Package 1 Enabling Works	Stage 1: Package 2 Westmead Precinct Works	Stage 1: Package 3 Early Works Portion 2	Stage 2: Package 4 Infrastructure Delivery	Stage 3: Package 5 SOM
NV-9	An operational mitigation strategy would be developed for the management of noise and vibration impacts during operation. This would be implemented prior to operations and then validated once the project is complete (usually 12 months post opening). Potentially feasible and reasonable mitigation for reducing the impact of operational noise at receivers would be considered as part of the operational mitigation strategy including: • Minimise LRV source noise levels via specifications • Vegetated trackforms. • Speed restrictions. • Minimise wheel and rail roughness. • Low noise trackforms such as absorptive paving or vegetated trackforms. • Ballast mats. • Under sleeper pads. • Property treatments. The final operational mitigation strategy would be determined during detailed design in consultation with the affected community.	All Precincts	Not Triggered	Not Triggered	Not Triggered	Not Triggered	Applicable, in consideration of design only.	Applicable
PR-1	Detailed design would consider measures to minimise removal of existing vegetation where possible, so as to minimise visual and landscape impacts. Where the project corridor is located close to residential dwellings or other sensitive receivers, the Urban Design and Landscape Plan (UDLP) to be developed for the project would consider how planting and other landscaping options can be used to create or maintain privacy.	All Precincts	Applicable	Applicable	Applicable	Not triggered	Applicable	Applicable
PR-2	Where landscaping is not able to mitigate privacy impacts, additional urban design elements such as fencing or other screening features would be considered so as to mitigate a reduction in the privacy of existing sensitive receivers (i.e. private residences and businesses). • This is most likely to occur at receivers within the vicinity of stops and active transport links, in particular in areas which currently experience relatively low levels of pedestrian activity as follows: • Cumberland Hospital stop (within the current Cumberland Hospital site) • The active transport link between Carlingford and Camellia • The light rail and active transport bridge over James Ruse Drive between Rosehill and Camellia. The design of landscaping or privacy screening would also need to consider safety issues such as sightlines for LRVs and CPTED principles.	All Precincts	Not Triggered	Not Triggered	Not triggered	Not triggered	Applicable	Applicable

ID Ref.	Requirement	Precinct	Stage 0 Preconstruction Activities	Stage 1: Package 1 Enabling Works	Stage 1: Package 2 Westmead Precinct Works	Stage 1: Package 3 Early Works Portion 2	Stage 2: Package 4 Infrastructure Delivery	Stage 3: Package 5 SOM
PR-3	Detailed design of the active transport link would consider the potential privacy impacts to adjacent properties. Measures to be considered would include: • Separation of levels between the active shared path and adjacent properties to lower the path, minimising opportunities for overlooking of existing fences. • Provision of additional fencing or vegetation to provide screening.	Rosehill and Camellia; Carlingford	Not Triggered	Not Triggered	Not triggered	Not triggered	Applicable	Applicable
PR-4	Lighting within the project corridor would be required to address safety and consider the potential privacy impacts of light spill to adjoining properties, including the use of fixtures that prevent light within the light rail corridor from spilling upwards and/or beyond the required area to be lit and into adjacent residences or sensitive environmental areas. Permanent lighting would be designed by a specialist lighting consultant and would comply with relevant Australian Standards, including AS4282.1997 (Control of the obtrusive effects of outdoor lighting) and AS 1158 Road lighting. The final lighting design would consider the use of motion sensors to adjust light levels to balance the need to provide a safe environment while minimising potential light spill to the adjacent residential properties.	All Precincts	Not Triggered	Applicable	Applicable	Not triggered	Applicable	Applicable
PR-5	The design and placement of construction hoardings would consider opportunities to minimise privacy impacts on adjacent residents or other adjacent land uses sensitive to privacy concerns.	All Precincts	Applicable	Applicable	Applicable	Not triggered	Applicable	Applicable
RC-1	Coordination and consultation with the Sydney Coordination Office and the following stakeholders would occur as required to coordinate interfacing projects: • Department of Planning and Environment. • Other Transport for NSW agencies (including Roads and Maritime Services; Sydney Trains and Sydney Buses). • Sydney Water. • City of Parramatta Council. • UrbanGrowth NSW Development Corporation. • Western Sydney University. • NSW Health (and its construction contractors). • Land and Housing Corporation. • Emergency service providers. • Utility providers. • Construction contractors. • Other stakeholders as required, as advised by Transport for NSW. Coordination and consultation with these stakeholders would include:	All Precincts	Applicable	Applicable	Applicable	Applicable	Applicable	Applicable

ID Ref.	Requirement	Precinct	Stage 0 Preconstruction Activities	Stage 1: Package 1 Enabling Works	Stage 1: Package 2 Westmead Precinct Works	Stage 1: Package 3 Early Works Portion 2	Stage 2: Package 4 Infrastructure Delivery	Stage 3: Package 5 SOM
	• Current and upcoming development applications and precinct master plans. • Provision of regular updates to the detailed construction program, construction sites and haul routes. • Identification of key potential conflict points with other construction projects. • Developing mitigation strategies in order to manage cumulative impacts of the Parramatta Light Rail and other interfacing projects. Depending on the nature of the conflict, this could involve: – Adjustments to the Parramatta Light Rail (Stage 1) construction program, work activities or haul routes; or adjustments to the program, activities or haul routes of other construction projects. – Coordination of traffic management arrangements between projects. – Coordination of noise generating activities, such as out of hours works.							
SE-1	A Community Engagement Plan would be prepared to guide community engagement during the construction phase of the project. Communication would be with the local community, stakeholders and the wider region. Place Managers dedicated to each precinct would be available during the lead up to construction and during construction to hear concerns or answer questions from the community and businesses. They would provide a single point of contact for those wanting to find out more about the project, including impacts of construction and how to minimise them.	All Precincts	Applicable, in conjunction with B1-B5	Applicable, in conjunction with B1-B5	Applicable, in conjunction with B1-B5	Applicable, in conjunction with B1-B5	Applicable, in conjunction with B1-B5	Applicable, in conjunction with B1-B5
SE-2	A Business Consultation and Activation Plan would be prepared to develop strategies to minimise impacts on businesses during construction and as a result of operations. This plan would include: • Details on how Sydney Coordination Office, Local Business Chambers and business representatives would contribute to development and implementation of strategies. • A Business Activation team which liaises with a number of agencies such as the NSW Department of Industry and City of Parramatta Council, would work with businesses to improve resilience during construction and to changes during operations. The team would also consider bringing together business forums to address specific issues of interest for businesses. • Place Managers who would work with businesses to understand their needs and work with the construction teams on the best way to meet these requirements	All Precincts	Not Triggered	Applicable, in conjunction with E110.	Applicable, in conjunction with E110.	Applicable, in conjunction with E110.	Applicable	Applicable

ID Ref.	Requirement	Precinct	Stage 0 Preconstruction Activities	Stage 1: Package 1 Enabling Works	Stage 1: Package 2 Westmead Precinct Works	Stage 1: Package 3 Early Works Portion 2	Stage 2: Package 4 Infrastructure Delivery	Stage 3: Package 5 SOM
	including signage, parking, access and other measures to avoid disruption for customers and deliveries.							
SE-3	Areas affected by construction would be reinstated and restored in accordance with the UDLP.	All Precincts	Applicable	Applicable	Applicable	Applicable	Applicable, in conjunction with E87 – E89	Applicable, in conjunction with E87 – E89
SE-4	A strategy for managing displacement of homeless people would be prepared in collaboration with the City of Parramatta Council and other agencies in accordance with the NSW Government's Protocol for Homeless People in Public Places: Guidelines for Implementation (May 2013).	All Precincts	Applicable, in conjunction with B1-B5	Applicable, in conjunction with B1-B5	Applicable, in conjunction with B1-B5	Applicable, in conjunction with B1-B5	Applicable, in conjunction with B1-B5	Applicable, in conjunction with B1-B5
SE-5	Carry out ongoing consultation and communication with local communities about changes to public transport and local pedestrian and cycle access, including through community events, signage, public notices and provision of regular updates to user groups.	All Precincts	Applicable, in conjunction with B1-B5	Applicable, in conjunction with B1-B5	Applicable, in conjunction with B1-B5	Applicable, in conjunction with B1-B5	Applicable, in conjunction with B1-B5	Applicable, in conjunction with B1-B5
SE-6	Consultation would be carried out with businesses potentially impacted during construction. Consultation would aim to identify and develop measures to manage the specific construction impacts (such as impacts to outdoor dining areas) for individual or groups of businesses as appropriate.	All Precincts	Applicable, in conjunction with B1-B5 and E110	Applicable, in conjunction with B1-B5 and E110	Applicable, in conjunction with B1-B5 and E110	Applicable, in conjunction with B1-B5 and E110	Applicable, in conjunction with B1-B5 and E110	Applicable, in conjunction with B1-B5 and E110
SE-7	A business impact risk register would be developed to identify, rate and manage the specific construction impacts for individual businesses.	All Precincts	Applicable, in conjunction with E110.	Applicable, in conjunction with E110.	Applicable, in conjunction with E110.	Applicable, in conjunction with E110.	Applicable, in conjunction with E110.	Applicable, in conjunction with E110.
SE-8	Appropriate signage would be provided around construction sites to provide visibility to retained businesses, where required.	All Precincts	Applicable, in conjunction with B1-B5 and E110	Applicable, in conjunction with B1-B5 and E110	Applicable, in conjunction with B1-B5 and E110	Applicable, in conjunction with B1-B5 and E110	Applicable, in conjunction with B1-B5 and E110	Applicable, in conjunction with B1-B5 and E110
SE-9	Transport for NSW would consult with managers of Wesley Apartments and Cumberland Hospital about opportunities to support the relocation of affected facilities.	Westmead	Partial – for specific location only	Not triggered	Applicable	Not triggered	Applicable	Applicable
SE-10	Carry out ongoing consultation in accordance with the Community Engagement Plan with managers of community facilities near the project about potential impacts and proposed management measures. These include (but not limited to): • Westmead Hospital, the Children's Hospital at Westmead and Cumberland Hospital precinct • Western Sydney University, including the Western Sydney University Early Learning Centre • Schools, such as Parramatta Marist High School, Arthur Phillip High School, Parramatta Public School, Parramatta North Primary School, St Patrick's Primary, Our Lady of Mercy College and Catherine McAuley Catholic Girls' School. • Nursing homes. • Medical facilities.	Westmead; Parramatta North; Parramatta CBD; Rosehill and Camellia	Applicable, in conjunction with B1-B5	Applicable, in conjunction with B1-B5	Applicable, in conjunction with B1-B5	Not triggered	Applicable, in conjunction with B1-B5	Applicable, in conjunction with B1-B5

ID Ref.	Requirement	Precinct	Stage 0 Preconstruction Activities	Stage 1: Package 1 Enabling Works	Stage 1: Package 2 Westmead Precinct Works	Stage 1: Package 3 Early Works Portion 2	Stage 2: Package 4 Infrastructure Delivery	Stage 3: Package 5 SOM
	• Managers of Prince Alfred Square and Robin Thomas Reserve. • Rosehill Gardens Racecourse. • Rosehill Bowling Club.							
SE-11	Ensure planning for the temporary full or partial closure of local and regional roads in the study area considers the timing of major events within the study area, for example those at Parramatta Park, Rosehill Gardens Racecourse and Prince Alfred Square.	Parramatta CBD; Rosehill and Camellia	Applicable, in conjunction with B1-B5	Applicable, in conjunction with B1-B5	Applicable, in conjunction with B1-B5	Applicable, in conjunction with B1-B5	Applicable, in conjunction with B1-B5	Applicable, in conjunction with B1-B5
SE-12	Alternate public transport access (i.e. buses) would be provided for communities along the T6 Carlingford Line.	Carlingford	Not Triggered	Not Triggered	Not Triggered	Not Triggered	Applicable	Applicable for construction only.
SG-1	A geotechnical investigation would be carried out to guide the detailed design and construction of the project. Detailed design would consider the potential impacts on elements that are buried or in contact with identified acid sulfate soils and determine mitigation and management measures for minimising impacts.	All Precincts	Not Triggered	Applicable	Applicable	Not Triggered	Applicable	Applicable
SG-2	[Left intentionally blank - there is no SG-2 in the SPIR]	Left blank	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
SG-3	To manage potential impacts to geology and soils , the soil and water management plan prepared as part of the CEMP (refer HY-6 above) would include standard management measures to be implemented during construction, including (but not limited to): • Erosion and sediment control plans would be prepared for each worksite in accordance with Volume 2D of Managing Urban Stormwater: Soils and Construction (Landcom, 2004). Due to the potential high erosion of soils along the alignment, the erosion and sediment control plans would be established prior to the commencement of construction and be updated and managed throughout as relevant to the activities during construction. • Stabilised surfaces would be reinstated as quickly as practicable after construction. • All stockpiled materials would be stored in bunded areas and kept away from waterways to avoid sediment entering the waterways. • Sediment would be prevented from moving off-site and sediment laden water prevented from entering any watercourse, drainage line or drainage inlet. • Clean water would be diverted around the work site in accordance with Managing Urban Stormwater: Soils and Construction (Landcom, 2004). • Erosion and sediment control measures would be regularly inspected (particularly following rainfall events) to ensure their ongoing functionality.	All Precincts	Applicable – but not included in a CEMP, in conjunction with E111	Applicable, in conjunction with E111	Applicable, in conjunction with E111	Applicable, in conjunction with E111	Applicable, in conjunction with E111	Applicable, in conjunction with E111

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	• Erosion and sediment control measures would be left in place until the works are complete and areas are stabilised.							
SG-4	The presence of ASS along the project alignment would be confirmed through intrusive testing of soils in areas where ASS is likely to occur. Should ASS be identified during intrusive investigations at any section along the project, an ASS management plan would be required for construction of the project in these areas. The ASS management plan should outline procedures for the safe handling, treatment and transport of potential/actual ASS excavated during construction or maintenance works and identify management measures, including: • Excavation procedures • Spoil storage and treatment • Dewatering and groundwater management • Bunding and measures to protect surrounding areas and waterways from the potential risk of acid contamination. The objective of the ASS management plan would be to comply with all statutory requirements and implement all environmental controls to minimise and manage impacts on the environment from the disturbance of potential or actual ASS.	All Precincts	Applicable	Applicable	Applicable	Not triggered	Applicable	**Partially Applicable** Not triggered for Package 5A.
SG-5	Should ASS be identified during intrusive investigations, acid sulfate soils management plans would be required for future maintenance works in these areas.	All Precincts	Not triggered	Not triggered	Not triggered	Not triggered	Applicable, to be considered in design only.	Applicable
SG-6	Embankment stabilisation treatments would require maintenance during the operation phase of the project to ensure functionality.	All Precincts	Not triggered	Not triggered	Not triggered	Not triggered	Applicable	Applicable
SU-1	Sustainability initiatives would be incorporated into the detailed design and construction of the project to support the achievement of the project sustainability objectives, as detailed in the Sustainability Plan.	All Precincts	Applicable	Applicable, in conjunction with E136	Applicable, in conjunction with E136	Applicable, in conjunction with E136	Applicable, in conjunction with E136	Applicable, in conjunction with E136
SU-2	A best practice level of performance would be achieved by achieving a minimum project score of 65 (an ‘Excellent’ rating) for each project stage during detailed design and construction.	All Precincts	Not triggered	Applicable, in conjunction with E136	Not triggered, as per E136	Not triggered, as per E136	Applicable, in conjunction with E136	Applicable, in conjunction with E136
SU-3	A workforce development and industry participation strategy would be developed and implemented for the construction of the project. The development of this strategy would consider any existing programs, such as the Parramatta Skills Exchange, which may be applicable to the project.	All Precincts	Applicable	Applicable	Applicable	Not triggered	Applicable	Applicable
SU-4	Sustainability initiatives would be incorporated into the operation of the project to support the achievement of the project sustainability objectives, as detailed in the Sustainability Plan.	All Precincts	Not triggered	Not triggered	Not triggered	Not triggered	Applicable, to be considered in design only	Applicable

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SU-5	A best practice level of performance would be achieved by achieving an ISCA rating for the operational stage of the project.	All Precincts	Not triggered	Not triggered	Not triggered	Not triggered	Applicable, to be considered in design only	Applicable
SU-6	A workforce development and industry participation strategy would be developed and implemented during operation.	All Precincts	Not triggered	Not triggered	Not triggered	Not triggered	Not triggered	Applicable
TR-1	The detailed design and construction planning would demonstrate in the design report that they have sought to avoid direct impacts to trees located near or on the alignment and minimise the level of impact identified in the EIS. Particular consideration would be given to those trees that: • Are large trees, as defined in the Transport for NSW Vegetation Offset Strategy. • Are medium or high retention value trees, as identified via application of the Significance of a Tree Assessment and Rating System endorsed by the Institute of Australian Consulting Arboriculturalists.	All Precincts	Not Triggered	Not triggered, superseded by E104 – E106	Not triggered, superseded by E104 – E106	Not triggered, superseded by E104 – E106	Not triggered, superseded by E104 – E106	Not triggered, superseded by E104 – E106
TR-2	An UDLP would be developed for the project which would include recommended tree species to be used for replacement planting in each of the precincts. Selection of tree species, size and planting locations would be carried out in close consultation with City of Parramatta Council.	All Precincts	Not Triggered	Not triggered, superseded by E107	Not triggered, superseded by E107	Not triggered, superseded by E107	Not triggered, superseded by E107	Not triggered, superseded by E107
TR-3	The use of low impact construction techniques (on existing tree roots) for all works would be considered, where appropriate and feasible.	All Precincts	Applicable, in conjunction with E104	Applicable, in conjunction with E104	Applicable, in conjunction with E104	Not triggered	Applicable, in conjunction with E104	Applicable, in conjunction with E104
TR-4	All tree pruning and removal works, including any root pruning, would be carried out in accordance with Australian Standard AS 4373-2007, Pruning of Amenity Trees.	All Precincts	Applicable, in conjunction with E103 (a) and E104	Applicable, in conjunction with E103 (a) and E104	Applicable, in conjunction with E103 (a) and E104	Not triggered	Applicable, in conjunction with E103 (a) and E104	Applicable, in conjunction with E103 (a) and E104
TR-5	Where the loss of trees is unable to be mitigated, trees removed as a result of the project would be offset in accordance with the Transport for NSW's Vegetation Offset Guide (2016). The proposed offsetting activities would be documented in the Tree Offset Strategy to be developed for the project. The City of Parramatta Council's Parramatta Ways: Implementing Sydney's Green Grid would be considered as part of the development of a Vegetation Offset Strategy for the project.	All Precincts	Applicable in conjunction with E107	Applicable in conjunction with E107	Applicable in conjunction with E107	Not triggered	Applicable in conjunction with E107	Applicable in conjunction with E107
TR-6	Temporary tree protection measures would be installed prior to construction works commencing in accordance with AS 4970-2009 - Protection of Trees on Development Sites as required for any trees to be retained within active construction sites.	All Precincts	Applicable, in conjunction with E103 (a) and E104	Applicable, in conjunction with E103 (a) and E104	Applicable, in conjunction with E103 (a) and E104	Not triggered	Applicable, in conjunction with E103 (a) and E104	Applicable, in conjunction with E103 (a) and E104
TR-7	Where activities which could cause soil compaction within the tree protection zone (TPZ) of trees to be retained cannot be avoided (e.g. due to space constraints), opportunities to raise construction facilities (e.g. demountable) above the ground	All Precincts	Applicable, in conjunction with E103 (a) and E104	Applicable, in conjunction with E103 (a) and E104	Applicable, in conjunction with E103 (a) and E104	Not triggered	Applicable, in conjunction with E103 (a) and E104	Applicable, in conjunction with E103 (a) and E104

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	level or use of suitable ground protection measures beneath site access tracks (e.g. geotextile fabric) would be investigated and implemented, where feasible, so as to avoid impacting on the underlying tree roots, in accordance with Australian Standard AS 4970 Protection of Trees on Development Sites.							
TR-8	Selection of tree species, size and planting locations would be carried out in close consultation with local council and in accordance with the UDLP to be developed for the project.	All Precincts	Not triggered, superseded by E107	Not triggered, superseded by E107	Not triggered, superseded by E107	Not triggered	Not triggered, superseded by E107	Not triggered, superseded by E107
TR-9	As far as practical, the construction compounds would be configured so as to not directly impact on trees that would not already be directly impacted by the project. Where trees which can be retained are located within construction boundaries, exclusion fencing would be erected to protect these trees from construction activities. Similarly, for road network modifications away from the main alignment, these works would be carried out, as far as practical, so as to minimise any further impact on trees as a result of the project.	All Precincts	Applicable, in conjunction with E104 – E105.	Applicable, in conjunction with E104 – E105.	Applicable, in conjunction with E104 – E105.	Not triggered	Applicable, in conjunction with E104 – E105.	Applicable, in conjunction with E104 – E105.
TT-1	A wayfinding and road signage strategy would be developed and incorporated into the detailed design of the project. This would include signage to communicate changes in turning / access restrictions, property access, and pedestrians/cyclist routes, and signage within Parramatta CBD to encourage use of alternative routes.	All Precincts	Not Triggered	Applicable, in conjunction with E1 and E17	Applicable, in conjunction with E1 and E17	Not triggered	Applicable, in conjunction with E1 and E17	Applicable, in conjunction with E1 and E17
TT-2	Road safety audits would be completed during detailed design. This includes review of the design of uncontrolled crossings at light rail stops to consider suitable sight distances. If uncontrolled crossing cannot be safely provided, alternative designs would be incorporated into the project. A detailed safety review would be undertaken during detailed design to identify requirements for further responses to manage and reduce the risk of incidents arising from collisions during operation.	All Precincts	Not Triggered	Applicable, in conjunction with E2	Applicable, in conjunction with E2	Not triggered	Applicable, in conjunction with E2	Applicable, in conjunction with E2
TT-3	The detailed design of the active transport link would: • Be reviewed by Transport for NSW for opportunities to maximise integration of the project with current and proposed bicycle corridors, such as future crossings of the Parramatta River associated with the Camellia Town Centre Master Plan. • Be designed in accordance with Cycling Aspects of Austroads Guides (2017 Edition).	All Precincts	Not Triggered	Not triggered	Not triggered	Not triggered	Applicable, in conjunction with E14	Not triggered
TT-4	Staged pedestrian crossing designs in the vicinity of each stop along the alignment would be reviewed during detailed design to ensure they provide adequate pedestrian storage commensurate with the available space.	All Precincts	Not Triggered	Not Triggered	Not triggered	Not triggered	Applicable, in conjunction with E12	Applicable, in conjunction with E12
TT-5	The Parramatta Light Rail team from Transport for NSW would work with the City of Parramatta Council and the Sydney Coordination Office in the context of its long term strategy for	All Precincts	Not Triggered	Not triggered, superseded by E11	Not triggered, superseded by E11	Not triggered	Not triggered, superseded by E11	Not triggered, superseded by E11

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	car parking in the local government area. The team would identify appropriate parking management measures (e.g. parking controls or replacement of special parking such as mobility parking or loading zones) for incorporation into the Parramatta Light Rail design, where it is impacting on-street car parking.							
TT-6	The detailed design of interchanges with other modes of transport would be developed to enable easy customer transfer at Parramatta Transport Interchange, Westmead Station and at other significant locations identified for customer transfer. The design would: • Consider accessibility for a range of customer types and abilities. • Develop Interchange Operations and Maintenance Plans setting out who owns, operates and maintains each asset within the interchange. • Identify walking and cycling catchments and facilities at interchanges. • Identify the network service plan post construction. • Confirm changes necessary to footpaths, cycleways, passenger facilities, parking, traffic and road access, and integration of public domain to optimise access.	All Precincts	Not Triggered	Not Triggered	Not triggered	Not triggered	Applicable, to be considered in design only.	Applicable
TT-7	During detailed design, the design for the Darcy Road / Hawkesbury Road intersection would be reviewed to determine if additional pedestrian storage capacity is required to meet future demand. This would be supported by pedestrian storage capacity assessments to determine suitable crossing widths and configurations. Identified reasonable and feasible changes would be incorporated into the project design.	Westmead	Not Triggered	Not Triggered	Not triggered	Not triggered	Applicable, in conjunction with E14	Not triggered
TT-8	During detailed construction planning, liaison would be undertaken with City of Parramatta Council, NSW Health, hospitals and other facilities within the Westmead Health Precinct (including Cumberland Hospital (east and west)) and emergency services to ensure construction staging of the project maintains appropriate access to the hospital precinct, and is coordinated with other developments underway within the Westmead Health Precinct. Any potential impacts on the existing road network and internal access (including emergency vehicle access) would also be addressed including alerting emergency services when construction arrangements change. Any identified mitigation and management measures would be incorporated into the project design. UrbanGrowth NSW Development Corporation would also be consulted to minimise impacts of the operation of the light rail on road access and the future road network performance of the Parramatta North Urban Transformation Area, and pedestrian and cyclist access across the alignment. Transport	Westmead ; Parramatta North	**Partially Applicable** – In Westmead and Parramatta North Only.	**Partially Applicable** – In Parramatta North only.	**Partially Applicable** – In Westmead only, in conjunction with E8	Not triggered	Applicable, in conjunction with E8	Applicable, in conjunction with E8

ID Ref.	Requirement	Precinct	Stage 0 Preconstruction Activities	Stage 1: Package 1 Enabling Works	Stage 1: Package 2 Westmead Precinct Works	Stage 1: Package 3 Early Works Portion 2	Stage 2: Package 4 Infrastructure Delivery	Stage 3: Package 5 SOM
	for NSW would consider opportunities to optimise the integration of the light rail into the development, where reasonable and feasible.							
TT-9	The Parramatta Light Rail team from Transport for NSW would undertake an operational review of the existing local road network in Westmead and Parramatta North precincts in consultation with Roads and Maritime Services, City of Parramatta Council, Parramatta Park Trust and NSW Health to identify measures to minimise the impacts of the Parramatta Light Rail project due to re-direction of traffic onto the local road network. This could include localised capacity improvements (such as the reconfiguration of parking along Caroline Street) and measures to prioritise public emergency access to the Westmead Health Precinct. Reasonable and feasible mitigation and management measures would be considered as part of the detailed design of the project.	Westmead ; Parramatta North	Not Triggered	Applicable, in conjunction with E10, E11 and E18.	Applicable, in conjunction with E10 - E11	Not triggered	Applicable, in conjunction with E10, E11 and E18.	Applicable, in conjunction with E10 - E11
TT-10	During detailed design, Transport for NSW would consider whether there is an opportunity to consolidate the Bridge Road Bridge and Parramatta North Bridge to provide access for light rail, hospital vehicles and active transport. This would be documented as an options assessment.	Westmead ; Parramatta North	Not Triggered	Not Triggered	Not triggered	Not triggered	Applicable	Not triggered
TT-11	Transport for NSW would explore opportunities during detailed design to provide through movements at the New Street / Fleet Street / Factory Street intersection. The goal would be to minimise impacts to local area access during the operation of the project and improvements would be incorporated, subject to impact assessment on final light rail or road network operations,	Parramatta North	Not Triggered	Not Triggered	Not triggered	Not triggered	Applicable, in conjunction with E10, E11 and E18	Applicable, in conjunction with E10 - E11
TT-12	Signal coordination along Factory Street would be considered during detailed design to reduce road vehicle delays during operation.	Parramatta North	Not Triggered	Not Triggered	Not triggered	Not triggered	Not triggered	Applicable
TT-13	During detailed design, Transport for NSW would identify and implement additional pedestrian crossing locations at (or in the vicinity of): • The eastern end of the Cumberland Hospital stop. • Northern end of the Fennell Street stop. • O'Connell Street north of Dunlop Street.	Parramatta North	Not Triggered	Triggered	Not triggered	Not triggered	Applicable, in conjunction with E14	Not triggered
TT-14	Signal coordination and phasing would be considered during detailed design to allow for increased pedestrian crossing times: • Along Church Street and Victoria Road, with consideration of staged pedestrian crossings • Along other Church Street intersections, Smith Street intersections, and other key intersections across the Parramatta CBD. Where required, this would be supported by pedestrian storage capacity assessments to determine suitable crossing	Parramatta North	Not Triggered	Not Triggered	Not triggered	Not triggered	Not triggered	Applicable

ID Ref.	Requirement	Precinct	Stage 0 Preconstruction Activities	Stage 1: Package 1 Enabling Works	Stage 1: Package 2 Westmead Precinct Works	Stage 1: Package 3 Early Works Portion 2	Stage 2: Package 4 Infrastructure Delivery	Stage 3: Package 5 SOM
	widths and configurations. Identified reasonable and feasible changes would be considered for the project design.							
TT-15	During detailed construction planning, Transport for NSW would determine, in consultation with Western Sydney University, a temporary alternative stop location and route for the university's free shuttle service.	Parramatta CBD	Not Triggered	Not Triggered	Not triggered	Not triggered	Applicable, in conjunction with E4	Applicable, in conjunction with E4
TT-16	During detailed design, Transport for NSW would investigate the need for the signalisation of the Harris / Hassall Street intersection through additional traffic modelling.	Parramatta CBD	Not Triggered	Not Triggered	Not triggered	Not triggered	Applicable	Not triggered
TT-17	In locations where access for local residents, businesses or other organisations to properties is permanently changed as a result of the operation of the project, a local access plan will be prepared. The local access plan will identify the traffic control or other measures to be implemented in the detailed design to provide alternative access. The local access plan will be communicated to the affected parties. Locations identified to date that require consideration include, but are not limited to: • The southern side of Macquarie Street. • Hainsworth Street, Westmead. • Tramway Avenue, Parramatta. • Alfred Street, Parramatta. • North of Grand Avenue, Camellia, where properties are impacted by works on the Sandown Line. For impacted owners of properties along the southern side of Macquarie Street the local access plans could include (but are not limited to): • Provision of alternative access location (new or use of an existing alternative available access location), where possible. • Provision of temporary offsite parking elsewhere in the Parramatta CBD, if the impacted property is expected to undergo redevelopment. • Maintaining current access if it does not have unreasonable impacts on the operation of the project and the property owner (subject to review of traffic volumes and control arrangements).	All Precincts	Not Triggered	Applicable, in conjunction with E8 -E9	Applicable, in conjunction with E8 -E9	Not triggered	Applicable, in conjunction with E8 -E9	Applicable, in conjunction with E8 -E9
TT-18	Safe pedestrian and cyclist crossings will be maintained or be provided as necessary and practical. A dedicated risk assessment would be completed to identify management measures to ensure safe interaction of the project with the public. This will include: • The existing at-grade pedestrian crossing across Macquarie Street in the vicinity of Arthur Phillip High School. Any identified mitigation and management	Parramatta CBD	Not Triggered	Not Triggered	Applicable, in conjunction with E12	Not Triggered	Applicable, in conjunction with E12 – E14	Applicable, in conjunction with E12 – E14

ID Ref.	Requirement	Precinct	Stage 0 Preconstruction Activities	Stage 1: Package 1 Enabling Works	Stage 1: Package 2 Westmead Precinct Works	Stage 1: Package 3 Early Works Portion 2	Stage 2: Package 4 Infrastructure Delivery	Stage 3: Package 5 SOM
	measures for an at-grade crossing would be incorporated into the project design. Transport for NSW would consult with the Department of Education on the outcomes of the risk assessment and identified responses. • The detailed design of the right hand turn from Hassell Street into Harris Street would, where reasonable and feasible, incorporate a safe pedestrian and cyclist crossing of Harris Street to link Robin Thomas Reserve with Hassall Street, and would consider the potential for a future on-road bike path with dedicated bike lanes in Hassall Street (to be delivered by others). Any alternative pedestrian and cyclist provisions would be implemented prior to the removal of the existing pedestrian refuge.							
TT-19	Transport for NSW would continue liaise with the Department of Planning and Environment during detailed design to ensure integration of the project with future rezoning / master planning projects for the Camellia Town Centre project.	Camellia and Rosehill	Not Triggered	Not Triggered	Not Triggered	Not Triggered	Applicable	Applicable
TT-20	During detailed design, opportunities to facilitate improved east-west crossings of the project alignment for existing and future communities would be explored by Transport for NSW in consultation with City of Parramatta Council. Provision for additional crossings would be safeguarded if any such crossing does not unreasonably impact light rail operation, and would be delivered by others / incorporated into the project.	Carlingford	Not Triggered	Not Triggered	Not Triggered	Not Triggered	Applicable, in conjunction with E14	Applicable, in conjunction with E14
TT-21	During detailed design, Transport for NSW would liaise with the Land and Housing Corporation concerning the future-proofing for an additional road crossing in the vicinity of the Telopea stop to link Adderton Road and Sturt Street to improve east-west connectivity for the Telopea Priority Precinct. Provision for an additional crossing would be subject to a feasible design and would seek to safeguard the proposed location of the road crossing for final delivery by others.	Carlingford	Not Triggered	Not Triggered	Not Triggered	Not Triggered	Applicable	Applicable
TT-22	The Carlingford services bus replacement strategy for the project would be finalised during detailed construction planning, including the identification of any supporting infrastructure at Camellia, Rydalmere, Telopea, Dundas and Carlingford stations.	Carlingford	Not Triggered	Not Triggered	Not Triggered	Not Triggered	Applicable	Applicable
TT-23	[Left intentionally blank - there is no TT-23 in the SPIR]	Left blank	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
TT-24	Existing cycle routes would be maintained or diverted during construction.	All Precincts	Not triggered, superseded by E12	Not triggered, superseded by E12	Not triggered, superseded by E12	Not triggered, superseded by E12	Not triggered, superseded by E12	Not triggered, superseded by E12
TT-25	To maintain safe motorist, pedestrian and cyclist access where construction works would occur, mitigation and management measures would be detailed in the Construction Traffic Management Plan and implemented during construction. This would include:	All Precincts	Applicable, in conjunction with E12 But not detailed in the Construction	Applicable, in conjunction with E12	Applicable, in conjunction with E12	Applicable, in conjunction with E12	Applicable, in conjunction with E12	Applicable, in conjunction with E12

ID Ref.	Requirement	Precinct	Stage 0 Preconstruction Activities	Stage 1: Package 1 Enabling Works	Stage 1: Package 2 Westmead Precinct Works	Stage 1: Package 3 Early Works Portion 2	Stage 2: Package 4 Infrastructure Delivery	Stage 3: Package 5 SOM
	• Use of speed awareness signs in conjunction with variable message signs near construction sites to provide alerts to drivers • Appropriate controls where vehicles are required to cross footpaths to access construction areas, including manual supervision, physical barriers or temporary traffic signals. • Consideration of shared experience educational events that allow pedestrians, cyclists or motorists to sit in trucks and understand the visibility restrictions of truck drivers, and for truck drivers to understand the visibility from a bicycle. » Consideration of pedestrian access needs for elderly people, children and people with disability, where reasonably practicable. • Specific construction driver training to understand route constraints, expectations, safety issues and to limit the use of compression braking. • Safety devices on construction vehicles that warn drivers of the presence of a vulnerable road user located in the vehicles' blind spots and warn the vulnerable road user that a vehicle is about to turn. Site specific construction traffic management plans and site specific traffic control plans would be prepared and implemented, including mitigation and management responses associated with the temporary closures (including weekend closures) of: • Church Street and Pennant Hills Road. • Church Street and Barney Street. • Church Street and Board Street. • Church Street and Victoria Road. • Smith Street and Macquarie Street. • Church Street and George Street. • James Ruse Drive. • Grand Avenue. • Kissing Point Road. These site-specific traffic management plans would detail: • Site access and associated route and turning movements. • Potential activities that could result in the disruption to traffic and transport networks, including pedestrian, cyclist and public transport networks and during special events. • The timing to limit disruptions to the road and transport networks. • The maintenance of access and safety of transport networks, parking and property.		Traffic Management Plan					

ID Ref.	Requirement	Precinct	Stage 0 Preconstruction Activities	Stage 1: Package 1 Enabling Works	Stage 1: Package 2 Westmead Precinct Works	Stage 1: Package 3 Early Works Portion 2	Stage 2: Package 4 Infrastructure Delivery	Stage 3: Package 5 SOM
	• Details responses to the management of an event that directly involves or impacts on traffic and transport networks.							
TT-26	Heavy vehicle construction traffic would be prohibited from using: • Railway Parade, Westmead. • Trott Street, North Parramatta. • Noller Parade, Parramatta.	Westmead; Parramatta North; Parramatta CBD	Applicable	Applicable	Applicable	Not triggered	Applicable	Applicable
TT-27	Modifications and capacity upgrade works on O'Connell Street and George Street would be completed prior to the closure of Church Street and Macquarie Street to general through traffic.	Parramatta North; Parramatta CBD	Applicable	Applicable	Applicable	Not triggered	Applicable	Not triggered
TT-28	Hours of when construction deliveries and spoil removal would be undertaken within the Parramatta CBD and Rosehill and Camellia precincts would be determined in consultation with the Sydney Coordination Office and Roads and Maritime Services.	Parramatta CBD; Rosehill and Camellia	Applicable	Applicable	Not triggered	Applicable	Applicable	Applicable
TT-29	To maintain property access during construction, mitigation and management measures would be detailed in the Construction Traffic Management Plan and implemented during construction. This would include: • Use traffic controllers and localised traffic management measures to maintain access through worksites, where practical. • Temporary access closures would occur in stages to minimise the duration of closures. • Provision of temporary alternative car parking for properties with on-site parking.	All Precincts	Not Triggered	Applicable, in conjunction with E8	Applicable, in conjunction with E8	Applicable, in conjunction with E8	Applicable, in conjunction with E8	Applicable, in conjunction with E8
TT-30	Construction works that occur above or from Parramatta River at the Parramatta River Bridge (e.g. barges) would be scheduled during periods as agreed with Roads and Maritime, NSW Ports Authority and Harbour City Ferries.	Rosehill and Camellia; Carlingford	Not Triggered	Not Triggered	Not Triggered	Applicable	Applicable	Applicable
TT-31	A strategy for maintaining emergency vehicle access to the Westmead Health Precinct in case of a breakdown along Hawkesbury Road would be prepared in consultation with NSW Health and implemented. The project would be designed to enable emergency vehicles to use the project alignment in an emergency situation during periods of traffic congestion along Hawkesbury Road.	Westmead	Not Triggered	Not Triggered	Not Triggered	Not Triggered	Applicable	Applicable
UT-1	Dial before you dig searches and non-destructive digging (including pot-holing and/or hand-digging) would be carried out to identify the presence of underground utilities prior to commencement of construction in accordance with guidelines provided by the relevant utility authority.	All Precincts	Applicable	Applicable	Applicable	Applicable	Applicable	Applicable

ID Ref.	Requirement	Precinct	Stage 0 Preconstruction Activities	Stage 1: Package 1 Enabling Works	Stage 1: Package 2 Westmead Precinct Works	Stage 1: Package 3 Early Works Portion 2	Stage 2: Package 4 Infrastructure Delivery	Stage 3: Package 5 SOM
UT-2	Consultation with utility service providers would be carried out during detailed design to ensure that appropriate measures are taken regarding the potential integration of future utilities requirements along the project alignment, and to ensure that the project does not preclude the development or installation of these proposed utilities. A Basis of Design Manual would be developed for each utility owner which would: • Outline relocation or protection rules for each utility • Identify design approval process(es) and indicative timeframes • Identify construction requirements, including provisions for standby support • Indicate future proofing spares requirements • Identify interfacing projects to consider during project construction. Ongoing consultation would be carried out with high risk utility providers (including Caltex and Jemena) to identify appropriate construction methodologies which would apply to construction operations within the vicinity of the Hunter Pipeline and Jemena secondary gas mains.	All Precincts	Not Triggered	Applicable	Applicable	Applicable	Applicable	Applicable
UT-3	A strategy for the management of utilities would be developed during detailed design. The strategy for the preferred hierarchy of utilities treatment would be as follows: • Avoid/Do nothing – avoid impact on utilities where possible. • Protect – protect utilities in their existing locations where feasible. • Relocate – utilities to be relocated only where no other options are feasible or acceptable.	All Precincts	Not Triggered	Applicable	Applicable	Not Triggered No utilities affected	Applicable	Applicable
UT-4	Risk assessments and hazard logs would be developed and specific management plans put in place if deemed necessary to mitigate the risk of personal safety incidents and asset integrity damage.	All Precincts	Applicable	Applicable	Applicable	Applicable	Applicable	Applicable
UT-5	The design of the project and construction activities would comply with the requirements of AS 2885 Pipelines – Gas and Liquid Petroleum, to ensure that existing utilities are protected.	All Precincts	Applicable	Applicable	Applicable	Applicable	Applicable	Applicable
UT-6	When working in the vicinity of utilities during construction, a review of the proposed works at these location(s) would be carried out by the Construction Contractor in consultation with the relevant service provider(s). The review would consider service provider and project requirements in terms of safety, network integrity and constructability. Safe working method statements and appropriate management plans must be implemented to minimise the risk of striking nearby utilities.	All Precincts	Applicable	Applicable	Applicable	Applicable	Applicable	Applicable

ID Ref.	Requirement	Precinct	Stage 0 Preconstruction Activities	Stage 1: Package 1 Enabling Works	Stage 1: Package 2 Westmead Precinct Works	Stage 1: Package 3 Early Works Portion 2	Stage 2: Package 4 Infrastructure Delivery	Stage 3: Package 5 SOM
UT-7	During construction, the upgrade of utilities along Eat Street would consider, as far as practical, staging so that only part of the street is affected at any one time.	Parramatta CBD	Partial – if utility work is in Eat Street	Not Triggered	Not Triggered	Not Triggered	Applicable, in conjunction with E135	Applicable, in conjunction with E135
VL-1	Design of hoardings would feature graphics, artwork or project information wherever possible at appropriate locations to be determined in consultation with Transport for NSW. Guidelines for hoardings graphics, including location-specific guidelines, would be submitted by the contractor for approval by Transport for NSW prior to the commencement of works.	All Precincts	Applicable, in conjunction with C19 – C20	Applicable, in conjunction with C19 – C20	Applicable, in conjunction with C19 – C20	Applicable, in conjunction with C19 – C20	Applicable, in conjunction with C19 – C20	Applicable, in conjunction with C19 – C20
VL-2	An UDLP would be prepared for the project. The plan would include: • Integration with the adjacent built environment. • Design detail that responds to the amenity and character of the local area and heritage items located within or adjacent to the project area, including for the following sites / items: – Cumberland District Hospital Precinct. – North Parramatta Conservation Area. – Stable (and potential archaeological site). – Ancient Aboriginal and Early Colonial Landscape. – Sewage Pumping Station 67. – Rydalmere Hospital Precinct. – Dundas Railway Station Group. – Carlingford Stock Feeds. • Materials and finishes. • Location and design of proposed project elements including footpaths and active transport, street furniture, bicycle storage and lighting. • Proposed plantings. • Opportunities for locations to display public art. The UDLP would be prepared in consultation with local council and other relevant stakeholders.	All Precincts	Not Triggered	Applicable	Applicable	Not triggered	Applicable, in conjunction with E87 - E88	Applicable, in conjunction with E87 - E88
VL-3	Architectural treatments of substations would be designed to minimise visual impact and respect the local landscape character.	All Precincts	Not Triggered	Not Triggered	Not Triggered	Not Triggered	Not Triggered	Applicable
VL-4	Detailed design of new bridges would be carried out in accordance with Bridge Aesthetics: Design guidelines to improve the appearance of bridges in NSW (RMS, 2012).	All Precincts	Not Triggered	Not Triggered	Not Triggered	Not Triggered	Applicable	Not Triggered
VL-5	During detailed design, opportunities would be investigated to improve pedestrian connections and public domain treatments at interchanges between transport services.	All Precincts	Not Triggered	Not Triggered	Not Triggered	Not Triggered	Applicable	Not Triggered
VL-6	During detailed design, opportunities would be investigated where feasible to retain vegetation in order to screen and visually integrate the project with the surrounding area, and where required, additional tree planting and landscaping would	All Precincts	Not Triggered	Applicable	Applicable	Not Triggered	Applicable	Applicable

ID Ref.	Requirement	Precinct	Stage 0 Preconstruction Activities	Stage 1: Package 1 Enabling Works	Stage 1: Package 2 Westmead Precinct Works	Stage 1: Package 3 Early Works Portion 2	Stage 2: Package 4 Infrastructure Delivery	Stage 3: Package 5 SOM
	be provided to screen views in order to soften the visual impact of the project including: • Along Hawkesbury Road. • Within the Cumberland Hospital (east and west). • Riparian areas in the vicinity of bridge crossings. • Along the O'Connell Street perimeter of the Parramatta Gaol. • St Patrick's Roman Catholic Cemetery. • Within Prince Alfred Square. • Within Robin Thomas Reserve. • Within Queen's Wharf Reserve. • Along the boundary of the stabling and maintenance facility site. • Along the site boundary with the Western Sydney University campus. • Along the Carlingford Line.							
VL-7	During detailed design, opportunities would be investigated for grass track treatments to mitigate visual impact on sections of the alignment, for example through key heritage areas such as: • Cumberland Hospital (east). • Robin Thomas Reserve.	Parramatta North; Parramatta CBD	Not Triggered	Not Triggered	Not Triggered	Not Triggered	Not triggered, superseded by E85	Not triggered, superseded by E85
VL-8	During detailed design, opportunities would be investigated for wire-free sections of the alignment through key locations such as: • Cumberland Hospital (east). • Parramatta CBD precinct. • Robin Thomas Reserve (Ancient Aboriginal and Early Colonial Landscape).	Parramatta North; Parramatta CBD	Not Triggered	Not Triggered	Not Triggered	Not Triggered	Not triggered, superseded by E84	Not triggered, superseded by E84
VL-9	During detailed design, where feasible opportunities would be investigated to refine the project footprint in order to reduce impact on key heritage areas such as: • St Patrick's Roman Catholic Cemetery. • Prince Alfred Square. • Robin Thomas Reserve.	Parramatta North; Parramatta CBD	Not Triggered	Not Triggered	Not Triggered	Not Triggered	Applicable	Not Triggered
VL-10	Detailed design of any overhead wire masts on Lennox Bridge would: • Minimise the number of vertical elements • Locate vertical elements considering symmetry and surrounding built form • Minimise visibility from the river foreshore parkland.	Parramatta CBD	Not Triggered	Not Triggered	Not Triggered	Not Triggered	Applicable	Applicable

ID Ref.	Requirement	Precinct	Stage 0 Preconstruction Activities	Stage 1: Package 1 Enabling Works	Stage 1: Package 2 Westmead Precinct Works	Stage 1: Package 3 Early Works Portion 2	Stage 2: Package 4 Infrastructure Delivery	Stage 3: Package 5 SOM
	• During detailed design and construction planning, opportunities to reduce impacts on Lennox Bridge would be explored including: • Minimising structural impacts in consultation with a structural engineer with heritage experience. • Minimising impacts on the significant fabric of the bridge in consultation with a heritage architect. • Considering a wire-free design in this area to reduce visual impacts. • Design responses to ensure adverse impacts to the bridge structure due to operational vibration are avoided. • The Heritage Division (as delegate of the NSW Heritage Council) would be consulted during detailed design.							
VL-11	During detailed design, opportunities would be investigated to minimise the visual impact of the stabling and maintenance facility to reduce adverse views to the facility.	Rosehill and Camellia	Not Triggered	Not Triggered	Not Triggered	Not Triggered	Not Triggered	Applicable
VL-12	During detailed design, opportunities would be investigated for the layout of the Dundas stop so that it has greater visual prominence from approaching footpaths, and an improved relationship with the retained heritage station platform and building.	Carlingford	Not Triggered	Not Triggered	Not Triggered	Not Triggered	Applicable, to be considered in design only	Applicable
VL-13	A landscape and temporary works management plan would be developed as part of the CEMP. The plan would include the following: • Approaches to temporary construction works (hoardings etc.) that consider urban design and visual impacts, including: – Artwork, graphics and images to enhance the visual appearance of temporary works in high visibility locations. – Project information to raise awareness on benefits, explain the proposed works at each site and provide updates on construction progress. – Community information, including contact numbers for enquiries/complaints. – Signage and information to mitigate impacts on local businesses which may be obscured by the construction site. • Apply the principles of crime prevention through environmental design (CPTED) to all works, including temporary works that have a public interface. • Apply the principles of Australian Standard 4282-1997 Control of the obtrusive effects of outdoor lighting and relevant safety design requirements and detail mitigation and management measures to minimise lighting impacts on sensitive receivers for all permanent, temporary and mobile light sources.	All Precincts	Not Triggered	Applicable	Not Triggered	Not Triggered	Applicable	Applicable

ID Ref.	Requirement	Precinct	Stage 0 Preconstruction Activities	Stage 1: Package 1 Enabling Works	Stage 1: Package 2 Westmead Precinct Works	Stage 1: Package 3 Early Works Portion 2	Stage 2: Package 4 Infrastructure Delivery	Stage 3: Package 5 SOM
	• Wherever feasible and reasonable, vegetation around the perimeter of the construction sites will be maintained. • Measures to minimise direct and visual impacts on heritage items from works within the curtilage of or in the vicinity of heritage items. • Regular inspections of construction hoardings and scaffolding to keep it clean and free of dust build up, with graffiti on construction hoardings and scaffolding to be removed or painted over promptly.							
VL-14	Visual mitigation and management measures identified below would be implemented as soon as feasible and reasonable, and remain for the duration of the construction activities in that area.	All Precincts	Applicable	Applicable	Applicable	Applicable	Applicable	Applicable
VL-15	Hoardings including graphics, artwork or project information as identified during detailed design would be installed as early as feasible and reasonable in the construction process. Hoardings would be kept in good condition including the prompt removal of graffiti.	All Precincts	Applicable	Applicable	Applicable	Applicable	Applicable	Applicable
VL-16	Where feasible and reasonable, the elements within worksites and construction compounds would: • Be located to minimise visual impact, for example materials and machinery would be stored behind fencing/hoarding. • Include temporary lighting that would be orientated to minimise glare and light spill impact on adjacent receivers. • Retain and protect existing vegetation around the perimeters where feasible and reasonable to act as a visual screen.	All Precincts	Applicable	Applicable	Applicable	Applicable	Applicable	Applicable
VL-17	The footprint of construction compounds in open space areas would be minimised where feasible to reduce visual impacts. This includes the following areas: • Westmead compound. • Parramatta North Compound. • Parramatta River Bridge (north). • Dundas. • Kissing Point Road. • Carlingford.	All Precincts	Applicable	Applicable	Applicable	Not triggered	Applicable	Applicable
WM-1	During detailed design and detailed construction planning, the following resource and material minimisation initiatives would be explored, and if determined to be reasonable and feasible, implemented:	All Precincts	Not Triggered	Applicable	Applicable	Applicable	Applicable	Applicable

ID Ref.	Requirement	Precinct	Stage 0 Preconstruction Activities	Stage 1: Package 1 Enabling Works	Stage 1: Package 2 Westmead Precinct Works	Stage 1: Package 3 Early Works Portion 2	Stage 2: Package 4 Infrastructure Delivery	Stage 3: Package 5 SOM
	• Use of recycled materials, such as the maximum permitted recycled content for asphalt and concrete (including use of fly ash and blast furnace slag). • Use of modular, prefabricated and precast structural and finishing materials. • Use of recycled materials and local low embodied energy materials for light rail stops. • Use of wastewater or recycled water to reduce potable water demand during construction and operation. • Design track components, structures and stops for disassembly to enable readily separation of parts for recovery and recycling. • Water efficient fixtures and fittings at the stabling and maintenance facility, including the light rail vehicle (LRV) wash facility. • Rainwater harvesting infrastructure at the stabling and maintenance facility to provide non-potable water for operational uses.							
WM-2	A waste and resource management plan would be prepared for the project as part of the overall CEMP. This plan would set out details for managing waste generation and resource consumption. The plan would be informed by the Parramatta Light Rail Sustainability Plan and the requirements of the Waste Avoidance and Resource Recovery Act 2001. The objectives and strategies of the waste and resource management plan would include the following: • Construction waste would be managed through the waste hierarchy established under the Waste Avoidance and Resource Recovery Act 2001 management hierarchy. • Classification of waste during construction in accordance with the current guidelines – Segregation of waste into stockpiles of spoil, concrete, steel, timber, paper and cardboard and vegetation to make it easier to recycle components and prevent cross contamination. – Procurement of materials would be carried out on an ‘as needed’ basis to reduce over-ordering and wastage, and exploring opportunities to reuse materials, where applicable. • Targets for the recovery, recycling or reuse of construction waste, and beneficial reuse of spoil. A Construction Waste, Reuse, Recycling and Energy Plan would be prepared as part of the CEMP. It would ensure resource and materials use, waste disposal and energy use is minimised by tracking and reporting performance, and applying corrective action as required. • Identification of carbon and energy strategies and initiatives to minimise carbon and energy use associated	All Precincts	Not Triggered	Applicable	Applicable	Applicable	Applicable	Applicable

ID Ref.	Requirement	Precinct	Stage 0 Preconstruction Activities	Stage 1: Package 1 Enabling Works	Stage 1: Package 2 Westmead Precinct Works	Stage 1: Package 3 Early Works Portion 2	Stage 2: Package 4 Infrastructure Delivery	Stage 3: Package 5 SOM
	with construction (e.g. selection of equipment, inclusion of renewable energy sources to power temporary facilities and equipment, designing site offices for energy efficiency, and efficient operation of vehicles and equipment). • Consideration of materials mitigation and management measures including use of recycled materials, recycling and reuse of materials on site, use of materials with lower embodied impact, and consideration of whole of life costs during procurement. • Prior to disposal/removal or reuse off-site, all wastes would be classified in accordance with the waste classification guidelines (Waste Classification Guidelines (OEH , 2016) and Waste Avoidance and Resource Recovery Strategy 2014-2021 (EPA, 2014) to ensure the most appropriate disposal or reuse option. • Monitoring and compliance requirements.							
WM-3	The project would achieve a diversion rate for construction waste from landfill of a minimum of 90 per cent of waste by volume, with a target of 95 per cent. The project would also reuse 100 per cent of paving and other reusable materials or facilitate reuse of such materials. Contaminated waste which cannot be diverted from landfill would be excluded from this calculation. Where targets cannot be achieved, the project must demonstrate all feasible measures have been taken to achieve as close to the targets as possible.	All Precincts	Applicable	Applicable	Applicable	Applicable	Applicable	Applicable
WM-4	Construction waste would be segregated and stockpiled on site, with materials such as bricks and tiles, timber, plastic, metals and existing track materials (such as rail and ballast materials) being separated where practicable and sent to a waste facility with recycling capabilities.	All Precincts	Applicable	Applicable	Applicable	Applicable	Applicable	Applicable
WM-5	The disturbance, movement and disposal of asbestos containing materials would be carried out in accordance with the Work Health and Safety Regulation 2011 and other relevant guidelines.	All Precincts	Applicable	Applicable	Applicable	Applicable	Applicable	Applicable
WM-6	Where possible and fit for purpose, spoil would be beneficially reused within the project before off-site reuse or disposal options are pursued. A spoil management strategy would be developed prior to the commencement of construction and implemented during construction. The strategy would identify spoil disposal sites and describe the management of spoil on-site and during off-site transport.	All Precincts	Not Triggered	Applicable	Applicable	Applicable	Applicable	Applicable
WM-7	Operational waste produced by the project would be managed through the provision of bins at each stop to dispose of any general or putrescible wastes. The collection of this waste would be managed by the network operator for the project.	All Precincts	Not Triggered	Not Triggered	Not Triggered	Not Triggered	Not Triggered	Applicable

ID Ref.	Requirement	Precinct	Stage 0 Preconstruction Activities	Stage 1: Package 1 Enabling Works	Stage 1: Package 2 Westmead Precinct Works	Stage 1: Package 3 Early Works Portion 2	Stage 2: Package 4 Infrastructure Delivery	Stage 3: Package 5 SOM
WM-8	An Operational Waste, Reuse, Recycling and Energy Plan would be prepared as part of the OEMP. It would ensure resource and materials use, waste disposal and energy use (including the stabling and maintenance facility) is minimised by tracking and reporting performance, and applying corrective action as required.	All Precincts	Not Triggered	Not Triggered	Not Triggered	Not Triggered	Not Triggered	Applicable
	End of Mitigation Measures							

Table 3-3: Addressing EIS Environmental Performance Outcomes across stages of the CSSI

ID Ref.	Environmental Performance Outcome	Stage 0 Preconstruction Activities	Stage 1 Enabling Work	Stage 2 Infrastructure Delivery	Stage 3 SOM
EPO-TT-1 Construction	The project would implement measures to minimise impacts on the road network, including staging.	Applicable	Applicable	Applicable	Applicable
EPO-TT-2 Construction	Pedestrian and cyclist safety would be maintained.	Applicable	Applicable	Applicable	Applicable
EPO-TT-3 Construction	Effective coordination would be carried out to minimise cumulative network impacts.	Applicable	Applicable	Applicable	Applicable
EPO-TT-4 Construction	Access to property would be maintained.	Applicable	Applicable	Applicable	Applicable
EPO-TT-5 Operation	The project would appropriately integrate with existing and planned future transport infrastructure including active transport.	Not Triggered	Not Triggered	Applicable, to be considered in design only.	Applicable
EPO-TT-6 Operation	Access to properties would be maintained.	Not Triggered	Applicable	Applicable, to be considered in design only.	Applicable
EPO-TT-7 Operation	Light rail customers would be provided with a safe and secure service.	Not Triggered	Not Triggered	Applicable, to be considered in design only.	Applicable
EPO-TT-8 Operation	The project would reduce congestion and crowding on public transport, improve accessibility particularly in areas with limited access to public transport and improve travel time.	Not Triggered	Not Triggered	Not Triggered	Applicable
EPO-NV-1 Construction	Noise levels would be minimised with the aim of achieving the noise management levels where feasible and reasonable.	Applicable	Applicable	Applicable	Applicable
EPO-NV-2 Construction	The project would avoid any damage to buildings or heritage items from vibrations.	Applicable	Applicable	Applicable	Applicable
EPO-NV-3 Operation	Increases in noise levels would be addressed in accordance with the *Rail infrastructure Noise Guideline* (Environmental Protection Authority, 2013). Where exceedances of noise levels are identified feasible and reasonable mitigation measures would be adopted	Not Triggered	Not Triggered	Applicable, to be considered in design only.	Applicable
EPO-NV-4 Operation	The project would avoid any damage to buildings or heritage items from vibrations.	Not Triggered	Not Triggered	Applicable, to be considered in design only.	Applicable
EPO-HE-1	The design of the project would reflect the input of an independent heritage architect and, for Lennox Bridge, a heritage engineer, at key locations and relevant stakeholders.	Not Triggered	Not Triggered	Applicable	Applicable
EPO-HE-2	The project would be sympathetic to heritage items and, where feasible and reasonable, avoid and minimise impacts to non-Aboriginal heritage items and archaeology.	Not Triggered	Applicable	Applicable	Applicable
EPO-AB-1	The project would be sympathetic to heritage items and, where feasible and reasonable, avoid and minimise impacts on Aboriginal heritage items and archaeology.	Not Triggered	Applicable	Applicable	Applicable
EPO-AB-2	Appropriate Aboriginal heritage interpretation would be incorporated into the design of the project in consultation with registered Aboriginal stakeholders.	Not Triggered	Not Triggered	Applicable	Applicable

ID Ref.	Environmental Performance Outcome	Stage 0 Preconstruction Activities	Stage 1 Enabling Work	Stage 2 Infrastructure Delivery	Stage 3 SOM
EPO-VL-1	During operation, the project would make a positive contribution to the quality of the urban environment at each stop.	Not Triggered	Not Triggered	Applicable, to be considered in design only.	Applicable
EPO-VL-2	During operation, the project would minimise change to landscape character along the alignment and at each stop.	Not Triggered	Not Triggered	Applicable, to be considered in design only.	Applicable
EPO-HY-1	No aspect of the project would materially adversely affect existing flood behaviour in the vicinity of the project.	Applicable	Applicable	Applicable	Applicable
EPO-HY-2	The project would not seek to improve flood immunity levels outside the project boundary, unless required to achieve project flood immunity levels or mitigate materially adverse impacts.	Applicable	Applicable	Applicable	Applicable
EPO-HY-3	Where reasonably practicable, existing drainage directly impacted by the project would be replaced in a manner compliant with current laws and applicable standards.	Applicable	Applicable	Applicable	Applicable
EPO-HY-4	An adverse affect to flood behaviour for the purposes of the project is defined as: • A negative change to a flood hazard category • An increase in flood level that results in habitable flood levels or basements being inundated • Increase in potential risk to life and personal safety • A negative effect on the structural soundness of a habitable building • A negative effect on existing flood evacuation access routes • An increase in velocity that results in a significant increase in the potential for soil erosion and scouring • Damage to, or temporary loss of, service of existing critical infrastructure.	Applicable	Applicable	Applicable	Applicable
EPO-SE-1	The project would avoid long-term impacts (during operation) on the availability and quality of public open space and community facilities.	Not Triggered	Applicable	Applicable, to be considered in design only.	Applicable
EPO-SE-2	The project, during operation, would help to improve access to local facilities, services and destinations, supporting opportunities for community interaction.	Not Triggered	Not Triggered	Applicable, to be considered in design only.	Applicable
EPO-LU-1	The project would minimise property acquisition, where feasible and reasonable.	Not Triggered	Applicable	Applicable	Applicable
EPO-LU-2	Access to private property would be maintained.	Applicable	Applicable	Applicable	Applicable
EPO-BI-1	The project would minimise impacts on biodiversity through the implementation of relevant mitigation measures and the implementation of the Biodiversity Offset Strategy (BOS) for the project.	Applicable	Applicable	Applicable	Applicable
EPO-UT-1	There would be no unplanned or unexpected disturbance of utilities.	Applicable	Applicable	Applicable	Applicable
EPO-SG-1	Erosion and sediment controls during construction would be implemented in accordance with Managing Urban Stormwater: Soils and Construction Volume 1 (Landcom, 2004) and Managing Urban Stormwater: Soils and Construction Volume 2 (Department of Environment and Climate Change, 2008a).	Applicable	Applicable	Applicable	Applicable
EPO-SG-2	There would be no impacts on aquatic environments associated with the disturbance of ASS during construction.	Applicable	Applicable	Applicable	Applicable
EPO-SG-3	Any contamination on project sites would be remediated to suit future land use.	Applicable	Applicable	Applicable	Applicable
EPO-SU-1	The project would be carried out in accordance with the Parramatta Light Rail Sustainability Strategy.	Applicable	Applicable	Applicable	Applicable
EPO-SU-2	The project would comply with the relevant requirements of the NSW Government Resource Efficiency Policy.	Applicable	Applicable	Applicable	Applicable

ID Ref.	Environmental Performance Outcome	Stage 0 Preconstruction Activities	Stage 1 Enabling Work	Stage 2 Infrastructure Delivery	Stage 3 SOM
EPO-SU-3	The project would aim to achieve 100 per cent offset of the greenhouse gas emissions associated with consumption of electricity during operation.	Not Triggered	Not Triggered	Applicable	Applicable
EPO-CC-1	Adaptation strategies would be implemented for high risks.	Not Triggered	Applicable	Applicable	Applicable
	End of EIS Environmental Performance Outcomes				

Attachment A: ER Endorsement Letter

ER Endorsement Letter

Attachment B: Secretary’s Approval Letter

Department’s Approval Letter

Appendix A Consultation Summary

Ref.	Consultation Party	Summary	Date
C9 (a)	EPA	Package 1 - The EPA supports DWJV's proposal *not* to monitor turbidity in the Parramatta River as part of the Enabling Works project. Given the project's relatively small scale and the other potential sources of turbidity in the catchment, the monitoring would be unlikely to detect any changes that could be attributed to the project. The *Soil and Water Management Sub-plan* indicates that best practice erosion and sediment controls will be implemented, consistent with *Managing Urban Stormwater, Soils and Construction* (Landcom, 2004), and will be subject to ongoing review. These measures are appropriate to manage potential turbidity related risks to the Parramatta River from the Enabling Works project	5 November 2018
E113	ARUP	Package 2 - Technical Note; Hawkesbury Road Widening - Interim Case Flood Impact Assessment. With the understanding that the Interim Case could exist for a period of approximately 3 years (prior to completion of the Ultimate Case), the probability of the design rainfall event being exceeded at least once during the development design life is relatively low	6 November 2018
C9 (a)	NRAR	Stage 1 - NRAR has no objection to the proposal to not monitor water quality measures as part of the Enabling Works. NRAR understands that water quality measures, such as erosion and sedimentation control will be managed through the Soil and Water Management Plan.	7 November 2018
C9 (a)	CoPC	Package 2 - Council has reviewed the submitted Soil and Water Management Sub Plan and found it to satisfactorily address any potential soil and water environmental impacts posed by the Hawkesbury Road Widening activities as part of the Parramatta Light Rail Project.	31 January 2019

Ref.	Consultation Party	Summary	Date
C9 (a)	EPA	Package 2 - Pg. 56, 8.4 Licences and permits - while there is no EPL for the project any water discharges must conform to the POEO Act section 120. "A person who pollutes any waters is guilty of an offence." This section (8.4 Licences and permits) should make clear that the project will be conforming to the quality criteria of s120 of the POEO Act.	14 February 2019
C3 (c) E113	OEH	Package 3 - As there is negligible flood issues for this portion my attendance [at the Consultation Workshop] is not required at this stage.	26 February 2019
C3 (e)	OEH	Package 3 - I don't believe OEH need to attend [Consultation Workshop] in regard to the biodiversity impacts, given the apparently limited biodiversity values on site.	21 February 2019
C3 (d) E64- E75	OEH	Package 3 – The Division…notes the EIS (Table 7.1) has not identified this HAMU requires archaeological management. The Division raises no objection to TfNSW applying the approach of managing the proposed Enabling works through its existing unexpected finds protocol rather than applying a full CEMP and Archaeological Research Design at this location of the Parramatta Light Rail Stage 1 works.	7 March 2019