

Construction Traffic and Transport Management Plan

CHBPW-FGJV-NWW-EN-PLN-000006 – Revision F - Coffs
Harbour Bypass

FERROVIAL GAMUDA JOINT VENTURE

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VERSION CONTROL

The current document version number and date of revision are shown in the document footer. All changes made to the Management Plan during its implementation on a live project are to be recorded in the amendment tables below.

Revision	Date	Description	Approval
A	September 2022	FGJV draft for TfNSW Review	
B	October 2022	Updated following TfNSW Review, for ER and external consultation.	
C	November 2022	Updated following external consultation, for ER review	
D	November 2022	Additional Local Roads and ER Endorsement	
E	January 2023	Update following DPE Review	
F	February 2023	Update following DPE Review	

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GLOSSARY/ABBREVIATIONS

Abbreviation	Expanded Text
CEMP	Construction Environmental Management Plan
CHCC	Coffs Harbour City Council
DPIE	Department of Planning, Infrastructure and Environment
EIS	Environmental Impact Statement
EP&A Act	Environmental Planning and Assessment Act 1979
EPBC Act	Environmental Protection and Biodiversity Conservation Act 1999
EWMS	Environmental Work Method Statements
MCoA	Minister's Condition of Approval
REMMs	Revised Environmental Management Measures
ROM	TfNSW's Regional and Outer Metropolitan Division
TCP	Traffic Control Plan
TfNSW	Transport for NSW
TTMP	Construction Traffic and Transport Management Plan
VMP	Vehicle Movement Plan
VMS	Variable message sign

1 INTRODUCTION

1.1 CONTEXT

This Construction Traffic and Transport Management Plan (TTMP or Plan) forms part of the Construction Environmental Management Plan (CEMP) for the Coffs Harbour Bypass (the project).

This TTMP has been prepared to address the requirements of the Minister's Conditions of Approval (MCoA) and the revised environmental management measures (REMMs) listed in the Coffs Harbour Bypass Environmental Impact Statement (EIS) and all applicable legislation.

1.2 BACKGROUND

The Coffs Harbour Bypass EIS (Chapter 8) and subsequent Amendment Report (section 5.2) considered the potential traffic impacts during the construction of the project. The background of the project is described in Chapter 1 of the CEMP.

The project includes a 14 kilometre bypass of Coffs Harbour, including a 12-kilometre new build from south of Englands Road to Korora Hill in the north and a two-kilometre upgrade of the existing highway between Korora Hill and Sapphire. The project would provide a four-lane divided highway that bypasses Coffs Harbour, passing through the North Boambee Valley, Roberts Hill and then traversing the foothills of the Coffs Harbour basin to the west and north to Korora Hill.

The overall benefits of the project include:

- Complementing the Pacific Highway upgrade program by providing free flowing dual carriageway conditions between Hexham and the Queensland border
- Improving road safety by removing through traffic (light and heavy vehicles) and some local traffic from the existing road network which would reduce conflicts and improve safety for all road users
- Improving travel time for through and local traffic
- Improving freight efficiency for heavy vehicles by providing a high standard dual carriageway road to complement the National Land Transport Network, Future Transport Strategy 2056 and the recently upgraded Pacific Highway.

During construction there are likely to be short-term and temporary traffic delays where the project crosses the existing Highway and local and arterial roads.

1.3 SCOPE

The plan has been prepared in accordance with Traffic Control at Work Sites Manual (Roads and Maritime Services 2018c). In accordance with REMM TT06 this Plan includes:

- Confirmation of haulage routes
- Measures to maintain access to local roads, properties and Kororo Public School
- Measures that consider operation of Kororo Public School and Bishop Druitt College
- Consideration of alternative construction access for the section of the project between Shephards Lane tunnel and Gatelys Road tunnel that minimises impacts on adjoining community, sensitive receivers, eg Baringa Private Hospital and RFBI Coffs Harbour Masonic Village, and road users.
- Site specific traffic control measures (including signage) to manage and regulate traffic movement
- Measures to maintain pedestrian and cyclist access
- Requirements and methods to consult and inform the local community of impacts on the local road network
- Access to construction sites including entry and exit locations and measures to prevent construction vehicles queuing on public roads
- A response plan for any construction traffic incident and consideration of other developments that may be under construction to minimise traffic conflict and congestion that may occur due to the cumulative increase in construction vehicle traffic
- Monitoring, review and amendment mechanisms.

In accordance with MCoA C5, this document will 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.

1.4 ENVIRONMENTAL MANAGEMENT SYSTEMS OVERVIEW

The CEMP describes the overall system for environmental management and that system forms part of the environmental management framework of the Coffs Harbour Bypass project. The environmental management system overview is described in Section 4 of the CEMP.

The CEMP describes the overall system for environmental management of the project being delivered by the Ferrovial Gamuda Joint Venture (FGJV).

TTMP has been developed as part of the CEMP in consultation with:

- Coffs Harbour Council

The TTMP has been developed in response to MCoA C4, E87 and E89. It provides practical management measures and actions that will be put in place to avoid or minimise traffic and transport impacts during pre-construction and construction stages of the Project.

Where relevant, the TTMP environmental management and mitigation measures will be incorporated into location or activity-specific Environmental Work Method Statements (EWMS). EWMS will be developed and approved by the FGJV Environment and Sustainability Manager, or delegate, prior to associated works and construction personnel will be required to undertake works in accordance with the identified requirements and associated mitigation measures.

Measures may also be included in the technical management documents and processes described in Section 5.5.

Used together, the CEMP and EWMS form management guides that clearly identify the required environmental management actions that will be referenced by all personnel and contractors on the project.

The review and document control processes for this Plan are described in Section 8 of the TTMP and further detail included in Section 9 of CEMP.

2 PURPOSE AND OBJECTIVES

2.1 PURPOSE

The purpose of this Plan is to describe how FGJV proposes to manage traffic during construction of the project and comply with Project requirements including MCoA and REMMs.

2.2 OBJECTIVES

The key objective of the TTMP is to ensure that traffic impacts during construction are minimised and are within the scope permitted by the planning approval. This includes minimising delays; ensuring consideration is given to the needs of all road users and maintaining safety for both workers and the general public.

To achieve these objectives, FGJV will undertake the following:

- Ensure appropriate controls and procedures are implemented during construction activities to address potential traffic impacts along the project corridor
- Ensure appropriate measures are implemented to address the relevant MCoA outlined in Table 2 and Table 3, and the safeguards detailed in the EIS
- Ensure appropriate measures are implemented to comply with all relevant legislation and other requirements as described in Section 3.1 and Section 3.2 of this Plan.

2.3 ENVIRONMENTAL PERFORMANCE OUTCOMES

The EIS outlined a set of performance outcomes in Section 29-4. The performance outcome related to construction traffic management are described in Table 1.

TABLE 1 DESIRED PERFORMANCE OUTCOME AS IDENTIFIED BY THE EIS

Desired Performance Outcome	Project Outcome	Where addressed
<p>Consultation</p> <p>The project is developed with meaningful and effective engagement during project design and preparation of the EIS</p>	<ul style="list-style-type: none"> • Community and stakeholders are regularly engaged during development and delivery of the project and have informed the design process • Complaints are responded to in a timely and appropriate manner so that concerns are managed effectively and promptly 	<p>Consultation with the community will be undertaken in accordance with Section 7.3.</p> <p>Complaints will be managed in accordance with the CEMP, outlined in Section 7.3.</p>
<p>Traffic and Transport</p> <p>Network connectivity, safety and efficiency of the transport system in the vicinity of the project are managed to minimise impacts.</p> <p>The safety of transport system customers is maintained.</p> <p>Impacts on network capacity and the level of service are effectively managed. Works are compatible with existing infrastructure and future transport corridors.</p>	<ul style="list-style-type: none"> • Free-flowing dual carriageway conditions are provided • Road safety is improved by removing through traffic and some local traffic from the existing road network • Travel time is improved for through and local traffic • Transport efficiency of the existing Pacific Highway through Coffs Harbour is improved • Freight efficiency for heavy vehicles is improved 	<p>Network connectivity, safety of customers and network capacity will be managed in accordance with Section 5.2.</p>

3 ENVIRONMENTAL REQUIREMENTS

3.1 RELEVANT LEGISLATION AND GUIDELINES

3.1.1 LEGISLATION AND REGULATORY REQUIREMENTS

Identified regulatory requirements are:

- An approved and valid Road Occupancy Licence (ROL)
- An approved relevant Speed Zone Authorisation (SZA)
- Heavy Vehicle National Act 2013 and Regulation 2013 (NSW)
- Work Health and Safety Act 2011 and Regulation 2017 (NSW)
- Roads Act 1993
- Australian Road Rules
- Master Code – a registered industry code of practice under section 706 of the Heavy Vehicle National Law

Legislation relevant to traffic management also includes the *Environmental Planning and Assessment Act 1979* (EP&A Act), under which the project approval was granted. Relevant provisions of the EP&A Act are explained in the register of legal and other requirements included in **Appendix A2** of the CEMP.

3.1.2 GUIDELINES AND STANDARDS

The main guidelines, specifications and policy documents relevant to this Plan include:

- AS1742.3 Manual of uniform traffic control devices, Part 3: Traffic control for works on roads
- TfNSW QA Specification G10 – Traffic Management
- TfNSW Traffic Control at Worksites Manual Version 6.1 (2022)
- AUSTROADS Guide to Traffic Management 2009 – Parts 1-13
- AUSTROADS Guide to Road Design 2009 – Parts 1-7
- AUSTROADS Guide to Road Safety 2009 – Parts 1-9
- AUSTROADS Work Health and Safety Guideline on Vehicles as Workplace

3.2 MINISTERS CONDITIONS OF APPROVAL

The MCoA relevant to this Plan are listed in Table 2 below. A cross reference is also included to indicate where the condition is addressed in this Plan or other project management documents.

TABLE 2 CONDITIONS OF APPROVAL RELEVANT TO THE TTMP

MCoA No.	Condition Requirements	Document reference	
C4	The CEMP sub-plans in Table 3 must be prepared in consultation with the government agencies identified for each CEMP Sub-plan. The outcomes of consultation with government agencies in accordance with Condition A5 must be provided with the relevant CEMP Sub-Plan.	This Plan	
	(g) Traffic and transport		Council
C5	The CEMP Sub-plans must state how:		
	a) the environmental performance outcomes identified in the documents listed in Condition A1 will be achieved;	Section 5	
	b) the mitigation measures identified in the documents listed in Condition A1 will be implemented;	Section 3.3	
	c) the relevant terms of this approval will be complied with; and	This table	

	d) issues requiring management during construction, as identified through ongoing environmental risk analysis, will be managed.	Section 5 Section 7
Traffic and Transport		
E87	Local roads proposed to be used by heavy vehicles to directly access the construction boundary that are not shown in Figure 4.5-1 Response to Submissions Report must be approved by the Planning Secretary and included in the Traffic and Transport Management Sub-plan.	Section 5.4.1
E88	All requests to the Planning Secretary under Condition E87 must include the following: <ul style="list-style-type: none"> a) a swept path analysis; b) demonstration that the use of local roads by heavy vehicles for the CSSI will not compromise the safety of pedestrians and cyclists; c) measures that will be implemented to avoid where practicable the use of roads past schools, aged care facilities and child care facilities during their peak operation times; and d) advice from an appropriately qualified traffic engineer on the suitability of the proposed heavy vehicle route which takes into consideration items (a), (b) and (c) of this condition. 	Section 5.4.1
E89	Construction vehicles (including staff vehicles) associated with the CSSI must be managed to: <ul style="list-style-type: none"> a) minimise construction vehicles (including staff vehicles) parking on public roads; b) minimise idling and queuing on public roads; and c) ensure spoil haulage vehicles must adhere to the nominated haulage routes identified in the Traffic and Transport Management Sub-plan. 	Section 5.5 Section 5.4 Section 5.3
E90	During construction, all reasonably practicable measures must be implemented to maintain pedestrian and vehicular access to, and parking in the vicinity of, businesses and affected properties. Disruptions are to be avoided, and where avoidance is not possible, minimised. Where disruption cannot be minimised, alternative pedestrian and vehicular access, and parking arrangements must be developed in consultation with affected businesses and implemented before the disruption. Adequate signage and directions to businesses must be provided before, and for the duration of, any disruption.	Section 5.10 Section 5.7 Section 5.8
E91	Before any local road is used by a heavy vehicle for the Construction of the CSSI, a Road Dilapidation Report must be prepared for the road. A copy of the Road Dilapidation Report must be provided to Council within three weeks of completion of the survey and at least two weeks before the road is used by heavy vehicles associated with the construction of the CSSI.	Section 7.6
E92	If damage to roads occurs as a result of the construction of the CSSI, the Proponent must either (at the owner's discretion): <ul style="list-style-type: none"> a) compensate the owner for the damage so caused; or b) rectify the damage to restore the road to at least the condition it was in pre-construction. This action must be undertaken within three months of the subject road no longer being used in association with the construction of the CSSI, unless an alternative timeframe is agreed to by the relevant road authority.	Section 7.6
E93	The requirements of Condition E91 and Condition E92 apply to the use of Russ Hammond Drive as temporary access Korora School Road. A copy of the Road Dilapidation Report must be provided to Council within three weeks of completion of the survey and at least two weeks before the road is used to access Korora School Road.	Section 7.6
E95	Independent Safety Audit(s) are to be undertaken of the CCSI to ensure that it meets the relevant design, engineering and safety guidelines, including Austroads Guide to Traffic Management. The audits must be undertaken prior to operation to assess the safety performance of new or modified roads (road safety audit) and parking, pedestrian and cycle infrastructure. The audit findings and recommendations must be actioned.	Section 7.5
E96	School buses using Russ Hammond Close to access the Kororo Public School must be directed to exit Russ Hammond Drive via a left turn movement to James Small Drive.	Section 5.10
E97	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 route which complies with the relevant standards must be provided and signposted.	Section 5.8
E98	The existing Luke Bowen footbridge must not be removed until a replacement footbridge is open for use, or as agreed by the Planning Secretary.	Section 5.10

3.3 REVISED ENVIRONMENTAL MITIGATION MEASURES

Relevant REMMs are listed in Table 3 below. This includes reference to required outcomes, the timing of when the commitment applies, relevant documents or sections of the environmental assessment influencing the outcome and implementation.

TABLE 3 REVISED ENVIRONMENTAL MANAGEMENT MEASURES RELEVANT TO THIS TTMP

Ref #	Environmental Management Measure	TTMP reference
AG05	Existing property accesses will be maintained during construction. Where this is not feasible or reasonable, temporary alternative access arrangements will be provided in agreement with and following consultation with the affected property owners with consideration given to existing farming practices.	Section 5.10
TT01	Operational access for public transport services, including school bus services will be maintained as part of the project. The requirements for any temporary changes during construction will be confirmed following further consultation with the school bus operators, CHCC, Kororo Public School and Bishop Druitt College.	Section 5.9
TT02	Further consultation will be undertaken with Kororo Public School School Infrastructure NSW to confirm final parking arrangements and access during construction.	Section 5.10
TT03	Consultation with the Rural Fire Service Mid North Coast Team will be undertaken during detailed design and prior to construction to confirm the requirements for relocating their services and to ensure the appropriate access is achieved.	Section 5.13
TT04	Consultation with CHCC and the proponent of the Pacific Bay Western Lands residential development will be undertaken during detailed design to ensure future access arrangements are considered as part of the project.	Section 5.13
TT05	Consultation with CHCC and the proponent of the Pacific Bay Eastern Lands development will be undertaken during detailed design to ensure future access arrangements are considered as part of the project.	Section 5.13
TT06	A Traffic Management Plan will be prepared and implemented as part of the CEMP. The plan will be prepared in accordance with Traffic Control at Work Sites Manual (Roads and Maritime Services 2018c). The plan will include:	This plan
	<ul style="list-style-type: none"> Confirmation of haulage routes 	Section 5.4
	<ul style="list-style-type: none"> Measures to maintain access to local roads, properties and Kororo Public School 	Section 5.10
	<ul style="list-style-type: none"> Measures that consider operation of Kororo Public School and Bishop Druitt College 	Section 5.10
	<ul style="list-style-type: none"> Consideration of alternative construction access for the section of the project between Shephards Lane tunnel and Gatelys Road tunnel that minimises impacts on adjoining community, sensitive receivers, eg Baringa Private Hospital and RFBI Coffs Harbour Masonic Village, and road users. 	Section Error! Reference source not found.
	<ul style="list-style-type: none"> Site specific traffic control measures (including signage) to manage and regulate traffic movement 	Section 5.5 Section 5.7
	<ul style="list-style-type: none"> Measures to maintain pedestrian and cyclist access 	Section 5.8
	<ul style="list-style-type: none"> Requirements and methods to consult and inform the local community of impacts on the local road network 	Section 7.2
	<ul style="list-style-type: none"> Access to construction sites including entry and exit locations and measures to prevent construction vehicles queuing on public roads 	Section 5.2 Section 5.5
	<ul style="list-style-type: none"> A response plan for any construction traffic incident and consideration of other developments that may be under construction to minimise traffic conflict and congestion that may occur due to the cumulative increase in construction vehicle traffic 	Section 5.12
<ul style="list-style-type: none"> Monitoring, review and amendment mechanisms. 	Section 8	
TT07	Existing accesses to properties will be maintained during construction. Where this is not feasible or reasonable, temporary alternative access arrangements will be provided following consultation with the affected property owners and business operators.	Section 5.10
TT08	Pre-construction and post-construction road condition reports for local roads will be prepared. Any damage resulting from construction (not normal wear and tear) will be	Section 7.6

	repaired unless alternative arrangements are made with CHCC. Copies of road condition reports will be provided to CHCC.	
TT09	<p>Parking demand and use surveys will be undertaken to confirm the extent of temporary and/or permanent impacts at the following locations:</p> <ul style="list-style-type: none"> • Areas associated with the informal school bus stop at the intersection of Coramba Road and Spagnolos Road • Englands Road • Oz Group Packhouse at Isles Drive. • The results will be used to determine the need for alternative arrangements, where reasonable and feasible. 	Section 7.4
TT10	Consultation with CHCC will be undertaken during detailed design regarding the operational strategy for pedestrians and cyclists particularly where there is potential interaction with CHCC's existing proposed pedestrian and cycle network and where location-specific wayfinding plans are required.	Section 5.13
TT12	Design and road safety investigation of the Korora Basin Road and Old Coast Road intersection including Old Coast Road Bridge No. 2, will be carried out during detailed design to determine if any reconfiguration or upgrade is needed. The design and road safety investigation will be carried out in consultation with CHCC.	Section 7.4
TT13	Alternative access arrangements for Boambee Palms and Holiday Park, Lindsay Transport and other properties with access to the existing Pacific Highway between Englands Road and Sawtell Road will be investigated during detailed design. The investigation will be carried out in consultation with CHCC and affected property owners to determine reasonable and feasible design solutions that address the safety concerns described in Section 4.7.7 of the Submissions Report. Any decision to proceed with a design solution will be subject to funding availability and consideration of environmental constraints, project objectives and value for money.	Section 5.10
TT14	The new Luke Bowen footbridge will be constructed prior to the removal of the existing bridge where reasonable and feasible with any disruptions to access occurring outside of school terms and in consultation with Kororo Public School and School Infrastructure NSW.	Section 5.8
HZ02	Consultation with emergency services, including the RFS and Fire and Rescue NSW would be undertaken during construction to ensure emergency access is maintained during and after construction.	Section 5.1
SE07	Temporary signage including use of variable message signs will be used to identify any revised access changes to tourism businesses. The temporary signage will be installed in consultation with affected tourism businesses and in accordance with Traffic Control at Work Sites Manual (Roads and Maritime Services 2018c)	Section 5.7

3.4 OTHER APPROVALS

When required, additional approvals may need to be obtained for Road Occupancy Licenses (ROL) or for the movement of Oversize and Over-mass (OSOM) vehicle movements. These will be obtained from the relevant road authority and will be managed by the Traffic Manager, in consultation with Coffs Harbour City Council and TfNSW as required.

4 CONSTRUCTION TRAFFIC ASPECTS AND IMPACTS

Details of the construction of the project including construction activities and work hours are provided in Chapter 6 of the EIS. The assessment of impacts are described in section 8.3 of the EIS and section 5.2 of the Amendment Report.

In summary, the construction of the project would result in potential impacts on traffic and transport including:

- Speed limit restrictions and traffic controls on existing roads adjacent to work sites
- Increased localised traffic due to construction activities, particularly from heavy vehicle movements
- Temporary changes to property access during the construction period
- Impacts to travel times, including public transport timetables, due to traffic controls being implemented
- Detours to pedestrian and cyclist movements due to construction works.

Construction related traffic would use the surrounding public road network to:

- Haul materials from quarries/borrow sources to work site areas
- Provide access for the delivery of construction materials and the removal of waste
- Provide access for the workforce to the various locations along the construction footprint, particularly to the site compounds.

The most significant contributions to additional vehicle movements on the existing road network would occur at access points to the proposed construction ancillary sites and construction footprint access roads.

5 TRAFFIC MANAGEMENT

Specific measures and requirements to meet the objectives of this TTMP and to address impacts on traffic are outlined in the following sections.

5.1 CONSTRUCTION TRAFFIC STAGING

Construction staging for the project will be developed in parallel with the design of the project works to minimise the impact to road users by constructing the project works offline where possible. This will be achieved by generally constructing the brownfields sections (north of Charlesworth Bay Road and south of Isles Drive) of the project in several stages, diverting traffic, cyclists, and/or pedestrians onto newly constructed infrastructure at the end of each stage so that they can remain separated from the construction activities in the next stage.

Traffic and pedestrians will be separated from construction activities by traffic barriers, and where required by a risk assessment, gawk screens.

Bus interchanges at Korora school and the bus stop at Coramba interchange will be adjusted to the permanent arrangement during construction, with temporary relocation required along the Pacific Highway and Coramba Road respectively. Existing functionality, access and capacity will be maintained during construction.

Engagement with emergency services, including the Rural Fire Service, Fire and Rescue NSW, SES, NSW Police and NSW Ambulance will be carried out during construction to ensure access for emergency responses is maintained. FGJV will also arrange to regularly attend and update the local emergency management committee and meet with individual services on a regular basis or as required.

5.2 CONSTRUCTION TRAFFIC

Traffic travelling through the project on public roads and property accesses will be managed by the project team using the following planning tools:

- The Traffic Management and Safety Plan, which sets out how the contractor will comply with the traffic management and traffic safety requirements of the project, including the technical traffic management processes described in Section 5.5;
- Traffic Staging Plans, which are temporary works designs for each traffic stage detailing road geometry design, pavements, drainage, safety barriers and signage completed by an appropriately qualified temporary works designer;
- Traffic Guidance Schemes, which detail signage, vehicle and traffic controller set out required for any short-term traffic control set-ups requiring speed reductions, stoppages, lane or shoulder closures; and
- Road Occupancy Licences and Speed Zone Authorisations issued by the road authority (council or TfNSW) permitting the road occupancy or speed restriction and listing any conditions.

The following changes to traffic management on public roads during construction will be implemented to manage the construction safely while minimising impacts to the travelling public:

- Project advisory signage including construction gate signs, VMS, project information and roadworks warning signs;
- Long term speed reductions on the Pacific Highway and local roads within the project limits during construction;
- Temporary safety barriers installed along the edges of road shoulder to separate public traffic from construction activities;
- Traffic switches for each traffic stage with advanced notification;
- Short term traffic control with speed reductions, shoulder closures, and/or lane stoppages or closures to complete any construction works or road maintenance that can't be completed offline. Pacific Highway lane closures will be undertaken during non-peak travel times, with strict limits on queue lengths, stopping times and total delay times through the project.

Construction vehicles (including staff vehicles) will do the following:

- minimise construction vehicles (including staff vehicles) parking on public roads;
- minimise idling and queuing on public roads; and
- ensure spoil haulage vehicles must adhere to the nominated haulage routes identified in Section 5.4.

Measures for minimising construction related queuing will include scheduling construction-related transport movements to avoid peak traffic periods, active communication between site controllers and heavy vehicle drivers to provide real-time response to delays, maximising on-site heavy vehicle 'storage' to mitigate standing on public roads.

Where vehicles are required to queue, vehicles will not be left idling for extended periods of time.

These traffic management and mitigation measures will be included in the Project or site inductions, or specific training packages.

5.3 SITE COMPOUND TRAFFIC

Site compounds will be established at approved sites, with access off public roads designed in accordance with Austroads for the traffic numbers and type of vehicles using them. The main site compound and asphalt batching plant will be located at ancillary site 1G, to the north of North Boambee Road. Site compound access will be line marked and sign posted, and construction gates installed with signage to prevent unauthorised entry and allow the gates to be secured and locked at the end of the shift.

The access arrangement for the main compound site is depicted below. The intersection off North Boambee Road will be included in a temporary works design package to ensure that it is compliant with Austroads requirements for stopping site distance, turning lanes, etc.

Light and heavy vehicle parking will be on the construction site wherever practicable to minimise on-street parking. Existing heavy vehicle layover bays on the Pacific Highway north and south of the project limits will be used when heavy vehicles need to hold and wait for authorisation to enter site.

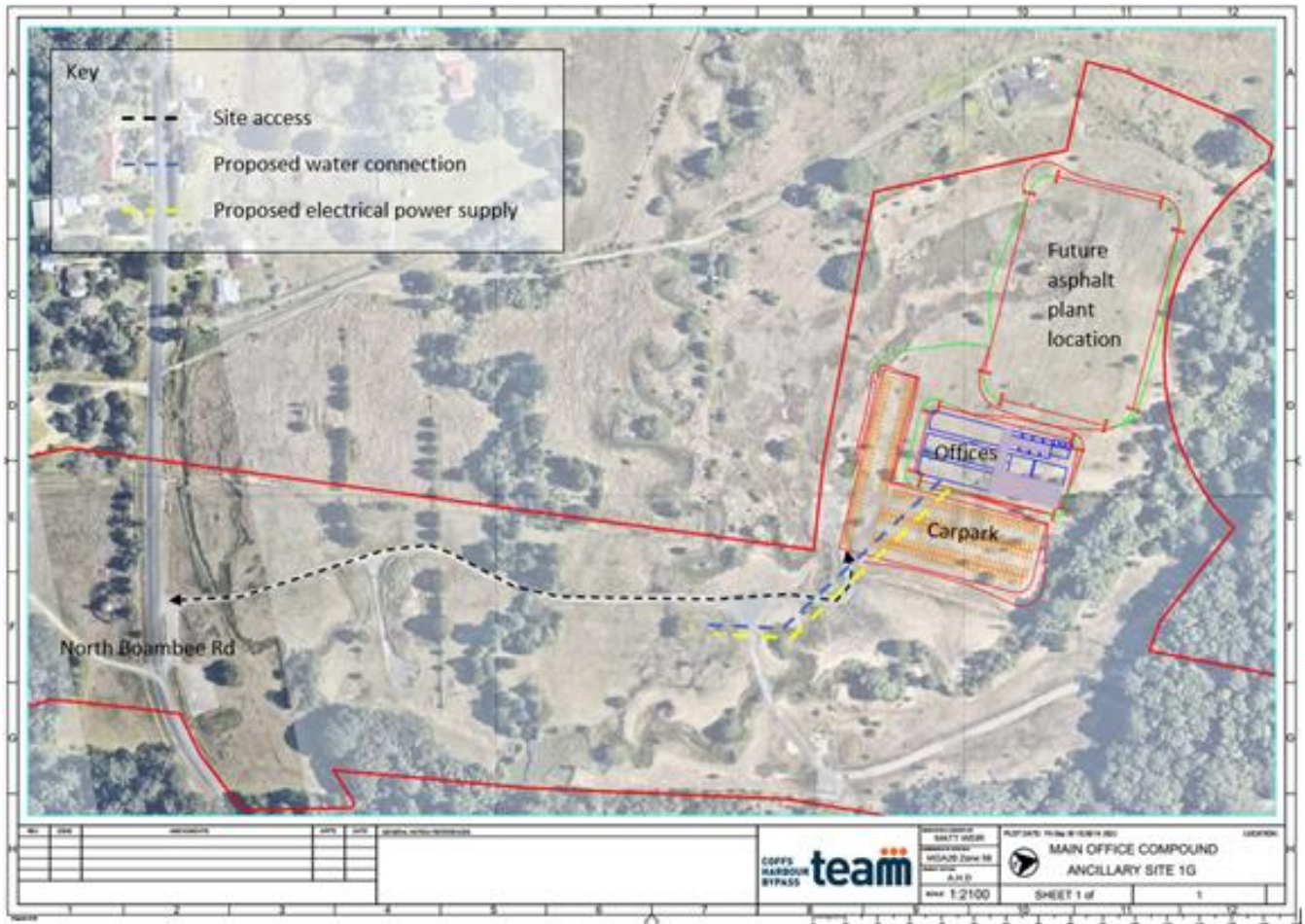


FIGURE 1 MAIN COMPOUND SITE ACCESS

5.4 CONSTRUCTION ACCESS ROUTES

The construction traffic routes assessed in the EIS and Amendment Report proposed for use and expected volumes on these routes are included as Appendix 1. Haul routes, construction gate locations, parking and lay over bays will be detailed on Vehicle Movement Plans (VMPs) and will be tool boxed to site personnel including truck drivers and provided in delivery manifests for material supply and deliveries to ensure the approved route and access points are used.

Time of day restrictions will be applied where reasonable and feasible, restricting the movement of heavy vehicles to the project are in place under on the following roads between 8:00am- 9:30am and 2:30pm – 4:00pm on school days:

- James Small Drive
- Kororo School Road
- North Boambee Road
- Bray Street

To ensure the use of approved heavy vehicle routes is maintained, the following mitigation measures will be implemented:

- Vehicle Management Plans
- Toolbox talks
- Inclusion of approved routes withing delivery driver inductions
- Inclusion of approved routes in Project Induction
- Inclusion of approved routes within contract documents for plant hire and material supply agreements.

5.4.1 ADDITIONAL LOCAL ROADS

In accordance with MCoA E87, any additional local roads not approved by the Project approval must be approved by the Planning Secretary prior to use and included in the Traffic and Transport Management Sub-plan. In review of proposed compound locations and site access requirements, FGJV proposes to use the following local roads as alternate access to the construction boundary:

- Solitary Islands Way
- Coramba Road
- North Boambee Road

As per MCoA E88, the proposal for use of additional local roads must include the following:

- a) a swept path analysis;
- b) demonstration that the use of local roads by heavy vehicles for the CSSI will not compromise the safety of pedestrians and cyclists;
- c) measures that will be implemented to avoid where practicable the use of roads past schools, aged care facilities and child care facilities during their peak operation times; and
- d) advice from an appropriately qualified traffic engineer on the suitability of the proposed heavy vehicle route which takes into consideration items (a), (b) and (c) of this condition.

Information on items a), b) and c) is provided in further detail for each of the proposed local roads, below. This content has been prepared following review and advice from a qualified traffic engineer (refer to Appendix 3).

The swept paths provided in Appendix 2 in accordance with this CoA have been prepared based upon a 19-metre rigid and truck and dog heavy vehicle arrangement.

A map showing the additional proposed use of local roads and the roads shown in Figure 4.5-1 of the Amendment Report are included in Appendix 1.

5.4.1.1 SOLITARY ISLANDS WAY

Solitary Islands Way, south from the interchange with the existing Pacific Highway (Appendix 1) is proposed to be used for semi-trailers, rigids, and truck and dogs when turning movements onto and off the highway to make it a safer route.

TABLE 4 SOLITARY ISLANDS WAY LOCAL ROAD ASSESSMENT

Requirements	Reference
a) Swept path analysis;	Appendix 2
b) Demonstration that the use of local roads by heavy vehicles for the CSSI will not compromise the safety of pedestrians and cyclists;	A dedicated shared user path exists along the stretch of Solitary Islands Way proposed to be utilised by the project for construction access. The shared path user path will remain open throughout construction. Where construction staging requires impact to the existing shared user path, an equivalent all weather path will be created and separated from construction activity by fences and traffic barriers where required. Changes to shared user path functionality would be undertaken in consultation with City of Coffs Harbour and the effected adjacent community.
c) Measures that will be implemented to avoid where practicable the use of roads past schools, aged care facilities and child care facilities during their peak operation times; and	N/A; as none of the listed facilities are within the vicinity

5.4.1.2 CORAMBA ROAD

One of the main identified quarry suppliers is located 8km west of the Project on Coramba Road, approximately 1,300m west of the Project alignment. Potentially 1,500 – 2,000 tonnes/day of materials may be sourced from this location, which would equate to 94 to 125 trips/day. The quarries in this

location currently operate with heavy vehicles (mostly trucks with dog trailers) on these roads on a daily basis, and the use of the local road for heavy vehicles by the quarries would be to deliver to the Project rather than other receiving sites. The Project proposes to include the use of Coramba Road west of the Project alignment as shown in Appendix 1.

TABLE 5 CORAMBA ROAD LOCAL ROAD ASSESSMENT

Requirements	Reference
a) Swept path analysis;	Appendix 2
b) Demonstration that the use of local roads by heavy vehicles for the CSSI will not compromise the safety of pedestrians and cyclists;	<p>Coramba Road, west of the Project alignment, does not have designated shared user path provisions, nor any formal pedestrian networks. The existing pedestrian environment would not be impacted by the proposed use of the road to access the Project.</p> <p>Coramba Road is identified on the City of Coffs Harbour website and the 2014-2019 Bike Plan as forming part of the “Big Block” cycle route.</p> <p>The delivery of quarried materials from the quarry west of the Project will not compromise the safety of cyclists, as the road is currently safely used by heavy vehicles in accordance with the TfNSW Centre for Road Safety guidelines for “Sharing the road with bicycle riders”.</p> <p>The use of Coramba Road, west of the Project alignment, for delivery of material via heavy vehicles will be undertaken in ongoing consultation with City of Coffs Harbour.</p>
c) Measures that will be implemented to avoid where practicable the use of roads past schools, aged care facilities and child care facilities during their peak operation times; and	N/A; as none of the listed facilities are within the vicinity

5.4.1.3 NORTH BOAMBEE ROAD

Similar to Coramba Road, North Boambee Road west of the project alignment has been nominated (Appendix 1) due to the presence of a quarry at the end of North Boambee Road, which may supply some quarry product to the Project. It is estimated around 600 tonne of product/day which would equate to 38 trips/day. This road is already utilised for the delivery of material from the quarry.

TABLE 6 NORTH BOAMBEE ROAD LOCAL ROAD ASSESSMENT

CoA Requirements	Reference
a) Swept path analysis;	Appendix 2
b) Demonstration that the use of local roads by heavy vehicles for the CSSI will not compromise the safety of pedestrians and cyclists;	<p>North Boambee Road, west of the Project alignment, does not have designated shared user path provisions, nor any formal pedestrian networks. The existing pedestrian environment would not be impacted by the proposed use of the road to access the Project.</p> <p>North Boambee Road, west of the Project alignment is not identified as a cycle route within the City of Coffs Harbour website or the 2014-2019 Bike Plan.</p> <p>The delivery of quarried materials from the quarry west of the Project will not compromise the safety of cyclists, as the road is currently safely used by heavy vehicles in accordance with the TfNSW Centre for Road Safety guidelines for “Sharing the road with bicycle riders”.</p>
c) Measures that will be implemented to avoid where practicable the use of roads past schools, aged care facilities and child care facilities during their peak operation times; and	N/A; as none of the listed facilities are within the vicinity

5.5 TECHNICAL TRAFFIC MANAGEMENT PROCESSES

The FGJV Project will have specific resources for the technical management of traffic and consultation of traffic management to external stakeholders. These technical documents and processes are described below and are managed outside the CEMP scope.

5.5.1 ROAD OCCUPANCY LICENSE

A Road Occupancy Licence (ROL) is required for any works that involve a shoulder closure, lane closure or stoppage. The Traffic Manager is responsible for applying to the relevant road authority (TfNSW or Coffs Harbour City Council) and obtaining ROLs and ensuring the specified conditions are complied with prior to occupying any road.

Road occupancies will be detailed in approved Traffic Guidance Schemes (TGS), which specify the requirements for the setup of traffic control including the required signage in accordance with the Traffic Control at Work Sites (TCaWS) manual.

5.5.2 TRAFFIC MANAGEMENT PLANS

A Traffic Management and Safety Plan (TMSP) has been developed, separate to the Traffic Management Plan developed as part of the CEMP which is an overarching TMSP for the project. This plan addresses the requirements outlined in the Scope of Works and Technical Criteria - *Appendix C.5 Traffic and Transport Management Requirements* (TTMP). Additional Site Specific Construction Traffic and Transport Management Plans (SSCTTMP) will be developed to provide detail for staged changes to the road corridor to facilitate construction of the works.

Site-specific Construction Traffic and Transport Management Plans (SSCTTMP) will be developed for locations where changes will be made to the existing road geometry. These plans will contain additional written details describing the nature of the works.

The SSCTTMP will be prepared by a qualified member of the FGJV Traffic Team in consultation with the Traffic Control Group (TCG) prior to its approval by the Traffic Manager. Where the work impacts on council areas, the CCHC will be consulted prior to implementation. Key stakeholders will also be provided a copy of the approved SSCTMP for their information and overview.

5.5.3 TRAFFIC GUIDANCE SCHEME

A Traffic Guidance Scheme (TGS) is a diagram showing signs and devices arranged to warn traffic and to guide it around, past or if necessary, through a work site or temporary hazard. VMP, although still a diagram, is used to provide clear guidance to workers regarding construction access and egress requirements and circulation within the site including dedicated vehicle turning areas and access and egress points for work sites.

All TGS will be developed in accordance with Australian Standard 1742.3 and the TfNSW "Guide to Traffic Control at Worksites" by a suitably qualified person. A TGS can only be prepared by a person who holds a current Prepare a Work Zone Traffic Management Plan qualification.

5.5.4 VEHICLE MOVEMENT PLANS

Vehicle Movement Plans (VMP) are drawings and diagrams that show preferred travel paths for vehicles associated with a construction site entering or leaving the traffic stream. They consider:

- Entering and exiting work sites to and from adjacent travel lanes,
- Reversing manoeuvres within the work area and in the adjacent travel lanes,
- Travelling through the work area, past construction personnel and in the vicinity of unprotected hazards,
- Slew paths of excavators and cranes may impede traffic paths,
- Turning paths of single unit trucks with or without dog trailers, and
- Hauling at night, where specific conditions, e.g. lighting, may need to be addressed.

FGJV will apply controls and measures to mitigate the risk of these hazardous movements including, but not limited to restrict the practice of hazardous movements (e.g. certain turning bans), the provision

of permanent major traffic controls and devices, installation of temporary traffic controls, the installation of deceleration, acceleration and turning lanes outside of the through lanes, educating construction drivers, installation of warning devices on vehicles and the application of VMPs.

5.5.5 PEDESTRIAN MOVEMENT PLANS

The Pedestrian Movement Plans will be developed for each stage of the works that impact on the pedestrian travel paths. These Plans will be included as part of the relevant SSCTTMPs.

The Pedestrian Movement Plan will show the allocated paths for both workers and the public, including signage and devices, where relevant.

5.5.6 TRAFFIC SIGNAL CONTROL PLANS

These plans will be submitted separately to the TMP. This is to allow the RMS personnel to review and comment on the plan outside of the TMP process. It is acknowledged that there are significant lead times required for Traffic Signal Control (TSC) plans approval and commissioning

5.6 SPEED MANAGEMENT

Speed limit changes will be required to ensure the safety of both the travelling public and the construction workforce. Speed limit changes will be determined by:

- a) Long-term temporary speed limit changes are determined by the temporary staging including road geometry, sight distances, available shoulder width, temporary barrier selection, available turning lane lengths, traffic numbers, etc. The constrained corridor that is available to construct the project works is the main factor influencing the selection of the long-term speed limit changes and will result in a reduction to 60 km/hr posted speed limit for the Pacific Highway within the project limits and a reduction to 40km/hr posted speed limit for local roads within the project limits.
- b) Short-term speed limit changes are implemented by approved TGS and are determined by construction activities that are required within the clear zone of travel lanes. Speed limits are selected to comply with the TCaWS manual and depend on the distance that workers or plant are required to be from passing traffic.

Speed Zone Authorisation (SZA) will be obtained from the relevant road authority by the Traffic Manager before implementing any changes to speed limits.

5.7 SIGNAGE AND DELINEATION

Signposting and delineation for temporary traffic staging will be designed and installed in accordance with Austroads Guide to Traffic Management in accordance with MCoA E94.

During construction FGJV will utilise Variable Message Signs (VMS) to provide advanced warning and changed traffic condition information to road users. The use of VMS is the responsibility of TfNSW, and appropriate messages would be incorporated into a Traffic Management Plan (TMP) and/or site specific TCPs.

FGJV will engage early and regularly with business owners and operators to manage construction impacts like access and traffic disruptions. Additionally, the project team will work with City of Coffs Harbour and the Business Chamber to help minimise impacts on business community and its customers.

Wayfinding and additional business signage along with other engagement tools and channels will be agreed with business owners and operators and implemented as required throughout construction. Adequate signage and directions to businesses will be provided before and during disruptions to existing access and signage.

Further information on our approach to traffic management engagement is included in our Construction Community and Stakeholder Management Plan.

5.8 PEDESTRIANS AND CYCLISTS

Safe pedestrian and cyclist access will be maintained around work sites during construction. In circumstances where pedestrian and cyclist access is restricted or removed due to construction activities, an alternate route which complies with the relevant standards will be provided and signposted prior to the impact on the existing access.

Locations and estimated timing for pedestrian/cyclist detours include, but may not be limited to those below:

- Connections between Luke Bowen Footbridge and Kororo Public School – mid 2023
- Cyclists travelling north along the Pacific Highway, north of Luke Bowen Footbridge will be diverted via the newly constructed Old Coast Road – mid/late 2023
- Cyclists travelling south towards Kororo Public School on the Pacific Highway will be diverted via James Small Drive – Mid 2023

Additional cycle/pedestrian detours may be identified during detailed design and construction.

Exact timing and detour routes will be confirmed during design and development of construction staging and in consultation with City of Coffs Harbour and other impacted stakeholders (i.e. Kororo Public School, transport companies, cycling groups).

The existing Luke Bowen footbridge will not be removed until a replacement footbridge is open for use, any disruptions to use will occur outside of school terms and in consultation with Kororo Public School and School Infrastructure NSW. Or as agreed by the Planning Secretary.

FGJV will engage early and regularly with pedestrian and cycling groups manage construction impacts like access, route changes and disruptions.

Advance notification and signage along with other engagement tools and channels will be used throughout the project to keep pedestrians and cyclists updated.

Further information on our approach to traffic management engagement is included in our Construction Community and Stakeholder Management Plan.

5.9 PUBLIC TRANSPORT

Operational access for public transport services, including school bus services will be maintained as part of the project.

FGJV will continue to consult directly with all local bus companies, City of Coffs Harbour, Kororo Public School and Bishop Druitt College throughout design and construction to ensure the public transport sector is able to function and deliver services to the Coffs Harbour Region.

At the time of preparing this management plan the FGJV has commenced consultation with all local bus companies, City of Coffs Harbour, Kororo Public School and Bishop Druitt College.

Requirements for temporary and permanent changes during construction will be discussed with the appropriate stakeholders early to ensure communications are delivered in a timely manner for public transport users.

The Project has established the Traffic Control Group (TCG) of which City of Coffs Harbour, TfNSW and emergency services invited to as required. The TCG will be a key forum for consulting with City of Coffs Harbour in relation to public transport.

Further information on our approach to traffic management engagement is included in our Construction Community and Stakeholder Management Plan.

5.10 PROPERTY ACCESS

Existing property accesses will be maintained during construction as far as reasonably practicable, considering construction needs and the safety of the workforce and the general public. Where required to permit construction of the project works, alternative property access arrangements will be provided. Temporary access will be constructed in close proximity to the existing access to allow construction of the project works across existing access until construction of the permanent property access is complete.

The duration and timing of temporary access will vary from property to property, but will be typically for short durations from one month up to one year and will commence from mid 2023.

FGJV will engage early with affected property owners to discuss and temporary alternative access arrangements. Changes to access will be agreed with affected property owners and consideration will be given to existing farming practices. The project team will work directly with property owners to explain the timing, duration and extent of changes and will implement agreements where required.

Where there are changes in access which affect schools, particularly Kororo Public School, FGJV will continue to work closely with principals and the NSW Department of Education. There will be a regular meeting schedule agreed with Kororo Public School which will include an agenda item about parking, traffic management and impacts.

Where school buses are exiting Russ Hammond Close onto James Small Drive, signage will be installed to ensure school buses must take a left-hand turn. This will be included ongoing consultation with bus companies and Kororo Public School.

The outcomes of consultation, and access/parking arrangements agreed will be incorporated into traffic staging and construction access plans.

The specifics of temporary access arrangements will be subject to Traffic Management Plans, Temporary Works Designs, Construction Access Plans and Traffic Control Plans which are all in development at the time of preparing this management plan.

Further information on our approach to traffic management engagement is included in our Construction Community and Stakeholder Management Plan.

5.11 SPECIAL EVENTS

Upcoming requirements and planning for special events will be discussed with TfNSW and Coffs Harbour City Council at regular traffic management group meetings. TfNSW ROL calendar considers the start and end period of school holidays and long weekends and does not allow lane closures in these periods of high holiday traffic.

5.12 INCIDENT MANAGEMENT AND RESPONSE

The FGJV team will install CCTV cameras along the existing Pacific Highway within the project limits to assist in monitoring traffic conditions, incident detection, management and response.

During construction, traffic incidents on the core and precinct road network will be detected and responded to by a combination of:

- Checks of the CCTV footage by the Traffic Manager or delegate as needed to confirm causes and locations of incidents and appropriate action;
- Traffic controllers, FGJV employees and subcontractors reporting any issues or incidents through their chain of supervision to the Traffic Manager to initiate the appropriate response.

The Traffic Manager will respond to traffic incidents using the Traffic Incident Response Plans developed by the FGJV to escalate to TfNSW/ROM and notify emergency services as needed, mitigate the effect of the traffic incident, clear the incident, return the road network to normal operations as quickly as possible, investigate and take any corrective action if construction activities or vehicles were involved. The Traffic Incident Response Plans will have all relevant contact details for normal hours and

out of hours contacts for TfNSW/ROM, emergency services, tow trucks, traffic control and the project's traffic supervisors and response crews. Traffic control and other resources on the project will be made available to assist in incident management and other construction traffic re-routed to avoid the area as needed. CHCC will be notified of any incidents on these roads between on sections of the approved access routes that involve project related traffic.

5.13 DETAILED DESIGN

A number of design criteria and consultation requirements are described in the Project approval which will be addressed during the detailed design of the road infrastructure.

Engagement during detailed design includes, but is not limited to:

- Meetings with local Emergency Service providers, including Rural Fire Service Mid North Coast Team, Coffs Clarence NSW Police, Coffs Harbour SES, Fire and Rescue and NSW Ambulance to confirm the requirements for relocating their services and to ensure the appropriate access is achieved.
- Discussion with City of Coffs Harbour and the proponent of the Pacific Bay Western Lands residential development will be undertaken during detailed design to ensure future access arrangements are considered as part of the project.
- Discussion with City of Coffs Harbour and the proponent of the Pacific Bay Eastern Lands development will be undertaken during detailed design to ensure future access arrangements are considered as part of the project.
- Discussion with City of Coffs Harbour regarding the operational strategy for pedestrians and cyclists particularly where there is potential interaction with the Council's existing proposed pedestrian and cycle network and where location-specific wayfinding plans are required.

FGJV will carry out formal discussions and consultation on Detailed Design change in early 2023. Feedback received will be considered in any further refinements.

Transport for NSW have worked closely with the Solitary Rural Fire Service, Rural Fire Service Regional Office and Coffs Harbour City Council to successfully relocate the Rural Fire Service shed. The relocation is now complete and the Solitary RFS fully functional, access to Bruxner Park Road will be provided for the duration of construction and Transport for NSW and FGJV will continue to work with the RFS to ensure appropriate emergency access during the different stages of construction. When the bypass is complete the access for the Solitary RFS will be much improved from the previous location with immediate access onto the major northern interchange at Korora Hill.

5.14 PARKING DEMAND SURVEYS

Consistent with REMM TT09, the FGJV has completed parking surveys for the following areas:

- Areas associated with the informal school bus stop at the intersection of Coramba Road and Spagnolos Road
- Englands Road
- Oz Group Pack house at Isles Drive

5.14.1 CORAMBA ROAD AND SPAGNOLOS ROAD INFORMAL BUS STOP

FGJV have been in consultation with the bus network operators during development of detailed design, these operators being Newcombe Bus Services and Busways.

Newcombe Bus Services have confirmed they are using Roseland Drive to interchange, and as such the Project will not impact this operation. Busways have confirmed that they can use Roselands Drive as well. The FGJV Traffic Manager completed an inspection of the Roselands Drive location and

confirmed there is 100m each side of the road for vehicle parking. The FGJV will continue to consult with the bus service providers to ensure operations are maintained throughout construction.

5.14.2 ENGLANDS ROAD

The FGJV have been in consultation with Handy Bin (17/01/2023) as the main user of parking on Englands Road. Through this consultation it was confirmed that up to 20 employees utilise on street parking adjacent to the Handy Bin facility.

Through this consultation the FGJV has confirmed the need to provide parking spaces within the construction footprint for up to 20 vehicles during the various stages of construction of the Project at Englands Road. We will consult directly with Handy Bin during the development of each construction stage and ensure adequate vehicle parking and safe pedestrian access is provided.

5.14.3 OZ GROUP PACKHOUSE AT ISLES DRIVE

Following detailed design, the FGJV has confirmed that the project works will not impact on available parking spaces during construction at the Oz Group facility. We will continue to consult with Oz Group throughout construction.

6 ENVIRONMENTAL MITIGATION AND MANAGEMENT MEASURES

Environmental mitigation and management measures have been identified in the Project Approval documents described in CoA A1.

Specific measures and requirements to address the traffic and transport impacts from the Project during detailed design, pre-construction and during construction have been summarised in Table 7. FGJV is responsible for implementing all mitigation and management measures listed in Table 7.

TABLE 7 TRAFFIC AND TRANSPORT MANAGEMENT AND MITIGATION MEASURES

ID	Measure/Requirement	When to implement	Source
TTMM1	Measures for minimising construction related queuing will include scheduling construction-related transport movements to avoid peak traffic periods, active communication between site controllers and heavy vehicle drivers to provide real-time response to delays, maximising on-site heavy vehicle 'storage' to mitigate standing on public roads.	During construction	CoA E89, TT06
TTMM2	Existing property accesses will be maintained during construction. Where required, temporary alternative access arrangements will be provided in agreement with and following consultation with the affected property owners and business operators. Consideration will be given to existing farming practices and business operations.	Prior to and during construction	Section 5.10, REMM AG05 REMMTT07
TTMM3	Operational access for public transport services, including school bus services will be maintained as part of the project. The requirements for any temporary changes during construction will be confirmed following further consultation with the school bus operators, CHCC, Kororo Public School and Bishop Druitt College.	Detailed design and during construction	Section 5.9, REMM TT01
TTMM4	Further consultation will be undertaken with Kororo Public School School Infrastructure NSW to confirm final parking arrangements and access during construction.	Detailed design and during construction	Section 5.10, REMM TT02
TTMM5	Consultation with the Rural Fire Service Mid North Coast Team will be undertaken during detailed design and prior to construction to confirm the requirements for relocating their services and to ensure the appropriate access is achieved.	Detailed design	REMM TT03
TTMM6	Consultation with CHCC and the proponent of the Pacific Bay Western Lands residential development will be undertaken during detailed design to ensure future access arrangements are considered as part of the project.	Detailed design	REMM TT04
TTMM7	Consultation with CHCC and the proponent of the Pacific Bay Eastern Lands development will be undertaken during detailed design to ensure future access arrangements are considered as part of the project.	Detailed design	REMM TT05
TTMM8	A Traffic Management Plan will be prepared and implemented as part of the CEMP. The plan will be prepared in accordance with Traffic Control at Work Sites Manual (Roads and Maritime Services 2018c).	Prior to construction	This plan, REMM TT06
TTMM09	Pre-construction and post-construction road condition reports for local roads will be prepared. Any damage resulting from construction (not normal wear and tear) will be repaired unless alternative arrangements are made with CHCC. Copies of road condition reports will be provided to CHCC.	Prior to construction and post construction	Section 7.6, REMM TT08

ID	Measure/Requirement	When to implement	Source
TTMM10	<p>Parking demand and use surveys will be undertaken to confirm the extent of temporary and/or permanent impacts at the following locations:</p> <ul style="list-style-type: none"> • Areas associated with the informal school bus stop at the intersection of Coramba Road and Spagnolos Road • Englands Road • Oz Group Packhouse at Isles Drive. <p>The results will be used to determine the need for alternative arrangements. To be implemented where there is adequate space available, that does not impact on private property, environmentally sensitive areas or existing road functionality and pedestrian safety.</p>	Detailed design	Section 7.4, REMM TT09
TTMM11	<p>Consultation with CHCC will be undertaken during detailed design regarding the operational strategy for pedestrians and cyclists particularly where there is potential interaction with CHCC's existing proposed pedestrian and cycle network and where location-specific wayfinding plans are required.</p>	Detailed design	Section 5.8, REMM TT10
TTMM12	<p>Design and road safety investigation of the Korora Basin Road and Old Coast Road intersection including Old Coast Road Bridge No. 2, will be carried out during detailed design to determine if any reconfiguration or upgrade is needed. The design and road safety investigation will be carried out in consultation with CHCC.</p>	Detailed design	Section 7.4, REMM TT12
TTMM13	<p>Alternative access arrangements for Boambee Palms and Holiday Park, Lindsay Transport and other properties with access to the existing Pacific Highway between Englands Road and Sawtell Road will be investigated during detailed design. The investigation will be carried out in consultation with CHCC and affected property owners to determine reasonable and feasible design solutions that address the safety concerns described in Section 4.7.7 of the Submissions Report. Any decision to proceed with a design solution will be subject to funding availability and consideration of environmental constraints, project objectives and value for money.</p>	Detailed design	Section 5.10, REMM TT13
TTMM14	<p>The new Luke Bowen footbridge will be constructed prior to the removal of the existing bridge where reasonable and feasible with any disruptions to access occurring outside of school terms and in consultation with Kororo Public School and School Infrastructure NSW.</p>	During construction	Section 5.10, REMM TT14
TTMM15	<p>Consultation with emergency services, including the RFS and Fire and Rescue NSW would be undertaken during construction to ensure emergency access is maintained during and after construction.</p>	Prior to and during construction	Section 5.1, REMM HZ02
TTMM16	<p>Temporary signage including use of variable message signs will be used to identify any revised access changes to businesses. The temporary signage will be installed in consultation with affected businesses and in accordance with Traffic Control at Work Sites Manual (Roads and Maritime Services 2018c)</p>	Prior to and during construction	Section 5.7, REMM SE07
TTMM17	<p>Schedule construction-related transport movements to avoid peak traffic periods and minimise project-related congestion, where possible.</p> <p>To mitigate impacts to Bishop Druitt College, Orara High School and Kororo Public School heavy vehicle movements on North Boambee Road, Bray Street, James Small Drive and Korora School Road will be minimised between the following hours, on school days:</p> <ul style="list-style-type: none"> - 8:00am to 9:30am; and - 2:30pm to 4:00pm. 	During construction	Section 5.2

ID	Measure/Requirement	When to implement	Source
	<p>To mitigate impacts to Kororo heavy vehicle movements on North Boambee Road will be minimised between the following hours, on school days:</p> <ul style="list-style-type: none"> - 8:00am to 9:30am; and - 2:30pm to 4:00pm. 		
TTMM18	<p>Develop construction staging and temporary works that minimises conflicts with the existing road network and maximises spatial separation between work areas and travel lanes</p>	During construction	Section 5.1

7 COMPLIANCE MANAGEMENT

7.1 ROLES AND RESPONSIBILITIES

The FGJV team’s organisational structure and overall roles and responsibilities are outlined in Section 4.2 of the CEMP. Specific responsibilities for the implementation of construction traffic management are detailed below.

TABLE 8 ROLES AND RESPONSIBILITIES

Role	Responsibilities
FGJV Project Director	<ul style="list-style-type: none"> The Project Director will assist the traffic management team in meeting the traffic management specifications. Fostering a "no incidents or injuries" culture in every aspect of construction and traffic management Maintain quality assurance procedures in compliance with project requirements Approve the Overarching Traffic Management and Safety Plan and revisions
FGJV Construction Manager	<ul style="list-style-type: none"> Accountable for construction works; directs the Traffic Manager to prioritise work for the safety of road users, community members, and construction staff; reports to the Project Director as part of the Project Management Team
FGJV Traffic Manager	<ul style="list-style-type: none"> Reports directly to the Construction Manager. Directs the traffic management group Executes the Traffic Management and Safety Plan Reviews Traffic Staging Plans/ Traffic Guidance Scheme (TGSs)/Road Occupancy Licence (ROLs) prior to submission to the stakeholders. Checks sub-contractors meeting the requirements of the Traffic Management and Safety Plan Defines the requirements for traffic management and verifies through spot checks and audits that they are met. Verifies that long-term layouts are installed and maintained in line with Staging Plans / TGS/ ROL
FGJV Traffic Planning Engineer	<ul style="list-style-type: none"> Responsible for reporting to the Traffic Manager. TGS/ ROL submission Verifies that long-term layouts established in compliance with Staging Plans / TGS/ ROL are suitably maintained
FGJV Traffic Supervisor	<ul style="list-style-type: none"> Communicate with the Traffic Manager Examines the implementation of the Staging Plans / TGS/ ROL Verifies that traffic controllers have the required skills to perform their duties Responsible for safety checks and inspections related to the Traffic Management and Safety Plan implementation
FGJV Traffic Field Crews	<ul style="list-style-type: none"> Install and uninstall traffic control devices based on approved TGSs. Verify on a regular basis that the temporary setup is performed according to the approved TGSs Adhere to the code of Traffic Control at Work Sites Manual. Possess the required licences and skills to perform their duties.
FGJV Stakeholder and Communications Manager	<ul style="list-style-type: none"> Communicate with the Traffic Manager Draft community notifications and updates and obtain approval prior to distributing to the community and external stakeholders Consult with the community and external stakeholders and respond to any enquiries and complaints
Wider FGJV Project Team (including subcontractors)	<ul style="list-style-type: none"> Communicate with the Traffic Manager Comply with and implement the Traffic Management and Safety Plan, Staging Plans, VMPs, TGSs

7.2 TRAINING

All employees, subcontractors and utility staff working on site will undergo Project and site induction training. Training will address elements related to air quality management, which may include:

- Existence and requirements of this sub-plan
- Relevant MCoA and legislation
- Roles and responsibilities
- Construction traffic mitigation and management measures
- Specific access or parking restrictions relevant to site

Targeted training in the form of toolbox talks or specific training will also be provided to personnel with a key role in construction traffic management or impact, such as heavy vehicle drivers.

Further details regarding staff induction and training are outlined in Section 5 of the CEMP.

7.3 COMPLAINTS MANAGEMENT AND COMMUNITY ENGAGEMENT

Engagement with the community will be undertaken in accordance with the Community Communications Strategy and our Construction Community and Stakeholder Engagement Management Plan (CSEMP).

A range of communications activities and tools will be used to inform and engage the community and stakeholders about the project. Engagement will be targeted to specific stakeholder groups across media which is accessible and relevant to these groups. The following figure outlines the broad engagement tools to be used across different groups.

Who	Approaches				
PROJECT WIDE	Collateral Project updates, notifications, media releases and alerts	Digital engagement Website, interactive portal, social media page	Consultation Manager database Accurate, timely and comprehensive record of interactions	Information channels 1800 number, project email and mailing address, community dis	Face to face Mobile engagement van, Community Display Centre, community events
PROJECT NEIGHBOURS	Community Place Managers Face to face, onsite, meaningful relationships Signage Shade cloth, hoardings and other signage displaying information about the project	Notifications Accurate, informative, easy to read alerts for upcoming works Events Street meetings and visits by mobile engagement van to build relationships with neighbors	Project Updates Full colour, engaging content covering construction progress, partnerships and community opportunities Respite Outdoor activities, local attractions, learn to fish and surf, cultural awareness and vehicle/property cleaning	Email and SMS alerts Rapid deployment of information for critical activities such as controlled blasting Property condition surveys For eligible receivers, promotes confidence in high-impact works and mitigations	Feedback and survey Periodic capture of data to provide ongoing assessment of engagement success Noise and vibration data Sharing technical data as requested to confirm compliance with EPA/EPL
ROAD USERS	Electronic message signs and signage Physical displays with relevant project information and alerts	Advertisements Radio and other traffic network alerts advising access and relevant changes (only for high impact)	Traffic control Interface with traffic control and management tools when required	Digital engagement Social media posts, Live traffic, google and media alerts	
KEY STAKEHOLDERS	City of Coffs Harbour Relationship management including regular check ins and issues discussions	Schools Outreach and education programs STEM, Bishop Druitt College Ecology Team, Coffs Harbour Big Blast	Aboriginal Participation and Cultural Awareness Recognition of Gumbaynggirr customs and workforce awareness Business readiness and engagement	Agricultural producers Confidence in Panama Disease Management Plan Minimising logistics impacts	Tourist and resort operators (north) Maintaining access, minimizing disruptions in peak periods
SUPPLY CHAIN AND JOB SEEKERS	Local Roadshow Meet the team events for suppliers, job activities and prospective employees detailing opportunities and requirements	Local first Forum for advertising opportunities throughout the life of the project	Community Solar Fund Identifying eligible not for profits and community infrastructure		
FGJV TEAM AND DELIVERY PARTNERS	Induction Understanding of media and social media politics Basic expectations for engaging respectfully with members of the public Processes for referring issues and complaints	Training and development Community, cultural and inclusion refresher training	Project Values Clearly explained and visually communicated across work sites	Project News Regular internal newsletter sharing relevant messages on safety, project progress and upcoming events	Events calendar Encouraging participation in Reconciliation Day, NAIDOC Week, RUOK, Wear it Purple Day and Multifaith events

FIGURE 2 ENGAGEMENT MATRIX

Further information on our approach to traffic management engagement is included in our Construction Community and Stakeholder Management Plan Section 6.

Complaints will be managed in accordance with Section 6.4.1 of the CEMP, the Community Communications Strategy and our Construction Community and Stakeholder Engagement Management Plan (CSEMP).

A complaint is defined as an interaction with a community member or stakeholder who expresses dissatisfaction with construction activities, staff members, actions or proposed actions. Complaints are to be dealt with in a responsive manner to ensure that stakeholders feel that their concerns and issues raised have been taken seriously and that remedial action, where applicable is to be undertaken. This complaints management system (CMS) complies with the Australian Standard AS ISO 10002:2006 Customer Satisfaction – Guidelines for complaint handling in organisations.

7.4 INSPECTIONS

7.4.1 ROUTINE INSPECTIONS

A Project team representative (Traffic Foreman and/or Traffic Manager) will complete weekly compliance inspections to ensure all traffic related implementations/establishments to ensure public safety and business and property and accesses are maintained. Issues identified will be addressed as required, and in some cases may require emergency works to maintain the safety of the travelling public.

Where modifications to traffic establishments, property access or construction activities are required to maintain safe access/egress to properties/businesses or maintain safe traffic environments these would be undertaken in consultation with effected land owners.

7.4.2 REMMS

As per REMM TT12, design and road safety investigation of the Korora Basin Road and Old Coast Road intersection including Old Coast Road Bridge No. 2, will be carried out during detailed design to determine if any reconfiguration or upgrade is needed. The design and road safety investigation will be carried out in consultation with CHCC.

As per REMM TT09, parking demand and use surveys will be undertaken to confirm the extent of temporary and/or permanent impacts at the following locations:

- Areas associated with the informal school bus stop at the intersection of Coramba Road and Spagnolos Road
- Englands Road
- Oz Group Packhouse at Isles Drive.

The results will be used to determine the need for alternative arrangements, where reasonable and feasible.

7.5 AUDITING

Audits (both internal and external) will be undertaken to assess the effectiveness of traffic management measures, compliance with this sub plan, MCoA and other relevant approvals, licenses and guidelines.

Independent Safety Audit(s) are to be undertaken of the CCSI to ensure that it meets the relevant design, engineering and safety guidelines, including Austroads Guide to Traffic Management. The

audits will be undertaken prior to operation to assess the safety performance of new or modified roads (road safety audit) and parking, pedestrian and cycle infrastructure.

The audit findings will be actioned.

Audit requirements are detailed in Section 8.3 of the CEMP.

7.6 REPORTING

Reporting requirements and responsibilities relevant to traffic is described in Table 9 below.

TABLE 9 TRAFFIC AND TRANSPORT RELATED REPORTS

Ref	Report	Description	Timing	Responsibility	Recipient
MCoA E91	Road Dilapidation Report	Report of Road Dilapidation Survey including georeferenced video and associated photos	Two weeks before any local road is used by a heavy vehicle for the Construction of the CSSI	FGJV Traffic Manager	Council
MCoA E93			Two weeks before use of Russ Hammond Drive as temporary access Korora School Road	FGJV Traffic Manager	
REMM TT12	Design and Road Safety Investigation Report	Design and Road Safety investigation of the Korora Basin Road and Old Coast Road intersection including Old Coast Road Bridge No. 2 in consultation with CHCC	Detailed Design	Design Manager	Project Manager
MCoA E95	Independent Safety Audit Report	Assessment of the safety performance of new or modified roads (road safety audit) and parking, pedestrian and cycle infrastructure	Prior to operation	Desktop road safety audit - Design Manager, Opening day and night road safety audit for each traffic switch – Traffic Manager	Project Manager

Before any local road is used by a heavy vehicle for the Construction of the CSSI, a Road Dilapidation Report will be prepared for the road. A copy of the Road Dilapidation Report will be provided to Council within three weeks of completion of the survey and at least two weeks before the road is used by heavy vehicles associated with the construction.

For the use of Russ Hammond Drive as temporary access Korora School Road, a copy of the Road Dilapidation Report will be provided to Council within three weeks of completion of the survey and at least two weeks before the road is used to access Korora School Road.

If damage to roads occurs as a result of the construction, the Proponent must either (at the owner's discretion):

- compensate the owner for the damage so caused; or
- rectify the damage to restore the road to at least the condition it was in pre-construction.

This action will be undertaken within three months of the subject road no longer being used in association with the construction, unless an alternative timeframe is agreed to by the relevant road authority.

All other reporting requirements and responsibilities are documented in Section 8 of the CEMP.

8 REVIEW AND IMPROVEMENT

8.1 CONTINUOUS IMPROVEMENT

Continuous improvement of this plan will be achieved by the ongoing evaluation of environmental management performance against environmental policies, objectives and targets for the purpose of identifying opportunities for improvement.

The continuous improvement process will be designed to:

- Identify areas of opportunity for improvement of traffic management
- Determine the cause or causes of non-conformances and deficiencies
- Develop and implement a plan of corrective and preventative action to address any non-conformances and deficiencies
- Verify the effectiveness of the corrective and preventative actions
- Document any changes in procedures resulting from process improvement
- Make comparisons with objectives and targets.

Reviews and updates of this management plan will be completed in accordance with Section 9 of the CEMP. This will include as a minimum, annual group reviews of the management plan and its effectiveness.

8.2 TTMP UPDATE AND AMENDMENT

Construction will not commence until this plan has been endorsed by the ER and approved by the Planning Secretary. This plan has also been prepared in consultation with Coffs Harbour City Council as specified in MCoA C4. The ER will consider any minor amendments to be made to this plan that of an administrative nature and are consistent with the terms of the MCoA and the CEMP and if satisfied such an amendment is necessary, approve the amendment.

Only the Construction Traffic Manager (in consultation with the Environment and Sustainability Manager) can amend this TTMP. This will occur as needed and any revisions to the TTMP will be in accordance with the process outlined in these sections of the CEMP.

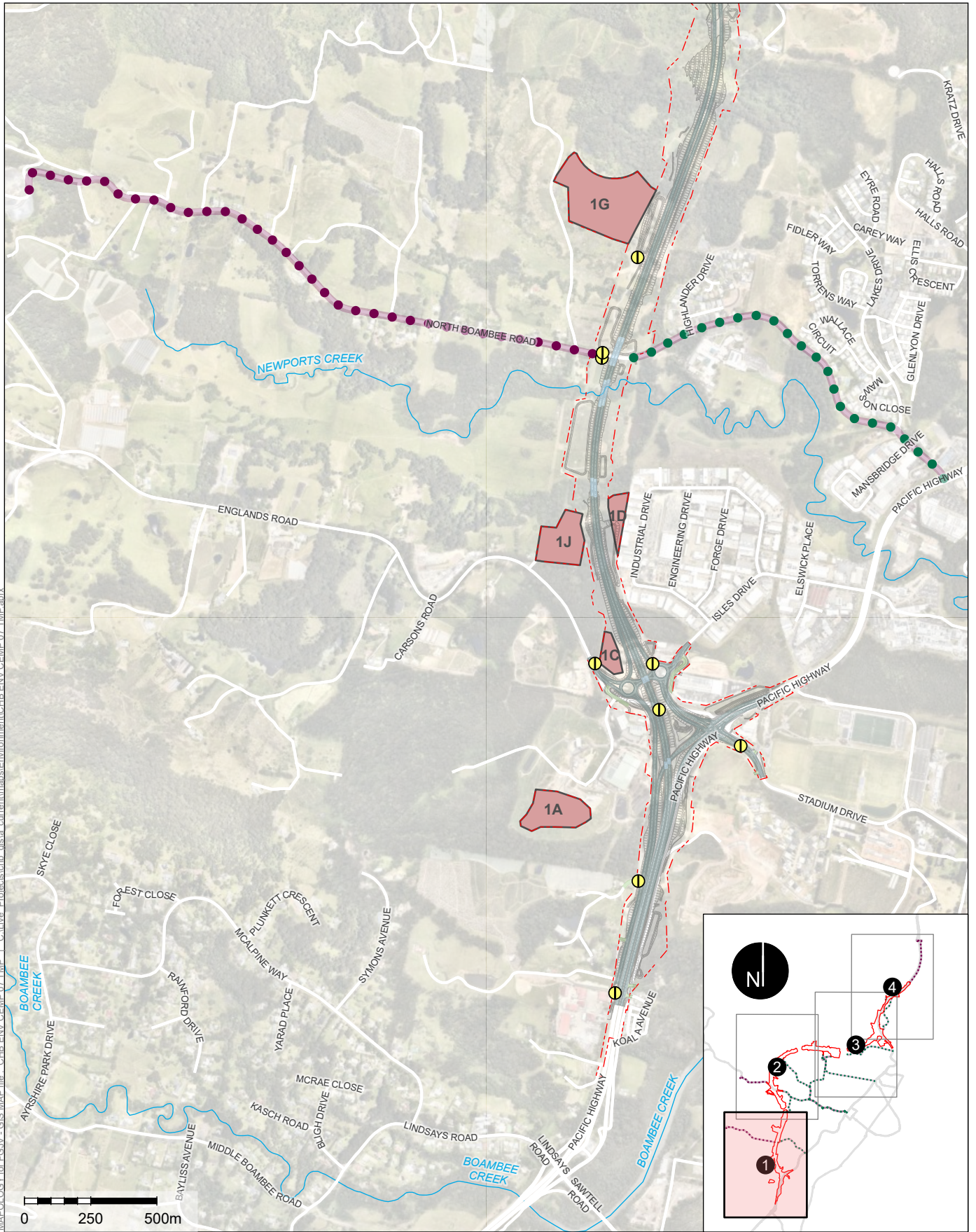
A copy of the updated plan and changes will be distributed to all relevant stakeholders in accordance with the approved document control procedure – refer to Section 1.3 and 1.4 of the CEMP.










APPENDICES



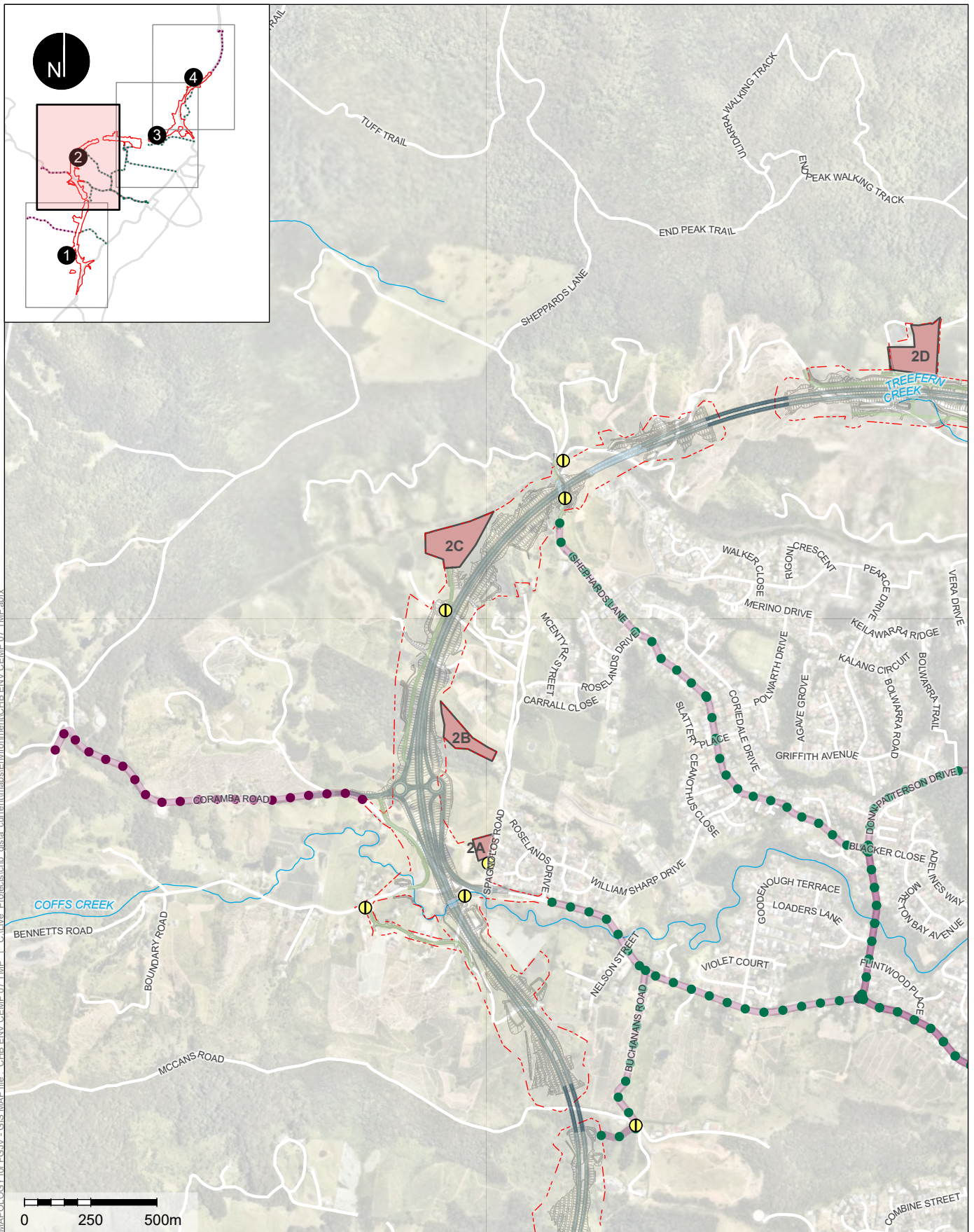
APPENDIX 1 CONSTRUCTION ACCESS

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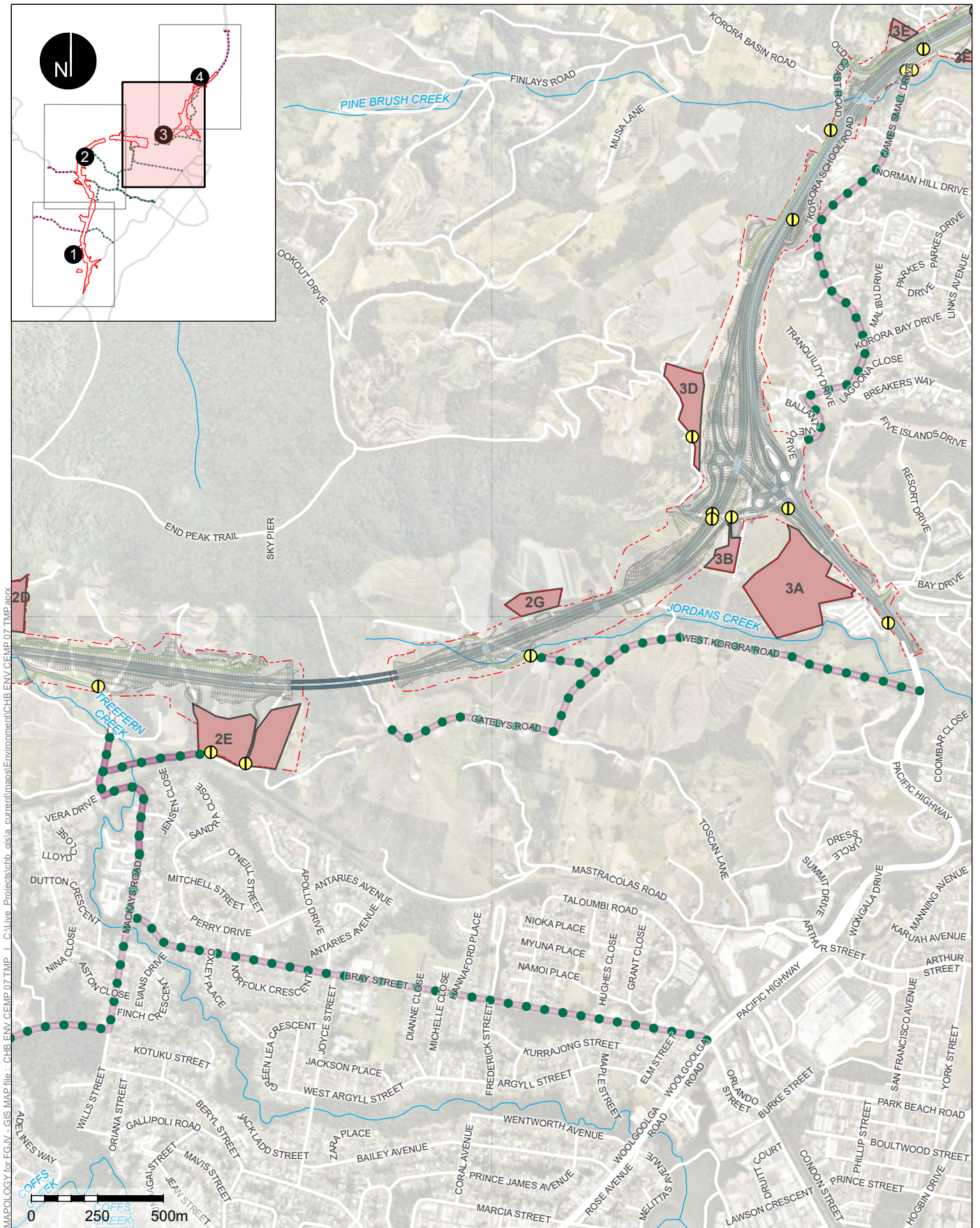


-  Approved Construction Boundary – EIS (ARUP, 19/12/2019 as defined in the MCoA)
-  Ancillary Facilities
-  Bridge
-  Surface
-  Pacific Highway
-  Local connection
-  Approved construction access
-  FGJV proposed additional construction access routes
-  Construction gates

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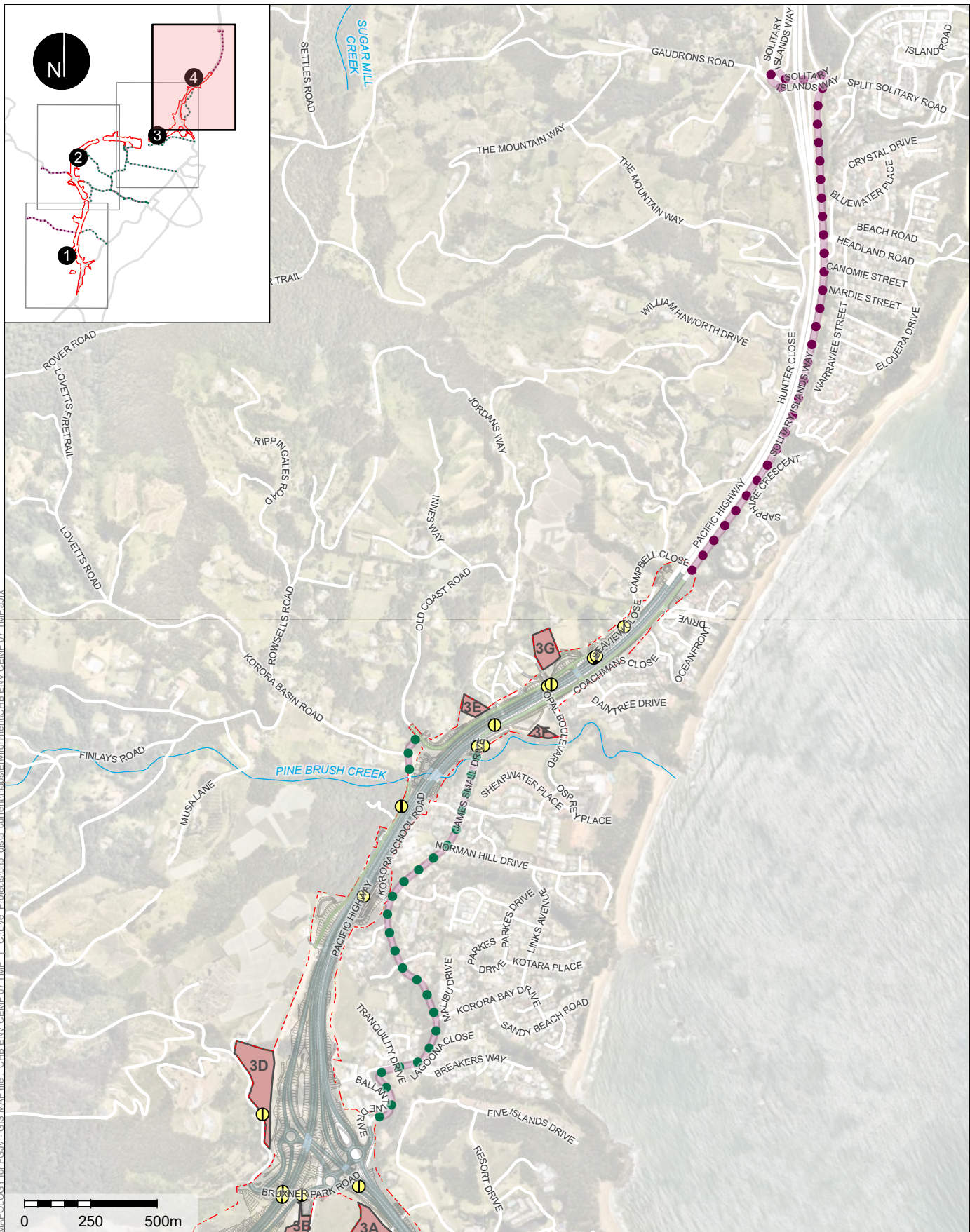
- Approved Construction Boundary – EIS (ARUP, 19/12/2019 as defined in the MCoA)
- Ancillary Facilities
- Bridge
- Surface
- Pacific Highway
- Local connection
- Tunnel
- Approved construction access
- FGJV proposed additional construction access routes
- Construction gates



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- Ancillary Facilities
- Bridge
- Surface
- Pacific Highway
- Local connection
- Tunnel
- Approved construction access
- Construction gates

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APPENDIX 2 SWEPT TURN ANALYSES FOR PROPOSED LOCAL ROADS

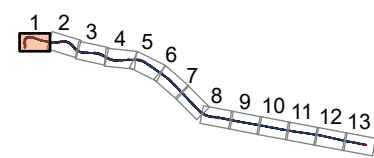
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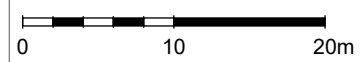
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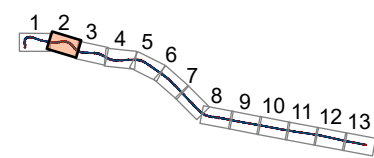
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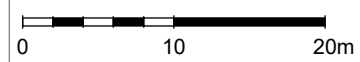
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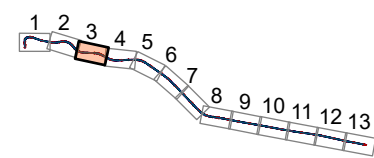
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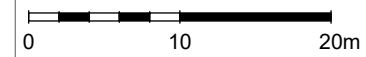
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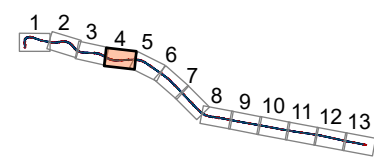
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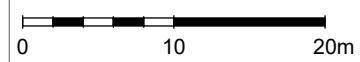
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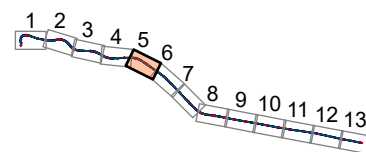
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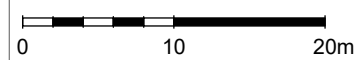


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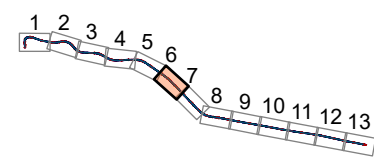
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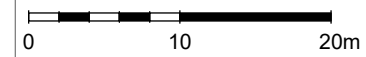
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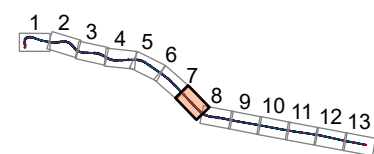
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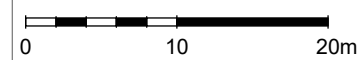
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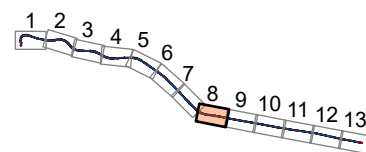
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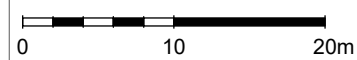


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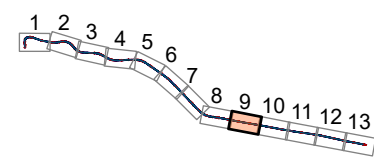
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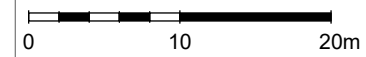
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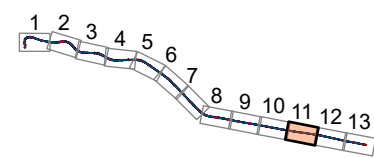
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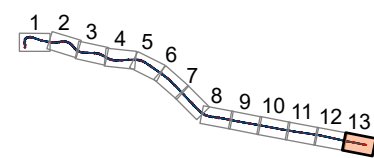
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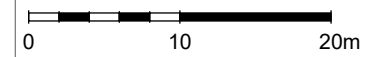
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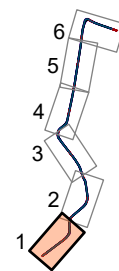
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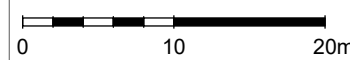
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1/12/2022

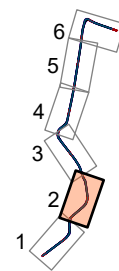
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M010 SwP BuchTD v1

REV
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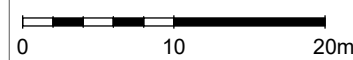
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LEGEND



TITLE
Swept Path - Buchanans Truck and Dog



NOTES

Xxxxx

REV DATE DESCRIPTION

1 18.11.2022 Xxxxx

PROJECT
Coffs Harbour Bypass - Pacific Highway Upgrade

SCALE 1:500
SHEET 2 of 6
COORDINATE SYSTEM GDA2020 MGA Zone 56

CLIENT
TfNSW

APPROVED XX
DATE 1/12/2022

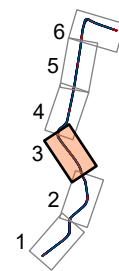
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M010 SwP BuchTD v1

REV 1

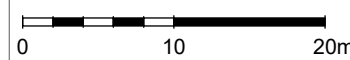
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LEGEND



TITLE
Swept Path - Buchanans Truck and Dog



NOTES
Xxxxxx

PROJECT
Coffs Harbour Bypass - Pacific Highway Upgrade

SCALE
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REV	DATE	DESCRIPTION
1	18.11.2022	Xxxxxx

CLIENT
TfNSW

APPROVED
XX

MAP #
CHB ENV CEMP 07 TMP

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HC

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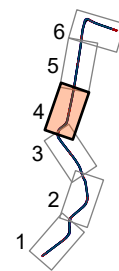
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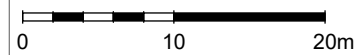
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LEGEND



TITLE
Swept Path - Buchanans Truck and Dog



NOTES

Xxxxx

REV DATE DESCRIPTION

1 18.11.2022 Xxxxx

PROJECT
Coffs Harbour Bypass - Pacific Highway Upgrade

CLIENT
TfNSW

SCALE
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JC

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XX

MAP #
CHB ENV CEMP 07 TMP

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GDA2020 MGA Zone 56

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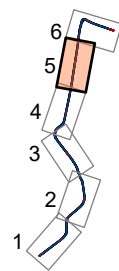
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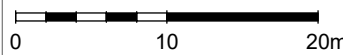
BUCHANANS ROAD

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COFFS HARBOUR BYPASS team

TITLE
Swept Path - Buchanans Truck and Dog



NOTES

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REV

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DATE

18.11.2022

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PROJECT

Coffs Harbour Bypass - Pacific Highway Upgrade

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M010 SwP BuchTD v1

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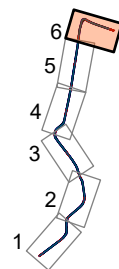
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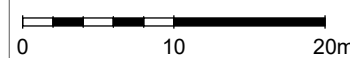
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TITLE
Swept Path - Buchanans Truck and Dog



NOTES

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REV DATE DESCRIPTION

1 18.11.2022 Xxxxx

PROJECT
Coffs Harbour Bypass - Pacific Highway Upgrade

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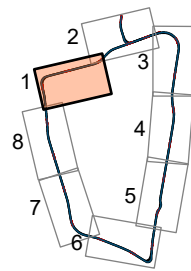
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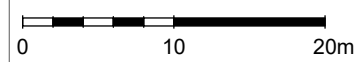
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LEGEND



TITLE
Swept Path - Vera Drive Truck and Dog



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PROJECT
Coffs Harbour Bypass - Pacific Highway Upgrade

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HC

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MAP #
CHB ENV CEMP 07 TMP

M011 SwP VeraTD v1

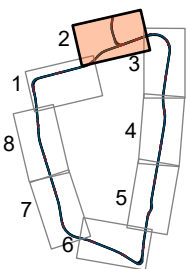
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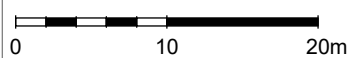
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TITLE
Swept Path - Vera Drive Truck and Dog



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REV DATE

1 18.11.2022

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PROJECT
Coffs Harbour Bypass - Pacific Highway Upgrade

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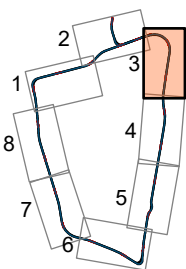
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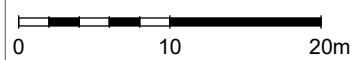


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COFFS HARBOUR BYPASS team

TITLE
Swept Path - Vera Drive Truck and Dog



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Xxxxx

REV DATE

1 18.11.2022

DESCRIPTION

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PROJECT
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HC

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XX

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CHB ENV CEMP 07 TMP
M011 SwP VeraTD v1

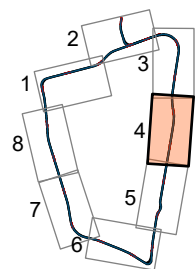
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TITLE
Swept Path - Vera Drive Truck and Dog

PROJECT
Coffs Harbour Bypass - Pacific Highway Upgrade

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HC

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1/12/2022

REV DATE

1 18.11.2022

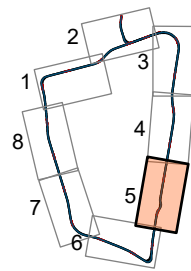
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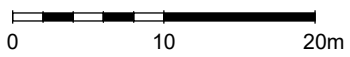
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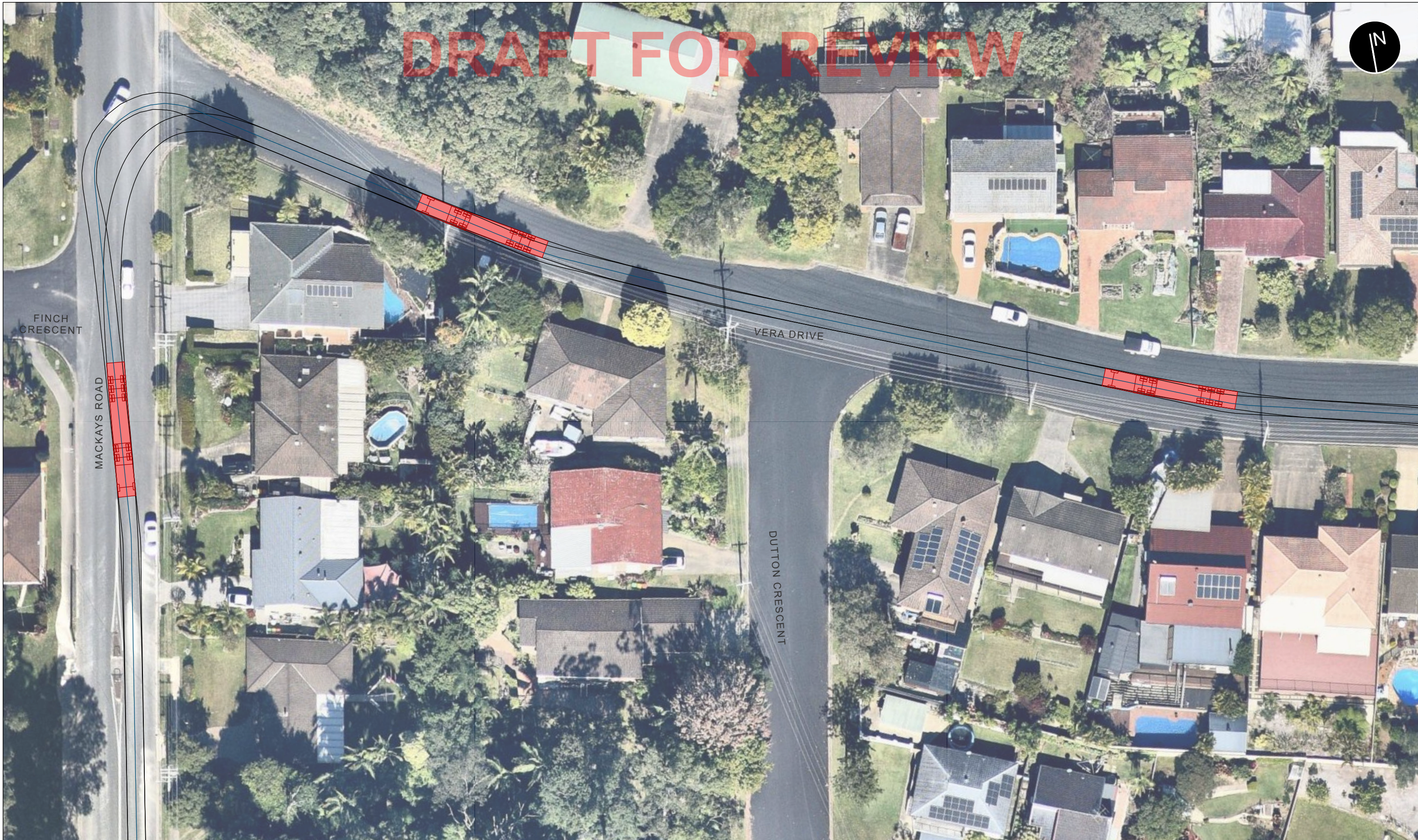


TITLE
Swept Path - Vera Drive Truck and Dog

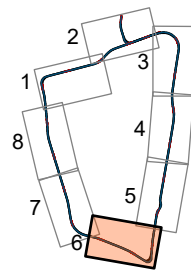


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PROJECT Coffs Harbour Bypass - Pacific Highway Upgrade		CLIENT TfNSW
SCALE 1:500	A3 DRAWN BY JC	APPROVED XX
SHEET 5 of 6	COORDINATE SYSTEM GDA2020 MGA Zone 56	REVIEW HC
DATE 1/12/2022		MAP # CHB ENV CEMP 07 TMP M011 SwP VeraTD v1
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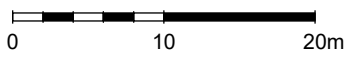
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TITLE
Swept Path - Vera Drive Truck and Dog

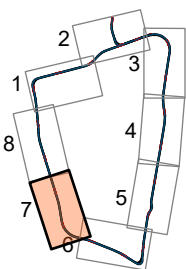


NOTES Xxxxx	REV DATE DESCRIPTION 1 18.11.2022 Xxxxx
PROJECT Coffs Harbour Bypass - Pacific Highway Upgrade	CLIENT TfNSW
SCALE 1:500	APPROVED XX
SHEET 6 of 6	DATE 1/12/2022
COORDINATE SYSTEM GDA2020 MGA Zone 56	MAP # CHB ENV CEMP 07 TMP M011 SwP VeraTD v1
DRAWN BY JC	REVIEW HC
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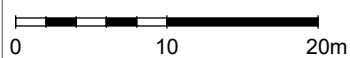
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LEGEND



TITLE
Swept Path - Vera Drive Truck and Dog



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PROJECT
Coffs Harbour Bypass - Pacific Highway Upgrade

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HC

REV DATE DESCRIPTION

1 18.11.2022

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CLIENT
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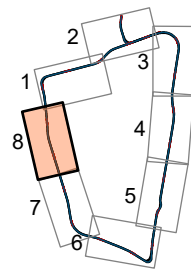
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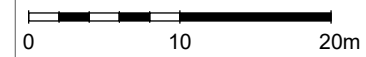
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LEGEND



TITLE
Swept Path - Vera Drive Truck and Dog



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Xxxxxx

PROJECT
Coffs Harbour Bypass - Pacific Highway Upgrade

SCALE 1:500
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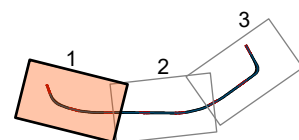
CLIENT
TfNSW

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DATE 1/12/2022
MAP # CHB ENV CEMP 07 TMP
M011 SwP VeraTD v1
REV 1

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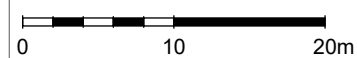


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COFFS HARBOUR BYPASS team

TITLE
Swept Path - Bruxner Park Rd Truck and Dog



NOTES

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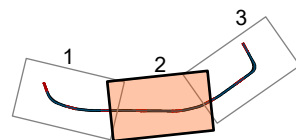
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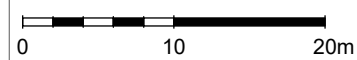


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COFFS HARBOUR BYPASS team

TITLE
Swept Path - Bruxner Park Rd Truck and Dog



NOTES

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PROJECT
Coffs Harbour Bypass - Pacific Highway Upgrade

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MAP #
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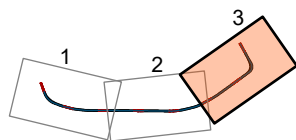
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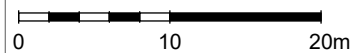


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COFFS HARBOUR BYPASS team

TITLE
Swept Path - Bruxner Park Rd Truck and Dog



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REV DATE DESCRIPTION

1 18.11.2022 Xxxxx

PROJECT
Coffs Harbour Bypass - Pacific Highway Upgrade

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M012 SwP BruxTD v1

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COORDINATE SYSTEM
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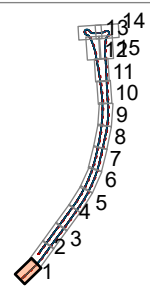
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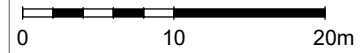
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LEGEND



TITLE
Swept Path - Solitary Islands Way



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REV DATE DESCRIPTION

1 18.11.2022 Xxxxx

PROJECT
Coffs Harbour Bypass - Pacific Highway Upgrade

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TITLE
Swept Path - Solitary Islands Way

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REV	DATE	DESCRIPTION
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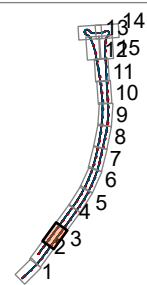
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DATE 1/12/2022	REVIEW M013 SwP SoliIW v1	

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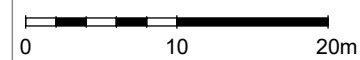


LEGEND



COFFS HARBOUR BYPASS team

TITLE
Swept Path - Solitary Islands Way



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REV DATE DESCRIPTION

1 18.11.2022 Xxxxx

PROJECT
Coffs Harbour Bypass - Pacific Highway Upgrade

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CHB ENV CEMP 07 TMP

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COORDINATE SYSTEM
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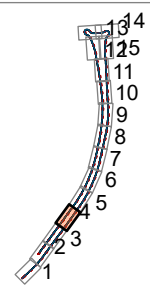
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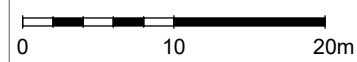
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LEGEND



TITLE
Swept Path - Solitary Islands Way



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REV DATE DESCRIPTION

1 18.11.2022 Xxxxx

PROJECT
Coffs Harbour Bypass - Pacific Highway Upgrade

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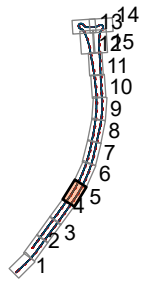
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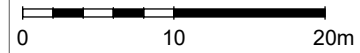
HUNTER CLOSE



LEGEND



TITLE
Swept Path - Solitary Islands Way



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Xxxxx

REV DATE DESCRIPTION

1 18.11.2022 Xxxxx

PROJECT
Coffs Harbour Bypass - Pacific Highway Upgrade

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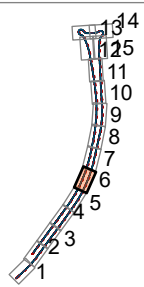
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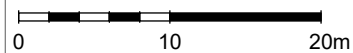
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TITLE
Swept Path - Solitary Islands Way



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PROJECT
Coffs Harbour Bypass - Pacific Highway Upgrade

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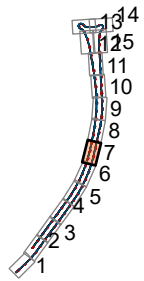
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PACIFIC HIGHWAY

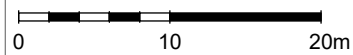
PACIFIC HIGHWAY

SOLITARY ISLANDS WAY

LEGEND



TITLE
Swept Path - Solitary Islands Way



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PROJECT
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HC

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1/12/2022

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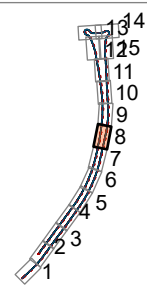
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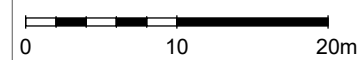
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LEGEND



TITLE
Swept Path - Solitary Islands Way



NOTES

Xxxxx

REV DATE

1 18.11.2022

DESCRIPTION

Xxxxx

PROJECT
Coffs Harbour Bypass - Pacific Highway Upgrade

CLIENT
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JC

APPROVED
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MAP #
CHB ENV CEMP 07 TMP

SHEET
8 of 6

COORDINATE SYSTEM
GDA2020 MGA Zone 56

REVIEW
HC

DATE
1/12/2022

MAP #
M013 SwP SoliIW v1

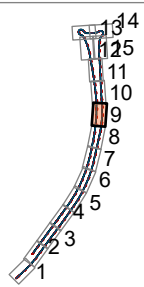
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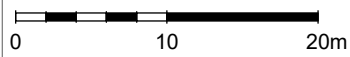
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TITLE
Swept Path - Solitary Islands Way



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DATE

18.11.2022

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PROJECT
Coffs Harbour Bypass - Pacific Highway Upgrade

SCALE

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JC

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MAP #

CHB ENV CEMP 07 TMP

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SHEET

9 of 6

COORDINATE SYSTEM

GDA2020 MGA Zone 56

REVIEW

HC

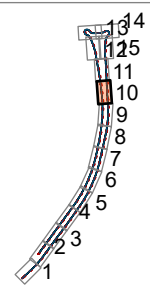
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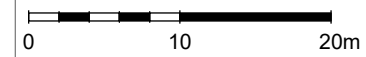
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LEGEND



TITLE
Swept Path - Solitary Islands Way



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Xxxxxx

PROJECT
Coffs Harbour Bypass - Pacific Highway Upgrade

SCALE
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DATE
10 of 6

COORDINATE SYSTEM
GDA2020 MGA Zone 56

REV	DATE	DESCRIPTION
1	18.11.2022	Xxxxxx

CLIENT
TfNSW

APPROVED
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MAP #
CHB ENV CEMP 07 TMP

REVIEW
HC

DATE
1/12/2022

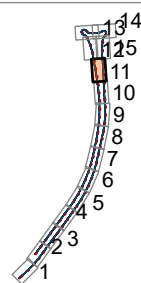
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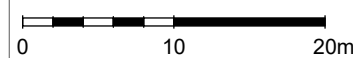
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LEGEND



TITLE
Swept Path - Solitary Islands Way



NOTES

Xxxxx

REV DATE DESCRIPTION

1 18.11.2022 Xxxxx

PROJECT
Coffs Harbour Bypass - Pacific Highway Upgrade

CLIENT
TfNSW

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JC

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MAP #
CHB ENV CEMP 07 TMP

REV

SHEET
11 of 6

COORDINATE SYSTEM
GDA2020 MGA Zone 56

REVIEW
HC

DATE
1/12/2022

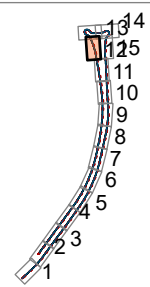
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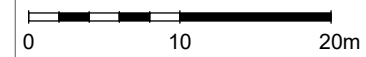
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TITLE
Swept Path - Solitary Islands Way



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PROJECT
Coffs Harbour Bypass - Pacific Highway Upgrade

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SHEET
12 of 6

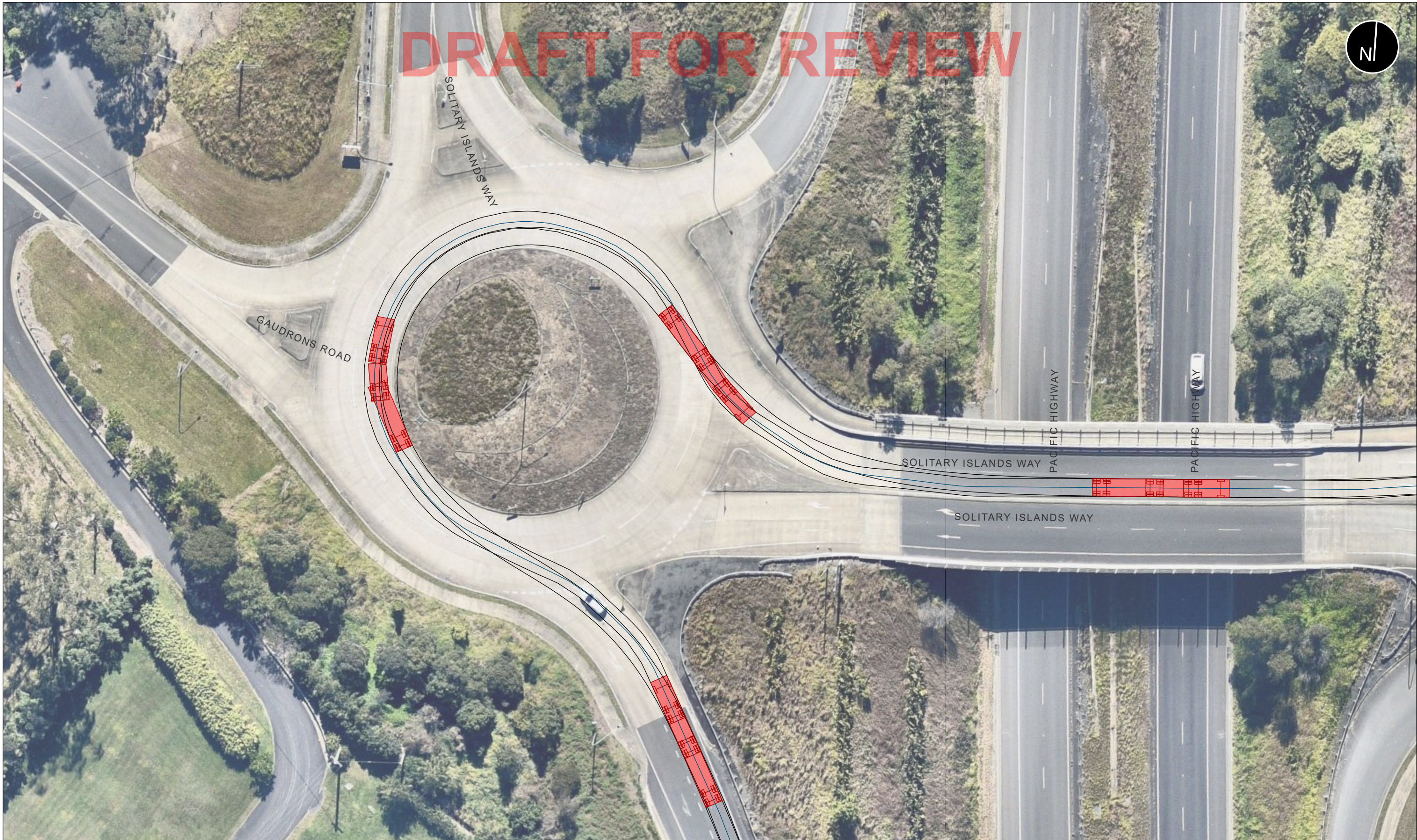
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CLIENT
TfNSW

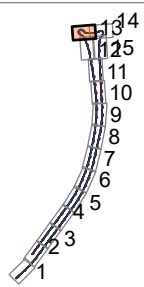
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DATE
1/12/2022

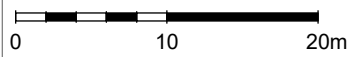
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TITLE
Swept Path - Solitary Islands Way



NOTES

Xxxxx

REV

DATE

1 18.11.2022

DESCRIPTION

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PROJECT
Coffs Harbour Bypass - Pacific Highway Upgrade

SCALE

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MAP #

CHB ENV CEMP 07 TMP

M013 SwP SoliIW v1

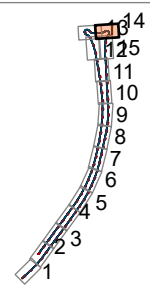
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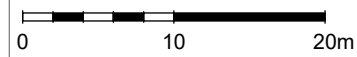
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TITLE
Swept Path - Solitary Islands Way



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REV DATE

1 18.11.2022

DESCRIPTION

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PROJECT
Coffs Harbour Bypass - Pacific Highway Upgrade

SCALE

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APPROVED

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MAP #

CHB ENV CEMP 07 TMP

M013 SwP SoliIW v1

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SHEET

14 of 6

COORDINATE SYSTEM

GDA2020 MGA Zone 56

REVIEW

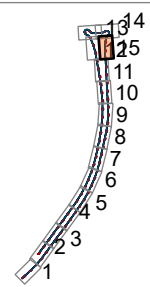
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1/12/2022



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		NOTES		REV DATE DESCRIPTION	
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TITLE Swept Path - Solitary Islands Way		PROJECT Coffs Harbour Bypass - Pacific Highway Upgrade		CLIENT TfNSW	
SCALE 1:500		A3		DRAWN BY JC	
SHEET 15 of 6		COORDINATE SYSTEM GDA2020 MGA Zone 56		APPROVED XX	
		DATE 1/12/2022		MAP # CHB ENV CEMP 07 TMP	
				REVIEW HC	
				M013 SwP SoliIW v1	
				1	

APPENDIX 3 TRAFFIC ENGINEER REVIEW OF PROPOSED LOCAL ROADS

4 December 2022

Gamuda Engineering (Australia) Pty Ltd
Suite 26.01, 100 Miller Street
North Sydney, NSW 2060
Australia

Dear Erran,

Turnbull Engineering was engaged by Ferrovial Gamuda Joint Venture (FGJV) to review the Construction Traffic and Transport Management Plan (CTTMP) prepared for the Coffs Harbour Bypass, specifically with respect to the Conditions of Approval (CoA) E88, where the proposal for use of additional local roads must include the following:

- a) A swept path analysis;
- b) Demonstration that the use of local roads by heavy vehicles for CSSI will not compromise the safety of pedestrians and cyclists;
- c) Measures that will be implemented to avoid where practicable the use of roads past schools, aged care facilities and child care facilities during their peak operation times; and
- d) Advice from an appropriately qualified traffic engineer on the suitability of the proposed heavy vehicle route which takes into consideration items (a), (b) and (c) of this condition.

Turnbull Engineering received the following CTTMP, which formed the basis of the review:

- CHBPW-FGJV-NWW-EN-PLN-000006 – Revision D – Coffs Harbour Bypass

As stated in Section 5.4.1 of the CTTMP, FGJV propose to use Solitary Islands Way, Coramba Road and North Boambee Road as alternate access to the construction boundary. Use of these local roads must be approved by the Planning Secretary prior to use, in line with CoA E87. Turnbull Engineering has reviewed the assessment of these roads undertaken by FGJV with respect to CoA E88 as documented in Section 5.4.1 and Appendix 2 of the CTTMP. A summary of the review by Turnbull Engineering is provided below.

Swept paths

Swept path drawings have been provided in Appendix 2 of the CTTMP. A review of the swept paths show that Solitary Islands Way, Coramba Road and North Boambee Road can accommodate 19-metre truck and dogs. A potential exception is at the Buchanans Road / Coramba Road intersection where heavy vehicles performing a left turn may encroach onto the south-east corner of the intersection. FGJV should investigate the need for road widening at this intersection to ensure that the left-turning heavy vehicles can be accommodated.

It is noted that swept path drawings have also been prepared along Buchanans Road south of Coramba Road. A review of these swept paths show that Buchanans Road is narrow and may not be able to accommodate two-way traffic. Furthermore, it appears that there may not be enough road width to accommodate heavy vehicles on sections of Buchanans Road south of the cul de sac. FGJV should investigate if there is a need for road widening along Buchanans Road and if mitigation measures are required to manage heavy vehicle movements where two-way traffic movements cannot be accommodated.

Pedestrian and cyclist safety

The CTTMP states that pedestrian use is limited on Solitary Islands Way, Coramba Road and North Boambee Road. Based on a desktop review of existing land use and existing active transport infrastructure within the extents shown in Appendix 2, pedestrian and cyclist volumes along these roads would likely be low.

There is a shared path located on the eastern side of Solitary Islands Way. However, the proposed construction vehicle route would not cross the shared path. Hence, use of these local roads by heavy vehicles should not compromise the safety of pedestrians and cyclists.

Schools, aged care and child care facilities

The CTTMP states that schools, aged care facilities and child care facilities are not located within the vicinity of the proposed local roads. A review of Google maps indicates that these facilities are not located adjacent to Solitary Islands Way, Coramba Road and North Boambee Road within the extents shown in Appendix 2. Therefore, additional measures would not be required.

Conclusion

Based on a review of Section 5.4.1 and Appendix 2 of the CTTMP, the proposed local roads would be suitable for heavy vehicles, provided that FGJV investigate the following:

- The need for road widening at the Buchanas Road / Coramba Road intersection and along Buchanans Road to accommodate heavy vehicle movements
- Managing heavy vehicle movements along Buchanan Road.

Should you have any questions or require any further information, please get in touch.

Yours sincerely,



Richard Banzon, BE (Civ Hons), BCom, MEngSc
Senior Traffic Engineer
Turnbull Engineering

