Staging Report

Newcastle Inner City Bypass – Rankin Park to Jesmond

Roads and Maritime Services | August 2019



Document control

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Glossary / Abbreviations

Term	Expanded Text					
ccs	Community Communication Strategy					
CEMP	Construction Environmental Management Plan					
CEMPP	Construction Environmental Management Process (Plan)					
CMRP	Compliance Monitoring and Reporting Program					
CMS	Complaints Management System					
CoA	The Planning Minister's Conditions of Approval					
Compliance Audit	Verification of how implementation is proceeding with respect to an Environmental Management Plan (which incorporates the relevant approval conditions).					
Construction	Includes all works required to construct the SSI, including commissioning trials of equipment and temporary use of any part of the SSI, but excluding the following low impact work which is completed prior to approval of the CEMP:					
	 (a) survey works including carrying out general alignment survey, installing survey controls (including installation of global positioning systems (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) operation of ancillary facilities if the ER has determined the operational activities will have minimal impact on the environment and community; 					
	(d) minor clearing and relocation of native vegetation, as identified in the documents listed in Condition A1;					
	 (e) installation of mitigation measures including erosion and sediment controls, exclusion fencing, hoardings and temporary or at property acoustic treatments; 					
	 (f) property acquisition adjustment works including installation of property fencing, and relocation and adjustments of utilities to property including water supply and electricity; 					
	 (g) relocation and connection of utilities where the relocation or connection has a minor impact to the environment and sensitive receivers as determined by the ER; 					
	(h) archaeological testing under the Code of practice for archaeological investigation of Aboriginal objects in NSW (DECCW, 2010) or archaeological monitoring undertaken in association with (a)-(g) and (i) to ensure that there is no impact on Aboriginal artefacts or objects, and archaeological salvage works in accordance with A1, E17 and E18;					
	 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; and 					
	(j) maintenance of existing buildings and structures required to facilitate the carrying out of the SSI.					

Term	Expanded Text				
Construction (ctd)	However, where heritage items or threatened species or threatened ecological communities (within the meaning of the <i>NSW Threatened Species Conservation Act 1995</i> or <i>Commonwealth Environment Protection and Biodiversity Conservation Act 1999</i>) are affected or potentially affected by any low impact work, that work is construction, unless otherwise determined by the Planning Secretary in consultation with the relevant heritage authority, OEH or DPI Fisheries (in the case of impact upon fish, aquatic invertebrates or marine vegetation)				
DPIE	Department of Planning, Industry and Environment				
EIS	Environmental Impact Statement				
ER	Independent Environmental Representative nominated by Roads and Maritime and approved by DPIE				
EMS	Environmental management system				
EPA	Environment Protection Authority				
EPL	Environment Protection Licence				
OEH	Office of Environment and Heritage				
OEMP	Operational environmental management plan				
Operation	The carrying out of the SSI (whether in full or in part) upon the completion of construction, except the operation of Bridge 7 Note: There may be overlap between the carrying out of construction and operation if the phases of the development are staged. Commissioning trials of equipment and temporary use of any part of the SSI are within the definition of construction				
POEO Act	Protection of the Environment Operations Act 1997				
Project, the	Rankin Park to Jesmond Bypass				
Project Approval	The infrastructure approval for the Newcastle Inner City Bypass between Rankin Park and Jesmond issued by the New South Wales Government on 15/02/2019				
RP2J	Rankin Park to Jesmond Bypass				
Secretary	Secretary of the NSW Department of Planning and Environment (or nominee, whether nominated before or after the date on which this approval was granted)				
SPB	Shared Path Bridge				
SPIR	Submissions and Preferred Infrastructure Report				
SSI	State Significant Infrastructure				
Work(s)	All physical activities to construct or facilitate the construction of the SSI, including environmental management measures and utility works. however, does not include work that informs or enables the detailed design of the SSI and generates noise that is no more than 5 dB(A) above the rating background level at any residence				

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1 Introduction

1.1 Background

The RP2J Project involves the construction of 3.4 kilometres of new four lane divided road between Lookout Road, New Lambton Heights and Newcastle Road, Jesmond. The Project is located in the Newcastle local government area, about 11 kilometres west of the Newcastle central business district and about 160 kilometres north of Sydney as shown on Figure 1-1.

Roads and Maritime Services is planning and delivering the Project. The Project will be constructed in two separate stages under separate construction contracts.

The Project has been assessed under both State and Federal planning approval pathways. The Project was declared by the NSW Minister for Planning to be State significant infrastructure (SSI) development under Schedule 5.1 of the State Environmental Planning Policy (State and Regional Development) 2011 on 3 March 2015. The Project was assessed under Part 5.1 of the Environmental Planning and Assessment Act 1979 (NSW) (EP&A Act).

Matters of National Environmental Significance (MNES) relevant to the Project comprise listed threatened species and communities (section 18 and 18A of the EPBC Act) and wetlands of international importance (sections 16 and 17B of the EPBC Act). The Project was declared by the Federal Minister for the Environment and Energy to be a 'controlled action' under the EPBC Act on 15 October 2015.

An Environmental Impact Statement (EIS) was prepared for the Project to satisfy the environmental assessment requirements of Part 5.1 of the EP&A Act and Part 8 of the EPBC Act. A Submissions and Preferred Infrastructure Report (SPIR) was prepared to provide responses to issues raised during exhibition of the EIS, to propose Project design refinements and to provide revised environmental management measures for the Project and submitted to the NSW Minister for Planning.

Approval for the Project was granted by the NSW Minister for Planning on 15 February 2019 and by the Department of the Environment and Energy on 5 April 2019.

1.2 Purpose of this report

This Staging Report describes the staging of the construction and operation of the SSI in compliance with the requirements of the Infrastructure Approval SSI 6888 and the Federal EPBC Approval (EPBC 2015/7550). The purpose of this Staging Report is to address the requirements of Conditions of Approval (CoA) A10, A11, A12 and A13 of the RP2J Project Approval.

CoA A10 of the Project Approval requires that the Staging Report be submitted to the Planning Secretary for information no later than one month prior to the commencement of the first stage of Construction of the Project. The Staging Report has been reviewed by the independent Environmental Representative (ER) prior to being submitted to the Planning Secretary.

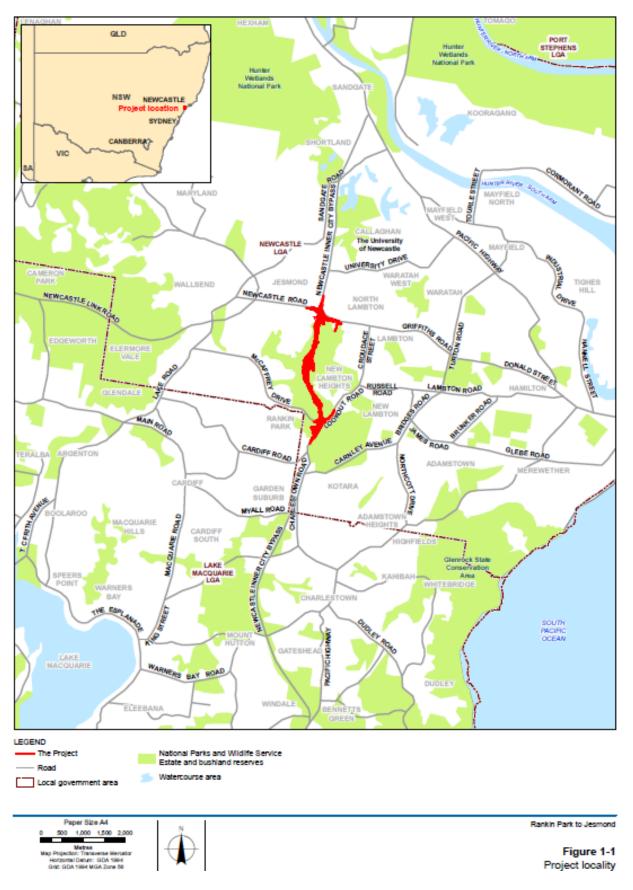


Figure 1-1: RP2J Project locality

The requirements of the conditions which apply to the Staging Report are listed in Table 1-1 below, together with the cross-reference to where the requirements are addressed in this Staging Report. Further details of how the conditions are addressed are provided in the sections below.

Table 1-1: Conditions applicable to the Staging Report

CoA	Requirement	Reference
A10	The SSI 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 Planning Secretary for information.	This document
	The Staging Report must be submitted to the Planning 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).	Section 1.2
A11	The Staging Report must:	
	(a) If staged construction is proposed, set out how the construction of the whole of the SSI will be staged, including details of work and other activities to be carried out in each stage and the general timing of when construction of each stage will commence and finish;	Sections 2.2 and 2.4
	(b) If staged operation is proposed, set out how the operation of the whole of the SSI 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);	Sections 2.3 and 2.4
	(c) Specify how compliance with conditions will be achieved across and between each of the stages of the SSI; and	Section 3 Appendix A and Appendix B
	(d) Set out mechanisms for managing any cumulative impacts arising from the proposed staging.	Section 4
A12	The construction and/or operation of the SSI must be carried out in accordance with the Staging Report , as submitted to the Planning Secretary	This report, Section 1.2
A13	Where staging is proposed, the terms of this approval that apply or are relevant to the work to be carried out in a specific stage, must be complied with at the relevant time for that stage.	Section 3 Appendix A and Appendix B

1.3 Project description

Key features of the Project are shown on Figure 1-2, Figure 1-3, Figure 1-4 and Figure 1-5 and include:

- new road with two lanes in each direction
- three interchanges, consisting of:
 - Northern interchange providing access to Newcastle Road and the existing Jesmond to Shortland section of the Newcastle Inner City Bypass
 - Hospital interchange providing access between John Hunter Hospital precinct and the bypass
 - Southern interchange providing access to Lookout Road and the existing Kotara to Rankin Park section of the Newcastle Inner City Bypass
- bridges and other structures along the road to allow for drainage, animal and bushwalker access
- tie in and upgrades to connecting roads, including Lookout Road, McCaffrey Drive and Newcastle Road
- cut and fill embankments
- tie in and upgrades to connecting roads, including Lookout Road, McCaffrey Drive and Newcastle Road
- pedestrian and cycling facilities including a shared path bridge over Newcastle Road and grade separation of the existing east-west Jesmond Park shared path at the northern interchange
- noise barriers and/or architectural treatment, as required
- permanent operational water quality treatment measures.

Ancillary work to facilitate construction of the Project includes:

- adjustment, relocation and/or protection of public utilities and services
- mine subsidence treatment, as required
- temporary construction facilities, including sedimentation basins, compounds and stockpile sites
- temporary and permanent access tracks
- concrete/asphalt batching plant, as required.

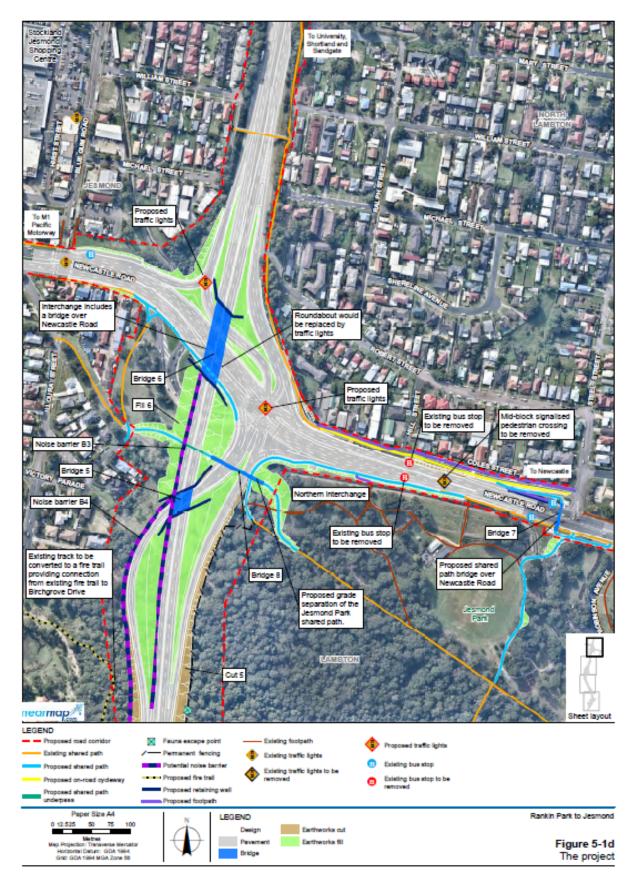


Figure 1-2: The Project – northern section

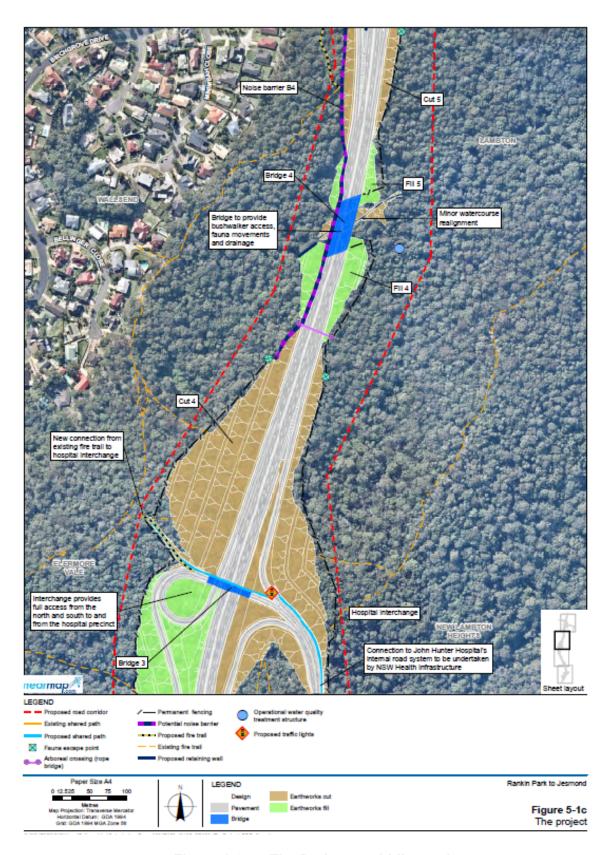


Figure 1-3: The Project – middle section

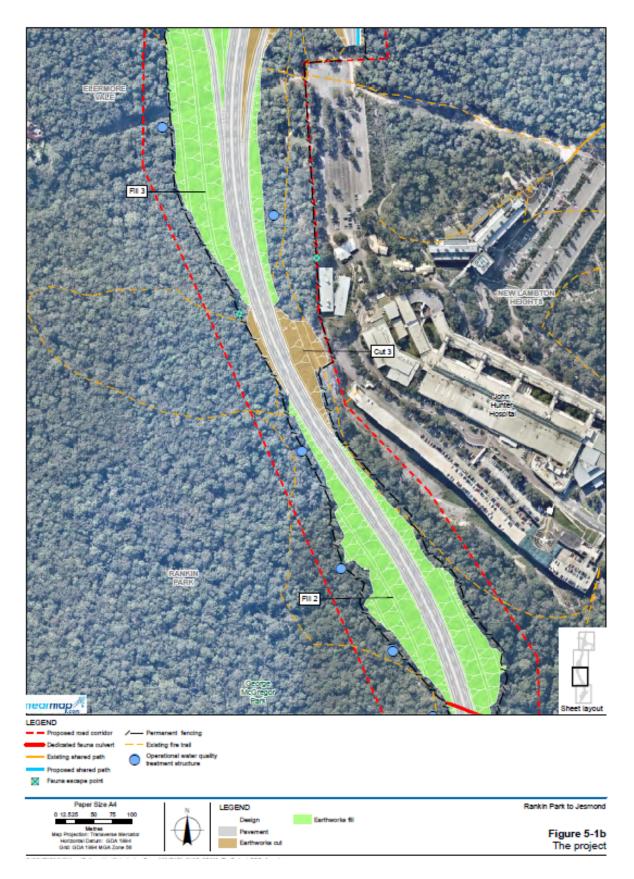


Figure 1-4: The Project – middle section

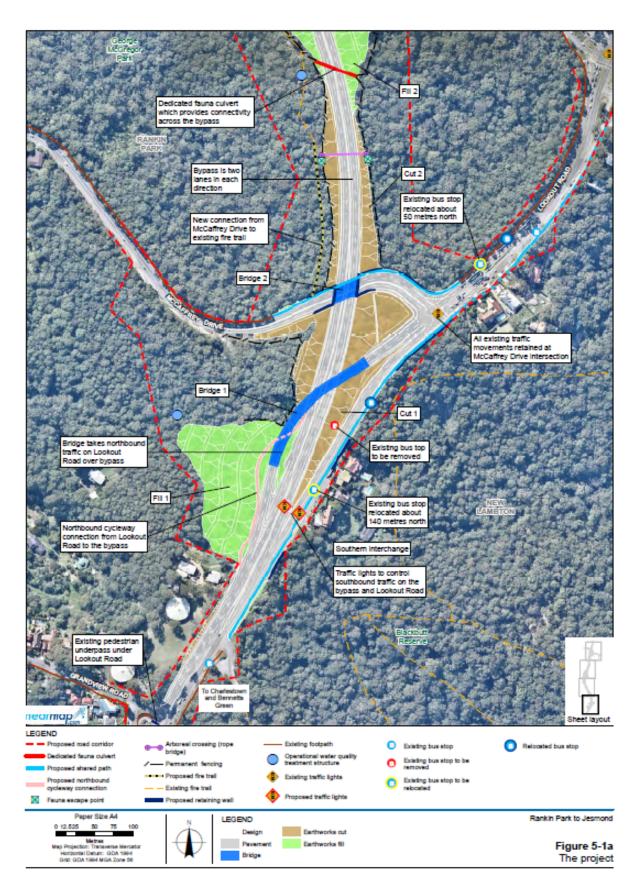


Figure 1-5: The Project – southern section

1.4 Licences and permits

A number of approvals, permits and licenses have been and/or will be obtained for the Project. The following approvals and licences have been, or will be, obtained by Roads and Maritime:

- Project Approval (SSI 6888) under Part 5.1 of the EP&A Act granted by the Minister for Planning on 15 February 2019
- A Commonwealth controlled action approval granted by the Department of the Environment and Energy under Part 8 of the EPBC Act - 2015/7550 dated 5 April 2019
- EPL for Stage 4 of the Project under Schedule 1 of the *Protection of the Environment Operations Act 1997* (POEO Act).

The EPL will be held by Roads and Maritime or the Contractor during Stage 4 of the Project.

The Contractors will obtain the following licences and approvals:

- Road Occupancy Licence/s (ROL) under Section 138 of the Roads Act 1993
- An aquifer interference approval under the Water Management Act 2000 if Construction requires intersection of a groundwater source.

All necessary licences, permits and approvals required for the development of the Project will be obtained and maintained as required throughout the life of the Project. No condition of the Project Approval removes the obligation for Roads and Maritime or the Contractors to obtain, renew or comply with such necessary licences, permits or approvals except as provided under Section 115ZG of the EP&A Act.

A register of all necessary approvals, licences and permits will be maintained throughout the life of the Project in Appendix A1 of the CEMP documentation for each Construction stage of the Project. The register will be reviewed prior to the commencement of each stage of Construction and at least annually as part of the management review.

2 Project Staging

2.1 Low impact works

2.1.1 Stage 1 - Early Works

This stage of work includes detailed design investigation and low impact works. These works allow for the further investigation (such as geotechnical, survey, etc) required to inform the detailed design, low impact works (as defined in Table 1 of the Project Approval). The Stage 1 works require ER endorsement and include:

- · Aboriginal heritage collection and/or salvage program
- archaeological salvage program of Hollywood Shanty Town
- · geotechnical investigation
- utility locating
- water quality monitoring
- at-property acoustic and vibration treatments
- demolition of Roads and Maritime owned houses on the western side of Lookout Road
- establishment of construction compounds A and F
- installation of environmental mitigations and controls as needed
- construction of safe site access for vehicles from the surrounding road network and through the alignment.

2.1.2 Stage 3 - southern interchange utilities relocation

This stage of work involves low impact works including the relocation of utilities (power, sewer, water, gas and telecommunications) at the southern end of the Project (Figure 1-5) which are required prior to the commencement of Stage 4. Stage 3 also includes construction of a shared path over the relocated utility alignment (Figure 2-1) to improve community access during construction of Stage 4. The Stage 3 works require ER endorsement and include:

- relocation of utilities from the western side of Lookout Road to the eastern side as listed in Table 2-1
- construction of retaining walls along the eastern side of Lookout Road
- construction of shared path/footpaths along the eastern side of Lookout Road from the Blackbutt Reserve car park opposite Grandview Road to Ridgeway Road, opposite the main entrance of the John Hunter Hospital precinct (Kookaburra Circuit).
- temporary and permanent pavement, kerb and drainage realignment works along the eastern side of Lookout Road
- · street lighting adjustments
- · establishment and use of Ancillary Facility F.

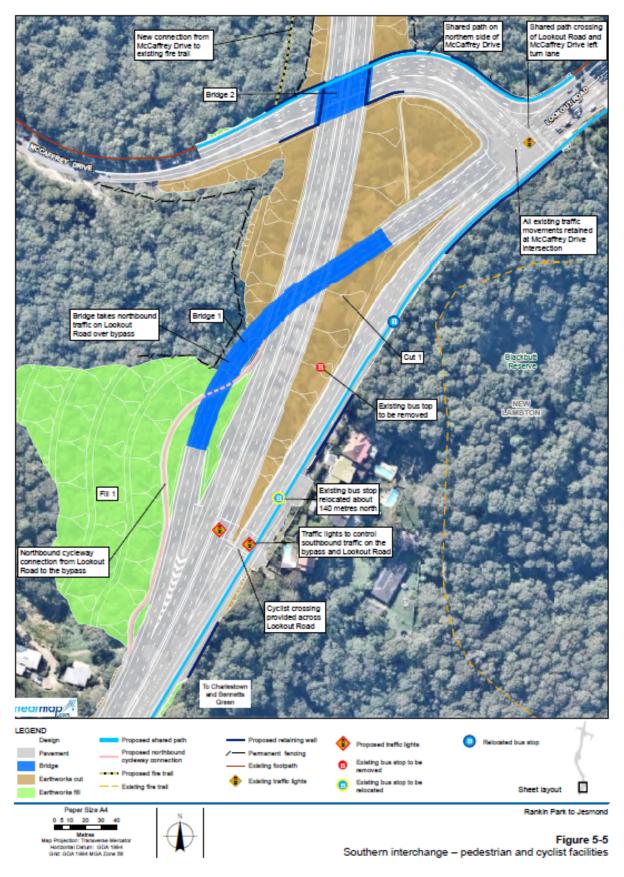


Figure 2-1: Southern interchange shared path (eastern side of Lookout Road)

Table 2-1: Stage 3 – Southern Interchange Utility Relocations

Utility Owner	Service	Proposed relocations
Ausgrid	11 kV overhead transmission line on the western side of Lookout Road	Relocate to the eastern side of Lookout Road
	Low voltage, overhead power line and street lighting on the eastern side of Lookout Road	Relocate on new poles on the eastern side of Lookout Road
	Low voltage, overhead power line and street lighting on McCaffrey Drive	Relocate on new poles on the southern side of McCaffrey Drive
Hunter Water Corporation	Underground water main on the western side of Lookout Road	Relocate to the eastern side of Lookout Road
	Underground water main near the northern side of Grandview Road	Relocate to adjacent property near Grandview Road
	Underground water main on the western side of Lookout Road	Combine with the existing water main on the eastern side of Lookout Road
	Underground water main on the eastern side of Lookout Road	
	Underground water main on McCaffrey Drive	Provide temporary connection on the western side of Lookout Road during construction
		Permanently relocate to the new McCaffrey Drive bridge, once it has been constructed
	Underground gravity sewer on the western side of Lookout Road	Line redundant - to be decommissioned as properties it services will be demolished for the Project
Telstra	Three underground telecommunication conduits on the western side of the Lookout Road	Relocate to the eastern side of Lookout Road then cross to the western side near the communication tower
	Three underground telecommunication conduits on the northern side of	Temporary relocation during bridge construction
	McCaffrey Drive	Permanent relocation on the northern side of McCaffrey Drive
Optus	Two underground telecommunication conduits (from where it connects with Telstra services)	Relocate to the western side of Lookout Road
Jemena	Underground gas pipelines on the eastern side of Lookout Road	Relocate on the eastern side of Lookout Road
	Underground gas pipeline on the northern side of McCaffrey Drive	Temporary relocation during bridge construction
		Permanent relocation on the northern side of McCaffrey Drive

2.2 Construction

The Construction of the Project comprises the following stages:

• Stage 2 – Shared path bridge over Newcastle Road

• Stage 4 – Main works.

The construction of the Project in stages allows the prioritised delivery of infrastructure which will provide immediate benefit to the community and to assist in reducing cumulative impacts of the main construction works. Construction works require various notifications to and approvals by the Planning Secretary.

2.2.1 Stage 2 - Shared Path Bridge

The works associated with this stage are shown on Figure 2-2 and include:

- a new span steel tied arch bridge over Newcastle Road with elevated reinforced concrete approach ramps and stairs on each side. The bridge and ramps are suitable for shared cyclist and pedestrian use
- a ramp providing pedestrian connection from Coles Street to the eastbound bus stop on Newcastle Road.
- upgrades to Coles street to provide connection from the new bridge to the existing pedestrian / cyclist network at the western end of Coles Street inclusive or retaining wall on Newcastle Road
- connection to existing shared paths from the bridge to the south through Jesmond Park
- relocation of utilities, including water and power.
- removal of the existing mid-block signalised pedestrian crossing located on Newcastle Road near Hill Street
- establishment and use of Ancillary Facilities D and E.

Construction of this stage will improve community safety by creating grade separation of pedestrians and cyclists over Newcastle Road and will also improve traffic flow on Newcastle Road by removing the existing mid-block signalised pedestrian crossing.

Construction of Stage 2 of the Project will be considered completed when all Construction work and activities being carried out as described in the EIS as amended by the SPIR and all conditions of the Project Approval applicable to Stage 2 have been met (refer Appendices A and B of this report).



Figure 2-2: Shared Path Bridge (Bridge 7) works

2.2.2 Stage 4 - Main Works

Stage 4 of the Project includes all other works listed in Section 1.3 required to complete the SSI as shown on Figure 1-2, Figure 1-3, Figure 1-4 and Figure 1-5. The works associated with this stage include:

- 3.4 km of new road with two lanes in each direction
- three interchanges
- seven bridges and other structures along the road
- large cut and fill embankments
- tie in and upgrades to connecting roads
- pedestrian and cycling facilities (excluding those constructed in Stages 2 and 3)
- noise barriers and/or architectural treatment, as required
- permanent operational water quality treatment measures
- establishment and use of Ancillary Facilities A, B, C, G, H. Facility F will be established for Stage 3 and will also be used during Stage 4.

Construction of Stage 4 of the Project will be considered complete when all Construction work and activities being carried out as described in the EIS as amended by the SPIR and all conditions of the Project Approval applicable to Stage 4 have been met (refer Appendices A and B of this report).

2.3 Operation

Operation of each stage will commence following completion of the Construction stage. The indicative timing of the Operational stages of the Project is provided in Figure 2-3.

Operation of the RP2J for its intended purpose of vehicles using the full length of the main carriageways will exclude the following activities carried out during Construction:

- · commissioning trials of equipment
- temporary use of any part of the Project
- maintenance work.

2.4 Project Timing

The indicative timeframe for each Project stage is shown below.

- Stage 1 work is expected to commence in Q3 2019 and continue for about 2.5 years
- Stage 2 construction is expected to commence in Q4 2019 and continue for about 1.5 years
- Stage 3 commencement of stage 3 work is subject to funding approval, and will take about 1 year to complete

 Stage 4 – commencement of stage 4 is subject to funding approval, and will take about 3.5 years to complete

The proposed timeframe for the Project operational stages is:

- Stage 2 operation is expected to commence in Q1 2021
- Stage 4 operation will follow completion of Stage 4 construction, and is subject to funding approval.

Stage 1 and Stage 3 support the design, construction and operation of Stage 4.

The proposed commencement dates for each of the Construction and Operational stages will be provided in the Pre-Construction and Pre-Operation compliance reports prepared for the respective stages, in accordance with the Compliance Monitoring and Reporting Program required under CoA A29 and A33.

3 Preparation and submission of environmental documentation

3.1 Approach

The Project Approval requires the preparation of various environmental management documents which govern the low impact works, Construction and Operation of the Project for submission to the ER and / or Planning Secretary for information or approval.

Roads and Maritime and / or the Contractor will prepare the required documentation, as applicable, for each of the stages described in Section 2. Each document will demonstrate compliance with the relevant conditions of approval and will be tailored to suit the scale, complexity and level of environmental risk posed by the stage to which it relates.

Roads and Maritime considers that nothing in the nature of the proposed staging would make the approach inconsistent with the conditions of approval.

3.2 Staged issue of project environmental documentation

Table 3-1 summarises the Project environmental documentation including plans, sub-plans, protocols, strategies and notifications, required by the Project Approval. Table 3-1 specifies the applicability of the documentation to the relevant stages of the Project, timing for preparation and the requirements for submission to the ER and / or Planning Secretary. All documents prepared under the Project Approval will also be reviewed and, if required by the CoA, endorsed by the ER.

Green shading of the cells in Table 3-1 indicates the requirement for the preparation of the identified document, while red shading denotes that the document is not applicable to that stage. The applicability of the requirement for the preparation of a report is based on a number of factors including whether the condition applies during Construction or Operation, geographic location of the works, impact of the works, the location of sensitive areas in relation to the works or due to the nature of the requirement.

Where one overarching document is applicable across more than one stage of the Project the cells are merged across the applicable stages. Such documents include overarching documents such as this Staging Report, the Compliance Monitoring and Reporting Program and the Audit Program. Documents applicable across all stages will be submitted to the Secretary prior to the commencement of the first stage of Construction of the Project (Stage 2).

Stage specific documents are denoted in Table 3-1 by a tick within the applicable stage. Stage specific documents will apply to the extent relevant to that stage and will be prepared and submitted to the Planning Secretary prior to the commencement of Construction or Operation of the applicable stage.

The Construction periods for Stages 2 and 4 are not anticipated to overlap. However, if the timing of these stages change and Construction overlaps, then the six monthly Construction compliance reports (CoA A30) will be combined as one report with separate sections covering each Project stage, for the stages under construction. This may necessitate some variation to the timing of the submission of the first construction compliance reports for Stage 4 to enable the reporting to coincide with the timeframe dictated by the submission of the first construction compliance report, which will be submitted to the Planning Secretary six months after commencement of construction of Stage 2. Further details of the submission of the construction compliance reporting is provided in the Project Compliance Monitoring and Reporting Program.

The ER reports (CoA A26(k)) may also be combined as a single report covering Stages 2 and 4 of the Project, if the timing of the stages overlaps.

Appendices A and B identify the applicability respectively of each NSW and Federal CoA to the Project stages. As for Table 3-1, the applicability of the conditions listed in Appendices A and B to the Project stages is based on a number of factors including whether the condition applies during Construction or Operation, geographic location of the works, impact of the works, the location of sensitive areas in relation to the works or due to the nature of the requirement.

Further details regarding the applicability of the conditions and evidence of compliance with the relevant conditions will be provided in the Pre-Construction, Construction and Pre-Operation compliance reporting which will be prepared under the Compliance Monitoring and Reporting Program.

Where a condition has been deemed not applicable to a specific stage in Table 3-1 or Appendices A and B of this Staging Report, an explanation and, if appropriate, supporting evidence will be provided within the corresponding compliance report to identify why that condition is not applicable.

Table 3-1: Staging of reports and notifications

CoA	Document	Timing of submission	DPE Purpose	ER endorsement		Applicability to Project Stage			
	Name			endorsement	Low Impact Works	Construction Stage		Operation Stage	
					1. and 3.	2. Shared Path Bridge	4. Main Works	2. Shared Path Bridge	4. Main Works
Part A – A	Administrative								
A9	SPB CEMPP and EWMS	Not specified	N/A	Approval	N/A	✓	N/A	N/A	N/A
A10	Staging Report	One month before commencement of construction (or operation if only staged operation is proposed) of the first of the proposed stages	Planning Secretary's Information	х	N/A	The Staging Report will apply to all Project Construction and Operation stages			truction and
A15	Ancillary Facility Establishment Management Plan	One month before the installation of any ancillary facilities	Planning Secretary's Approval	Х	N/A	√	✓	N/A	N/A
A22/A23	Environmental Representative	One month before the commencement of works	Planning Secretary's Approval	х	~	The ER for the Proapproved prior to commencement of Construction stage (Stage 2).	the f the first	N/A	N/A
A26(k)	Environmental Representative monthly reports	Within seven days of the end of each month for the duration of the ER's engagement	Planning Secretary's Information	Х	√	The ER's monthly report must be prepared for the duration of works and 12 months after the commencement of Operation.			
A29/A33	Compliance Monitoring and Reporting Program	No later than 4 weeks before the commencement of any work	Planning Secretary's Information	√	~	The Project CMRP will be implemented for the duration of Construction and for a minimum of one year following commencement of Operation of each stage.			
A30	Pre-Construction Compliance Report	One month prior to the commencement of Construction in accordance with the CRMP	Planning Secretary's Information	Х	N/A	√	√	N/A	N/A

CoA	Document	Timing of submission	DPE	ER endorsement	represently to 1 to jobs stage				
	Name		Purpose		Low Impact Works	t Construction Stage		Operation Stage	
					1. and 3.	2. Shared Path Bridge	4. Main Works	2. Shared Path Bridge	4. Main Works
A30	Construction Compliance Reports	Six monthly from the date of the commencement of Construction for the duration of Construction	Planning Secretary's Information	Х	N/A	✓	~	N/A	N/A
A30	Pre-Operation Compliance Report	One month prior to the commencement of Operation in accordance with CRMP	Planning Secretary's Information	X	N/A	N/A	N/A	√	✓
A34	Independent Audit Program (IAP)	No later than 4 weeks before the date notified for the commencement of construction of Stage 2	Planning Secretary's Information	X	N/A	The Project Audit Program will be implemented for the duration of Construction and for one year following commencement of Operati of Stage 4.			e duration of ent of Operation
A34	Independent Audit Reports	Within 8 weeks of completing the audit in accordance with the IAP	Planning Secretary's Information	х	N/A	First audit to be undertaken 20 weeks after commencement of Stage 2 and annually thereafter until completion of Stage 4 One Operational Audit F be prepared one year for commencement of Ope Stage 4		I Audit Report to e year following t of Operation of	
A37	Written notification of incident	Immediately upon becoming aware of the incident. Subsequent written notification and an incident report are required seven days after the Proponent became aware of the incident and 30 days after the date on which the incident occurred, respectively	Planning Secretary's Information	X	√	√	~	N/A	N/A
Part B - Co	mmunication Inform	nation and Reporting							
B1	Community Communication Strategy	No later than one month before the commencement of any construction	Planning Secretary's Approval	х	The CCS will be implemented for the duration of works and for a minimum of 12 more following the completion of the last stage of Construction of the Project (Stage 4).				

CoA	Document	Timing of submission	DPE Purpose	ER endorsement	Applicability to Project Stage				
	Name				Low Impact Works	Constructi	on Stage	Operation	on Stage
					1. and 3.	2. Shared Path Bridge	4. Main Works	2. Shared Path Bridge	4. Main Works
В6	Complaints Management System	Prior to any work commencing	Planning Secretary's Information	x		implemented and n months following co).			
В9	Complaints Register	Upon request from the Planning Secretary, within the timeframe stated in the request	Planning Secretary's Information	Made available to ER on daily basis	The Complaints Register will be maintained during Construction and for a minimum 12 months following completion of the last stage of Construction of the Project (Sta 4).				
Part C - Co	Part C - Construction Environmental Management								
C1	СЕМР	No later than one month before the commencement of construction	Planning Secretary's Approval	√	N/A	N/A	~	N/A	N/A
C4	CEMP Sub-plans	No later than one month before the commencement of construction	Planning Secretary's Approval	√	N/A	N/A	1	N/A	N/A
C9	Construction Monitoring Programs	No later than one month before the commencement of construction	Planning Secretary's Approval	√	N/A	N/A	✓	N/A	N/A
C15	Construction Monitoring Report	As specified in Construction Monitoring Programs	Planning Secretary's Information	X	N/A	N/A	✓ During construction and for any longer period set out in the monitoring program or specified by the Planning Secretary	N/A	N/A
Part D - Op	Part D - Operation Environmental Management								
D1	OEMP or EMS	One month before the commencement of operation	Planning Secretary's Information	Х	N/A	N/A	N/A	N/A	√

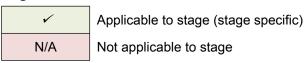
CoA	Document	Timing of submission	DPE Purpose	ER endorsement	Applicability to Project Stage				
	Name				Low Impact Works	Construction Stage		Operation Stage	
					1. and 3.	2. Shared Path Bridge	4. Main Works	2. Shared Path Bridge	4. Main Works
Part E – Ke	ey Issues								
Biodiversi	ty								
E5	Credit Retirement Report	Within one month of receiving the report	Planning Secretary's Information	X	N/A	N/A	√	N/A	N/A
Heritage									
E15	Unexpected Heritage Finds and Humans Remains Procedure	No later than one month before the commencement of any work	Planning Secretary's Information	√	~	~	√	N/A	N/A
E19	Cultural Heritage Salvage Report	No later than 12 months after the completion of the salvage work refer to in Condition E17	Planning Secretary's Information	Х	~	N/A	√	N/A	N/A
E21	Historical Archaeological Research Design and Excavation Methodology	Before any direct impact on the Hollywood shanty town site and the Wallsend Plattsburg tramway	Planning Secretary's Information	х	~	N/A	~	N/A	N/A
E23	Archaeological Excavation Report	12 months after completing all archaeological investigations	Planning Secretary's Information	Х	N/A	N/A	√	N/A	N/A
E24	Heritage Interpretation Plan	Before operation of the SSI commences	Planning Secretary's Information	×	N/A	N/A	~	N/A	N/A

СоА	Document Name	Timing of submission	DPE Purpose	ER endorsement	Applicability to Project Stage					
					Low Impact Works	Construction Stage		Operation Stage		
					1. and 3.	2. Shared Path Bridge	4. Main Works	2. Shared Path Bridge	4. Main Works	
Noise and	Vibration									
E25	Land use survey (for inclusion in the NVMP)	Before the commencement of works which generate audible construction or operational noise, or do not meet safe working buffer distances for vibration or ground-borne noise in that area.	Planning Secretary's Planning Secretary's Approval (as part of the NVMP)	(as part of the NVMP)	N/A	N/A	√	N/A	N/A	
E31	Out-of-Hours Work Protocol or Out of Hours Work Management Process	Before to the commencement of out-of-hours works for works not subject to an EPL	Planning Secretary's Approval	Consultation	√	✓	N/A	N/A	N/A	
E38	Operational Noise Mitigation Review	Before the implementation of operational noise mitigation measures	Planning Secretary's Approval	Consultation	N/A	N/A	√	N/A	N/A	
E40	Report on non- implementation of operational noise mitigation measures	Within 6 months of commencement of construction	Planning Secretary's Information	√	N/A	N/A	√	N/A	N/A	
E41	Operational Noise Compliance Report	Within 60 days of completing the operational monitoring	Planning Secretary's Information	Х	N/A	N/A	N/A	N/A	✓	
E48	Landowner and occupier written agreement	Before commencing blasting at the higher limits	Planning Secretary's Information	Х	N/A	N/A	✓	N/A	N/A	
E51	Blast Management Strategy	One month before the commencement of blasting	Planning Secretary's Information	Х	N/A	N/A	✓	N/A	N/A	

СоА	Document Name	Timing of submission	DPE Purpose	ER endorsement	Applicability to Project Stage					
					Low Impact Works	Constructi	Construction Stage		Operation Stage	
					1. and 3.	2. Shared Path Bridge	4. Main Works	2. Shared Path Bridge	4. Main Works	
Socio-eco	nomic, land use and	property	<u>'</u>							
E54	Pre-construction Building and Structure Condition Surveys	Before the commencement of any work that could cause damage to buildings, structures and utilities	N/A	X	✓	√	✓	N/A	N/A	
Soils										
E59	Unexpected Contaminated Land and Asbestos Finds Procedure	Before the commencement of work	N/A	x	~	1	~	N/A	N/A	
Sustainabi	lity			1						
E61	Sustainability Strategy	Before the commencement of construction	Planning Secretary's Information	Х	N/A	N/A	√	N/A	N/A	
Traffic and	Transport									
E62/E63	Construction Traffic and Transport Management Sub- plan including use of local roads for spoil haulage	Before the commencement of construction	Planning Secretary's Approval	X	N/A	✓	√	N/A	N/A	
E68	Road Dilapidation Report	Report must be provided to the landowner and NCC within three weeks of completion of the surveys and no later than one month before the use of local roads by heavy vehicles for the construction of the SSI	N/A	X	N/A	✓	√	N/A	N/A	

СоА	Document Name	Timing of submission	DPE Purpose	ER endorsement	Applicability to Project Stage				
					Low Impact Works	Construction Stage		Operation Stage	
					1. and 3.	2. Shared Path Bridge	4. Main Works	2. Shared Path Bridge	4. Main Works
Urban Des	Urban Design and Visual Amenity								
E77	Final design of Bridges 7 and 8	Before the commencement of works on Bridges 7 and 8	Planning Secretary's information	X	N/A	√ Bridge 7	√ Bridge 8	N/A	N/A

Legend



Note: Merged cells indicate one overarching plan applying to all Project stages

4 Management of cumulative impacts

The cumulative impacts arising from the proposed staging of the Project are discussed in the sections below. The proposed measures to manage these impacts are discussed in the EIS and SPIR.

4.1.1 Cumulative impacts surrounding Newcastle Road

The extent of the Stage 2 Shared Path Bridge works on Newcastle Road is shown in blue in Figure 4-1 below, and the extent of the Stage 4 works is shown in red. The overlap of these works is shown hatched in blue.

There are approximately 16 residential receivers and 2 places of worship that will be cumulatively impacted by the proposed staging. These receivers are located on Coles Street and are shown highlighted in red in Figure 4-1.

The works required for Stage 2 are described in Section 2.2.1. The Stage 4 works on Newcastle Road are generally limited to pavement works. The nature of the work in this area is not intensive and will be limited to shorter periods of civil works and associated periods of no work within the overall works duration period.

The relative timing of these works is provided in Section 2.4, which shows that the Stage 2 works are anticipated to be completed six months prior to the commencement of the Stage 4 works. Therefore the local community and road users will have a respite period from construction after the completion of the share path bridge.

Stage 4 construction is expected to have limited impact on receivers on Coles Street, due to them generally being located at the eastern limit of works. Stage 4 works will also primarily be contained along Newcastle Road. Stage 2 construction will have limited impact on the western-most sensitive receivers (west of Hill Street), with works consisting of footpath connections only.

The completion of Stage 2 prior to the commencement of the Stage 4 works will result in significantly improved traffic flow on Newcastle Road due to the removal of the mid-block traffic signals. The provision of a permanent high quality alternative pedestrian / cyclist route will result in improved pedestrian/cyclist safety in the vicinity of Newcastle Road during the Stage 4 construction works. In summary, the staging of these works will reduce cumulative impacts on the local community and road users compared to the scenario where Stages 2 and 4 are carried out concurrently.



Figure 4-1: Cumulative impacts of RP2J construction on Newcastle Road

4.1.2 Cumulative impacts on Lookout Road

The extent of the Stage 3 utility relocation works on Lookout Road is shown in blue in Figure 4-2 below and the extent of the Stage 4 works is shown in red. The overlap of these works is shown hatched in blue.

There are approximately 15 residential receivers that will be cumulatively impacted by the proposed staging. These receivers are highlighted red in Figure 4-2, and are located at Grandview Road, and on the eastern and western sides of Lookout Road.

The works required for Stage 3 are described in Section 2.1.2. The Stage 4 works on Lookout Road near Grandview Road are limited to line marking and signage installation. Stage 4 work along Lookout Road between Grandview Road and McCaffrey Drive consists of bulk earthworks, utility relocations, bridgeworks, street lighting and pavement construction.

Stage 3 works in the vicinity of sensitive receivers is expected to be limited to low intensity work such as trenching and installation of new buried and overhead services. The majority of this work will be undertaken during the day, with some night work required to change traffic arrangements, to install new services across Lookout Road, and to commission new services.

Stage 3 is expected to take 1 year to complete, and will overlap with Stage 4 by about 6 months. Relocating utilities impacted by Stage 4 early ensures that the construction of Stage 4 at Lookout Road is optimised, reducing overall impact to road users and local residents.

The early commencement and completion of Stage 3 will minimise cumulative impacts on the community by providing improved pedestrian and cyclist infrastructure along Lookout Road prior to the commencement of Stage 4.

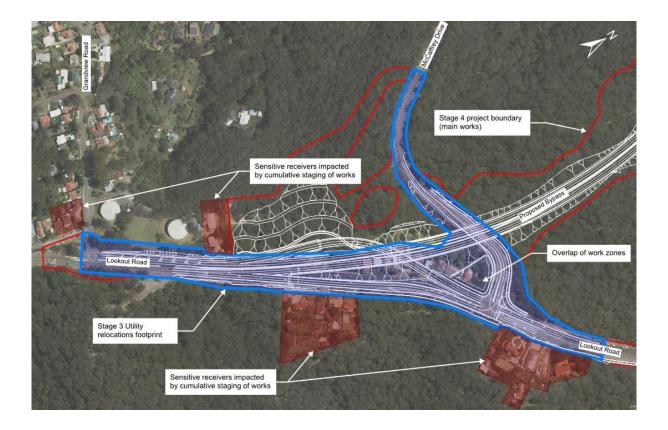


Figure 4-2: Cumulative impacts on Lookout Road

4.1.3 General management of cumulative impacts

In accordance with REMM CU01, the construction contractor will review environmental impacts before the start of construction and every six months during construction. Any new impacts identified will be addressed appropriately to reduce cumulative effects and reported as part of the Construction Environmental Management Plan.

Appendix A: NSW CoA compliance staging table

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Appendix B: Federal CoA compliance staging table

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