PRECINCT TRAFFIC MANAGEMENT SUB PLAN - STAGE A – JUNEE LGA GENERAL

A2I | Albury to Illabo

CONTRACT NUMBER:

PROJECT DOCUMENT NUMBER:

5-0052-210-PMA-J0-PL-0001

Document Control

DOCUMENT TITLE:	Precinct Traffic Management Sub Plan - Stage A - Junee LGA General			
DOCUMENT OWNER:				
PREPARED BY:	Joshua Bunn	**TITLE:**	CaSE Traffic & Transport	
SIGNATURE:			**DATE:**	18/03/2025
REVIEWED BY:	Joshua Bunn	**TITLE:**	CaSE Traffic & Transport	
SIGNATURE:			**DATE:**	20/03/2025

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Revision History

REVISION	REVISION DATE	AMENDMENT	DATE TO CLIENT
A	07/02/2025	Draft	07/02/2025
B	14/02/2025	For TfNSW approval	14/02/2025
C	18/03/2025	For TfNSW approval	18/03/2025
0	20/03/2025	For Use/Acceptance	20/03/2025

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GLOSSARY

TABLE 1: GLOSSARY

TERM	DEFINITION
ARTC	Australian Rail Track Corporation
CCS	Community Communication Strategy
CEMP	Construction Environmental Management Plan
CoA	Conditions of Approval
Construction	Includes work required to construct the CSSI as defined in the Project Description described in the documents listed in Condition A1 including commissioning trials of equipment and temporary use of any part of the CSSI but excluding Low Impact Work which is carried out or completed prior to approval of the CEMP.
CSSI	Critical State Significant Infrastructure
DPHI	NSW Department of Planning, Housing and Infrastructure
EAD	Per CoA A1, Environmental Assessment Documentation that includes: • Inland Rail – Albury to Illabo Environmental Impact Statement (ARTC, August 2022); • Albury to Illabo Response to Submissions (ARTC, November 2023); • Albury to Illabo Preferred Infrastructure Report (ARTC, November 2023); • Albury to Illabo Preferred Infrastructure Report Response to Submissions (ARTC, February 2024); • Inland Rail – Albury to Illabo (SSI-10055) Response to request for additional information – Air Quality Assessment (letter dated 1 May 2024); • Part 1 - Revised Technical Paper 8: Biodiversity Development Assessment Report (WSP, February 2024); • Part 2 - Revised Technical Paper 8: Biodiversity Development Assessment Report (WSP, February 2024).
EIS	Environmental Impact Statement
EPA	Environment Protection Authority (NSW)
EPBC Act	*Commonwealth Environment Protection and Biodiversity Conservation Act 1999* (Federal)
EPL	Environment Protection Licence
Environmental Representative (ER)	The Environmental Representative(s) for the CSSI approved by the Planning Secretary
km	Kilometre
LoS	Level of Service
m	metre
MR	Martinus Rail
NHVR	National Heavy Vehicle Regulator
NSW	New South Wales
Planning Secretary	Secretary of the NSW Department of Infrastructure, Housing and Infrastructure, or delegate
PIR	Preferred Infrastructure Report

TERM	DEFINITION
PTMP	Precinct Traffic Management Plan (this Plan)
Primary CoA/UMM	CoA and/or UMMs that are specific to the development of this Plan
POEO Act	*NSW Protection of Environment Operations Act 1997*
Rail Corridor	Land that is: a. owned, leased, managed or controlled by a public authority for the purpose of a railway or rail infrastructure facilities, or zoned under an environmental planning instrument predominantly, or b. solely for development for the purpose of a railway or rail infrastructure facilities.
RMAR	Road Maintenance Access Road
ROL	Road Occupancy Licence
Transport	Transport for New South Wales (formerly Roads and Maritime Services)
TMP	Traffic Management Plan
UMM	Updated Environmental Management Measures
VMP	Vehicle Movement Plan

REFERENCED DOCUMENTS

This Precinct Traffic Management Plan (PTMP) is a subplan to the project wide Construction Traffic, Transport, and Access Management Plan – Stage A and has been prepared by Martinus in accordance with…

- Albury to Parkes (A2P) Construction Environment Management Framework (CEMF) (ARTC);
- Construction Traffic, Transport, and Access Management Plan - Stage A Albury to Illabo | A2I
- Australian Standard 1428.1-2009 Design for access and mobility;
- Australian Standard AS 1742 Parts 1 to 14, Manual of Uniform Traffic Devices (as required);
- Australian Standard AS 1743.3-2019 Traffic control devices for works on roads;
- Australian Standard AS 3845.2:2017 Road Safety Barrier Systems and Devices;
- Australian Standard AS 3845.1:2015 Road Safety Barrier Systems and Devices;
- Austroads Guide to Temporary Traffic Management: Parts 1-10 (2021);
- Austroads Guide to Traffic Management – Parts 1-13 (2020);
- Austroads Guide to Road Design – Parts 1-8 (2020);
- Austroads Guide to Road Safety – Parts 1-9 (2019);
- Austroads Safe System Assessment Framework (2016);
- Austroads Design Vehicles and Turning Path Templates (2023);
- Transport Management Centre – Road Occupancy Manual (2015);
- NSW Speed Zoning Standard (Transport for NSW (Transport), 2023);
- Transport for NSW Traffic control at work sites Technical Manual (2022);
- Roads and Maritime Delineation Manual (2008);
- Guide to Traffic Generating Developments Version 2.2 (Roads and Traffic Authority (RTA), 2002);
- Level Crossing Closures Policy (Transport for NSW (Transport), n.d.);
- Cycling Aspects of Austroads Guides (Austroads, 2014);
- NSW Bicycle Guidelines version 1.2 (RTA, 2005);

- Planning Guidelines for Walking and Cycling (Department of Infrastructure, Planning and Natural Resources (DIPNR), 2004);
- Construction of New Level Crossing Policy (Transport, 2017a);
- Future Transport Strategy 2056 (Transport, 2018a);
- NSW Freight and Ports Plan 2018-2023 (Transport, 2018b)
- NSW Sustainable Design Guidelines Version 4.0 (Transport, 2017b);
- Railway Crossing Safety Series 2011, Plan: Establishing a Railway Crossing Safety Management Plan (RTA, 2011);
- Guides to Road Design (Austroads, 2021).
- Supplement to Austroads Guide to Road Design (Transport, 2023).
- ARTC Inland Rail Albury to Illabo (A2I) Project Technical Paper 1 – Traffic and Transport (July 2022)
- Appendix C Addendum Assessment to Technical Paper 1: Traffic and Transport Parts 1 and 2 (November 2023)
- Appendix D Addendum Assessment to Technical Paper 1: Traffic and Transport (February 2024)
- All relevant TfNSW Supplements and Technical Directions
- All relevant TfNSW Austroads Supplements

1 INTRODUCTION

1.1 Background

This Precinct Traffic Management Plan (PTMP) has been developed to document the Temporary Traffic Management arrangements and Construction Access Routes proposed during Stage A works within the Junee Shire Council Local Government Area (LGA).

1.2 Objectives

The objectives of this PTMP are to:

- Avoid or minimise potential impacts of construction activities on road safety and the existing transport network and associated infrastructure
- Avoid or minimise potential impacts on the community and stakeholders with respect to traffic and transport
- Where potential impacts cannot be avoided, identification of site-specific mitigation measures to minimise and mitigate impacts on road safety, traffic flow and access
- Demonstrate how compliance with the obligations imposed by the requirements of the Ministers Conditions of Approval with respect to traffic and transport will be achieved

1.3 Scope of this Plan

Within the Junee precinct, the plan details the Stage A arrangements at the following enhancement sites:

- **Harefield Yard**
  - Site establishment
  - Gantry modifications, removal and replacement
  - Inground conduit installations
- **Junee Yard**
  - Site establishment
  - Gantry modifications, removal and replacement
  - Signalling reticulation
  - Inground conduit installations
  - Utility service relocations
  - Investigation works (geotechnical, pavement, contamination)
- **Junee to Illabo**
  - Formation widening works
  - Track slew works
  - Headwall extension works
  - 3 x single barrel culvert replacements.

2 LOCALITY AND EXISTING CONDITIONS

2.1 Overview

Characteristics of the key roads and intersections proposed to support the Stage A construction activities are described below for each enhancement site.

2.2 Harefield Yard Clearances

2.2.1 Key Roads

Byrnes Road

Traffic and Lane Configurations

The following table details the typical traffic and lane configurations of Byrnes Road, proximate the Harefield Yard Clearances enhancement site.

TABLE 2: TRAFFIC AND LANE CONFIGURATIONS – BYRNES ROAD

Road name	Road hierarchy	Road Configuration	Lane Configuration	Speed Limit	AADT
Byrnes Road	Regional road	Two-lane, two-way	~3.5m wide lanes	100km/hr	2,590, 33% HV (2018)

FIGURE 1: BYRNES ROAD (SOURCE: *GOOGLE MAPS)*

Pedestrian and Cyclist Facilities

The following table provides a review of pedestrian and cyclist provisions along Byrnes Road, proximate the Harefield Yard Clearances enhancement site.

TABLE 3: PEDESTRIAN AND CYCLIST FACILITIES – BYRNES ROAD

Provisions	Comment
Are footpaths provided on one or both sides of the road?	No
If yes, what is the width of the footpath(s)?	-
Does the road currently form part of a Principal Cycle Network?	No

Provisions	Comment
Are designated on-road cycle lanes provided?	No
Is the road designated as a Bicycle Awareness Zone (BAZ)?	No

Public Transport Facilities

Details of public transport facilities and services operating along Byrnes Road are detailed in Table 4 below.

TABLE 4: PUBLIC TRANSPORT FACILITIES – BYRNES ROAD

Bus stop ID	Direction	Services	Service frequency
There is no bus stops located on Byrnes Road proximate to the Harefield Yard enhancement site	Northbound	923 – Wagga Wagga to Junee via Byrnes Road	One (1) service daily
	Southbound		

Parking Facilities

There is no formal parking facilities provided along or adjacent to Byrnes Road.

Harefield Road

Traffic and Lane Configurations

The following table details the typical traffic and lane configurations of Byrnes Road, proximate the Harefield Yard Clearances enhancement site.

TABLE 5: TRAFFIC AND LANE CONFIGURATIONS – HAREFIELD ROAD

Road name	Road hierarchy	Road Configuration	Lane Configuration	Speed Limit	AADT
Harefield Road	Local road	One-lane, two-way	~6.2 wide carriageway	100km/hr	173, 38% HV (2016)

FIGURE 2: HAREFIELD ROAD (SOURCE: *GOOGLE MAPS*)

Pedestrian and Cyclist Facilities

The following table provides a review of pedestrian and cyclist provisions along Harefield Road, proximate the Harefield Yard Clearances enhancement site.

TABLE 6: PEDESTRIAN AND CYCLIST FACILITIES – HAREFIELD ROAD

Provisions	Comment
Are footpaths provided on one or both sides of the road?	No
If yes, what is the width of the footpath(s)?	-
Does the road currently form part of a Principal Cycle Network?	No
Are designated on-road cycle lanes provided?	No
Is the road designated as a Bicycle Awareness Zone (BAZ)?	No

Public Transport Facilities

Details of public transport facilities and services operating along Harefield Road are detailed in Table 7 below.

TABLE 7: PUBLIC TRANSPORT FACILITIES – HAREFIELD ROAD

Bus stop ID	Direction	Services	Service frequency
Harefield Rd at Byrnes Rd	Westbound	921	One (1) service daily
Harefield Rd at Byrnes Rd	Eastbound		

Parking Facilities

There is no formal parking facilities provided along or adjacent to Harefield Road.

Harefield Railway Access Road

Traffic and Lane Configurations

The following table details the typical traffic and lane configurations of Harefield Railway Access Road, proximate the Harefield Yard Clearances enhancement site.

TABLE 8: TRAFFIC AND LANE CONFIGURATIONS – HAREFIELD RAILWAY ACCESS ROAD

Road name	Road hierarchy	Road Configuration	Lane Configuration	Speed Limit	AADT
Harefield Railway Access Road	Access track	One-lane, two-way	~4.4m wide carriageway	-	No data available

FIGURE 3: HAREFIELD RAILWAY ACCESS ROAD (SOURCE: *GOOGLE MAPS)*

Pedestrian and Cyclist Facilities

The following table provides a review of pedestrian and cyclist provisions along Harefield Road, proximate the Harefield Yard Clearances enhancement site.

TABLE 9: PEDESTRIAN AND CYCLIST FACILITIES – HAREFIELD RAILWAY ACCESS ROAD

Provisions	Comment
Are footpaths provided on one or both sides of the road?	No
If yes, what is the width of the footpath(s)?	-
Does the road currently form part of a Principal Cycle Network?	No
Are designated on-road cycle lanes provided?	No
Is the road designated as a Bicycle Awareness Zone (BAZ)?	No

Public Transport Facilities

Details of public transport facilities and services operating along Harefield Road are detailed in Table 10 below.

TABLE 10: PUBLIC TRANSPORT FACILITIES – HAREFIELD RAILWAY ACCESS ROAD

Bus stop ID	Direction	Services	Service frequency
No bus stops are located along, nor do any services operate along Harefield Railway Access Road			

Parking Facilities

There is no formal parking facilities provided along or adjacent to Harefield Railway Access Road.

2.3 Junee Yard

2.3.1 Key Roads

Olympic Highway / Kemp Street (A41)

Traffic and Lane Configurations

The following table details the typical traffic and lane configurations of the Olympic Highway / Kemp Street (A41), proximate the Junee Yard enhancement site.

TABLE 11: TRAFFIC AND LANE CONFIGURATIONS – OLYMPIC HIGHWAY / KEMP STREET

Road name	Road hierarchy	Road Configuration	Lane Configuration	Speed Limit	AADT
Olympic Highway / Kemp Street (A41)	State road	Two-lane, two-way	~3.3m wide lanes	50km/hr	3271, 3% HV (2021 – 10hr traffic survey volumes)

FIGURE 4: OLYMPIC HIGHWAY / KEMP STREET (SOURCE: *GOOGLE MAPS)*

Pedestrian and Cyclist Facilities

The following table provides a review of pedestrian and cyclist provisions along the Olympic Highway / Kemp Street, proximate the Junee Yard enhancement site.

TABLE 12: PEDESTRIAN AND CYCLIST FACILITIES – OLYMPIC HIGHWAY / KEMP STREET

Provisions	Comment
Are footpaths provided on one or both sides of the road?	Yes
If yes, what is the width of the footpath(s)?	~1.2m
Does the road currently form part of a Principal Cycle Network?	No
Are designated on-road cycle lanes provided?	No
Is the road designated as a Bicycle Awareness Zone (BAZ)?	No

Public Transport Facilities

Details of public transport facilities and services operating along the Olympic Highway / Kemp Street are detailed in Table 13 below.

TABLE 13: PUBLIC TRANSPORT FACILITIES – OLYMPIC HIGHWAY / KEMP STREET

Bus stop ID	Direction	Services	Service frequency
Olympic Highway opposite De Salis Drive	Eastbound	922	One (1) service daily
		924	One (1) service operating on Thursday only
Olympic Highway opposite De Salis Drive	Westbound	922	One (1) service daily
		924	One (1) service operating on Thursday only

Parking Facilities

There is no formal parking facilities provided along or adjacent to the Olympic Highway / Kemp Street.

Olympic Highway / Seignior Street (A41)

Traffic and Lane Configurations

The following table details the typical traffic and lane configurations of the Olympic Highway / Seignior Street (A41), proximate the Junee Yard enhancement site.

TABLE 14: TRAFFIC AND LANE CONFIGURATIONS – OLYMPIC HIGHWAY / SEIGNIOR STREET

Road name	Road hierarchy	Road Configuration	Lane Configuration	Speed Limit	AADT
Olympic Highway / Seignior Street (A41)	State road	Two-lane, two-way	~3.5m wide lanes	50km/hr	2856, 4% HV (2021–10hr traffic survey volumes)

FIGURE 5: OLYMPIC HIGHWAY / SEIGNIOR STREET (SOURCE: *GOOGLE MAPS)*

Pedestrian and Cyclist Facilities

The following table provides a review of pedestrian and cyclist provisions along the Olympic Highway / Seignior Street, proximate the Harefield Yard enhancement site.

TABLE 15: PEDESTRIAN AND CYCLIST FACILITIES – OLYMPIC HIGHWAY / SEIGNIOR STREET

Provisions	Comment
Are footpaths provided on one or both sides of the road?	Yes
If yes, what is the width of the footpath(s)?	~1.2m
Does the road currently form part of a Principal Cycle Network?	No
Are designated on-road cycle lanes provided?	No
Is the road designated as a Bicycle Awareness Zone (BAZ)?	No

Public Transport Facilities

Details of public transport facilities and services operating along the Olympic Highway / Seignior Street are detailed in Table 16 below.

TABLE 16: PUBLIC TRANSPORT FACILITIES – OLYMPIC HIGHWAY / SEIGNIOR STREET

Bus stop ID	Direction	Services	Service frequency
There is no bus stops located on the Olympic Highway / Seignior Street proximate the Junee Yard enhancement site	Northbound	924	One (1) service operating on Thursday only
		S221	One (1) service daily
	Southbound	924	One (1) service operating on Thursday only
		S221	One (1) service daily

Parking Facilities

There is no formal parking facilities provided along or adjacent to the Olympic Highway / Seignior Street.

Edgar Street

Traffic and Lane Configurations

The following table details the typical traffic and lane configurations of Edgar Street, proximate the Junee Yard enhancement site.

TABLE 17: TRAFFIC AND LANE CONFIGURATIONS – EDGAR STREET

Road name	Road hierarchy	Road Configuration	Lane Configuration	Speed Limit	AADT
Edgar Street	Local / regional road	Two-lane, two-way	~3.5m wide lanes	50km/hr	1436, 8%HV (2018)

FIGURE 6: EDGAR STREET (SOURCE: *GOOGLE MAPS)*

Pedestrian and Cyclist Facilities

The following table provides a review of pedestrian and cyclist provisions along Edgar Street proximate the Junee Yard enhancement site.

TABLE 18: PEDESTRIAN AND CYCLIST FACILITIES – EDGAR STREET

Provisions	Comment
Are footpaths provided on one or both sides of the road?	An informal footpath is provided along the eastern side of Edgar Street between the Kemp Street bridge and Hill Street.
If yes, what is the width of the footpath(s)?	-
Does the road currently form part of a Principal Cycle Network?	No
Are designated on-road cycle lanes provided?	No
Is the road designated as a Bicycle Awareness Zone (BAZ)?	No

Public Transport Facilities

Details of public transport facilities and services operating along Edgar Road are detailed in Table 19 below.

TABLE 19: PUBLIC TRANSPORT FACILITIES – EDGAR STREET

Bus stop ID	Direction	Services	Service frequency
There is no bus stops located on Edgar proximate the Junee Yard enhancement site	Northbound	921, 922, 923, 924, S221, S222, S223, S224, S225, S226, S227	One (1) service operating daily
	Southbound		

Parking Facilities

There is no formal parking facilities provided along or adjacent to Edgar Street.

2.3.2 Key Intersections

Olympic Highway / Kemp St / Seignior Street Intersection

The following table provide an overview of the operations of the Olympic Highway / Kemp Street / Seignior Street intersection.

TABLE 20: KEY INTERSECTION – OLYMPIC HIGHWAY / KEMP STREET / SEIGNIOR STREET

Intersection	Control
Olympic Highway / Kemp Street/ Seignior Street	Priority-controlled (give way)

FIGURE 7: OLYMPIC HIGHWAY / KEMP STREET / SEIGNIOR STREET

Background traffic volumes at the Olympic Highway / Seignior Street / Kemp Street intersection have been obtained from 12-hour traffic surveys undertaken by *Matrix Traffic and Transport Data* on Thursday 8th June 2023. The morning (AM) and afternoon (PM) peak periods for the intersection was determined to be between 8:15am – 9:15am and between 3:15pm – 4:15pm. Recorded traffic volumes during the peak period are presented in Table 21.

TABLE 21: OLYMPIC HIGHWAY / KEMP STREET / SEIGNIOR STREET – TRAFFIC VOLUMES

Intersection approach	AM Peak volume (8:15am – 9:15am)	PM peak volume (3:15pm – 4:15pm)	Daily Volumes
Olympic Highway (west)			
Left (onto Olympic Highway / Seignior Street)	65	94	742
Through (onto Kemp Street)	132	74	800
Olympic Highway (north) / Seignior Street			
Left (onto Kemp Street)	34	57	447
Right (onto Olympic Highway)	60	99	774
Olympic Highway / Kemp Street			

Intersection approach	AM Peak volume (8:15am – 9:15am)	PM peak volume (3:15pm – 4:15pm)	Daily Volumes
Right (onto Olympic Highway / Seignior Street)	28	39	355
Through (onto Olympic Highway)	71	106	717

2.4 Junee to Illabo Clearances

2.4.1 Key Roads

Olympic Highway (A41)

Traffic and Lane Configurations

The following table details the typical traffic and lane configurations of the Olympic Highway (A41), proximate the Junee to Illabo Clearances enhancement site.

TABLE 22: TRAFFIC AND LANE CONFIGURATIONS – OLYMPIC HIGHWAY (A41)

Road name	Road hierarchy	Road Configuration	Lane Configuration	Speed Limit	AADT
Olympic Highway (A41)	State road	Two-lane, two-way	~3.5m wide lanes	50km/hr – 100km/hr	1718, 16% HV (2011)

FIGURE 8: OLMYPIC HIGHWAY (A41) (SOURCE: *GOOGLE MAPS)*

Pedestrian and Cyclist Facilities

The following table provides a review of pedestrian and cyclist provisions along the Olympic Highway (A41), proximate the Junee to Illabo Clearances enhancement site.

TABLE 23: PEDESTRIAN AND CYCLIST FACILITIES – OLYMPIC HIGHWAY (A41)

Provisions	Comment
Are footpaths provided on one or both sides of the road?	No
If yes, what is the width of the footpath(s)?	-

Provisions	Comment
Does the road currently form part of a Principal Cycle Network?	No
Are designated on-road cycle lanes provided?	No
Is the road designated as a Bicycle Awareness Zone (BAZ)?	No

Public Transport Facilities

Details of public transport facilities and services operating along the Olympic Highway, proximate the Junee to Illabo Clearances enhancement site is detailed in Table 24 below.

TABLE 24: PUBLIC TRANSPORT FACILITIES – OLMYPIC HIGHWAY (A41)

Bus stop ID	Direction	Services	Service frequency
Turland Street and Layton Street	Westbound	S223	One (1) service daily
Turland Street and Layton Street	Eastbound		

Parking Facilities

There is no formal parking facilities provided along or adjacent to the Olympic Highway, proximate the Junee to Illabo Clearances enhancement site.

Brabins Road

Traffic and Lane Configurations

The following table details the typical traffic and lane configurations of Brabins Road proximate the Junee to Illabo Clearances enhancement site.

TABLE 25: TRAFFIC AND LANE CONFIGURATIONS – BRABINS ROAD

Road name	Road hierarchy	Road Configuration	Lane Configuration	Speed Limit	AADT
Brabins Road	Local road	Two-way, one-lane	~6.2m carriageway	Unsigned	44

FIGURE 9: BRABINS ROAD (SOURCE: *GOOGLE MAPS)*

Pedestrian and Cyclist Facilities

The following table provides a review of pedestrian and cyclist provisions along Brabins Road, proximate the Junee to Illabo Clearances enhancement site.

TABLE 26: PEDESTRIAN AND CYCLIST FACILITIES – BRABINS ROAD

Provisions	Comment
Are footpaths provided on one or both sides of the road?	No
If yes, what is the width of the footpath(s)?	-
Does the road currently form part of a Principal Cycle Network?	No
Are designated on-road cycle lanes provided?	No
Is the road designated as a Bicycle Awareness Zone (BAZ)?	No

Public Transport Facilities

Details of public transport facilities and services operating along Brabins Road, proximate the Junee to Illabo Clearances enhancement site is detailed in Table 24 below.

TABLE 27: PUBLIC TRANSPORT FACILITIES – BRABINS ROAD

Bus stop ID	Direction	Services	Service frequency
There are no public transport facilities, not do any public transport services operate along Waterworks Road.			

Parking Facilities

There is no formal parking facilities provided along or adjacent to Brabins Road proximate the Junee to Illabo Clearances enhancement site.

Waterworks Road

Traffic and Lane Configurations

The following table details the typical traffic and lane configurations of Waterworks Road proximate the Junee to Illabo Clearances enhancement site.

TABLE 28: TRAFFIC AND LANE CONFIGURATIONS – WATERWORKS ROAD

Road name	Road hierarchy	Road Configuration	Lane Configuration	Speed Limit	AADT
Waterworks Road	Local road	Unsealed carriageway	6-8m wide carriageway	Unsigned	241

FIGURE 10: WATERWORKS ROAD (SOURCE: *GOOGLE MAPS)*

Pedestrian and Cyclist Facilities

The following table provides a review of pedestrian and cyclist provisions along Waterworks Road, proximate the Junee to Illabo Clearances enhancement site.

TABLE 29: PEDESTRIAN AND CYCLIST FACILITIES – WATERWORKS ROAD

Provisions	Comment
Are footpaths provided on one or both sides of the road?	No
If yes, what is the width of the footpath(s)?	-
Does the road currently form part of a Principal Cycle Network?	No
Are designated on-road cycle lanes provided?	No
Is the road designated as a Bicycle Awareness Zone (BAZ)?	No

Public Transport Facilities

Details of public transport facilities and services operating along Waterworks Road, proximate the Junee to Illabo Clearances enhancement site is detailed in Table 24 below.

TABLE 30: PUBLIC TRANSPORT FACILITIES – WATERWORKS ROAD

Bus stop ID	Direction	Services	Service frequency
There are no public transport facilities, not do any public transport services operate along Waterworks Road.			

Parking Facilities

There is no formal parking facilities provided along or adjacent to Waterworks Road proximate the Junee to Illabo Clearances enhancement site.

Marinna Station Cross Road

Traffic and Lane Configurations

The following table details the typical traffic and lane configurations of the Marinna Station Cross Road, proximate the Junee to Illabo Clearances enhancement site.

TABLE 31: TRAFFIC AND LANE CONFIGURATIONS – MARINNA STATION CROSS ROAD

Road name	Road hierarchy	Road Configuration	Lane Configuration	Speed Limit	AADT
Marinna Station Cross Road	Local road	Unsealed carriageway	Two-way, one-lane	Unsigned	44[1]

1. No data available, volumes estimated as Brabins Road, Illabo.

FIGURE 11: MARINNA STATION CROSS ROAD (SOURCE: *GOOGLE MAPS)*

Pedestrian and Cyclist Facilities

The following table provides a review of pedestrian and cyclist provisions along the Marinna Station Cross Road, proximate the Junee to Illabo Clearances enhancement site.

TABLE 32: PEDESTRIAN AND CYCLIST FACILITIES – MARINNA STATION CROSS ROAD

Provisions	Comment
Are footpaths provided on one or both sides of the road?	No
If yes, what is the width of the footpath(s)?	-
Does the road currently form part of a Principal Cycle Network?	No
Are designated on-road cycle lanes provided?	No
Is the road designated as a Bicycle Awareness Zone (BAZ)?	No

Public Transport Facilities

Details of public transport facilities and services operating along the Marinna Station Cross Road, proximate the Junee to Illabo Clearances enhancement site is detailed in Table 24 below.

TABLE 33: PUBLIC TRANSPORT FACILITIES – MARINNA STATION CROSS ROAD

Bus stop ID	Direction	Services	Service frequency
There are no public transport facilities, not do any public transport services operate along the Marinna Station Cross Road.			

Parking Facilities

There is no formal parking facilities provided along or adjacent to the Marinna Station Cross Road proximate the Junee to Illabo Clearances enhancement site.

3 PROPOSED ARRANGEMENTS

3.1 Harefield Yard

3.1.1 Site Location

The location and layout of the Harefield Yard Clearances enhancement site is shown below in Figure 12.

FIGURE 12: HAREFIELD YARD CLEARANCES ENCHANCEMENT SITE

3.1.2 Works Required

The Stage A scope of works at Harefield Yard Clearance enhancement site will comprise the following:

- Site establishment including establishment of site compounds adjacent the rail corridor and temporary accesses from Harefield Road and Byrnes Road
- Gantry modifications, removal and replacement
- Inground conduit installations

3.1.3 Timing and Duration

Stage A works at the Harefield Yard enhancement site is planned to commence in March 2025 and continue up until the commencement of Stage B works.

3.1.4 Drawings

There will be no long-term changes to the existing conditions on the roads in the vicinity of the Harefield Yard Clearances enhancement site resulting from the Stage A works.

A list of expected short-term traffic guidance schemes to facilitate the works as detailed within Section 3.1.14 are provided in Appendix A.

3.1.5 Operating Conditions

There will be no long-term changes to the existing conditions on the roads in the vicinity of the Harefield Yard Clearances enhancement site resulting from the Stage A works.

Temporary speed limit reductions and/or short-term traffic control (intermittent stops) may be implemented on Byrnes Road to facilitate the safe and efficient movement of construction heavy vehicles (refer to Section 3.1.14).

3.1.6 Construction Traffic

The peak volume of additional traffic generated by the Harefield Yard works required to access the worksite is expected to be in the order of six (6) vehicles per hour, broken down as follows:

- Three (3) construction heavy vehicle
- Three (3) workforce light vehicles.

Based on the current methodology and program, it is expected that peak construction traffic volumes will occur in March 2025.

3.1.7 Site Access

Overview

Access to the worksite will be via three (3) existing access points to the rail corridor located on Byrnes Road and Harefield Road. The location of the site access gates is shown below in Figure 13.

FIGURE 13: SITE ACCESS LOCATIONS – HAREFIELD YARD CLEARANCES ENHANCEMENT SITE

A summary of permitted movements and methods of control at site access locations is provided below in Table 34, with further details provided in subsequent sections of this report.

TABLE 34: SITE ACCESS DETAILS – HAREFIELD YARD CLEARANCES ENHANCMENT SITE

Access	Site Entry/Exit	Largest Permitted Vehicle	Permitted Movements	Control
Gate H1 – Existing access off Harefield Railway Access Road	Entry and exit	Up to 19.0m truck & dog	Left in, right out	Give-way
Gate H2 – Existing access off Byrnes Road (north)	Entry and exit	Up to 19.0m truck & dog	All movements	Give-way

Access	Site Entry/Exit	Largest Permitted Vehicle	Permitted Movements	Control
Gate H3 – Existing access off Byrnes Road (south)	Entry and exit	Up to 19.0m truck & dog	All movement	Give-way

Gate H1 – Harefield Railway Access Road

Located on the Harefield Railway Access Road, Gate H1 is an existing access that will provide access to the Harefield Yard enhancement site. Details of permitted movements and methods of control at Gate H1 is summarised below in Table 35.

TABLE 35: SITE ACCESS DETAILS – GATE H1

Access	Site Entry/Exit	Largest Permitted Vehicle	Permitted Movements	Control
Gate H1 – Harefield Railway Access Road	Entry and exit	Up to 19.0m truck & dog	Left in, right out	Give-way (refer to below)

FIGURE 14: SITE ACCESS DETAILS – GATE H1

To ensure the safety of construction vehicles entering and exiting via the Gate H1, an assessment has been undertaken for determining controls for managing truck movements where auxiliary lanes are not provided (existing access point), depending on traffic volumes, sight distance, number of truck movements and traffic speed. This assessment aims to adopt the methodology presented within Section 5.2.3.3 of TfNSW's *Technical Manual – Traffic control at work sites* and is presented below.

TABLE 36: SITE ACCESS ASSESSMENT CRITERIA – GATE H1

Site Access Assessment	
Location:	Harefield Railway Access Road
AADT:	No data available - assume between 300 - 1500
Speed limit:	50km/hr
Number of truck movements per shift:	Less than 20

Site Access Assessment	
Dimension D:	50m (2D = 100m)
Available sight distance	Greater than 2D – see below

FIGURE 15: VIEW APPROACHING GATE H1 (~400M FROM ACCESS POINT)

As available sight distance approaching Gate H1 is greater than 2D (100m), an assessment has been undertaken using Table 5-7 of TfNSW's *Technical Manual – Traffic control at work sites* has been undertaken and is detailed in Table 37 below.

TABLE 37: GATE H1 – PROVIDING FOR TRUCK MOVEMENTS WHERE SIGHT DISTANCE IS GREATER THAN 2D (TABLE 5-7 OF TFNSW'S *TECHNICAL MANUAL – TRAFFIC CONTROL AT WORK SITES)*

ADT	300 – 1,500		More than 1,500	
Number of truck movements per shift	Less than or equal to 20	Greater than 20	Less than or equal to 20	Greater than 20
Traffic control required		Yes	Yes Note 1*	Yes Note 2*
VMP required		Yes		Yes
Warning signs required during shifts		Yes		Yes

Note 1: Where approach speed is greater than 95km/hr

Note 2: If acceleration and deceleration cannot occur on shoulders

No controls are warranted at Gate H1 to facilitate the safe and efficient movement of construction vehicles into and out of the access, and as such access will operate under a typical “Give way” arrangement. Notwithstanding this, traffic control may be implemented to facilitate alternative movements at the access (i.e., reverse into or out of the site) – refer to Section 3.1.14.

Gate H2 – Byrnes Road (north)

Located on the Byrnes Road, Gate H2 is an existing access that will provide access to the Harefield Yard enhancement site.

FIGURE 16: GATE H2 – BYRNES ROAD (NORTH)

Details of permitted movements and methods of control at Gate H2 is summarised below in Table 38.

TABLE 38: SITE ACCESS DETAILS – GATE H2

Access	Site Entry/Exit	Largest Permitted Vehicle	Permitted Movements	Control
Gate H2 – Byrnes Road (north)	Entry and exit	Up to 19.0m truck & dog	All movements	Give-way

FIGURE 17: SITE ACCESS DETAILS – GATE H2

To ensure the safety of construction vehicles entering and exiting via the Gate H2, an assessment has been undertaken for determining controls for managing truck movements where auxiliary lanes are not provided (existing access point), depending on traffic volumes, sight distance, number of truck movements and traffic speed. This assessment aims to adopt the methodology presented within Section 5.2.3.3 of TfNSW's *Technical Manual – Traffic control at work sites* and is presented below.

TABLE 39: SITE ACCESS ASSESSMENT CRITERIA – GATE H2

Site Access Assessment	
Location:	Byrnes Road
AADT:	2,590
Speed limit:	100km/hr
Number of truck movements per shift:	Less than 20
Dimension D:	100m (2D = 200m)
Available sight distance	Greater than 2D

FIGURE 18: SOUTHBOUND VIEW APPROACHING GATE H2 (~200M FROM ACCESS POINT)

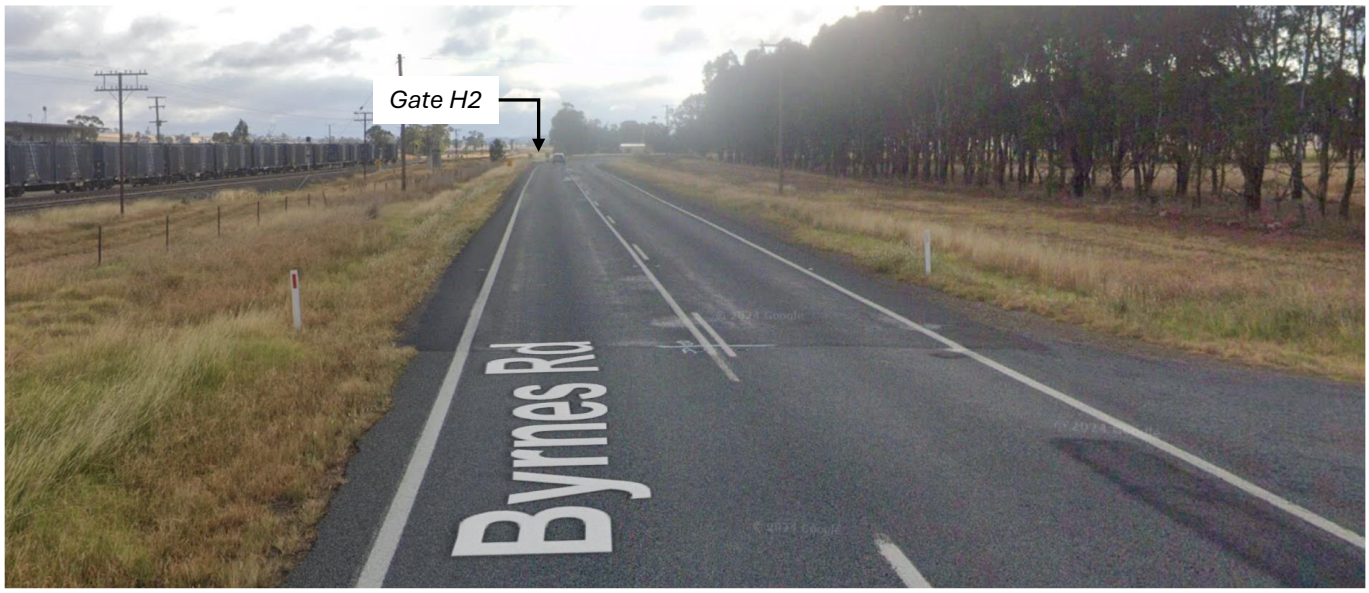


FIGURE 19: NORTHBOUND VIEW APPROACHING GATE H2 (~200M FROM ACCESS POINT)

As available sight distance approaching Gate H2 is greater than 2D (200m), an assessment has been undertaken using Table 5-7 of TfNSW's *Technical Manual – Traffic control at work sites* has been undertaken and is detailed in Table 40 below.

TABLE 40: GATE H2 – PROVIDING FOR TRUCK MOVEMENTS WHERE SIGHT DISTANCE IS GREATER THAN 2D (TABLE 5-7 OF TFNSW'S *TECHNICAL MANUAL – TRAFFIC CONTROL AT WORK SITES)*

ADT	300 – 1,500		More than 1,500	
Number of truck movements per shift	Less than or equal to 20	Greater than 20	Less than or equal to 20	Greater than 20
Traffic control required		Yes	Yes Note 1*	Yes Note 2*
VMP required		Yes		Yes
Warning signs required during shifts		Yes		Yes

Note 1: Where approach speed is greater than 95km/hr

Note 2: If acceleration and deceleration cannot occur on shoulders

In accordance with TfNSW's *Technical Manual – Traffic control at work sites,* traffic control is required to facilitate the safe and efficient movement of construction vehicles into and out of the access where the speed of approaching vehicles is greater than 95km/hr. To eliminate the exposure of traffic control personnel to live traffic, to minimise delays that would otherwise be incurred by approaching drivers and ensure that access manoeuvres can be undertaken safely. temporary speed limits will be implemented (below 95km/hr) along Byrnes Road during access operation. In addition to this, traffic control may be implemented to facilitate alternative movements at the access (i.e., reverse into or out of the site) – refer to Section 3.1.14.

Gate H3 – Byrnes Road (south)

Located on the Byrnes Road, Gate H3 is an existing access that will provide access to the Harefield Yard enhancement site.

FIGURE 20: GATE H3 – BYRNES ROAD (SOUTH)

Details of permitted movements and methods of control at Gate H3 is summarised below in Table 41.

TABLE 41: SITE ACCESS DETAILS – GATE H3

Access	Site Entry/Exit	Largest Permitted Vehicle	Permitted Movements	Control
Gate H3 – Byrnes Road (south)	Entry and exit	Up to 19.0m truck & dog	All movements	Give-way

FIGURE 21: SITE ACCESS DETAILS – GATE H3

To ensure the safety of construction vehicles entering and exiting via the Gate H3, an assessment has been undertaken for determining controls for managing truck movements where auxiliary lanes are not provided (existing access point), depending on traffic volumes, sight distance, number of truck movements and traffic speed. This assessment aims to adopt the methodology presented within Section 5.2.3.3 of TfNSW's *Technical Manual – Traffic control at work sites* and is presented below.

TABLE 42: SITE ACCESS ASSESSMENT CRITERIA – GATE H3

Site Access Assessment	
Location:	Byrnes Road
AADT:	2,590
Speed limit:	100km/hr
Number of truck movements per shift:	Less than 20
Dimension D:	100m (2D = 200m)
Available sight distance	Greater than 2D

FIGURE 22: SOUTHBOUND VIEW APPROACHING GATE H3 (~200M FROM ACCESS POINT)

FIGURE 23: NORTHBOUND VIEW APPROACHING GATE H3 (~200M FROM ACCESS POINT)

As available sight distance approaching Gate H3 is greater than 2D (200m), an assessment has been undertaken using Table 5-7 of TfNSW's *Technical Manual – Traffic control at work sites* has been undertaken and is detailed in Table 43 below.

TABLE 43: GATE H3 – PROVIDING FOR TRUCK MOVEMENTS WHERE SIGHT DISTANCE IS GREATER THAN 2D (TABLE 5-7 OF TFNSW'S *TECHNICAL MANUAL – TRAFFIC CONTROL AT WORK SITES)*

ADT	300 – 1,500		More than 1,500	
Number of truck movements per shift	Less than or equal to 20	Greater than 20	Less than or equal to 20	Greater than 20
Traffic control required		Yes	Yes Note 1*	Yes Note 2*
VMP required		Yes		Yes
Warning signs required during shifts		Yes		Yes

Note 1: Where approach speed is greater than 95km/hr

Note 2: If acceleration and deceleration cannot occur on shoulders

In accordance with TfNSW's *Technical Manual – Traffic control at work sites,* traffic control is required to facilitate the safe and efficient movement of construction vehicles into and out of the access where the speed of approaching vehicles is greater than 95km/hr. To eliminate the exposure of traffic control personnel to live traffic, to minimise delays that would otherwise be incurred by approaching drivers and ensure that access manoeuvres can be undertaken safely. temporary speed limits will be implemented (below 95km/hr) along Byrnes Road during access operation. In addition to this, traffic control may be implemented to facilitate alternative movements at the access (i.e., reverse into or out of the site) – refer to Section 3.1.14.

3.1.8 Construction Access Routes

Construction heavy vehicles will access the worksite via the routes identified within Environmental Approval Documentation, with the primary route for construction traffic entering the worksite will be via:

- Gate H1 – Harefield Road, Harefield Railway Access Road.
- Gate H1 – Olympic Highway, Byrnes Road, Harefield Road, Harefield Railway Access Road.
- Gate H2 – Olympic Highway, Byrnes Road.
- Gate H2 – Harefield Road, Byrnes Road.
- Gate H3 – Olympic Highway, Byrnes Road.

The primary route for construction vehicles exiting the worksite will be via:

- Gate H1 – Harefield Railway Access Road, Harefield Road.
- Gate H1 – Hairfield Railway Access Road, Harefield Road, Byrnes Road, Olympic Highway
- Gate H2 – Byrnes Road, Olympic Highway.
- Gate H2 – Byrnes Road, Harefield Road.
- Gate H3 – Byrnes Road, Olympic Highway.

These access routes are depicted in Figure 24 below.

FIGURE 24: CONSTRUCTION VEHICLE ACCESS ROUTES – HAREFIELD YARD CLEARANCES

3.1.9 Impact on Traffic Flow

Overview

To evaluate the impact of the Stage A works on the road network, an assessment of road (mid-block) performance has been undertaken in relation to Level of Service (LOS) for the key road links with and without traffic generated by the Stage A works. The assessment has been carried out using a combination of peak hour background traffic volumes, in conjunction with expected peak hour construction traffic volumes to determine an operating LOS for key road links for both the "without construction traffic" and "with construction traffic" scenarios.

Road link LOS for key road links have been determined using Table 4.4 from the *Guide to Traffic Generating Developments (RTA 2002)*, which has been replicated below.

TABLE 44: LINK LOS ADAPTED FROM THE *GUIDE TO TRAFFIC GENERATING DEVELOPMENT (2002) TABLE 4.4*

LOS	One lane per direction (veh/hr)	Two lanes per direction (veh/hr)
LOS A	200	900
LOS B	380	1,400
LOS C	600	1,800
LOS D	900	2,200
LOS E	More than 900	2,800

While it is recognised that TfNSW's *Guide to Transport Impact Assessment* has superseded the *Guide to Traffic Generating Developments*, the process of assessment is considered appropriate in quantifying potential impacts to traffic flow and the road network resulting from the Stage A works. It is also noted that this approach is consistent with the Link LOS assessment undertaken within *Technical Paper 1: Traffic and Transport* and its addendums.

Link Level of Service Assessment for Key Roads

The link LOS assessment for the Harefield Yard Clearances enhancement site is shown in Table 45 below. Peak hour volumes for Harefield Road, Byrnes Road and Harefield Railway Access Road have been extracted from Table 5.40 of *Technical Paper 1: Traffic and Transport*.

TABLE 45: LINK LOS ASSESSMENT – HAREFIELD YARD CLEARANCES

Road name	No. of lanes (per direction)	Background volume (one way)	Without construction traffic LOS	Construction volume (one way)	Total volume	Percent increase in volumes	With project LOS
Harefield Road	1	9	A	6	15	66.7%	A
Byrnes Road[1]	1	146	A		152	4.1%	A
Harefield Railway Access Road[2]	1	135	A		141	4.4%	A

Note 1: Byrnes Road, north of Harefield Road

Note 2: No data available, traffic volume estimated based on road type and surrounding lane uses

The link LOS assessment for the Harefield Yard Clearances enhancement site shows that with construction traffic all road links are expected to operate at LOS A, no change is LOS from the "without construction traffic scenario". As a result, no significant impact to road operation or performance are expected to result from the traffic generated by the Stage A works. As such, mitigations are not considered warranted as a result of the Stage A works.

3.1.10 Impact on Public Transport

Public Transport Operations

There is not expected to be any impact upon public transport operations is expected during this stage of work.

Access to Public Transport

There will be no change or impact to public transport access during this stage of work.

3.1.11 Impact on Pedestrians and Cyclists

There will be no change to or impact to pedestrian and cyclist facilities or access during this stage of work.

3.1.12 Access for Businesses and Residents

There will be no change to or impact to access for businesses and/or residents during this stage of work.

3.1.13 Changes to Kerbside Management

There will be no changes to kerbside allocations during this stage of work.

3.1.14 Works Requiring Short Term Traffic Control

While the Stage A works are generally confined to the rail corridor and as such do not involve works be constructed under traffic, temporary speed limit reductions and/or short-term traffic control (intermittent stops) may be implemented on Byrnes Road to manage some site entry and exit movements for construction heavy vehicles.

TABLE 46: SHORT-TERM TRAFFIC CONTROL REQUIREMENTS – HAREFIELD YARD CLEARANCES

Location	Activity	Traffic control	Duration	Timing	Expected impacts
Gate H1 – Harefield Railway Access Road	Site access manoeuvres	Hold and release / intermittent stop	8 months	Day shift, Monday to Saturday	Minor delays to traffic travelling along Harefield Railway Access Road and Byrnes Road
Gate H2 – Byrnes Road (north)					

Location	Activity	Traffic control	Duration	Timing	Expected impacts
Gate H3 – Byrnes Road (south)					

3.2 Junee Yard

3.2.1 Site Location

The location and layout of the Junee Yard enhancement site is shown below in Figure 25.

FIGURE 25: JUNEE YARD ENHANCEMENT SITE

3.2.2 Works Required

The Stage A scope of works at Junee Yard enhancement site will comprise the following:

- Establishment of a site compound within the rail corridor adjacent Edgar Street with an access via Edgar Street and William Street)
- Establishment of a site compound on the eastern side of Seignior Street near Pretoria Avenue (within the existing verge)
- Establishment of a site compound within the rail corridor off Seignior Street near Broadway
- Establishment of a site compound within the rail corridor off Hill Street
- Gantry modifications, removal and replacement
- Signalling reticulation
- Inground conduit installations
- Utility services relocations
- Investigation works (geotechnical / pavement / contamination)

3.2.3 Timing and Duration

The proposed arrangements are planned to be implemented from March 2025 and continue until Stage B works commence.

3.2.4 Drawings

There will be no long-term changes to the existing conditions on the roads in the vicinity of the Junee Yard enhancement site resulting from the Stage A works.

A list of expected short-term traffic guidance schemes to facilitate the works as detailed within Section 3.2.14 are provided in Appendix A.

3.2.5 Operating Conditions

There will be no long-term changes to the existing conditions on the roads in the vicinity of the Junee Yard enhancement site resulting from the Stage A works.

Temporary speed limit reductions and/or short-term traffic control (intermittent stops) may be implemented on Edgar Street and Seignior Street to facilitate the safe and efficient movement of construction heavy vehicles (refer to Section 3.2.14).

3.2.6 Construction Traffic

The peak volume of additional traffic generated by the Junee Yard works required to access the worksite is expected to be in the order of 8 vehicles per hour, broken down as follows:

- Three (3) construction heavy vehicle
- Five (5) workforce light vehicles.

Based on the current methodology and program, it is expected that peak construction traffic volumes will occur in March 2025.

3.2.7 Site Access

Overview

Access to the worksite will be via existing access points located on Edgar Street, Seignior Street, and Hill Street. The location of the site access gates is shown above in Figure 25. A summary of permitted movements and methods of control at site access locations is provided below in Table 47, with further details provided in subsequent sections of this report.

TABLE 47: SITE ACCESS DETAILS – JUNEE YARD ENHANCMENT SITE

Access	Site Entry/Exit	Largest Permitted Vehicle	Permitted Movements	Control
Gate J1 – Existing access off Edgar Street at William Street	Entry and exit	Up to 12.5m rigid truck	Left in, right out	Give-way
Gate J2 – Existing access off Seignior Street near Pretoria Avenue	Entry and exit	Up to 19.0m semi-trailer	Right in, left out	Give-way
Gate J3 – Existing access off Edgar Street between George Street and Hill Street	Entry and exit	Up to 19.0m semi-trailer	Right in, left out	Give-way
Gate J4 – Existing access off Hill Street at Edgar Street	Entry and exit	Up to 12.5m rigid truck	Left in, right out	Give-way

Gate J1 – Edgar Street at William Street

Located on Edgar Street at William Street, Gate J1 is an existing access that will provide access to the Junee Yard enhancement site.

FIGURE 26: GATE J1 – EDGAR STREET AT WILLIAM STREET

Details of permitted movements and methods of control at Gate J1 is summarised below in Table 48.

TABLE 48: SITE ACCESS DETAILS – GATE J1

Access	Site Entry/Exit	Largest Permitted Vehicle	Permitted Movements	Control
Gate J1 – Existing access off Edgar Street at William Street	Entry and exit	Up to 12.5m rigid truck	Left in, right out	Give-way

FIGURE 27: SITE ACCESS DETAILS – GATE J1

To ensure the safety of construction vehicles entering and exiting via the Gate J1, an assessment has been undertaken for determining controls for managing truck movements where auxiliary lanes are not provided (existing access point), depending on traffic volumes, sight distance, number of truck movements and traffic speed. This assessment aims to adopt the methodology presented within Section 5.2.3.3 of TfNSW's *Technical Manual – Traffic control at work sites* and is presented below.

TABLE 49: SITE ACCESS ASSESSMENT CRITERIA – GATE J1

Site Access Assessment	
Location:	Edgar Street at William Street
AADT:	1,436
Speed limit:	50km/hr
Number of truck movements per shift:	10 to 20
Dimension D:	50m (2D = 100m)
Available sight distance	Greater than 2D

FIGURE 28: NORTHBOUND VIEW APPROACHING GATE J1 (~100M FROM ACCESS POINT)

FIGURE 29: SOUTHBOUND VIEW APPROACHING GATE J1 (~100M FROM ACCESS POINT)

As available sight distance approaching Gate H2 is greater than 2D (100m), an assessment has been undertaken using Table 5-7 of TfNSW's *Technical Manual – Traffic control at work sites* has been undertaken and is detailed in Table 50 below.

TABLE 50: GATE J1 – PROVIDING FOR TRUCK MOVEMENTS WHERE SIGHT DISTANCE IS GREATER THAN 2D (TABLE 5-7 OF TFNSW'S *TECHNICAL MANUAL – TRAFFIC CONTROL AT WORK SITES)*

ADT	300 – 1,500		More than 1,500	
Number of truck movements per shift	Less than or equal to 20	Greater than 20	Less than or equal to 20	Greater than 20
Traffic control required		Yes	Yes Note 1*	Yes Note 2*
VMP required		Yes		Yes
Warning signs required during shifts		Yes		Yes

Note 1: Where approach speed is greater than 95km/hr

Note 2: If acceleration and deceleration cannot occur on shoulders

No controls are warranted at Gate J1 to facilitate the safe and efficient movement of construction vehicles into and out of the access, and as such access will operate under a typical "Give way" arrangement.

Gate J2 – Seignior Street near Pretoria Street

Located on Seignior Street near Pretoria Street, Gate J2 is an existing access that will provide access to the Junee Yard enhancement site.

Details of permitted movements and methods of control at Gate J2 is summarised below in Table 51.

TABLE 51: SITE ACCESS DETAILS – GATE H2

Access	Site Entry/Exit	Largest Permitted Vehicle	Permitted Movements	Control
Gate J2 – Seignior Street near Pretoria Street	Entry and exit	Up to 19.0m semi-trailer	Right in, left out	Give-way

FIGURE 30: SITE ACCESS DETAILS – GATE J2

To ensure the safety of construction vehicles entering and exiting via the Gate J2, an assessment has been undertaken for determining controls for managing truck movements where auxiliary lanes are not provided (existing access point), depending on traffic volumes, sight distance, number of truck movements and traffic speed. This assessment aims to adopt the methodology presented within Section 5.2.3.3 of TfNSW's *Technical Manual – Traffic control at work sites* and is presented below.

TABLE 52: SITE ACCESS ASSESSMENT CRITERIA – GATE J2

Site Access Assessment	
Location:	Seignior Street near Pretoria Avenue
AADT:	2,856
Speed limit:	50km/hr
Number of truck movements per shift:	Less than 20
Dimension D:	50m (2D = 100m)
Available sight distance	Greater than 2D

FIGURE 31: SOUTHBOUND VIEW APPROACHING GATE J2 (~100M FROM ACCESS POINT)

FIGURE 32: NORTHBOUND VIEW APPROACHING GATE J2 (~100M FROM ACCESS POINT)

As available sight distance approaching Gate J2 is greater than 2D (100m), an assessment has been undertaken using Table 5-7 of TfNSW's *Technical Manual – Traffic control at work sites* has been undertaken and is detailed in Table 53 below.

TABLE 53: GATE J2 – PROVIDING FOR TRUCK MOVEMENTS WHERE SIGHT DISTANCE IS GREATER THAN 2D (TABLE 5-7 OF TFNSW'S *TECHNICAL MANUAL – TRAFFIC CONTROL AT WORK SITES)*

ADT	300 – 1,500		More than 1,500	
Number of truck movements per shift	Less than or equal to 20	Greater than 20	Less than or equal to 20	Greater than 20
Traffic control required		Yes	Yes Note 1*	Yes Note 2*
VMP required		Yes		Yes
Warning signs required during shifts		Yes		Yes

Note 1: Where approach speed is greater than 95km/hr

Note 2: If acceleration and deceleration cannot occur on shoulders

No controls are warranted at Gate J2 to facilitate the safe and efficient movement of construction vehicles into and out of the access, and as such access will operate under a typical "Give way" arrangement. Notwithstanding this, traffic control may be implemented to facilitate alternative movements at the access (i.e., reverse into or out of the site) – refer to Section 3.2.14.

Gate J3 – Edgar Street between George Street and Hill Street

Located on Edgar Street between George Street and Hill Street, Gate J3 is an existing access that will provide access to the site amenities block and carpark at the Junee Yard enhancement site.

FIGURE 33: GATE J3 – EDGAR STREET BETWEEN GEORGE STREET AND HILL STREET

Details of permitted movements and methods of control at Gate J3 is summarised below in Table 54.

TABLE 54: SITE ACCESS DETAILS – GATE J3

Access	Site Entry/Exit	Largest Permitted Vehicle	Permitted Movements	Control
Gate J3 – Existing access off Edgar Street between George Street and Hill Street	Entry and exit	Up to 19.0m semi-trailer	Right in, left out	Give-way

FIGURE 34: SITE ACCESS DETAILS – GATE J3

To ensure the safety of construction vehicles entering and exiting via the Gate J3, an assessment has been undertaken for determining controls for managing truck movements where auxiliary lanes are not provided (existing access point), depending on traffic volumes, sight distance, number of truck movements and traffic speed. This assessment aims to adopt the methodology presented within Section 5.2.3.3 of TfNSW's *Technical Manual – Traffic control at work sites* and is presented below.

TABLE 55: SITE ACCESS ASSESSMENT CRITERIA – GATE J3

Site Access Assessment	
Location:	Edgar Street between George Street and Hill Street
AADT:	1,436
Speed limit:	50km/hr
Number of truck movements per shift:	Less than 8
Dimension D:	50m (2D = 100m)
Available sight distance	Less than 2D

FIGURE 35: NORTHBOUND VIEW APPROACHING GATE J3 (~100M FROM ACCESS POINT)

FIGURE 36: SOUTHBOUND VIEW APPROACHING GATE J3 (~35M FROM ACCESS POINT)

As available sight distance approaching Gate J3 is less than 2D (100m), an assessment has been undertaken using Table 5-6 of TfNSW's *Technical Manual – Traffic control at work sites* has been undertaken and is detailed in Table 56 below.

TABLE 56: GATE J3 – PROVIDING FOR TRUCK MOVEMENTS WHERE SIGHT DISTANCE IS LESS THAN 2D (TABLE 5-6 OF TFNSW'S *TECHNICAL MANUAL – TRAFFIC CONTROL AT WORK SITES)*

ADT	300 – 1,500		More than 1,500	
Number of truck movements per shift:	Less than or equal to 20	Greater than 20	Less than or equal to 20	Greater than 20
Traffic control required		Yes	Yes	Yes
VMP required	Yes	Yes	Yes	Yes
Warning signs required during shifts		Yes	Yes Note 2*	Yes

Note 1: Where approach speed is greater than 95km/hr every effort should be made to choose turning locations where sight distance exceeds 2D

Note 2: Not required when approach speed is less than 85km/hr

To facilitate the safe and efficient movement of construction vehicles into and out of the access, a VMP will be developed prior to the commencement of works and will detail vehicle movements for vehicles arriving to and departing from site via Gate J3. The VMP will identify the location of the site access gate and permitted movements and be communicated to workers and delivery drivers associated with the Stage A works. Notwithstanding this, traffic control may be implemented to facilitate alternative movements at the access (i.e., reverse into or out of the site) – refer to Section 3.2.14.

Gate J4 – Hill Street at Edgar Street

Located on Hill Street at Edgar Street, Gate J4 is an existing access that will provide access to the Junee Yard enhancement site.

FIGURE 37: GATE J4 – HILL STREET AT EDGAR STREET

Details of permitted movements and methods of control at Gate J4 is summarised below in Table 57.

TABLE 57: SITE ACCESS DETAILS – GATE J4

Access	Site Entry/Exit	Largest Permitted Vehicle	Permitted Movements	Control
Gate J4 – Existing access off Hill Street at Edgar Street	Entry and exit	Up to 12.5m rigid truck	Left in, right out	Give-way

FIGURE 38: SITE ACCESS DETAILS – GATE J4

To ensure the safety of construction vehicles entering and exiting via the Gate J4, an assessment has been undertaken for determining controls for managing truck movements where auxiliary lanes are not provided (existing access point), depending on traffic volumes, sight distance, number of truck movements and traffic speed. This assessment aims to adopt the methodology presented within Section 5.2.3.3 of TfNSW's *Technical Manual – Traffic control at work sites* and is presented below.

TABLE 58: SITE ACCESS ASSESSMENT CRITERIA – GATE J4

Site Access Assessment	
Location:	Hill Street at Edgar Street
AADT:	1,436
Speed limit:	50km/hr
Number of truck movements per shift:	Less than 10
Dimension D:	50m (2D = 100m)
Available sight distance	Less than 2D, due to proximity of the Hill Street / Lorne Street intersection

FIGURE 39: NORTHBOUND VIEW APPROACHING GATE J4 (~100M FROM ACCESS POINT)

FIGURE 40: SOUTHBOUND VIEW APPROACHING GATE J4 (~75M FROM ACCESS POINT)

As available sight distance approaching Gate J4 is less than 2D (100m), an assessment has been undertaken using Table 5-6 of TfNSW's *Technical Manual – Traffic control at work sites* has been undertaken and is detailed in Table 59 below.

TABLE 59: GATE J4 – PROVIDING FOR TRUCK MOVEMENTS WHERE SIGHT DISTANCE IS LESS THAN 2D (TABLE 5-6 OF TFNSW'S *TECHNICAL MANUAL – TRAFFIC CONTROL AT WORK SITES)*

ADT	300 – 1,500		More than 1,500	
Number of truck movements per shift:	Less than or equal to 20	Greater than 20	Less than or equal to 20	Greater than 20
Traffic control required		Yes	Yes	Yes
VMP required	Yes	Yes	Yes	Yes
Warning signs required during shifts		Yes	Yes Note 2*	Yes

Note 1: Where approach speed is greater than 95km/hr every effort should be made to choose turning locations where sight distance exceeds 2D

Note 2: Not required when approach speed is less than 85km/hr

To facilitate the safe and efficient movement of construction vehicles into and out of the access, a VMP will be developed prior to the commencement of works and will detail vehicle movements for vehicles arriving to and departing from site via Gate J4. The VMP will identify the location of the site access gate and permitted movements and be communicated to workers and delivery drivers associated with the Stage A works. In addition to this, traffic control may be implemented to facilitate alternative movements at the access (i.e., reverse into or out of the site) – refer to Section 3.2.14.

3.2.8 Construction Access Routes

Construction heavy vehicles will access the worksite via the routes identified within Environmental Approval Documentation, with the primary route for construction traffic entering the worksite will be via:

- Gate J1 – Byrnes Roda, Edgar Street.
- Gate J2 – Olympic Highway (A41), Olympic Highway / Seignior Street (A41).
- Gate J3 – Byrnes Road, Edgar Street.
- Gate J4 – Byrnes Road, Edgar Street, Hill Street

The primary route for construction vehicles exiting the worksite will be via:

- J1 – Edgar Street, Byrnes Road.
- J2 – Olympic Highway / Seignior Street (A41), Olympic Highway (A41)
- J3 – Edgar Street, Byrnes Road
- J4 – Hill Street, Edgar Street, Byrnes Road.

These access routes are depicted in Figure 41

FIGURE 41: CONSTRUCTION VEHICLE ACCESS ROUTES – JUNEE YARD

3.2.9 Impact on Traffic Flow

Overview

To evaluate the impact of the Stage A works on the road network, an assessment of road (mid-block) performance has been undertaken in relation to Level of Service (LOS) for the key road links with and without traffic generated by the Stage A works. The assessment has been carried out using a combination of peak hour background traffic volumes, in conjunction with expected peak hour construction traffic volumes to determine an operating LOS for key road links for both the "without construction traffic" and "with construction traffic" scenarios.

Road link LOS for key road links have been determined using Table 4.4 from the *Guide to Traffic Generating Developments (RTA 2002)*, which has been replicated below.

TABLE 60: LINK LOS ADAPTED FROM THE *GUIDE TO TRAFFIC GENERATING DEVELOPMENT (2002) TABLE 4.4*

LOS	One lane per direction (veh/hr)	Two lanes per direction (veh/hr)
LOS A	200	900
LOS B	380	1,400
LOS C	600	1,800
LOS D	900	2,200
LOS E	More than 900	2,800

While it is recognised that TfNSW's *Guide to Transport Impact Assessment* has superseded the *Guide to Traffic Generating Developments*, the process of assessment is considered appropriate in quantifying potential impacts to traffic flow and the road network resulting from the Stage A works. It is also noted that this approach is consistent with the Link LOS assessment undertaken within *Technical Paper 1: Traffic and Transport* and its addendums.

Link Level of Service Assessment for Key Roads

The link LOS assessment for the Harefield Yard Clearances enhancement site is shown in Table 61 and Table 62 below. Peak hour volumes for Kemp Street and the Olympic Highway / Seignior Street have been extracted from Table 4.16 and Table 4.17 of *Appendix D, Addendum to Technical Paper 1: Traffic and Transport*, while peak hour volumes for Edgar Street have been extracted from Table 5.40 of *Technical Paper 1: Traffic and Transport*.

TABLE 61: AM PEAK LINK LOS ASSESSMENT – JUNEE YARD

Road name	No. of lanes (per direction)	Direction	AM Background volume (one way)	Without construction traffic LOS	Construction volume (one way)	Total volume	Percent increase in volumes	With project LOS
Kemp Street	1	Eastbound	205	B	8	213	3.9%	B
		Westbound	103	A		111	7.8%	A
Olympic Highway / Seignior Street	1	Eastbound	140	A		148	5.7%	A
		Westbound	130	A		138	6.2%	A
Edgar Street[1]	1	-	79	A		87	9.2%	A

Note 1: Two-way data available, assumed 50/50 traffic split during peak hours

TABLE 62: PM PEAK LINK LOS ASSESSMENT – JUNEE YARD

Road name	No. of lanes (per direction)	Direction	PM Background volume (one way)	Without construction traffic LOS	Construction volume (one way)	Total volume	Percent increase in volumes	With project LOS
Kemp Street	1	Eastbound	175	A	8	183	4.5%	A
		Westbound	151	A		159	5.3%	A
Olympic Highway / Seignior Street	1	Eastbound	118	A		126	6.8%	A
		Westbound	170	A		178	4.7%	A
Edgar Street[1]	1	-	79	A		87	9.2%	A

The link LOS assessment for the Junee Yard enhancement site shows that with construction traffic all road links are expected to operate at LOS A, no change is LOS from the “without construction traffic scenario” during the AM and PM peak periods. As a result, no significant impact to road operation or performance are expected to result from the traffic generated by the Stage A works. As such, mitigations are not considered warranted as a result of the Stage A works.

3.2.10 Impact on Public Transport

Public Transport Operations

There is not expected to be any impact upon public transport operations is expected during this stage of work.

Access to Public Transport

There will be no change or impact to public transport access during this stage of work.

3.2.11 Access for Businesses and Residents

There will be no change to or impact to access for businesses and/or residents during this stage of work.

3.2.12 Impact on Pedestrians and Cyclists

There will be no change to or impact to pedestrian and cyclist facilities or access during this stage of work.

3.2.13 Changes to Kerbside Management

There will be no changes to kerbside allocations during this stage of work.

3.2.14 Works Requiring Short Term Traffic Control

The Stage A works are generally confined to the rail corridor and as such do not involve works be constructed under traffic. Temporary speed limit reductions and/or short-term traffic control (intermittent stops) may be implemented on Edgar Street and Seignior Street to manage some site entry and exit movements for construction heavy vehicles.

TABLE 63: SHORT-TERM TRAFFIC CONTROL REQUIREMENTS – JUNEE YARD

Location	Activity	Traffic control	Duration	Timing	Expected impacts
Gate J1 – Edgar Street at William Street	Site access manoeuvres	Hold and release / intermittent stop	8 months	Day shift, Monday to Saturday	Minor delays to traffic travelling along Seignior Street and Edgar Street.
Gate J2 – Existing access off Seignior Street near Pretoria Avenue					
Gate J3 – Existing access off Edgar Street between George Street and Hill Street					
Gate J4 – Hill Street at Edgar Street					

3.3 Junee to Illabo

3.3.1 Site Location

The location of the Junee to Illabo Clearances enhancement site spans between the Waterworks Road Rail Level Crossing in the south, and the Olympic Highway Rail Level Crossing in the north.

3.3.2 Works Required

The Stage A scope of works for Junee to Illabo comprise the following:

- Formation widening works
- Track slew works
- Headwall extension works
- 3 x single barrel culvert replacements

3.3.3 Timing and Duration

The proposed arrangements are planned to be implemented from March 2025 and continue until Stage B works commence.

3.3.4 Drawings

There will be no long-term changes to the existing conditions on the roads in the vicinity of the Junee to Illabo Clearances enhancement site resulting from the Stage A works.

A list of expected short-term traffic guidance schemes to facilitate the works as detailed within Section 3.3.14 are provided in Appendix A.

3.3.5 Operating Conditions

There will be no long-term changes to the existing conditions on the roads in the vicinity of the Junee Yard enhancement site resulting from the Stage A works.

Temporary speed limit reductions and/or short-term traffic control (intermittent stops) may be implemented on the Olympic Highway to facilitate the safe and efficient movement of construction heavy vehicles (refer to Section 3.2.14).

3.3.6 Construction Traffic

The peak volume of additional traffic generated by the Junee to Illabo Stage A works is expected to be in the order of eight (8) vehicles per hour, broken down as follows:

- Four (4) construction heavy vehicle
- Four (4) workforce vehicles.

Based on the current methodology and program, it is expected that peak construction traffic volumes will occur in March 2025.

3.3.7 Site Access

Overview

Access to the worksite will be via access points located along the Olympic Highway. A summary of permitted movements and methods of control at site access locations is provided below in, with further details provided in subsequent sections of this report.

TABLE 64: JUNEE TO ILLABO SITE ACCESS

Access	Site Entry/Exit	Vehicle type	Permitted Movements	Control
Gate J2I1 – Olympic Highway ~85m south of Warrens Lane	Entry and exit	19.0m truck and dog	Left in, left out	Traffic control required for egressing manoeuvre
Gate J2I2 – Olympic Highway opposite Warrens Lane	Entry and exit	Up to 19.0m truck and dog	Left in, left out	Traffic control required for egressing manoeuvre
Gate J2I3 – Olympic Highway at Warrens Lane	Entry and exit	Up to 19.0m truck and dog	Left in, left out	Traffic control required for egressing manoeuvre
Gate J2I4 – Olympic Highway ~550m west of Warrens Lane	Entry and exit	Up to 19.0m truck and dog	Left in, left out	Give-way
Gate J2I5 – Olympic Highway ~1km west of Warrens Lane	Entry and exit	Light vehicles only	All movements	Give-way
Gate J2I6 – Olympic Highway opposite Wood Street	Entry and exit	Up to 19.0m truck and dog	All movements	Traffic control
Gate J2I7 – Olympic Highway opposite Commins Street	Entry and exit	Up to 19.0m truck and dog	All movements	Give-way
Gate J2I8 – Olympic Highway ~500m west of Commins Street	Entry and exit	Up to 19.0m truck and dog	All movements	Give-way
Gate J2I9 – Olympic Highway at Wornes Gate Lane	Entry and exit	Up to 19.0m truck and dog	Left and right in, right out	Give-way

Access	Site Entry/Exit	Vehicle type	Permitted Movements	Control
Gate J2I10 – Olympic Highway ~1.2km east of Marinna Station Cross Road	Entry and exit	Up to 19.0m truck and dog	Left in, left out	Give-way
Gate J2I11 – Olympic Highway ~200m east of Marinna Station Cross Road	Exit only	Up to 19.0m truck and dog	Left out	Give-way
Gate J2I12 – Marinna Station Cross Road	Entry only	Up to 19.0m truck and dog	Left in	Give-way
Gate J2I13 – Waterworks Road ~1.7km west of Marinna Station Cross Road	Entry and exit	Up to 19.0m truck and dog	Right in, left out	Give-way
Site compound at Lawford Street	Entry and exit	Up to 19.0m truck and dog	Left in, right out	Give way

A swept path analysis has been undertaken, demonstrating the ability for construction vehicles to manoeuvre into and out of the nominated site access points. This assessment is provided in Appendix B.

Gate J2I1 – Olympic Highway ~85m south of Warrens Lane

Overview

Located on the Olympic Highway approximately 85m south of Warrens Lane, Gate J2I1 is an existing access that will provide access to the Junee to Illabo Clearances enhancement site.

FIGURE 42: GATE J2I1 – OLYMPIC HIGHWAY

Details of permitted movements and methods of control at Gate J2I1 is summarised below in Table 65.

TABLE 65: SITE ACCESS DETAILS – GATE J2I1

Access	Site Entry/Exit	Largest Permitted Vehicle	Permitted Movements	Control
Gate J2I1 – Olympic Highway ~85m south of Warrens Lane	Entry and exit	Up to 19.0m truck and dog	Left in, left out	Traffic control required for egressing manoeuvre – refer to Sheet 1 of drawing *MR-A2I-JU-SPA-001-A* provided in Appendix A.

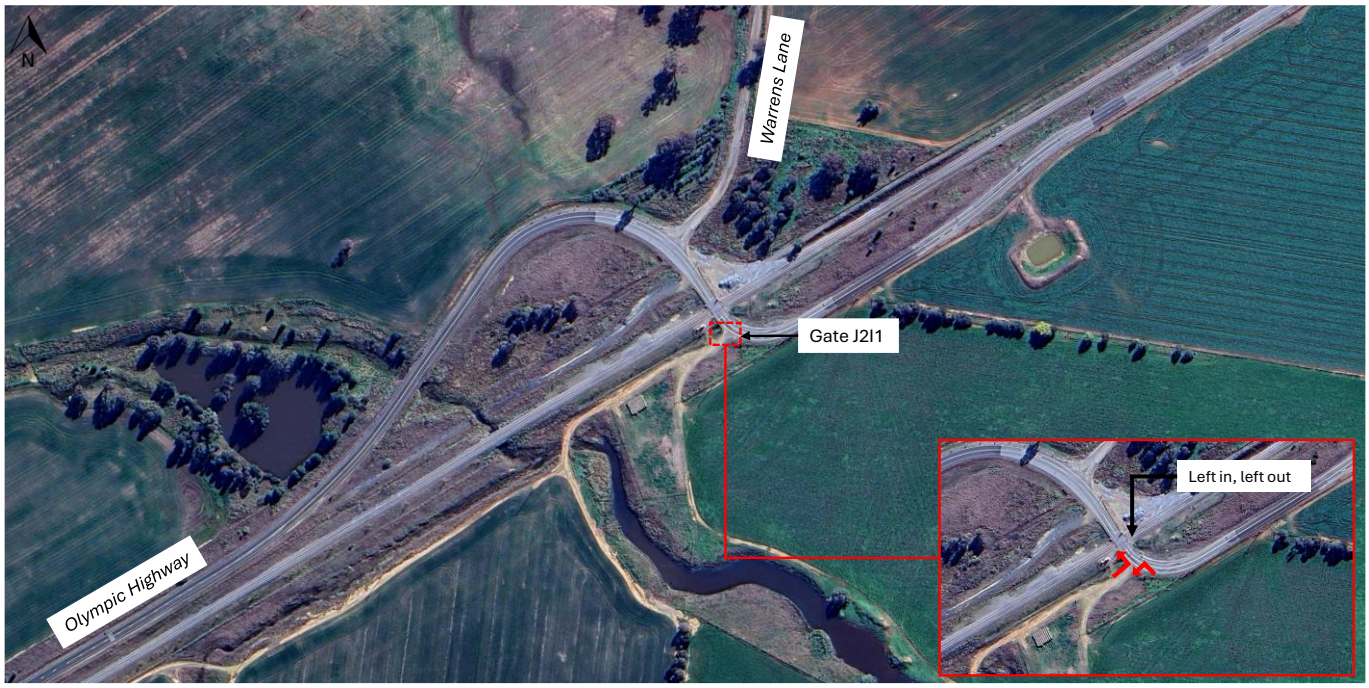


FIGURE 43: SITE ACCESS DETAILS – GATE J2I1

Access Controls Assessment

Noting that traffic control will be required to facilitate the egress manoeuvre from Gate J2I1, an assessment has been undertaken for determining controls for managing truck ingressing movements where auxiliary lanes are not provided (existing access point), depending on traffic volumes, sight distance, number of truck movements and traffic speed. This assessment aims to adopt the methodology presented within Section 5.2.3.3 of TfNSW's *Technical Manual – Traffic control at work sites* and is presented below.

TABLE 66: SITE ACCESS ASSESSMENT CRITERIA – GATE J2I1

Site Access Assessment	
Location:	Olympic Highway ~85m south of Warrens Lane
AADT:	1,718
Speed limit:	60km/hr
Number of truck movements per shift:	Less than 20
Dimension D:	60m (2D = 120m)

Site Access Assessment	
Available sight distance	Greater than 2D

FIGURE 44: EASTBOUND VIEW APPROACHING GATE J2I1 (~120M FROM ACCESS POINT)

FIGURE 45: WESTBOUND VIEW APPROACHING GATE J2I1 (~120M FROM ACCESS POINT)

As available sight distance approaching Gate J2I1 is greater than 2D (120m), an assessment has been undertaken using Table 5-7 of TfNSW's *Technical Manual – Traffic control at work sites* has been undertaken and is detailed in Table 67 below.

TABLE 67: GATE J2I1 – PROVIDING FOR TRUCK MOVEMENTS WHERE SIGHT DISTANCE IS GREATER THAN 2D (TABLE 5-7 OF TFNSW'S *TECHNICAL MANUAL – TRAFFIC CONTROL AT WORK SITES)*

ADT	300 – 1,500		More than 1,500	
Number of truck movements per shift	Less than or equal to 20	Greater than 20	Less than or equal to 20	Greater than 20
Traffic control required		Yes	Yes Note 1*	Yes Note 2*
VMP required		Yes		Yes
Warning signs required during shifts		Yes		Yes

Note 1: Where approach speed is greater than 95km/hr

Note 2: If acceleration and deceleration cannot occur on shoulders

No controls are warranted at Gate J2I1 to facilitate the safe and efficient movement of construction vehicles into the access. Notwithstanding this, traffic control may be implemented to facilitate alternative movements at the access (i.e., reverse into or out of the site) – refer to Section 3.3.14.

Sight Distance Assessment

A sight distance assessment against the requirements stipulated within Austroads *Guide to Road Design, Part 3: Geometric Design* and *Part 4A: Unsignalised and Signalised Intersections* has been undertaken using aerial imagery to ensure that construction vehicles can safely manoeuvre into and out of the access.

TABLE 68: SIGHT DISTANCE ASSESSMENT – GATE J2I1

Direction	Speed limit	S.S.D.		S.I.S.D.		M.G.S.D.	
		Requirement	Achieved?	Requirement	Achieved?	Requirement	Achieved?
East of access	60km/hr	92m[1]	Yes	Egressing manoeuvres to be undertaken under traffic control			
West of access	N/A						

1. Desirable minimum value for all road types

Gate J2I2 – Olympic Highway opposite Warrens Lane

Located on the Olympic Highway opposite Warrens Lane, Gate J2I2 is an existing access that will provide access to the Junee to Illabo Clearances enhancement site.

FIGURE 46: GATE J2I2 – OLYMPIC HIGHWAY

Details of permitted movements and methods of control at Gate J2I2 is summarised below in Table 118.

TABLE 69: SITE ACCESS DETAILS – GATE J2I2

Access	Site Entry/Exit	Largest Permitted Vehicle	Permitted Movements	Control
Gate J2I2 – Olympic Highway opposite Warrens Lane	Entry and exit	Up to 19.0m truck and dog	Left in, left out	Give-way

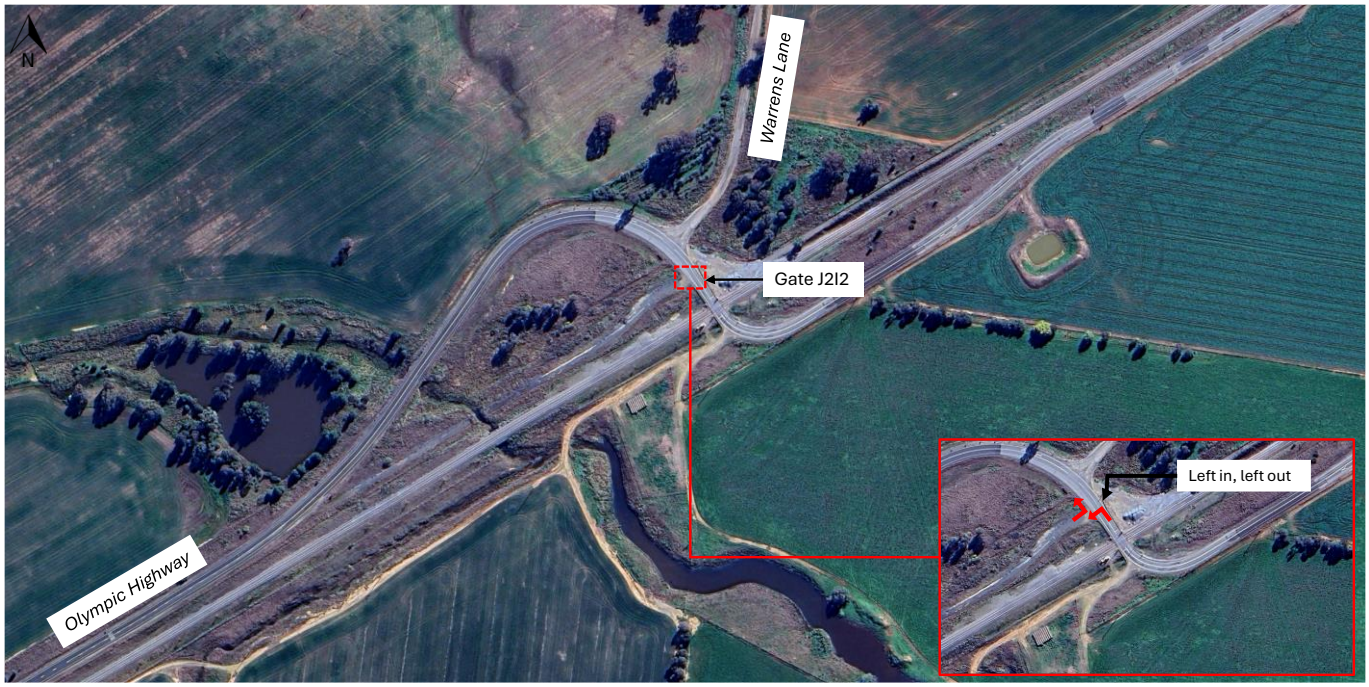


FIGURE 47: SITE ACCESS DETAILS – GATE J2I2

Access Controls Assessment

To ensure the safety of construction vehicles entering and exiting via the Gate J2I2, an assessment has been undertaken for determining controls for managing truck movements where auxiliary lanes are not provided (existing access point), depending on traffic volumes, sight distance, number of truck movements and traffic speed. This assessment aims to adopt the methodology presented within Section 5.2.3.3 of TfNSW's *Technical Manual – Traffic control at work sites* and is presented below.

TABLE 70: SITE ACCESS ASSESSMENT CRITERIA – GATE J2I2

Site Access Assessment	
Location:	Olympic Highway opposite Warrens Lane
AADT:	1,718
Speed limit:	60km/hr
Number of truck movements per shift:	Less than 20
Dimension D:	60m (2D = 120m)
Available sight distance	Greater than 2D

FIGURE 48: EASTBOUND VIEW APPROACHING GATE J2I2 (~120M FROM ACCESS POINT)

FIGURE 49: WESTBOUND VIEW APPROACHING GATE J2I2 (~120M FROM ACCESS POINT)

As available sight distance approaching Gate J2I2 is greater than 2D (120m), an assessment has been undertaken using Table 5-7 of TfNSW's *Technical Manual – Traffic control at work sites* has been undertaken and is detailed in Table 120 below.

TABLE 71: GATE J2I2 – PROVIDING FOR TRUCK MOVEMENTS WHERE SIGHT DISTANCE IS GREATER THAN 2D (TABLE 5-7 OF TFNSW'S *TECHNICAL MANUAL – TRAFFIC CONTROL AT WORK SITES)*

ADT	300 – 1,500		More than 1,500	
Number of truck movements per shift	Less than or equal to 20	Greater than 20	Less than or equal to 20	Greater than 20
Traffic control required		Yes	Yes Note 1*	Yes Note 2*
VMP required		Yes		Yes
Warning signs required during shifts		Yes		Yes

Note 1: Where approach speed is greater than 95km/hr

Note 2: If acceleration and deceleration cannot occur on shoulders

No controls are warranted at Gate J2I2 to facilitate the safe and efficient movement of construction vehicles into and out of the access, and as such access will operate under a typical "Give way" arrangement. Notwithstanding this, traffic control may be implemented to facilitate alternative movements at the access (i.e., reverse into or out of the site) – refer to Section 3.3.14.

Sight Distance Assessment

A sight distance assessment against the requirements stipulated within Austroads *Guide to Road Design, Part 3: Geometric Design* and *Part 4A: Unsignalised and Signalised Intersections* has been undertaken using aerial imagery to ensure that construction vehicles can safely manoeuvre into and out of the access.

TABLE 72: SIGHT DISTANCE ASSESSMENT – GATE J2I2

Direction	Speed limit	S.S.D.		S.I.S.D.		M.G.S.D.	
		Requirement	Achieved?	Requirement	Achieved?	Requirement	Achieved?
East of access	60km/hr	92m[1]	Yes	151m	Yes – refer below	83m	Yes
West of access	N/A						

1. Desirable minimum value for all road types

As detailed above, sight distance provisions at the access achieve the minimum requirements for the existing posted speed limit. While it is recognised that power poles and other signal associated infrastructure (i.e., advanced warning signs / wigwags) are located within the sight distance envelope, these are of small lateral dimension and are not considered to be a constant obstruction to approaching vehicles.

Gate J2I3 – Olympic Highway at Warrens Lane

Located on the Olympic Highway at Warrens Lane, Gate J2I3 is an existing access that will provide access to the Junee to Illabo Clearances enhancement site.

FIGURE 50: GATE J2I3 – OLYMPIC HIGHWAY

Details of permitted movements and methods of control at Gate J2I3 is summarised below in Table 118.

TABLE 73: SITE ACCESS DETAILS – GATE J2I3

Access	Site Entry/Exit	Largest Permitted Vehicle	Permitted Movements	Control
Gate J2I3 – Olympic Highway at Warrens Lane	Entry and exit	Up to 19.0m truck and dog	Left in, left out	Traffic control required for egressing manoeuvre – refer to Sheet 3 of drawing *MR-A2I-JU-SPA-001-A* provided in Appendix A.

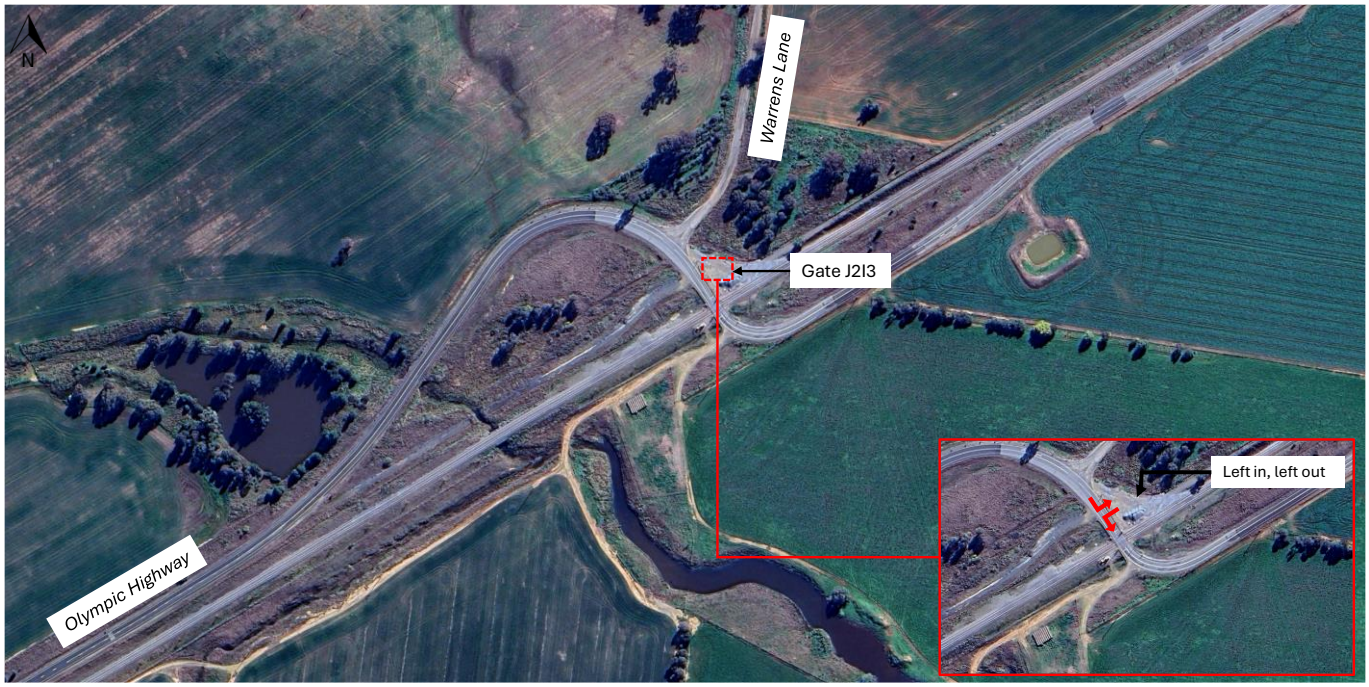


FIGURE 51: SITE ACCESS DETAILS – GATE J2I3

Access Controls Assessment

Noting that traffic control will be required to facilitate the egress manoeuvre from Gate J2I3, an assessment has been undertaken for determining controls for managing truck ingressing movements where auxiliary lanes are not provided (existing access point), depending on traffic volumes, sight distance, number of truck movements and traffic speed. This assessment aims to adopt the methodology presented within Section 5.2.3.3 of TfNSW's *Technical Manual – Traffic control at work sites* and is presented below.

TABLE 74: SITE ACCESS ASSESSMENT CRITERIA – GATE J2I3

Site Access Assessment	
Location:	Olympic Highway at Warrens Lane
AADT:	1,718
Speed limit:	60km/hr
Number of truck movements per shift:	Less than 20
Dimension D:	60m (2D = 120m)
Available sight distance	Greater than 2D

FIGURE 52: EASTBOUND VIEW APPROACHING GATE J2I3 (~120M FROM ACCESS POINT)

FIGURE 53: WESTBOUND VIEW APPROACHING GATE J2I3 (~120M FROM ACCESS POINT)

As available sight distance approaching Gate J2I3 is greater than 2D (120m), an assessment has been undertaken using Table 5-7 of TfNSW's *Technical Manual – Traffic control at work sites* has been undertaken and is detailed in Table 75 below.

TABLE 75: GATE J2I3 – PROVIDING FOR TRUCK MOVEMENTS WHERE SIGHT DISTANCE IS GREATER THAN 2D (TABLE 5-7 OF TFNSW'S *TECHNICAL MANUAL – TRAFFIC CONTROL AT WORK SITES)*

ADT	300 – 1,500		More than 1,500	
Number of truck movements per shift	Less than or equal to 20	Greater than 20	Less than or equal to 20	Greater than 20
Traffic control required		Yes	Yes Note 1*	Yes Note 2*
VMP required		Yes		Yes
Warning signs required during shifts		Yes		Yes

Note 1: Where approach speed is greater than 95km/hr

Note 2: If acceleration and deceleration cannot occur on shoulders

No controls are warranted at Gate J2I3 to facilitate the safe and efficient movement of construction vehicles into of the access. Notwithstanding this, traffic control may be implemented to facilitate alternative movements at the access (i.e., reverse into or out of the site) – refer to Section 3.3.14.

Sight Distance Assessment

A sight distance assessment against the requirements stipulated within Austroads *Guide to Road Design, Part 3: Geometric Design* and *Part 4A: Unsignalised and Signalised Intersections* has been undertaken using aerial imagery to ensure that construction vehicles can safely manoeuvre into and out of the access.

TABLE 76: SIGHT DISTANCE ASSESSMENT – GATE J2I3

Direction	Speed limit	S.S.D.		S.I.S.D.		M.G.S.D.	
		Requirement	Achieved?	Requirement	Achieved?	Requirement	Achieved?
East of access	N/A						
West of access	60km/hr	92m[1]	Yes	Egressing manoeuvres to be undertaken under traffic control			

1. Desirable minimum value for all road types

As detailed above, sight distance provisions at the access achieve the minimum requirements for the existing posted speed limit.

Gate J2I4 – Olympic Highway ~550m west of Warrens Lane

Located on the Olympic Highway approximately 550m west of Warrens Lane, Gate J2I4 is an existing access that will provide access to the Junee to Illabo Clearances enhancement site.

FIGURE 54: GATE J2I4 – OLYMPIC HIGHWAY

Details of permitted movements and methods of control at Gate J2I4 is summarised below in Table 77.

TABLE 77: SITE ACCESS DETAILS – GATE J2I4

Access	Site Entry/Exit	Largest Permitted Vehicle	Permitted Movements	Control
Gate J2I4 – Olympic Highway ~550m west of Warrens Lane	Entry and exit	Up to 19.0m truck and dog	Left in, left out	Give-way

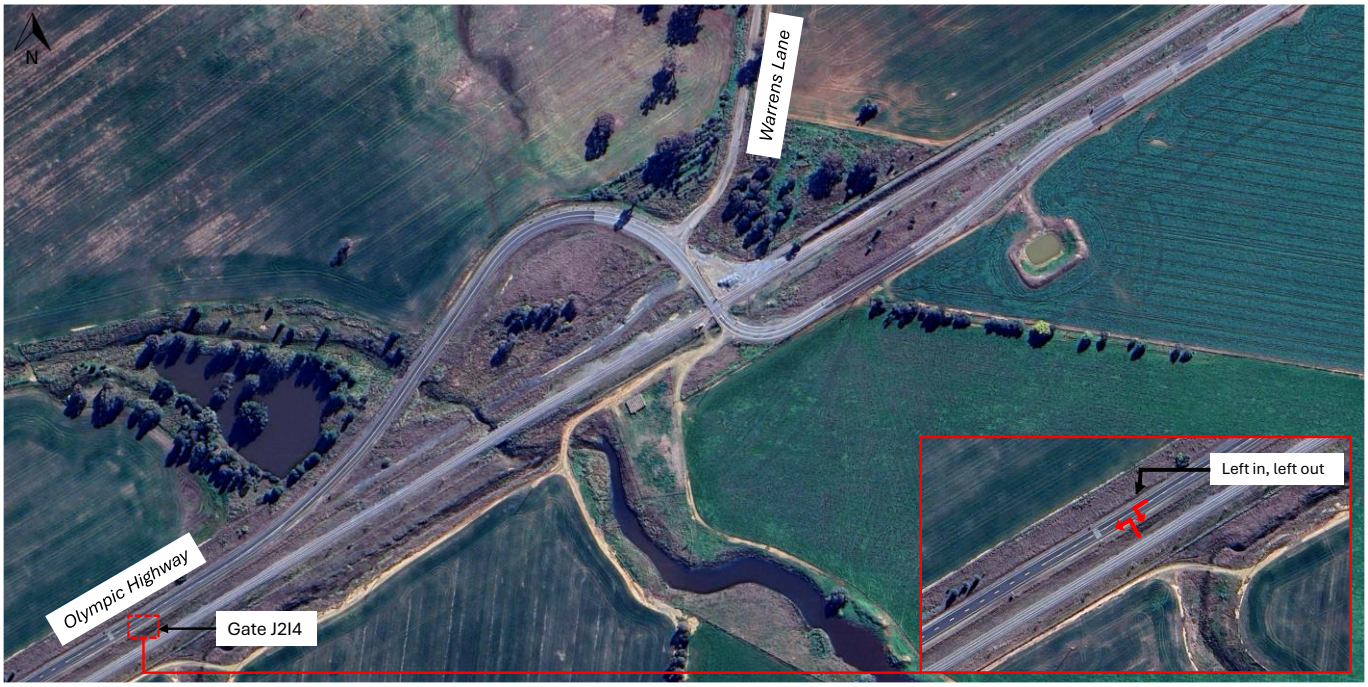


FIGURE 55: SITE ACCESS DETAILS – GATE J2I4

Access Controls Assessment

To ensure the safety of construction vehicles entering and exiting via the Gate J2I4, an assessment has been undertaken for determining controls for managing truck movements where auxiliary lanes are not provided (existing access point), depending on traffic volumes, sight distance, number of truck movements and traffic speed. This assessment aims to adopt the methodology presented within Section 5.2.3.3 of TfNSW's *Technical Manual – Traffic control at work sites* and is presented below.

TABLE 78: SITE ACCESS ASSESSMENT CRITERIA – GATE J2I4

Site Access Assessment	
Location:	Olympic Highway approximately 550m west of Warrens Lane
AADT:	1,718
Speed limit:	60km/hr (100km/hr speed zone located ~75m west of access)
Number of truck movements per shift:	Less than 20
Dimension D:	100m (2D = 200m)
Available sight distance	Greater than 2D

FIGURE 56: EASTBOUND VIEW APPROACHING GATE J2I4 (~200M FROM ACCESS POINT)

FIGURE 57: WESTBOUND VIEW APPROACHING GATE J2I4 (~200M FROM ACCESS POINT)

As available sight distance approaching Gate J2I4 is greater than 2D (200m), an assessment has been undertaken using Table 5-7 of TfNSW's *Technical Manual – Traffic control at work sites* has been undertaken and is detailed in Table 79 below.

TABLE 79: GATE J2I4 – PROVIDING FOR TRUCK MOVEMENTS WHERE SIGHT DISTANCE IS GREATER THAN 2D (TABLE 5-7 OF TFNSW'S *TECHNICAL MANUAL – TRAFFIC CONTROL AT WORK SITES)*

ADT	300 – 1,500		More than 1,500	
Number of truck movements per shift	Less than or equal to 20	Greater than 20	Less than or equal to 20	Greater than 20
Traffic control required		Yes	Yes Note 1*	Yes Note 2*
VMP required		Yes		Yes
Warning signs required during shifts		Yes		Yes

Note 1: Where approach speed is greater than 95km/hr

Note 2: If acceleration and deceleration cannot occur on shoulders

In accordance with TfNSW's *Technical Manual – Traffic control at work sites,* traffic control is required to facilitate the safe and efficient movement of construction vehicles into and out of the access where the speed of approaching vehicles is greater than 95km/hr. To eliminate the exposure of traffic control personnel to live traffic, to minimise delays that would otherwise be incurred by approaching drivers and ensure that access manoeuvres can be undertaken safely, temporary speed limits will be implemented (below 95km/hr) along the Olympic Highway during access operation. In addition to this, traffic control may be implemented to facilitate alternative movements at the access (i.e., reverse into or out of the site) – refer to Section 3.3.14.

Sight Distance Assessment

A sight distance assessment against the requirements stipulated within Austroads *Guide to Road Design, Part 3: Geometric Design* and *Part 4A: Unsignalised and Signalised Intersections* has been undertaken using aerial imagery to ensure that construction vehicles can safely manoeuvre into and out of the access.

TABLE 80: SIGHT DISTANCE ASSESSMENT – GATE J2I4

Direction	Speed limit	S.S.D.		S.I.S.D.		M.G.S.D.	
		Requirement	Achieved?	Requirement	Achieved?	Requirement	Achieved?
East of access	80km/hr[1]	139m[2]	Yes	214m	Yes	111m	Yes
	60km/hr[1]	92m[2]	Yes	151m	Yes	83m	Yes
West of access	N/A						

1. Reduced speed limits are required to facilitate safe and efficient access of construction vehicles – refer to 'Access Controls Assessment' above.

2. Desirable minimum value for all road types

With reference to the requirement for a reduced speed limit to be instated along the Olympic Highway to facilitate the safe and efficient movement of construction vehicles into and out of the access, and available sight distance provisions at the access, a maximum reduced speed limit of 80km/hr will be implemented on approach to the access, subject to approval by the relevant authority.

Where implemented, the temporary speed limit shall be instated prior to the access, accommodating the necessary sight distance requirements as required (i.e. instated greater than 151m from an access where the reduced speed limit is 60km/hr).

Gate J2I5 – Olympic Highway ~1km west of Warrens Lane

Located on the Olympic Highway approximately 1km west of Warrens Lane, Gate J2I5 is an existing access that will provide access to the Junee to Illabo Clearances enhancement site.

FIGURE 58: GATE J2I5 – OLYMPIC HIGHWAY

Details of permitted movements and methods of control at Gate J2I5 is summarised below in Table 81.

TABLE 81: SITE ACCESS DETAILS – GATE J2I5

Access	Site Entry/Exit	Largest Permitted Vehicle	Permitted Movements	Control
Gate J2I5 – Olympic Highway ~1km west of Warrens Lane	Entry and exit	Light vehicles only	All movements	Give-way

FIGURE 59: SITE ACCESS DETAILS – GATE J2I5

Access Controls Assessment

To ensure the safety of construction vehicles entering and exiting via the Gate J2I5, an assessment has been undertaken for determining controls for managing truck movements where auxiliary lanes are not provided (existing access point), depending on traffic volumes, sight distance, number of truck movements and traffic speed. This assessment aims to adopt the methodology presented within Section 5.2.3.3 of TfNSW's *Technical Manual – Traffic control at work sites* and is presented below.

TABLE 82: SITE ACCESS ASSESSMENT CRITERIA – GATE J2I5

Site Access Assessment	
Location:	Olympic Highway approximately 1km west of Warrens Lane
AADT:	1,718
Speed limit:	100km/hr
Number of truck movements per shift:	Less than 20
Dimension D:	100m (2D = 200m)
Available sight distance	Greater than 2D

FIGURE 60: EASTBOUND VIEW APPROACHING GATE J2I5 (~200M FROM ACCESS POINT)

FIGURE 61: WESTBOUND VIEW APPROACHING GATE J2I5 (~120M FROM ACCESS POINT)

As available sight distance approaching Gate J2I5 is greater than 2D (200m), an assessment has been undertaken using Table 5-7 of TfNSW's *Technical Manual – Traffic control at work sites* has been undertaken and is detailed in Table 83 below.

TABLE 83: GATE J2I5 – PROVIDING FOR TRUCK MOVEMENTS WHERE SIGHT DISTANCE IS GREATER THAN 2D (TABLE 5-7 OF TFNSW'S *TECHNICAL MANUAL – TRAFFIC CONTROL AT WORK SITES)*

ADT	300 – 1,500		More than 1,500	
Number of truck movements per shift	Less than or equal to 20	Greater than 20	Less than or equal to 20	Greater than 20
Traffic control required		Yes	Yes Note 1*	Yes Note 2*
VMP required		Yes		Yes
Warning signs required during shifts		Yes		Yes

Note 1: Where approach speed is greater than 95km/hr

Note 2: If acceleration and deceleration cannot occur on shoulders

In accordance with TfNSW's *Technical Manual – Traffic control at work sites,* traffic control is required to facilitate the safe and efficient movement of construction vehicles into and out of the access where the speed of approaching vehicles is greater than 95km/hr. To eliminate the exposure of traffic control personnel to live traffic, to minimise delays that would otherwise be incurred by approaching drivers and ensure that access manoeuvres can be undertaken safely, temporary speed limits will be implemented (below 95km/hr) along the Olympic Highway during access operation. Temporary speed limits shall be instated prior to the access, accommodating the necessary sight distance requirements as required (i.e. instated greater than 151m from an access where the reduced speed limit is 60km/hr).

In addition to this, traffic control may be implemented to facilitate alternative movements at the access (i.e., reverse into or out of the site) – refer to Section 3.3.14.

Sight Distance Assessment

A sight distance assessment against the requirements stipulated within Austroads *Guide to Road Design, Part 3: Geometric Design* and *Part 4A: Unsignalised and Signalised Intersections* has been undertaken using aerial imagery to ensure that construction vehicles can safely manoeuvre into and out of the access.

TABLE 84: SIGHT DISTANCE ASSESSMENT – GATE J2I5

Direction	Speed limit	S.S.D.		S.I.S.D.		M.G.S.D.	
		Requirement	Achieved?	Requirement	Achieved?	Requirement	Achieved?
East of access	80km/hr[1]	139m[2]	Yes	214m	Yes	111m	Yes
	60km/hr[1]	92m[2]	Yes	151m	Yes	83m	Yes
West of access	80km/hr[1]	139m[2]	Yes	214m	Yes	111m	Yes
	60km/hr[1]	92m[2]	Yes	151m	Yes	83m	Yes

1. Reduced speed limits are required to facilitate safe and efficient access of construction vehicles – refer to 'Access Controls Assessment' above

2. Desirable minimum value for all road types

With reference to the requirement for a reduced speed limit to be instated along the Olympic Highway to facilitate the safe and efficient movement of construction vehicles into and out of the access, and available sight distance provisions at the access, a maximum reduced speed limit of 80km/hr will be implemented on approach to the access, subject to approval by the relevant authority.

Where implemented, the temporary speed limit shall be instated prior to the access, accommodating the necessary sight distance requirements as required (i.e. instated greater than 151m from an access where the reduced speed limit is 60km/hr).

Gate J2I6 – Olympic Highway opposite Wood Street

Located on the Olympic Highway opposite Wood Street, Gate J2I6 is an existing access that will provide access to the Junee to Illabo Clearances enhancement site.

FIGURE 62: GATE J2I6 – OLYMPIC HIGHWAY

Details of permitted movements and methods of control at Gate J2I6 is summarised below in Table 85.

TABLE 85: SITE ACCESS DETAILS – GATE J2I6

Access	Site Entry/Exit	Largest Permitted Vehicle	Permitted Movements	Control
Gate J2I6 – Olympic Highway opposite Wood Street	Entry and exit	Up to 19.0m truck and dog	All movements	Traffic control

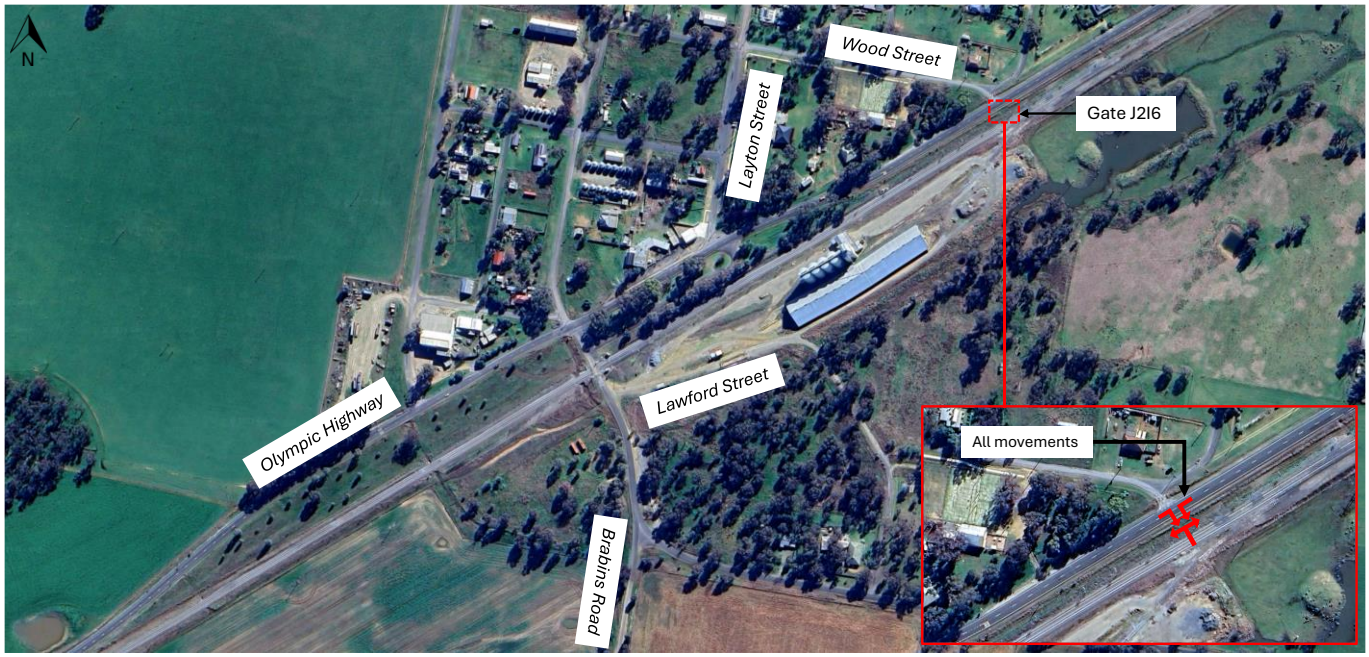


FIGURE 63: SITE ACCESS DETAILS – GATE J2I6

As detailed in Table 85, construction vehicles will access Gate J2I6 under traffic control.

Gate J2I7 – Olympic Highway opposite Commins Street

Located on the Olympic Highway opposite Commins Street, Gate J2I7 is an existing access that will provide access to the Junee to Illabo Clearances enhancement site.

FIGURE 64: GATE J2I7 – OLYMPIC HIGHWAY

Details of permitted movements and methods of control at Gate J2I7 is summarised below in Table 86.

TABLE 86: SITE ACCESS DETAILS – GATE J2I7

Access	Site Entry/Exit	Largest Permitted Vehicle	Permitted Movements	Control
Gate J2I7 – Olympic Highway opposite Commins Street	Entry and exit	Up to 19.0m truck and dog	All movements	Give-way

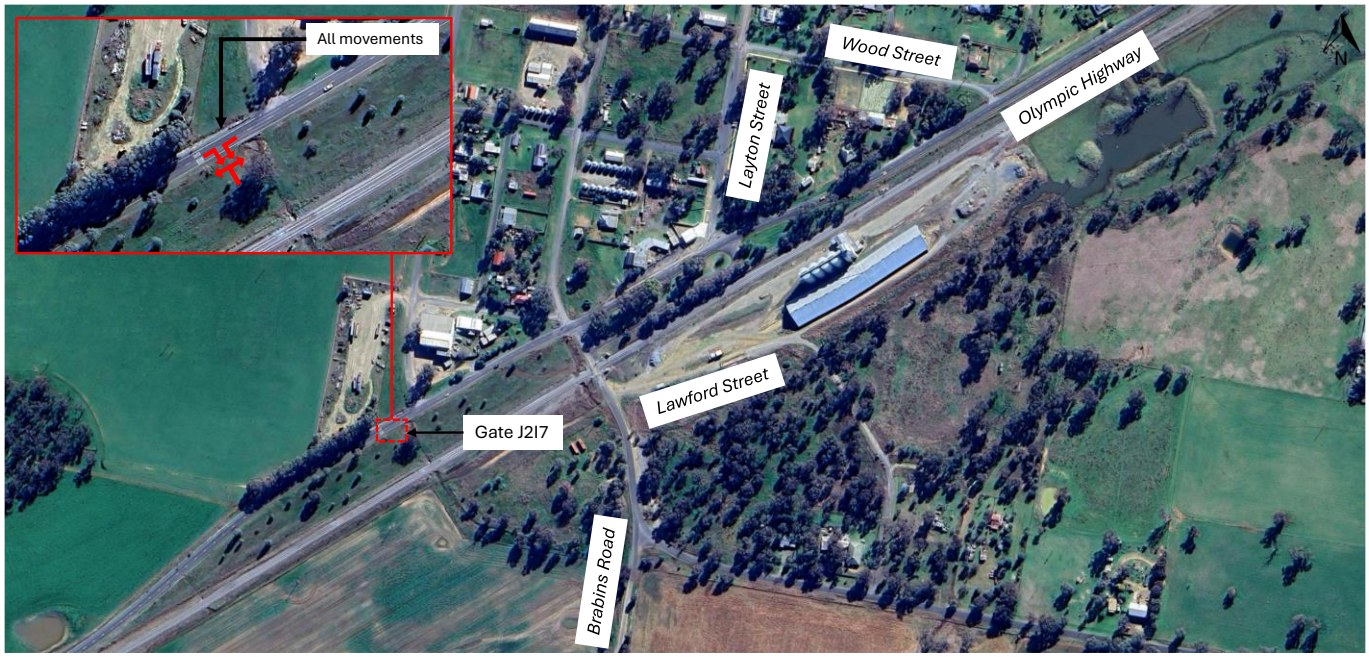


FIGURE 65: SITE ACCESS DETAILS – GATE J2I7

Access Controls Assessment

To ensure the safety of construction vehicles entering and exiting via the Gate J2I7, an assessment has been undertaken for determining controls for managing truck movements where auxiliary lanes are not provided (existing access point), depending on traffic volumes, sight distance, number of truck movements and traffic speed. This assessment aims to adopt the methodology presented within Section 5.2.3.3 of TfNSW's *Technical Manual – Traffic control at work sites* and is presented below.

TABLE 87: SITE ACCESS ASSESSMENT CRITERIA – GATE J2I7

Site Access Assessment	
Location:	Olympic Highway opposite Commins Street
AADT:	1,718
Speed limit:	50km/hr (100km/hr speed limit located ~15m west of access)
Number of truck movements per shift:	Less than 20
Dimension D:	100m (2D = 200m)
Available sight distance	Greater than 2D

FIGURE 66: EASTBOUND VIEW APPROACHING GATE J2I7 (~200M FROM ACCESS POINT)

FIGURE 67: WESTBOUND VIEW APPROACHING GATE J2I7 (~200M FROM ACCESS POINT)

As available sight distance approaching Gate J2I7 is greater than 2D (200m), an assessment has been undertaken using Table 5-7 of TfNSW's *Technical Manual – Traffic control at work sites* has been undertaken and is detailed in Table 88 below.

TABLE 88: GATE J2I7 – PROVIDING FOR TRUCK MOVEMENTS WHERE SIGHT DISTANCE IS GREATER THAN 2D (TABLE 5-7 OF TFNSW'S *TECHNICAL MANUAL – TRAFFIC CONTROL AT WORK SITES)*

ADT	300 – 1,500		More than 1,500	
Number of truck movements per shift	Less than or equal to 20	Greater than 20	Less than or equal to 20	Greater than 20
Traffic control required		Yes	Yes Note 1*	Yes Note 2*
VMP required		Yes		Yes
Warning signs required during shifts		Yes		Yes

Note 1: Where approach speed is greater than 95km/hr

Note 2: If acceleration and deceleration cannot occur on shoulders

In accordance with TfNSW's *Technical Manual – Traffic control at work sites,* traffic control is required to facilitate the safe and efficient movement of construction vehicles into and out of the access where the speed of approaching vehicles is greater than 95km/hr. To eliminate the exposure of traffic control personnel to live traffic, to minimise delays that would otherwise be incurred by approaching drivers and ensure that access manoeuvres can be undertaken safely. temporary speed limits will be implemented (below 95km/hr) along the Olympic Highway during access operation. In addition to this, traffic control may be implemented to facilitate alternative movements at the access (i.e., reverse into or out of the site) – refer to Section 3.3.14.

Sight Distance Assessment

A sight distance assessment against the requirements stipulated within Austroads *Guide to Road Design, Part 3: Geometric Design* and *Part 4A: Unsignalised and Signalised Intersections* has been undertaken using aerial imagery to ensure that construction vehicles can safely manoeuvre into and out of the access.

TABLE 89: SIGHT DISTANCE ASSESSMENT – GATE J2I7

Direction	Speed limit	S.S.D.		S.I.S.D.		M.G.S.D.	
		Requirement	Achieved?	Requirement	Achieved?	Requirement	Achieved?
East of access	50km/hr	73m	Yes	123m	Yes	69m	Yes
West of access	80km/hr[1]	139m[2]	Yes	214m	No	111m	Yes
	60km/hr[1]	92m[2]	Yes	151m	Yes	83m	Yes

1. Reduced speed limits are required to facilitate safe and efficient access of construction vehicles – refer to 'Access Controls Assessment' above.

2. Desirable minimum value for all road types

With reference to the requirement for a reduced speed limit to be instated along the Olympic Highway to facilitate the safe and efficient movement of construction vehicles into and out of the access, and available sight distance provisions at the access, a reduced speed limit of 60km/hr will be implemented on approach to the access, subject to approval by the relevant authority.

Where implemented, the temporary speed limit shall be instated prior to the access, accommodating the necessary sight distance requirements as required (i.e. instated greater than 151m from an access where the reduced speed limit is 60km/hr).

Gate J2I8 – Olympic Highway ~500m west of Commins Street

Located on the Olympic Highway approximately 500m west of Commins Street, Gate J2I8 is an existing access that will provide access to the Junee to Illabo Clearances enhancement site.

FIGURE 68: GATE J2I8 – OLYMPIC HIGHWAY

Details of permitted movements and methods of control at Gate J2I8 is summarised below in Table 90.

TABLE 90: SITE ACCESS DETAILS – GATE J2I8

Access	Site Entry/Exit	Largest Permitted Vehicle	Permitted Movements	Control
Gate J2I8 – Olympic Highway ~500m west of Commins Street	Entry and exit	Up to 19.0m truck and dog	All movements	Give-way

FIGURE 69: SITE ACCESS DETAILS – GATE J2I8

Access Controls Assessment

To ensure the safety of construction vehicles entering and exiting via the Gate J2I8, an assessment has been undertaken for determining controls for managing truck movements where auxiliary lanes are not provided (existing access point), depending on traffic volumes, sight distance, number of truck movements and traffic speed. This assessment aims to adopt the methodology presented within Section 5.2.3.3 of TfNSW's *Technical Manual – Traffic control at work sites* and is presented below.

TABLE 91: SITE ACCESS ASSESSMENT CRITERIA – GATE J2I8

Site Access Assessment	
Location:	Olympic Highway approximately 500m west of Commins Street
AADT:	1,718
Speed limit:	100km/hr
Number of truck movements per shift:	Less than 20
Dimension D:	100m (2D = 200m)
Available sight distance	Greater than 2D

FIGURE 70: EASTBOUND VIEW APPROACHING GATE J2I8 (~200M FROM ACCESS POINT)

FIGURE 71: WESTBOUND VIEW APPROACHING GATE J2I8 (~200M FROM ACCESS POINT)

As available sight distance approaching Gate J2I8 is greater than 2D (200m), an assessment has been undertaken using Table 5-7 of TfNSW's *Technical Manual – Traffic control at work sites* has been undertaken and is detailed in Table 92 below.

TABLE 92: GATE J2I8 – PROVIDING FOR TRUCK MOVEMENTS WHERE SIGHT DISTANCE IS GREATER THAN 2D (TABLE 5-7 OF TFNSW'S *TECHNICAL MANUAL – TRAFFIC CONTROL AT WORK SITES)*

ADT	300 – 1,500		More than 1,500	
Number of truck movements per shift	Less than or equal to 20	Greater than 20	Less than or equal to 20	Greater than 20
Traffic control required		Yes	Yes Note 1*	Yes Note 2*
VMP required		Yes		Yes
Warning signs required during shifts		Yes		Yes

Note 1: Where approach speed is greater than 95km/hr

Note 2: If acceleration and deceleration cannot occur on shoulders

In accordance with TfNSW's *Technical Manual – Traffic control at work sites,* traffic control is required to facilitate the safe and efficient movement of construction vehicles into and out of the access where the speed of approaching vehicles is greater than 95km/hr. To eliminate the exposure of traffic control personnel to live traffic, to minimise delays that would otherwise be incurred by approaching drivers and ensure that access manoeuvres can be undertaken safely. temporary speed limits will be implemented (below 95km/hr) along the Olympic Highway during access operation. In addition to this, traffic control may be implemented to facilitate alternative movements at the access (i.e., reverse into or out of the site) – refer to Section 3.3.14.

Sight Distance Assessment

A sight distance assessment against the requirements stipulated within Austroads *Guide to Road Design, Part 3: Geometric Design* and *Part 4A: Unsignalised and Signalised Intersections* has been undertaken using aerial imagery to ensure that construction vehicles can safely manoeuvre into and out of the access.

TABLE 93: SIGHT DISTANCE ASSESSMENT – GATE J2I8

Direction	Speed limit	S.S.D.		S.I.S.D.		M.G.S.D.	
		Requirement	Achieved?	Requirement	Achieved?	Requirement	Achieved?
East of access	80km/hr[1]	139m[2]	Yes	214m	Yes	111m	Yes
	60km/hr[1]	92m[2]	Yes	151m	Yes	83m	Yes
West of access	80km/hr[1]	139m[2]	Yes	214m	Yes	111m	Yes
	60km/hr[1]	92m[2]	Yes	151m	Yes	83m	Yes

1. Reduced speed limits are required to facilitate safe and efficient access of construction vehicles – refer to 'Access Controls Assessment' above.

2. Desirable minimum value for all road types

With reference to the requirement for a reduced speed limit to be instated along the Olympic Highway to facilitate the safe and efficient movement of construction vehicles into and out of the access, and available sight distance provisions at the access, a reduced speed limit of 80km/hr will be implemented on approach to the access, subject to approval by the relevant authority.

Where implemented, the temporary speed limit shall be instated prior to the access, accommodating the necessary sight distance requirements as required (i.e. instated greater than 151m from an access where the reduced speed limit is 60km/hr).

Gate J2I9 – Olympic Highway at Wornes Gate Lane

Located on the Olympic Highway at Wornes Gate Lane, Gate J2I9 is an existing access that will provide access to the Junee to Illabo Clearances enhancement site.

FIGURE 72: GATE J2I9 – OLYMPIC HIGHWAY

Details of permitted movements and methods of control at Gate J2I9 is summarised below in Table 94.

TABLE 94: SITE ACCESS DETAILS – GATE J2I9

Access	Site Entry/Exit	Largest Permitted Vehicle	Permitted Movements	Control
Gate J2I9 – Olympic Highway at Wornes Gate Lane	Entry and exit	Up to 19.0m truck and dog	Left and right in, right out	Give-way

FIGURE 73: SITE ACCESS DETAILS – GATE J2I9

Access Controls Assessment

To ensure the safety of construction vehicles entering and exiting via the Gate J2I9, an assessment has been undertaken for determining controls for managing truck movements where auxiliary lanes are not provided (existing access point), depending on traffic volumes, sight distance, number of truck movements and traffic speed. This assessment aims to adopt the methodology presented within Section 5.2.3.3 of TfNSW's *Technical Manual – Traffic control at work sites* and is presented below.

TABLE 95: SITE ACCESS ASSESSMENT CRITERIA – GATE J2I9

Site Access Assessment	
Location:	Olympic Highway at Wornes Gate Lane
AADT:	1,718
Speed limit:	100km/hr
Number of truck movements per shift:	Less than 20
Dimension D:	100m (2D = 200m)
Available sight distance	Greater than 2D

FIGURE 74: EASTBOUND VIEW APPROACHING GATE J2I9 (~200M FROM ACCESS POINT)

FIGURE 75: WESTBOUND VIEW APPROACHING GATE J2I9 (~200M FROM ACCESS POINT)

As available sight distance approaching Gate J2I9 is greater than 2D (200m), an assessment has been undertaken using Table 5-7 of TfNSW's *Technical Manual – Traffic control at work sites* has been undertaken and is detailed in Table 96 below.

TABLE 96: GATE J2I10 – PROVIDING FOR TRUCK MOVEMENTS WHERE SIGHT DISTANCE IS GREATER THAN 2D (TABLE 5-7 OF TFNSW'S *TECHNICAL MANUAL – TRAFFIC CONTROL AT WORK SITES)*

ADT	300 – 1,500		More than 1,500	
Number of truck movements per shift	Less than or equal to 20	Greater than 20	Less than or equal to 20	Greater than 20
Traffic control required		Yes	Yes Note 1*	Yes Note 2*
VMP required		Yes		Yes
Warning signs required during shifts		Yes		Yes

Note 1: Where approach speed is greater than 95km/hr

Note 2: If acceleration and deceleration cannot occur on shoulders

In accordance with TfNSW's *Technical Manual – Traffic control at work sites,* traffic control is required to facilitate the safe and efficient movement of construction vehicles into and out of the access where the speed of approaching vehicles is greater than 95km/hr. To eliminate the exposure of traffic control personnel to live traffic, to minimise delays that would otherwise be incurred by approaching drivers and ensure that access manoeuvres can be undertaken safely. temporary speed limits will be implemented (below 95km/hr) along the Olympic Highway during access operation. In addition to this, traffic control may be implemented to facilitate alternative movements at the access (i.e., reverse into or out of the site) – refer to Section 3.3.14.

Sight Distance Assessment

A sight distance assessment against the requirements stipulated within Austroads *Guide to Road Design, Part 3: Geometric Design* and *Part 4A: Unsignalised and Signalised Intersections* has been undertaken using aerial imagery to ensure that construction vehicles can safely manoeuvre into and out of the access.

TABLE 97: SIGHT DISTANCE ASSESSMENT – GATE J2I9

Direction	Speed limit	S.S.D.		S.I.S.D.		M.G.S.D.	
		Requirement	Achieved?	Requirement	Achieved?	Requirement	Achieved?
East of access	80km/hr[1]	139m[2]	Yes	214m	Yes	111m	Yes
	60km/hr[1]	92m[2]	Yes	151m	Yes	83m	Yes
West of access	80km/hr[1]	139m[2]	Yes	214m	Yes	111m	Yes
	60km/hr[1]	92m[2]	Yes	151m	Yes	83m	Yes

1. Reduced speed limits are required to facilitate safe and efficient access of construction vehicles – refer to 'Access Controls Assessment' above.

2. Desirable minimum value for all road types

With reference to the requirement for a reduced speed limit to be instated along the Olympic Highway to facilitate the safe and efficient movement of construction vehicles into and out of the access, and available sight distance provisions at the access, a reduced speed limit of 80km/hr will be implemented on approach to the access, subject to approval by the relevant authority.

Where implemented, the temporary speed limit shall be instated prior to the access, accommodating the necessary sight distance requirements as required (i.e. instated greater than 151m from an access where the reduced speed limit is 60km/hr).

Gate J2I10 – Olympic Highway ~1.2km east of Marinna Station Cross Road

Located on the Olympic Highway approximately 1.2km east of the Olympic Highway / Marinna Station Cross Road intersection, Gate J2I10 is an existing access that will provide access to the Junee to Illabo Clearances enhancement site.

FIGURE 76: GATE J2I10 – OLYMPIC HIGHWAY

Details of permitted movements and methods of control at Gate J2I10 is summarised below in Table 98.

TABLE 98: SITE ACCESS DETAILS – GATE J2I10

Access	Site Entry/Exit	Largest Permitted Vehicle	Permitted Movements	Control
Gate J2I10 – Olympic Highway ~ 1.2km east of Marinna Station Cross Road	Entry and exit	Up to 19.0m truck and dog	Left in, left out	Give-way

FIGURE 77: SITE ACCESS DETAILS – GATE J2I10

Access Controls Assessment

To ensure the safety of construction vehicles entering and exiting via the Gate J2I10, an assessment has been undertaken for determining controls for managing truck movements where auxiliary lanes are not provided (existing access point), depending on traffic volumes, sight distance, number of truck movements and traffic speed. This assessment aims to adopt the methodology presented within Section 5.2.3.3 of TfNSW's *Technical Manual – Traffic control at work sites* and is presented below.

TABLE 99: SITE ACCESS ASSESSMENT CRITERIA – GATE J2I10

Site Access Assessment	
Location:	Olympic Highway ~1.2km east of Marinna Station Cross Road
AADT:	1,718
Speed limit:	100km/hr
Number of truck movements per shift:	Less than 20
Dimension D:	100m (2D = 200m)
Available sight distance	Greater than 2D

FIGURE 78: EASTBOUND VIEW APPROACHING GATE J210 (~200M FROM ACCESS POINT)

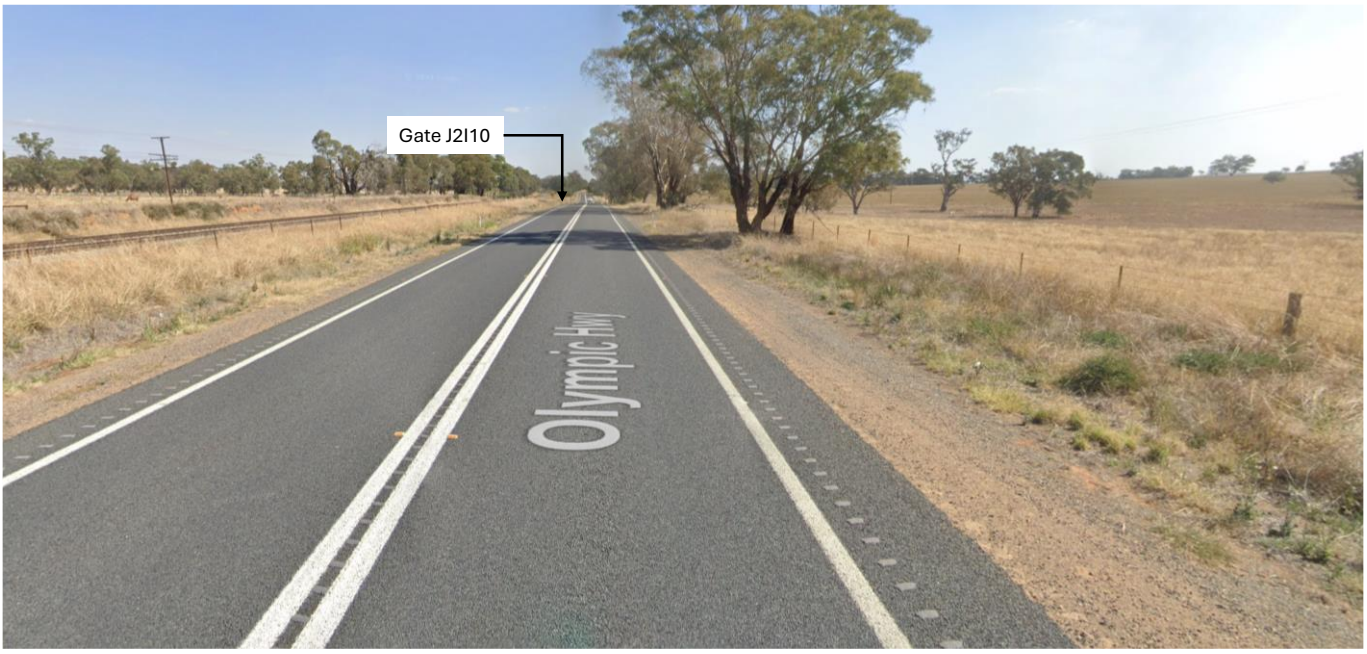


FIGURE 79: WESTBOUND VIEW APPROACHING GATE J210 (~200M FROM ACCESS POINT)

As available sight distance approaching Gate J2I10 is greater than 2D (200m), an assessment has been undertaken using Table 5-7 of TfNSW's *Technical Manual – Traffic control at work sites* has been undertaken and is detailed in Table 100 below.

TABLE 100: GATE J2I10 – PROVIDING FOR TRUCK MOVEMENTS WHERE SIGHT DISTANCE IS GREATER THAN 2D (TABLE 5-7 OF TFNSW'S *TECHNICAL MANUAL – TRAFFIC CONTROL AT WORK SITES)*

ADT	300 – 1,500		More than 1,500	
Number of truck movements per shift	Less than or equal to 20	Greater than 20	Less than or equal to 20	Greater than 20
Traffic control required		Yes	Yes Note 1*	Yes Note 2*
VMP required		Yes		Yes
Warning signs required during shifts		Yes		Yes

Note 1: Where approach speed is greater than 95km/hr

Note 2: If acceleration and deceleration cannot occur on shoulders

In accordance with TfNSW's *Technical Manual – Traffic control at work sites,* traffic control is required to facilitate the safe and efficient movement of construction vehicles into and out of the access where the speed of approaching vehicles is greater than 95km/hr. To eliminate the exposure of traffic control personnel to live traffic, to minimise delays that would otherwise be incurred by approaching drivers and ensure that access manoeuvres can be undertaken safely. temporary speed limits will be implemented (below 95km/hr) along the Olympic Highway during access operation. In addition to this, traffic control may be implemented to facilitate alternative movements at the access (i.e., reverse into or out of the site) – refer to Section 3.3.14.

Sight Distance Assessment

A sight distance assessment against the requirements stipulated within Austroads *Guide to Road Design, Part 3: Geometric Design* and *Part 4A: Unsignalised and Signalised Intersections* has been undertaken using aerial imagery to ensure that construction vehicles can safely manoeuvre into and out of the access.

TABLE 101: SIGHT DISTANCE ASSESSMENT – GATE J2I10

Direction	Speed limit	S.S.D.		S.I.S.D.		M.G.S.D.	
		Requirement	Achieved?	Requirement	Achieved?	Requirement	Achieved?
East of access	80km/hr[1]	139m[2]	Yes	214m	Yes	111m	Yes
	60km/hr[1]	92m[2]	Yes	151m	Yes	83m	Yes
West of access	N/A						

1. Reduced speed limits are required to facilitate safe and efficient access of construction vehicles – refer to 'Access Controls Assessment' above.

2. Desirable minimum value for all road types

With reference to the requirement for a reduced speed limit to be instated along the Olympic Highway to facilitate the safe and efficient movement of construction vehicles into and out of the access, and available sight distance provisions at the access, a reduced speed limit of 80km/hr will be implemented on approach to the access, subject to approval by the relevant authority.

Where implemented, the temporary speed limit shall be instated prior to the access, accommodating the necessary sight distance requirements as required (i.e. instated greater than 151m from an access where the reduced speed limit is 60km/hr).

Gate J2I11 – Olympic Highway ~200m east of Marinna Station Cross Road

Located on the Olympic Highway approximately 200m east of the Olympic Highway / Marinna Station Cross Road intersection, Gate J2I11 is an existing access that will provide access to the Junee to Illabo Clearances enhancement site.

FIGURE 80: GATE J2I11 – OLYMPIC HIGHWAY

Details of permitted movements and methods of control at Gate J2I11 is summarised below in Table 102.

TABLE 102: SITE ACCESS DETAILS – GATE J2I11

Access	Site Entry/Exit	Largest Permitted Vehicle	Permitted Movements	Control
Gate J2I11 – Olympic Highway ~ 200m east of Marinna Station Cross Road	Exit only	Up to 19.0m truck and dog	Left out	Give-way

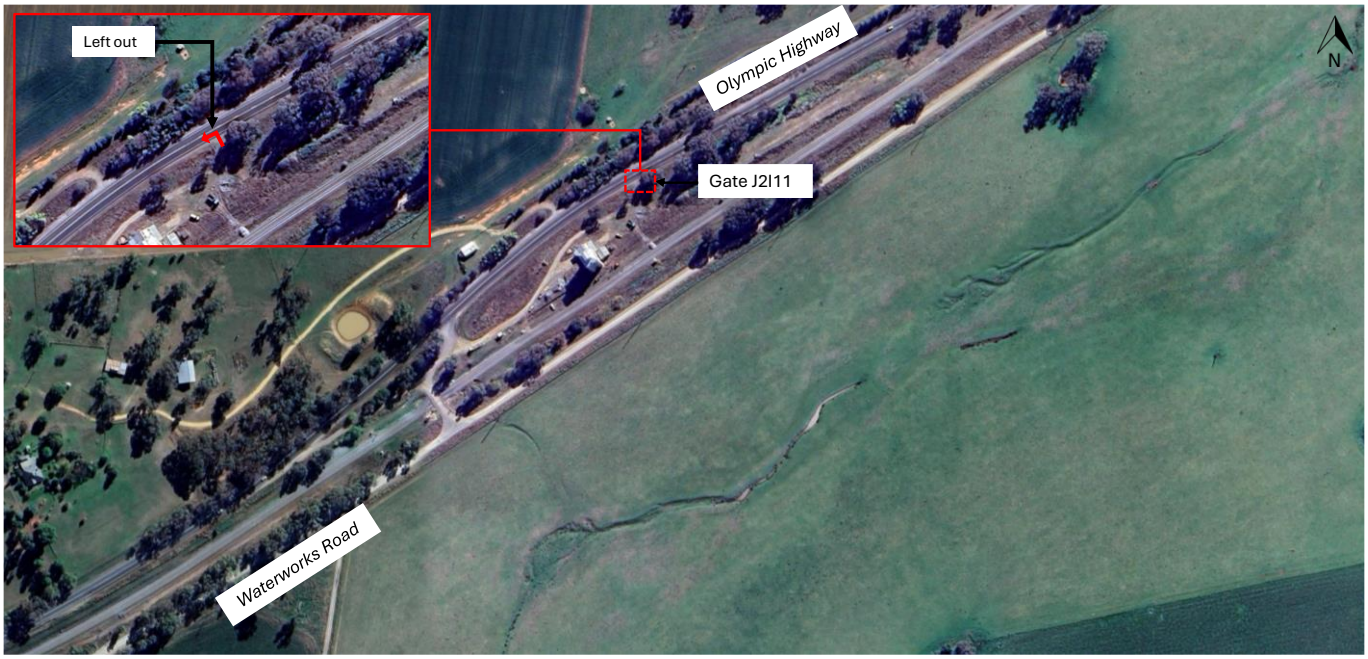


FIGURE 81: SITE ACCESS DETAILS – GATE J2I11

Access Controls Assessment

To ensure the safety of construction vehicles entering and exiting via the Gate J2I11, an assessment has been undertaken for determining controls for managing truck movements where auxiliary lanes are not provided (existing access point), depending on traffic volumes, sight distance, number of truck movements and traffic speed. This assessment aims to adopt the methodology presented within Section 5.2.3.3 of TfNSW's *Technical Manual – Traffic control at work sites* and is presented below.

TABLE 103: SITE ACCESS ASSESSMENT CRITERIA – GATE J2I11

Site Access Assessment	
Location:	Olympic Highway ~200 east of Marinna Station Cross Road
AADT:	1,718
Speed limit:	100km/hr
Number of truck movements per shift:	Less than 20
Dimension D:	100m (2D = 200m)
Available sight distance	Greater than 2D

FIGURE 82: WESTBOUND VIEW APPROACHING GATE J211 (~200M FROM ACCESS POINT)

As available sight distance approaching Gate J2I11 is greater than 2D (200m), an assessment has been undertaken using Table 5-7 of TfNSW's *Technical Manual – Traffic control at work sites* has been undertaken and is detailed in Table 104 below.

TABLE 104: GATE J2I11 – PROVIDING FOR TRUCK MOVEMENTS WHERE SIGHT DISTANCE IS GREATER THAN 2D (TABLE 5-7 OF TFNSW'S *TECHNICAL MANUAL – TRAFFIC CONTROL AT WORK SITES)*

ADT	300 – 1,500		More than 1,500	
Number of truck movements per shift	Less than or equal to 20	Greater than 20	Less than or equal to 20	Greater than 20
Traffic control required		Yes	Yes Note 1*	Yes Note 2*
VMP required		Yes		Yes
Warning signs required during shifts		Yes		Yes

Note 1: Where approach speed is greater than 95km/hr

Note 2: If acceleration and deceleration cannot occur on shoulders

In accordance with TfNSW's *Technical Manual – Traffic control at work sites,* traffic control is required to facilitate the safe and efficient movement of construction vehicles into and out of the access where the speed of approaching vehicles is greater than 95km/hr. To eliminate the exposure of traffic control personnel to live traffic, to minimise delays that would otherwise be incurred by approaching drivers and ensure that access manoeuvres can be undertaken safely. temporary speed limits will be implemented (below 95km/hr) along the Olympic Highway during access operation. In addition to this, traffic control may be implemented to facilitate alternative movements at the access (i.e., reverse into or out of the site) – refer to Section 3.3.14.

Sight Distance Assessment

A sight distance assessment against the requirements stipulated within Austroads *Guide to Road Design, Part 3: Geometric Design* and *Part 4A: Unsignalised and Signalised Intersections* has been undertaken using aerial imagery to ensure that construction vehicles can safely manoeuvre into and out of the access.

TABLE 105: SIGHT DISTANCE ASSESSMENT – GATE J2I11

Direction	Speed limit	S.S.D.		S.I.S.D.		M.G.S.D.	
		Requirement	Achieved?	Requirement	Achieved?	Requirement	Achieved?
East of access	80km/hr[1]	139m[2]	Yes	214m	No	111m	Yes
	60km/hr[1]	92m[2]	Yes	151m	Yes	83m	Yes
West of access	N/A						

1. Reduced speed limits are required to facilitate safe and efficient access of construction vehicles – refer to 'Access Controls Assessment' above.

2. Desirable minimum value for all road types

With reference to the requirement for a reduced speed limit to be instated along the Olympic Highway to facilitate the safe and efficient movement of construction vehicles into and out of the access, and available sight distance provisions at the access, a reduced speed limit of 60km/hr will be implemented on approach to the access, subject to approval by the relevant authority.

Where implemented, the temporary speed limit shall be instated prior to the access, accommodating the necessary sight distance requirements as required (i.e. instated greater than 151m from an access where the reduced speed limit is 60km/hr).

Gate J2I12 – Marinna Station Cross Road

Located on Marinna Station Cross Road, Gate J2I12 is an existing access that will provide access to the Junee to Illabo Clearances enhancement site.

FIGURE 83: GATE J2I12 – MARINNA STATION CROSS ROAD

Details of permitted movements and methods of control at Gate J2I12 is summarised below in Table 106.

TABLE 106: SITE ACCESS DETAILS – GATE J2I12

Access	Site Entry/Exit	Largest Permitted Vehicle	Permitted Movements	Control
Gate J2I12 – Marinna Station Cross Road	Entry only	Up to 19.0m truck and dog	Left in	Give-way

FIGURE 84: SITE ACCESS DETAILS – GATE J2I12

Access Controls Assessment

To ensure the safety of construction vehicles entering and exiting via the Gate J2I12, an assessment has been undertaken for determining controls for managing truck movements where auxiliary lanes are not provided (existing access point), depending on traffic volumes, sight distance, number of truck movements and traffic speed. This assessment aims to adopt the methodology presented within Section 5.2.3.3 of TfNSW's *Technical Manual – Traffic control at work sites* and is presented below.

TABLE 107: SITE ACCESS ASSESSMENT CRITERIA – GATE J2I12

Site Access Assessment	
Location:	Marinna Station Cross Road
AADT:	44
Speed limit:	Unsigned – assume 100km/hr
Number of truck movements per shift:	Less than 20
Dimension D:	100m (2D = 200m)
Available sight distance	Greater than 2D

FIGURE 85: SOUTHBOUND VIEW APPROACHING GATE J2I12 (~15M FROM ACCESS POINT)

As available sight distance approaching Gate J2I12 is less than 2D (200m), an assessment has been undertaken using Table 5-6 of TfNSW's *Technical Manual – Traffic control at work sites* has been undertaken and is detailed in Table 108 below.

TABLE 108: GATE J2I12 – PROVIDING FOR TRUCK MOVEMENTS WHERE SIGHT DISTANCE IS LESS THAN 2D (TABLE 5-6 OF TFNSW'S *TECHNICAL MANUAL – TRAFFIC CONTROL AT WORK SITES)*

ADT	300 – 1,500		More than 1,500	
Number of truck movements per shift	Less than or equal to 20	Greater than 20	Less than or equal to 20	Greater than 20
Traffic control required		Yes	Yes	Yes
VMP required	Yes	Yes	Yes	Yes
Warning signs required during shifts		Yes	Yes Note 2*	**Yes**

Note 1: Where approach speed is greater than 95km/hr every effort should be made to choose turning locations where sight distance exceeds 2D

Note 2: Not required when approach speed is less than 85km/hr

In accordance with TfNSW's *Technical Manual – Traffic control at work sites,* a VMP is required. As such, prior to the commencement of works a VMP will be developed and will detail vehicle movements for vehicles arriving to and departing from site via Gate J2I12. The VMP will identify the location of the site access gate and permitted movements and be communicated to workers and delivery drivers associated with the Stage A works.

An indicative VMP is shown below in Figure 86.

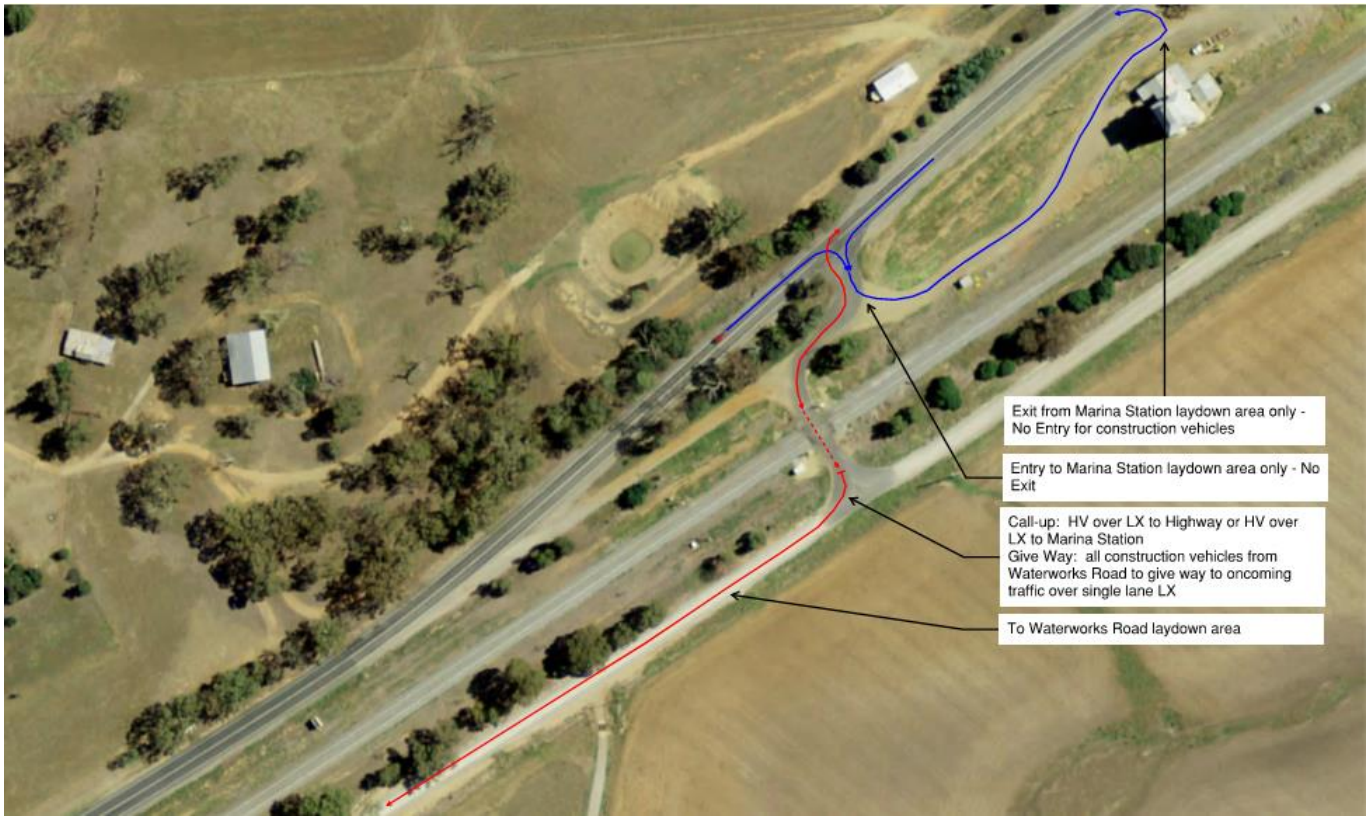


FIGURE 86: GATE J2I12 VEHICLE MANAGEMENT PLAN

In addition to this, traffic control may be implemented to facilitate alternative movements at the access (i.e., reverse into or out of the site) – refer to Section 3.3.14.

Sight Distance Assessment

A sight distance assessment against the requirements stipulated within Austroads *Guide to Road Design, Part 3: Geometric Design* and *Part 4A: Unsignalised and Signalised Intersections* has been undertaken to ensure that construction vehicles can safely manoeuvre into and out of the access.

TABLE 109: SIGHT DISTANCE ASSESSMENT – GATE J2I12

Direction	Speed limit	S.S.D.		S.I.S.D.		M.G.S.D.	
		Requirement	Achieved?	Requirement	Achieved?	Requirement	Achieved?
North of access	Unsigned – assume 100km/hr	193m	No – see below	N/A – entry only			
South of access	Unsigned – assume 100km/hr	193m	No – see below	N/A – entry only			

As detailed above, and due to the proximity of Gate J2I12 to the Olympic Highway / Marinna Station Cross Road intersection (approximately 20m from the access), the stopping sight distance is not able to be achieved. It is however expected that vehicle manoeuvring from the Olympic Highway onto Marinna Station Cross Road will do so a speed lower than that of the posted speed.

Gate J2I13 – Waterworks Road ~1.7km west of Marinna Station Cross Road

Located on Waterworks Road approximately 1.7km west of Marinna Station Cross Road, Gate J213 is an existing access that will provide access to the Junee to Illabo Clearances enhancement site.

FIGURE 87: GATE J2I13 – OLYMPIC HIGHWAY

Details of permitted movements and methods of control at Gate J2I13 is summarised below in Table 110.

TABLE 110: SITE ACCESS DETAILS – GATE J2I13

Access	Site Entry/Exit	Largest Permitted Vehicle	Permitted Movements	Control
Gate J2I13 – Waterworks Road ~1.7km west of Marinna Station Cross Road	Entry and exit	Up to 19.0m truck and dog	Right in, left out	Give-way

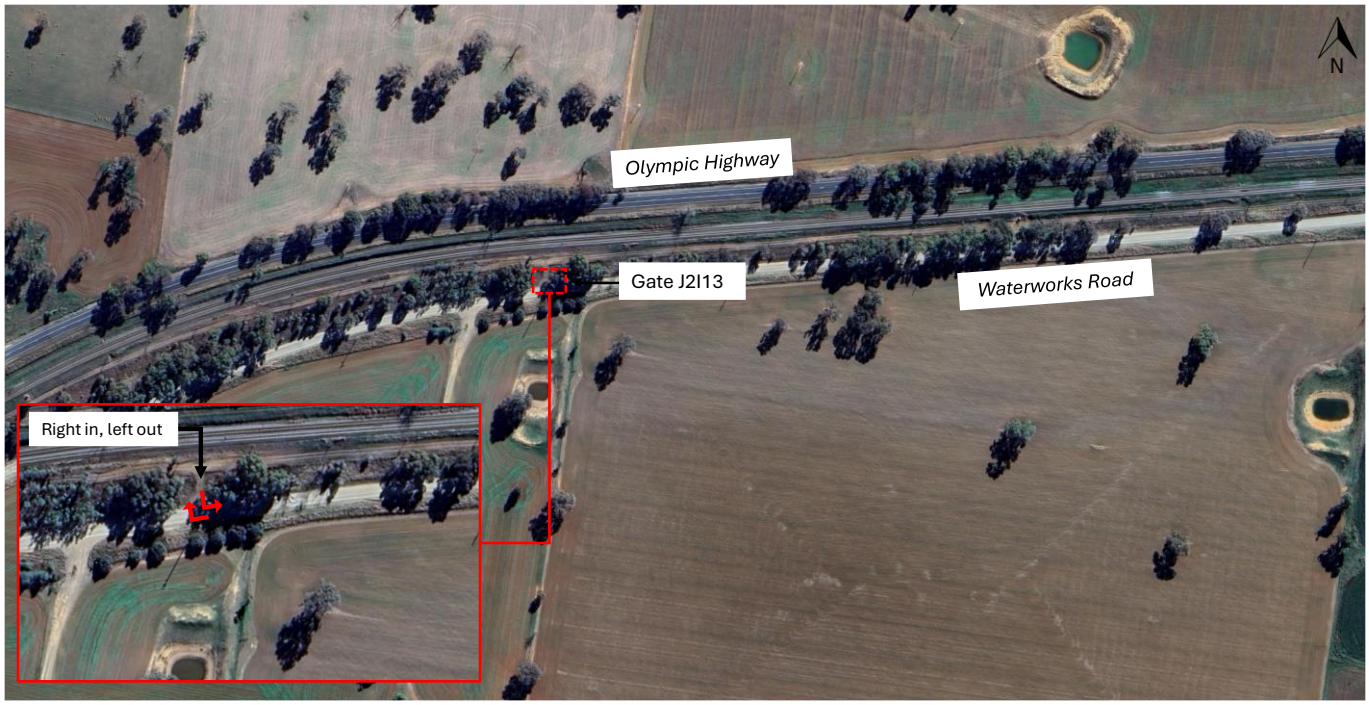


FIGURE 88: SITE ACCESS DETAILS – GATE J2I13

Access Controls Assessment

To ensure the safety of construction vehicles entering and exiting via the Gate J2I13, an assessment has been undertaken for determining controls for managing truck movements where auxiliary lanes are not provided (existing access point), depending on traffic volumes, sight distance, number of truck movements and traffic speed. This assessment aims to adopt the methodology presented within Section 5.2.3.3 of TfNSW's *Technical Manual – Traffic control at work sites* and is presented below.

TABLE 111: SITE ACCESS ASSESSMENT CRITERIA – GATE J2I13

Site Access Assessment	
Location:	Waterworks Road ~1.7km west of Marinna Station Cross Road
AADT:	241
Speed limit:	100km/hr
Number of truck movements per shift:	Less than 20
Dimension D:	100m (2D = 200m)
Available sight distance	Greater than 2D

FIGURE 89: EASTBOUND VIEW APPROACHING GATE J2I13 (~200M FROM ACCESS POINT)

As available sight distance approaching Gate J2I13 is greater than 2D (200m), an assessment has been undertaken using Table 5-7 of TfNSW's *Technical Manual – Traffic control at work sites* has been undertaken and is detailed in Table 112 below.

TABLE 112: GATE J2I13 – PROVIDING FOR TRUCK MOVEMENTS WHERE SIGHT DISTANCE IS GREATER THAN 2D (TABLE 5-7 OF TFNSW'S *TECHNICAL MANUAL – TRAFFIC CONTROL AT WORK SITES)*

ADT	300 – 1,500		More than 1,500	
Number of truck movements per shift	Less than or equal to 20	Greater than 20	Less than or equal to 20	Greater than 20
Traffic control required		Yes	Yes Note 1*	Yes Note 2*
VMP required		Yes		Yes
Warning signs required during shifts		Yes		Yes

Note 1: Where approach speed is greater than 95km/hr

Note 2: If acceleration and deceleration cannot occur on shoulders

No controls are warranted at Gate J2I13 to facilitate the safe and efficient movement of construction vehicles into the access. Notwithstanding this, traffic control may be implemented to facilitate alternative movements at the access (i.e., reverse into or out of the site) – refer to Section 3.3.14

Sight Distance Assessment

A sight distance assessment against the requirements stipulated within Austroads *Guide to Road Design, Part 3: Geometric Design* and *Part 4A: Unsignalised and Signalised Intersections* has been undertaken using aerial imagery to ensure that construction vehicles can safely manoeuvre into and out of the access.

TABLE 113: SIGHT DISTANCE ASSESSMENT – GATE J2I13

Direction	Speed limit	S.S.D.		S.I.S.D.		M.G.S.D.	
		Requirement	Achieved?	Requirement	Achieved?	Requirement	Achieved?
East of access	100km/hr	193m[1]	Yes	285m	No	139m	Yes
	80km/hr[1]	139m[1]	Yes	214m	Yes	111m	Yes
West of access	100km/hr	193m[1]	Yes	285m	Yes	139m	Yes
	80km/hr[1]	139m[1]	Yes	214m	Yes	111m	Yes

1. Desirable minimum value for all road types

With reference to the sight distance assessment detailed above and to ensure that adequate sight distance is available at the site access, a reduced speed limit of 80km/hr will be implemented on approach to the access, subject to approval by the relevant authority.

Where implemented, the temporary speed limit shall be instated prior to the access, accommodating the necessary sight distance requirements as required (i.e. instated greater than 151m from an access where the reduced speed limit is 60km/hr).

Site Compound Access at Lawford Street

Access to the site compound will be via an existing access located on Lawford Street.

FIGURE 90: SITE COMPOUND ACCESS – LAWFORD STREET

Details of permitted movements and methods of control at the site compound access is summarised below in Table 114.

TABLE 114: SITE ACCESS DETAILS – SITE COMPOUND

Access	Site Entry/Exit	Largest Permitted Vehicle	Permitted Movements	Control
Site compound at Lawford Street	Entry and exit	Up to 19.0m truck and dog	All movements	Give-way

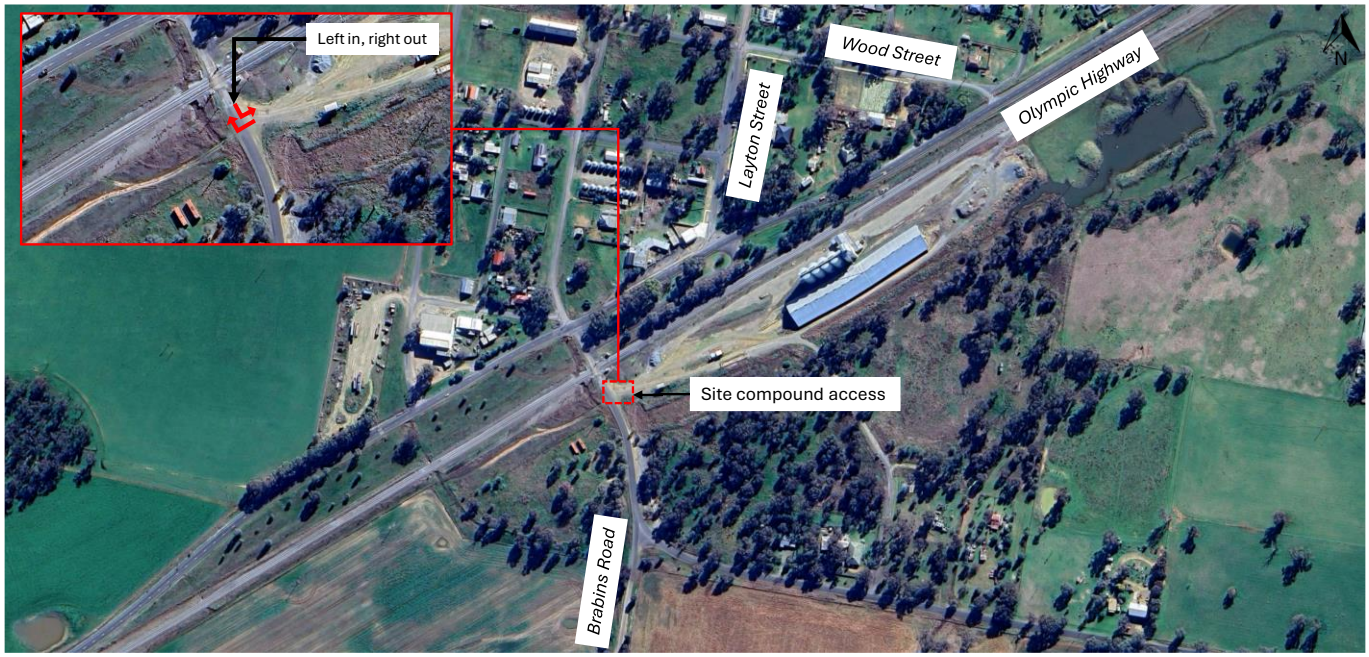


FIGURE 91: SITE ACCESS DETAILS – SITE COMPOUND ACCESS

Access Controls Assessment

To ensure the safety of construction vehicles entering and exiting via the site compound access, an assessment has been undertaken for determining controls for managing truck movements where auxiliary lanes are not provided (existing access point), depending on traffic volumes, sight distance, number of truck movements and traffic speed. This assessment aims to adopt the methodology presented within Section 5.2.3.3 of TfNSW's *Technical Manual – Traffic control at work sites* and is presented below.

TABLE 115: SITE ACCESS ASSESSMENT CRITERIA – SITE COMPOUND ACCESS

Site Access Assessment	
Location:	Lawford Street at Road
AADT:	No data available - assume between 300 - 1500
Speed limit:	50km/hr
Number of truck movements per shift:	Less than 20
Dimension D:	50m (2D = 100m)
Available sight distance	Greater than 2D

FIGURE 92: SOUTHBOUND VIEW APPROACHING SITE COMPOUND ACCESS (~100M FROM ACCESS POINT)

As available sight distance approaching the site access compound is greater than 2D (100m), an assessment has been undertaken using Table 5-7 of TfNSW's *Technical Manual – Traffic control at work sites* has been undertaken and is detailed in Table 116 below.

TABLE 116: SITE COMPOUND ACCESS – PROVIDING FOR TRUCK MOVEMENTS WHERE SIGHT DISTANCE IS GREATER THAN 2D (TABLE 5-7 OF TFNSW'S *TECHNICAL MANUAL – TRAFFIC CONTROL AT WORK SITES*)

ADT	300 – 1,500		More than 1,500	
Number of truck movements per shift	Less than or equal to 20	Greater than 20	Less than or equal to 20	Greater than 20
Traffic control required		Yes	Yes Note 1*	Yes Note 2*
VMP required		Yes		Yes
Warning signs required during shifts		Yes		Yes

Note 1: Where approach speed is greater than 95km/hr

Note 2: If acceleration and deceleration cannot occur on shoulders

No controls are warranted at the site compound access to facilitate the safe and efficient movement of construction vehicles into and out of the access, and as such access will operate under a typical "Give way" arrangement. Notwithstanding this, traffic control may be implemented to facilitate alternative movements at the access (i.e., reverse into or out of the site) – refer to Section 3.3.14.

Sight Distance Assessment

A sight distance assessment against the requirements stipulated within Austroads *Guide to Road Design, Part 3: Geometric Design* and *Part 4A: Unsignalised and Signalised Intersections* has been undertaken using aerial imagery to ensure that construction vehicles can safely manoeuvre into and out of the access.

TABLE 117: SIGHT DISTANCE ASSESSMENT – SITE COMPOUND ACCESS

Direction	Speed limit	S.S.D.		S.I.S.D.		M.G.S.D.	
		Requirement	Achieved?	Requirement	Achieved?	Requirement	Achieved?
North of access	50km/hr	73m[1]	Yes	123m	No – see below	69m	Yes
South of access	50km/hr	73m[1]	Yes	123m	Yes	69m	Yes

1. Desirable minimum value for all road types

As detailed above, the site compound access on Brabins Road achieves the minimum requirements for stopping sight distance and minimum gap sight distance, however due to the proximity of the access to the Olympic Highway / Brabins Road intersection (approximately 78m from the access), the 123m safe intersection sight distance is not able to be achieved. It is however expected that vehicle manoeuvring from the Olympic Highway onto Brabins Road will do so a speed lower than that of the posted speed. As such, the provision of stopping sight distance and minimum gap sight distance is considered acceptable.

3.3.8 Construction Access Routes

Construction heavy vehicles will access the worksite via the routes identified within Environmental Approval Documentation, with the primary route for construction traffic entering the worksite will be via:

- Gate J2I1 – Olympic Highway.
- Gate J2I2 – Olympic Highway.
- Gate J2I3 – Olympic Highway.
- Gate J2I4 – Olympic Highway.
- Gate J2I5 – Olympic Highway.
- Gate J2I6 – Olympic Highway.
- Gate J2I7 – Olympic Highway.
- Gate J2I8 – Olympic Highway.
- Gate J2I9 – Olympic Highway.
- Gate J2I10 – Olympic Highway.
- Gate J2I11 – Olympic Highway.
- Gate J2I12 – Olympic Highway, Marinna Station Cross Road.
- Gate J2I13 – Olympic Highway, Marinna Station Cross Road, Waterworks Road.
- Site compound – Olympic Highway, Brabins Road, Lawford Street.

The primary route for construction vehicles exiting the worksite will be via:

- Gate J2I1 – Olympic Highway.
- Gate J2I2 – Olympic Highway.
- Gate J2I3 – Olympic Highway.
- Gate J2I4 – Olympic Highway.
- Gate J2I5 – Olympic Highway.
- Gate J2I6 – Olympic Highway.
- Gate J2I7 – Olympic Highway.
- Gate J2I8 – Olympic Highway.
- Gate J2I9 – Olympic Highway.
- Gate J2I10 –Olympic Highway.
- Gate J2I11 – Olympic Highway.
- Gate J2I12 – Marinna Station Cross Road, Olympic Highway
- Gate J2I13 – Waterworks Road, Marinna Station Cross Road, Olympic Highway.

- Site compound –Lawford Street, Brabins Road, Olympic Highway.

3.3.9 Impact on Traffic Flow

Overview

To evaluate the impact of the Stage A works on the road network, an assessment of road (mid-block) performance has been undertaken in relation to Level of Service (LOS) for the key road links with and without traffic generated by the Stage A works. The assessment has been carried out using a combination of peak hour background traffic volumes, in conjunction with expected peak hour construction traffic volumes to determine an operating LOS for key road links for both the "without construction traffic" and "with construction traffic" scenarios.

Road link LOS for key road links have been determined using Table 4.4 from the *Guide to Traffic Generating Developments (RTA 2002)*, which has been replicated below.

TABLE 118: LINK LOS ADAPTED FROM THE *GUIDE TO TRAFFIC GENERATING DEVELOPMENT (2002) TABLE 4.4*

LOS	One lane per direction (veh/hr)	Two lanes per direction (veh/hr)
LOS A	200	900
LOS B	380	1,400
LOS C	600	1,800
LOS D	900	2,200
LOS E	More than 900	2,800

While it is recognised that TfNSW's *Guide to Transport Impact Assessment* has superseded the *Guide to Traffic Generating Developments*, the process of assessment is considered appropriate in quantifying potential impacts to traffic flow and the road network resulting from the Stage A works. It is also noted that this approach is consistent with the Link LOS assessment undertaken within *Technical Paper 1: Traffic and Transport* and its addendums.

Link Level of Service Assessment for Key Roads

The link LOS assessment for the Junee to Illabo Clearances enhancement site is shown in Table 45 below. Peak hour volumes for the Olympic Highway, Brabins Road and Waterworks Road have been extracted from Table 5.51 of *Technical Paper 1: Traffic and Transport*.

TABLE 119: LINK LOS ASSESSMENT – JUNEE TO ILLABO CLEARANCES

Road name	No. of lanes (per direction)	Background volume (one way)	Without construction traffic LOS	Construction volume (one way)	Total volume	Percent increase in volumes	With project LOS
Olympic Highway	1	113	A	8	121	7.1%	A
Brabins Road	1	2	A		10	400%	A
Marinna Station Cross Road	1	2	A		10	400%	A
Waterworks Road	1	15	A		23	53.3%	A

The link LOS assessment for the Junee to Illabo Clearances enhancement site shows that with construction traffic all road links are expected to operate at LOS A, no change is LOS from the "without construction traffic scenario". As a result, no significant impact to road operation or performance are expected to result from the traffic generated by the Stage A works. As such, mitigations are not considered warranted as a result of the Stage A works.

3.3.10 Impact on Public Transport

Public Transport Operations

There is not expected to be any impact upon public transport operations is expected during this stage of work.

Access to Public Transport

There will be no change or impact to public transport access during this stage of work.

3.3.11 Impact on Pedestrians and Cyclists

There will be no change to or impact to pedestrian and cyclist facilities or access during this stage of work.

3.3.12 Access for Businesses and Residents

There will be no change to or impact to access for businesses and/or residents during this stage of work.

3.3.13 Changes to Kerbside Management

There will be no changes to kerbside allocations during this stage of work.

3.3.14 Works Requiring Short Term Traffic Control

The Stage A works are generally confined to the rail corridor and as such do not involve works be constructed under traffic. Temporary speed limit reductions and/or short-term traffic control (intermittent stops) may be implemented on the Olympic Highway to manage some site entry and exit movements for construction heavy vehicles.

TABLE 120: SHORT-TERM TRAFFIC CONTROL REQUIREMENTS – JUNEE TO ILLABO YARD CLEARANCES

Location	Activity	Traffic control	Duration	Timing	Expected impacts
Gate J2I1 – Olympic Highway ~85m south of Warrens Lane	Site access manoeuvres	Hold and release / intermittent stop	8 months	Day shift, Monday to Saturday	Minor delays to traffic travelling along the Olympic Highway, Brabins Road, Marinna Station Cross Road and/or Waterworks Road.
Gate J2I2 – Olympic Highway opposite Warrens Lane					
Gate J2I3 – Olympic Highway at Warrens Lane					
Gate J2I4 – Olympic Highway ~550m west of Warrens Lane					
Gate J2I5 – Olympic Highway ~1km west of Warrens Lane					
Gate J2I6 – Olympic Highway opposite Wood Street					
Gate J2I7 – Olympic Highway					

opposite Commins Street					
Gate J2I8 – Olympic Highway ~500m west of Commins Street					
Gate J2I9 – Olympic Highway at Wornes Gate Lane					
Gate J2I10 – Olympic Highway ~1.2km east of Marinna Station Cross Road					
Gate J2I11 – Olympic Highway ~200m east of Marinna Station Cross Road					
Gate J2I12 – Marinna Station Cross Road					
Gate J2I13 – Waterworks Road ~1.7km west of Marinna Station Cross Road					
Site compound at Lawford Street					
Gate J2I1 – Olympic Highway ~85m south of Warrens Lane					
Gate J2I2 – Olympic Highway opposite Warrens Lane					

4 ROAD SAFETY ASSESSMENT OF CONSTRUCTION ACCESS ROUTES

4.1 Background

While the above assessment considered the ability for construction vehicles to manoeuvre into and out work sites using the designated access routes, consideration has not been given to the appropriateness of the use of roads along the designated access routes by construction vehicles.

To evaluate any potential impacts associated with the use of roads along the designated access routes by construction vehicles, an assessment encompassing:

- A crash history analysis to understand crashes and risks
  - A review of historical crash data provides a way to look at factors contributing to the likelihood or consequence of crashes.
- A turn path analysis
  - By undertaking turn path analysis, the mobility of construction vehicles can be evaluated, and potential risks associated with introducing construction vehicles is able to be attained.
- A risk assessment in the road safety context (comparing the current level of risk (i.e., current traffic) with the proposed level of risk (i.e., current traffic plus construction traffic)).
  - A risk assessment based on network road design attributes supplemented by crash data considering potential safety or transport issues.

In line with previous assessments documented within Appendix D of the Addendum Assessment to *Technical Paper 1: Traffic and Transport*, this assessment has been undertaken only along roads and at locations where there is no evidence or existing approval (i.e., pre-approved heavy vehicle routes) or heavy vehicle traffic. As such, the analysis has been undertaken to consider:

- Edgar Street between William Street and Hill Street.
- Kemp Street between the Olympic Highway and Ducker Street.

4.2 Crash History

4.2.1 Background

While it is recognised that as part of *Technical Paper 1: Traffic and Transport* a crash analysis was undertaken, limited findings were presented, with the following observations made:

- Harefield Yard clearances enhancement site
  - An insignificant number of crashes were recorded for any significant observations in the vicinity of the Harefield Yard clearances enhancement site.
- Junee Yard enhancement site
  - Olympic Highway / Seignior Street / Kemp Street (key road links and intersection) – two crashes
  - Seignior Street (key road link) – three crashes.

Unlike the initial analysis undertaken, this analysis has been conducted to identify predominant crash types and any crash patterns or trends along particular sections of construction vehicle access routes and identify contributing factors and discuss potential countermeasures where required. The analysis comprises the following steps:

- The first step of the analysis involves obtaining electronically the detail of each of the recorded crashes that occurred within the bounds of the construction vehicle access routes. Crash data used in this assessment has been sourced from the *Transport for NSW, Interactive Crash Statistics (https://www.transport.nsw.gov.au/roadsafety/statistics/interactive-crash-statistics).*
- Next, to identify whether a particular location has a potential crash problem, an initial analysis of crash frequency has been undertaken (i.e., number of crashes) with respect to the lower limiting threshold values (i.e., locations with three (3) or more recorded crashes) is first undertaken. Where the number of crashes at a particular location exceeds the lower limiting threshold, a further desktop analysis has been undertaken to identify predominant crash types (i.e., rear-end, head-on etc.) and common crash characteristics (i.e., time-of-day, day/night/duck etc. of the occurrence of all the recorded crashes). Through the identification and summation of predominant crash types at a particular location, comparison against crash-specific threshold values is undertaken to determine whether further analysis of crash causation is required, and investigation of countermeasures.

TABLE 121: CRASH HISTORY DATA THRESHOLDS

Type of location and criteria	Number of towaway and casualty crashes in five (5) years						
	Pedestrian	Intersection	Rear-end, overtaking, vehicle turning	Right-turn-against, oncoming	Off-road lost control, head-on	Manoeuvring	**Lower limiting threshold (further analysis required)**
Cross-intersection (not signalised or roundabout		3	5	5			**3**
Non-signalised intersection (not roundabout or cross-intersection)		4	5	5			**4**
Signalised intersection		5	9	5			**5**
Roundabout		5	5				**5**
Rural intersection ("Give Way" or "Stop" control)		3	4	4		3	**3**
Urban mid-block location			3	3	3	4	**3**
Rural mid-block location			3	3	3		**3**
Mid-block location with a pedestrian crash problem	3						**3**

Notes:

Threshold numbers are representative of high-volume roads, with some non-injury crashes report (*Austroads Guide to Road Safety, Part 2: Safe Roads – Table 4.1)*

Urban = 80km/hr or lower, rural = over 80km/hr

'Mid-block' means a length of road between intersections

For intersection locations, include crashes within 30m (urban) or 100m (rural)\.

4.2.2 Crash analysis

Edgar Street (between William Street and Hill Street)

The figure below shows the location of crashes along the section of Edgar Street, between William Street and Hill Street, recorded between the period from 2019 to 2023.

FIGURE 93: CRASH LOCATIONS ALONG EDGAR STREET BETWEEN WILLIAM STREET AND HILL STREET

From the available crash data, two (2) crashes were recorded along or proximate to Edgar Street:

- One (1) crash proximate to the Edgar Street / William Street intersection
  - Non-casualty (towaway).
- One (1) crash on Edge Street between George Street and Hill Street
  - Non-casualty (towaway).

With respect to the identified thresholds, the occurrence of two (2) crashes on Edgar Street between William Street and Hill Street is not considered to present any trends or patterns warranting further investigation.

Kemp Street (between the Olympic Highway and Ducker Street)

The figure below shows the location of crashes along the section of Kemp Street, between the Olympic Highway and Ducker Street, recorded between the period from 2019 to 2023.

FIGURE 94: CRASH LOCATIONS ALONG KEMP STREET BETWEEN SEIGNIOR STREET AND DUCKER STREET

From the available data, no crashes were recorded along Kemp Street during the period between 2019 and 2023.

4.3 Swept path analysis

4.3.1 Overview

For the Stage A works, site access points are located such that construction heavy vehicles will access the site directly via roads where is there is evidence of, or existing approval for heavy vehicles (i.e., pre-approved heavy vehicle routes). Access via these roads will not require construction heavy vehicles to perform turning movements at any intersections where there is no evidence of heavy vehicles, or where there is not existing approval for heavy vehicles to operate. No further assessment has been undertaken.

4.4 Risk Assessment

A risk assessment has been undertaken to identify, evaluate, and to mitigate potential hazards associated with the introduction of construction heavy vehicle traffic linked to the Stage A works. Through this assessment, key hazards such as adverse conditions resulting from increased vehicle demands (i.e., congestion), road user safety and pedestrian safety have been analysed for both current (i.e. current operating conditions) and future (current with construction traffic) scenarios.

Identified risks have been considered using the risk scoring matrix shown in Table 122, with the risk assessment detailed in Table 123.

From the risk assessment, where a risk has been observed to have a “High” risk level, or where an increase in risk level has been observed, further consideration of mitigation measures has been undertaken to reduce the likelihood or consequence of the risk.

TABLE 122: RISK ASSESSMENT SCORING MATRIX

		Potential consequence				
		Property damage (1)	Minor injury (2)	Medical treatment (3)	Hospitalisation (4)	Fatality (5)
Potential Likelihood	Almost certain (5) (likely to occur more than once a year)	M	M	H	H	H
	Likely (4) (likely to occur approximately once a year)	M	M	M	H	H
	Moderate (3) (likely to occur 5 once every five years)	L	M	M	M	H
	Unlikely (2) (likely to occur approximately once every 5 – 10 years)	L	L	M	M	M
	Rare (1) (likely to occur with less frequency than once every 10 years)	L	L	L	M	M

TABLE 123: RISK ASSESSMENT

	Project risks	Current level of risk (current traffic)			Future level of risk (current traffic plus construction vehicles)			Mitigation				
		Likelihood	Consequence	Risk level	Likelihood	Consequence	Risk level	Mitigation	Likelihood	Consequence	Risk level	Comment
Edgar Street (between William Street and Hill Street)												
1	Carriageway width is not suitable to accommodate the movements of vehicles, resulting in vehicles travelling within the opposing carriageway	1	4	**M**	1	4	**M**	-.	-	-	-	Edgar Street generally features 3.5m wide lanes with sealed shoulders.
2	Road performance is impacted by the addition of construction vehicles, resulting in adverse conditions: • Edgar Street	1	3	**L**	1	3	**L**	-	-	-	-	The link level of service (LOS) assessment for the Junee Station and Surrounds enhancement site detailed within Section 5.4.2.2 of the *Technical Paper 1 – Traffic and Transport* shows no change in LOS as a result of construction generated traffic and subsequently no significant impacts to road operation and performance are expected

												on Pearson Street.
5	Vehicles entering and exiting driveways are unrecognised by approaching drivers, resulting in rear-end collisions.	2	3	**M**	2	3	**M**	-	-	-	-	Appropriate stopping sight distance appears to be achieved along Edgar Street.
6	Vehicles entering and exiting kerbside parking spaces resulting in rear-end and side-swipe collisions	2	3	**M**	2	3	**M**	-	-	-	-	Kerbside parking is not permitted along either side of Edgar Street, between William Street and Hill Street.
7	Kerbside parking narrows the road, restricts traffic flow and inhibits the ability to manoeuvre safely into and out of side streets.	1	4	**M**	1	4	**M**	-	-	-	-	Kerbside parking is not permitted along either side of Edgar Street, between William Street and Hill Street
9	Cyclists impacted by wind turbulence of passing vehicles.	2	4	**M**	2	4	**M**	-	-	-	-	-
10	Conflict between cyclists and vehicles where there isn't	1	4	**M**	1	4	**M**	-	-	-	-	Overtaking is generally not permitted along Edgar Street.

	enough space to safely overtake											
Kemp Street (between the Olympic Highway and Ducker Street)												
11	Carriageway width is not suitable to accommodate the movements of vehicles, resulting in vehicles travelling within the opposing carriageway	1	4	**M**	1	4	**M**	-	-	-	-	Kemp Street generally features a 6.6m wide carriageway.
12	Road performance is impacted by the addition of construction vehicles, resulting in adverse conditions: • Kemp Street	1	3	**L**	1	3	**L**	-	-	-	-	It is noted that the level of assessment provided within Section 5.4.2.2 of the *Technical Paper 1 – Traffic and Transport* applies to construction impacts following the full closure of the Kemp Street bridge. For the scope of this plan and this assessment, the addition of three (3)

												construction heavy vehicles per hour to Kemp Street has been considered.
	Vehicles entering and exiting kerbside parking spaces resulting in rear-end and side-swipe collisions	2	3	M	2	3	M	-	-	-	-	Kerbside parking is not permitted along either side of Kemp Street, between the Olympic Highway and Ducker Street.
	Kerbside parking narrows the road, restricts traffic flow and inhibits the ability to manoeuvre safely into and out of side streets.	1	4	M	1	4	M	-	-	-	-	Kerbside parking is not permitted along either side of Kemp Street, between the Olympic Highway and Ducker Street
	Cyclists impacted by wind turbulence of passing vehicles.	2	4	M	2	4	M	-	-	-	-	-
	Conflict between cyclists and vehicles where there isn't enough space to safely overtake	1	4	M	1	4	M	-	-	-	-	-

5 OPERATIONAL REQUIREMENTS

5.1 Temporary Road Safety Barriers and End Treatments

The use road safety barriers and end treatments will be in accordance with the approved products nominated within the TfNSW Accepted Road Safety Barrier Systems and Devices guidance.

5.2 Temporary Signage

The type, location and sizes of existing signage to be retained and/or removed and new signage to be installed during the operation of this TGS will be as per the drawings attached at Appendix A.

5.3 Temporary Pavement Markings

There are no alterations to pavement markings required for this work.

5.4 Variable Message Signs

Variable message signs may be provided as part of the project's traffic management on the approach to the project works. Typically, VMS will be installed two (2) weeks prior to any changes to traffic conditions and/or to support short term high impact works.

The VMS shall be located:

- Where there is a kerb, the VMS should be positioned behind it.
- Where practical, located behind a suitable barrier and outside the barrier's deflection zone.
- Located where it does not interfere with pedestrians, cyclists, and other footpath users.
- Located where it does not affect adjoining street gap sight distances.

If no suitable location is available behind the kerb, located in a parking lane ensuring it does not encroach into the traffic lane and is adequately delineated.

5.5 Works to be Constructed Under Short-term Traffic Control

The Stage A works are generally confined to the rail corridor and as such do not involve works be constructed under traffic. Temporary speed limit reductions and/or short-term traffic control (intermittent stops) will be implemented as required to manage some site entry and exit movements for construction heavy vehicles.

All works requiring short-term traffic control will be managed under the necessary approval(s) from the relevant authorities.

6 COMMUNICATION AND COORDINATION

6.1 Traffic Communications

The Traffic Management Team and Stakeholder and Community Relations Team will work closely with each other to ensure there is a seamless approach to managing traffic communications. The PTMP is supported by the Stakeholder and Community Engagement Management Plan, where traffic communications and our approach to managing communications activities associated with traffic changes is described.

The Traffic Manager and Stakeholder and Community Relations Manager will collaborate to assess the impacts on users of the integrated transport network to ensure timely and accurate information is available for public consultations and notifications.

6.2 Traffic Management Construction Liaison Group

The TMCLG will be the forum for discussion of the effectiveness of the PTMP.

APPENDICES

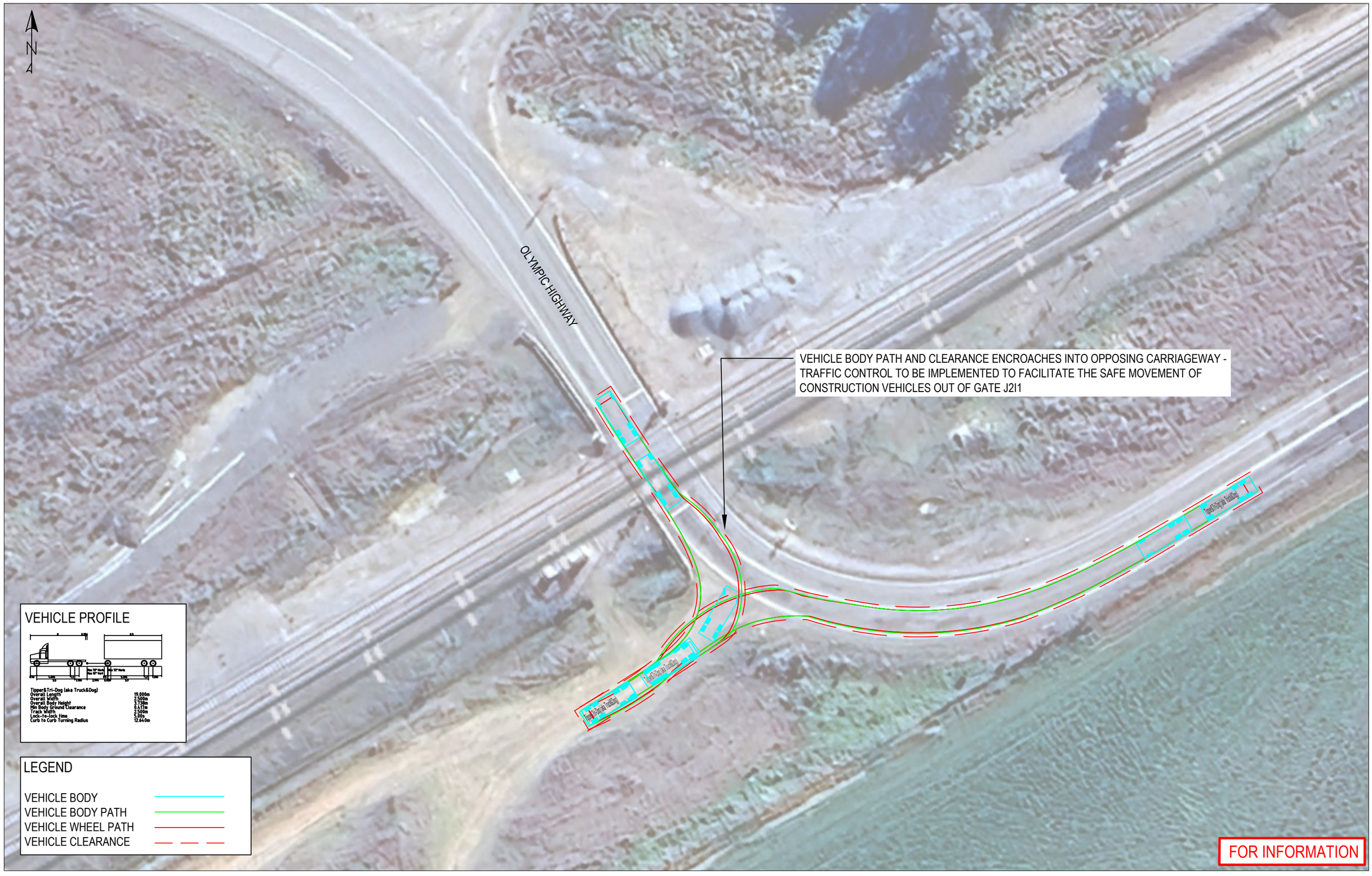
APPENDIX A

List of Expected Traffic Guidance Schemes

TGS #	Title	Comment
MR-A2I-JU-TGS-001	Gate H1 – site access	
MR-A2I-JU-TGS-002	Gate H2 – site access	
MR-A2I-JU-TGS-003	Gate H3 – site access	
MR-A2I-JU-TGS-004	Gate J1 – site access	
MR-A2I-JU-TGS-005	Gate J2 – site access	
MR-A2I-JU-TGS-006	Gate J3 – site access	
MR-A2I-JU-TGS-007	Gate J4 – site access	
MR-A2I-JU-TGS-008	Gate J2I1 – site access	
MR-A2I-JU-TGS-009	Gate J2I2 – site access	
MR-A2I-JU-TGS-010	Gate J2I3 – site access	
MR-A2I-JU-TGS-011	Gate J2I4 – site access	
MR-A2I-JU-TGS-012	Gate J2I5 – site access	
MR-A2I-JU-TGS-013	Gate J2I6 – site access	
MR-A2I-JU-TGS-014	Gate J2I7 – site access	
MR-A2I-JU-TGS-015	Gate J2I8 – site access	
MR-A2I-JU-TGS-016	Gate J2I9 – site access	
MR-A2I-JU-TGS-017	Gate J2I10 – site access	
MR-A2I-JU-TGS-018	Gate J2I11 – site access	
MR-A2I-JU-TGS-019	Gate J2I12 – site access	
MR-A2I-JU-TGS-020	Gate J2I13 – site access	
MR-A2I-JU-TGS-021	Site compound– site access	

APPENDIX B

Swept Path Analysis



VEHICLE PROFILE

Tipper&Tri-Dog (aka Truck&Dog)	
Overall Length	19.000m
Overall Width	2.500m
Overall Body Height	3.738m
Min Body Ground Clearance	0.417m
Track Width	2.500m
Lock-to-lock time	5.00s
Curb to Curb Turning Radius	12.640m

LEGEND

- VEHICLE BODY
- VEHICLE BODY PATH
- VEHICLE WHEEL PATH
- VEHICLE CLEARANCE

FOR INFORMATION

DRAWING FILE LOCATION / NAME				DESIGN LOT CODE	DESIGN MODEL FILE(S) USED FOR DOCUMENTATION OF THIS DRAWING	PLOT DATE / TIME	PLOT BY	CLIENT	JUNEE TO ILLABO CLEARANCES ENHANCEMENT SITE OLYMPIC HIGHWAY / GATE J2I1 SWEPT PATH ANALYSIS 19.0m TRUCK & DOG
				-	-	-	-		A3
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						CO-ORDINATE SYSTEM MGA ZONE 55	HEIGHT DATUM -	ISSUE STATUS INITIAL REVISION	SHEET No. 1 / OF SHEET 21 / ISSUE 1

TITLE	NAME	DATE
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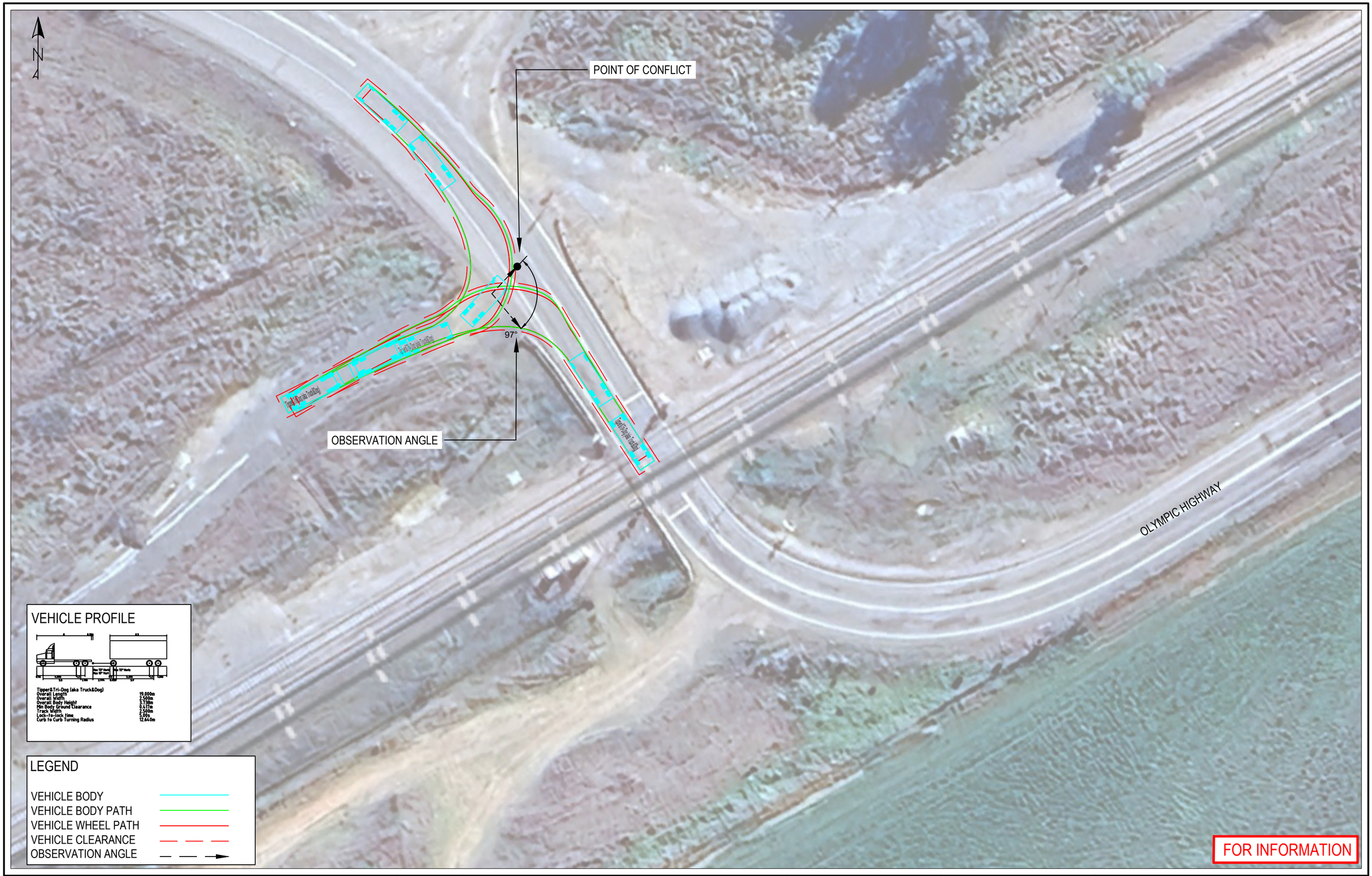

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						CO-ORDINATE SYSTEM: MGA ZONE 55		***	***	***	
						HEIGHT DATUM: -		***	***	***	
								***	***	***	
								***	***	***	

JUNEE TO ILLABO CLEARANCES ENHANCEMENT SITE
OLYMPIC HIGHWAY / GATE J2I2
SWEPT PATH ANALYSIS
19.0m TRUCK & DOG

A3

-

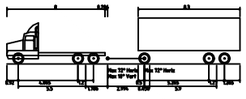
ISSUE STATUS	SHEET No.	OF SHEET	ISSUE
INITIAL REVISION	2	21	1

N

VEHICLE BODY PATH AND CLEARANCE ENCROACHES INTO OPPOSING CARRIAGEWAY - TRAFFIC CONTROL TO BE IMPLEMENTED TO FACILITATE THE SAFE MOVEMENT OF CONSTRUCTION VEHICLES OUT OF GATE J2I3

OLYMPIC HIGHWAY

VEHICLE PROFILE



Tipper&Tri-Dog (aka Truck&Dog)

Overall Length	19.000m
Overall Width	2.500m
Overall Body Height	3.738m
Min Body Ground Clearance	0.617m
Track Width	2.500m
Lock-to-lock time	5.00s
Curb to Curb Turning Radius	12.640m

LEGEND

- VEHICLE BODY
- VEHICLE BODY PATH
- VEHICLE WHEEL PATH
- VEHICLE CLEARANCE

FOR INFORMATION

DRAWING FILE LOCATION / NAME				DESIGN LOT CODE	DESIGN MODEL FILE(S) USED FOR DOCUMENTATION OF THIS DRAWING	PLOT DATE / TIME	PLOT BY	CLIENT	JUNEE TO ILLABO CLEARANCES ENHANCEMENT SITE OLYMPIC HIGHWAY / GATE J2I3 SWEPT PATH ANALYSIS 19.0m TRUCK & DOG
				-	-	-	-		A3
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						CO-ORDINATE SYSTEM MGA ZONE 55	HEIGHT DATUM -		ISSUE STATUS INITIAL REVISION SHEET No. 3 OF SHEET 21 ISSUE 1

N

OBSERVATION ANGLE EXCEEDS 120 DEGREES (LEFT TURN).
TO ENSURE VEHICLES CAN SAFELY PERFORM THE REQUIRED
MANOEUVRE A SPOTTER WILL BE PRESENT

POINT OF CONFLICT

ACCESS TRACK ADJACENT
RAIL CORRIDOR

121°

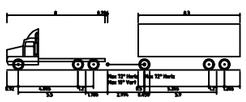
OLYMPIC HIGHWAY

ACCESS TO BE OF SUFFICIENT WIDTH TO ACCOMMODATE
CONSTRUCTION VEHICLE MANOEUVRES

Jeralgamb

Google Earth
Image © 2025 Airbus

VEHICLE PROFILE



Tipper&Tri-Dog (aka Truck&Dog)

Overall Length	19.000m
Overall Width	2.500m
Overall Body Height	3.738m
Min Body Ground Clearance	0.417m
Track Width	2.500m
Lock-to-lock time	5.00s
Curb to Curb Turning Radius	12.640m

LEGEND

VEHICLE BODY
VEHICLE BODY PATH
VEHICLE WHEEL PATH
VEHICLE CLEARANCE
OBSERVATION ANGLE

FOR INFORMATION

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						CO-ORDINATE SYSTEM: MGA ZONE 55	HEIGHT DATUM: -				

JUNEE TO ILLABO CLEARANCES ENHANCEMENT SITE
OLYMPIC HIGHWAY / GATE J2I5
SWEPT PATH ANALYSIS
LIGHT VEHICLE

A3

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ISSUE STATUS	SHEET No.	OF SHEET	ISSUE
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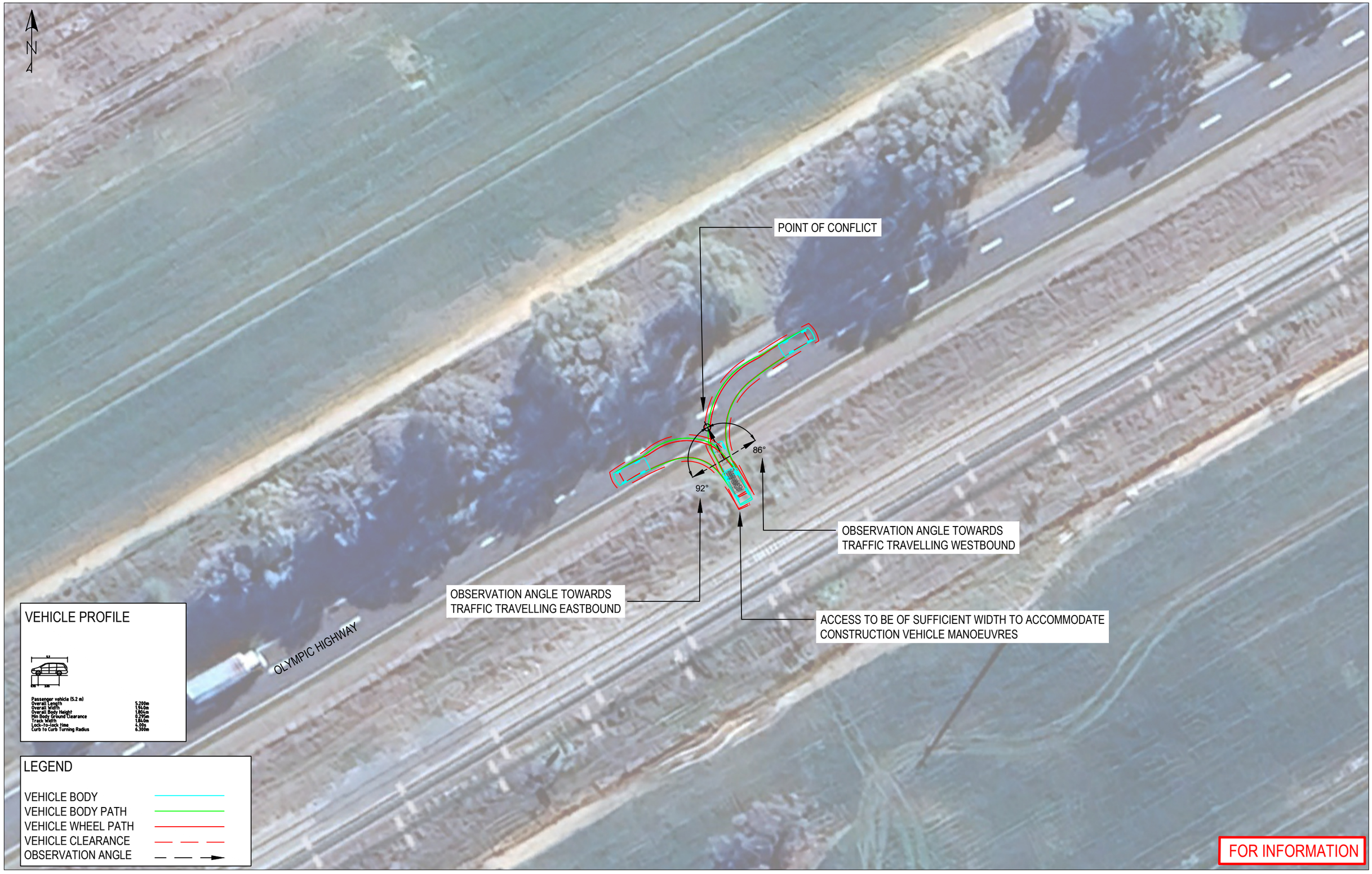

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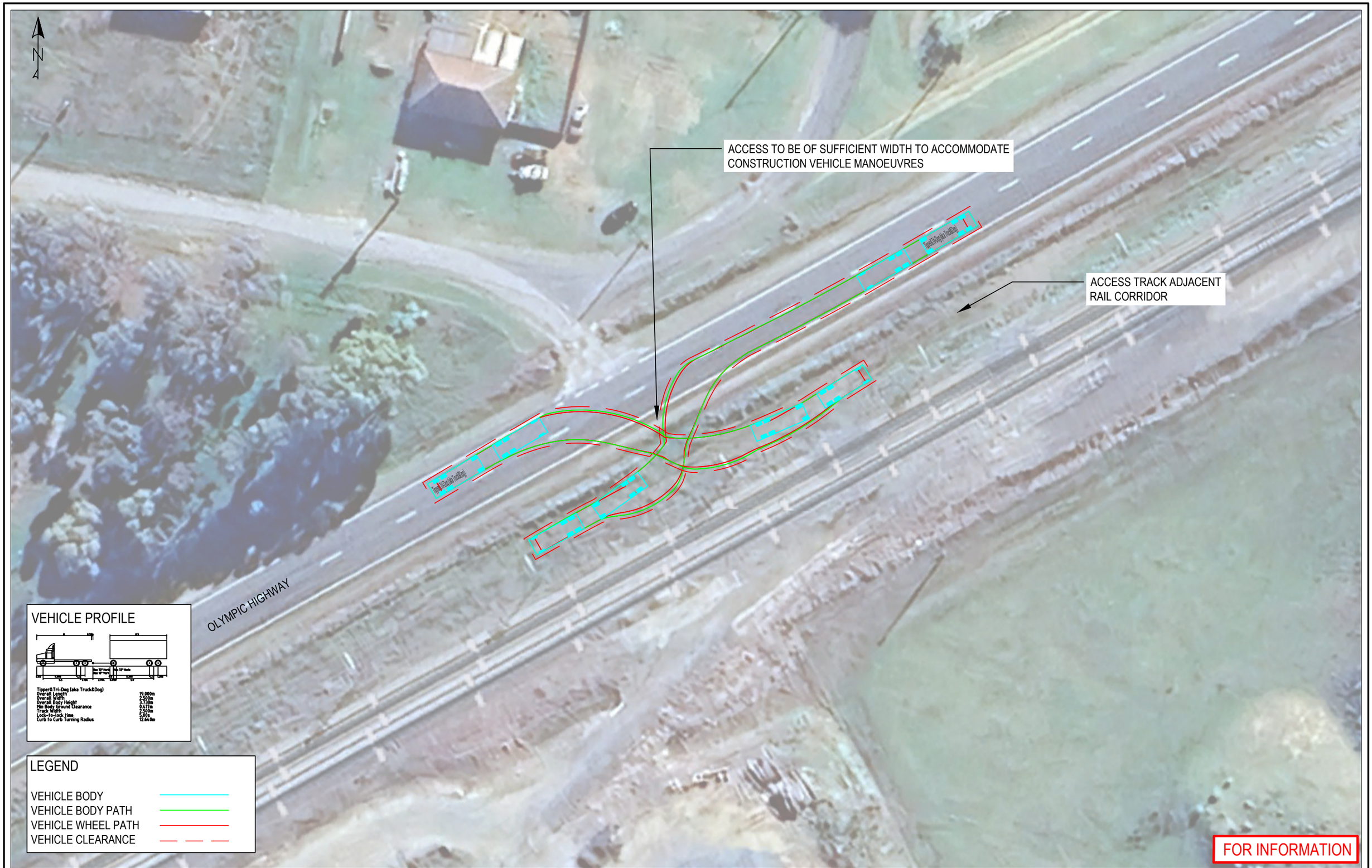

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								***	***	***	PREPARED FOR P. BILLINGHAM
								***	***	***	
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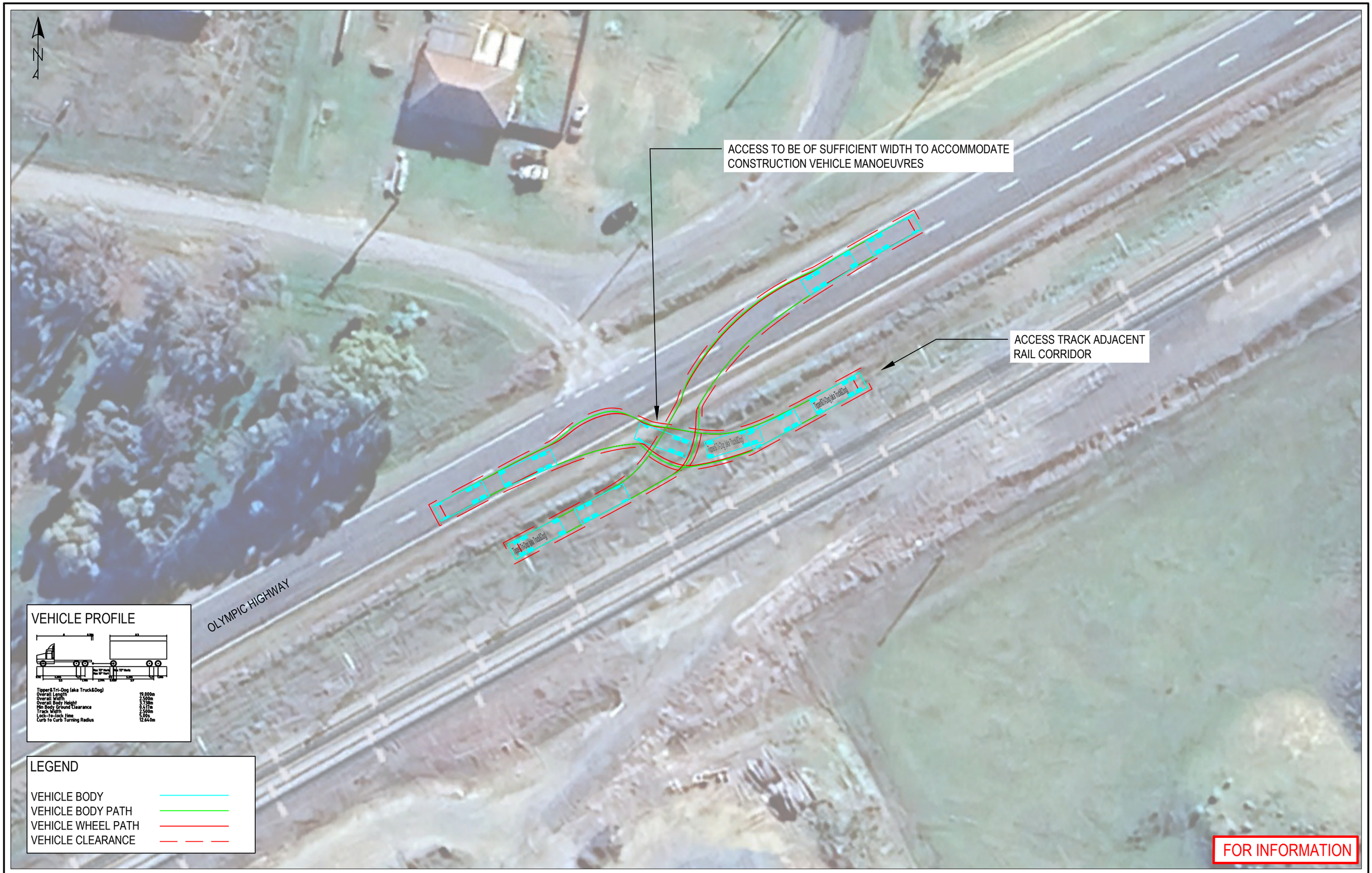

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EXTERNAL REFERENCE FILES	REV	DATE	AMENDMENT / REVISION DESCRIPTION	WVR No.	APPROVAL	SCALES ON A3 SIZE DRAWING	DRAWINGS / DESIGN PREPARED BY	TITLE / NAME / DATE			
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						CO-ORDINATE SYSTEM MGA ZONE 55	HEIGHT DATUM -	PREPARED FOR P. BILLINGHAM	-		-
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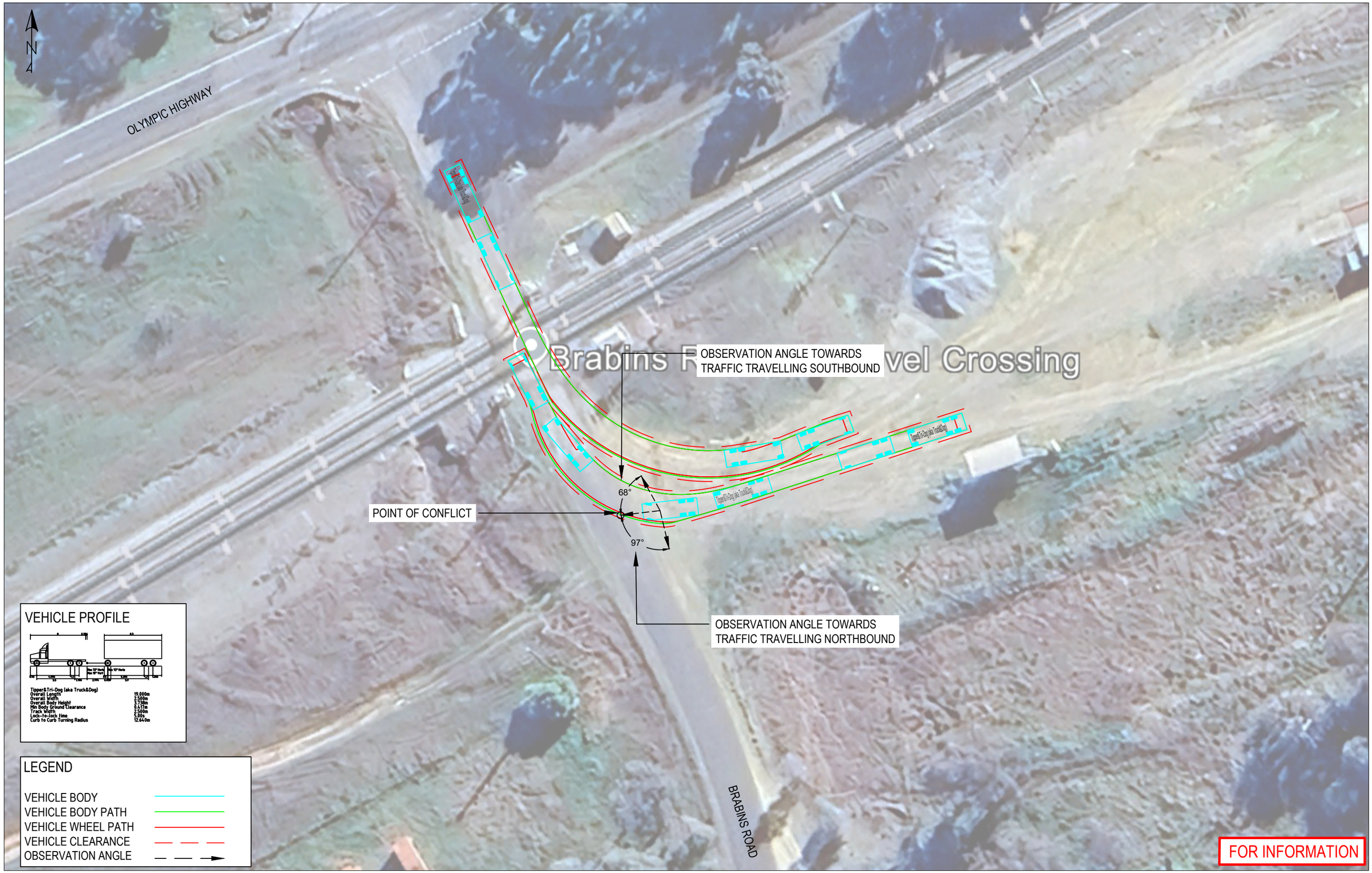

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EXTERNAL REFERENCE FILES	REV	DATE	AMENDMENT / REVISION DESCRIPTION	WVR No.	APPROVAL	SCALES ON A3 SIZE DRAWING	DRAWINGS / DESIGN PREPARED BY	TITLE	NAME	DATE	PREPARED FOR
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						CO-ORDINATE SYSTEM: MGA ZONE 55		***	***	***	
						HEIGHT DATUM: -		***	***	***	
								***	***	***	
								***	***	***	

JUNEE TO ILLABO CLEARANCES ENHANCEMENT SITE
BRABINS ROAD / SITE COMPOUND
SWEPT PATH ANALYSIS
19.0m TRUCK & DOG

A3

-

ISSUE STATUS	SHEET No.	OF SHEET	ISSUE
INITIAL REVISION	9	21	1

DRAWING FILE LOCATION / NAME				DESIGN LOT CODE	DESIGN MODEL FILE(S) USED FOR DOCUMENTATION OF THIS DRAWING		PLOT DATE / TIME		PLOT BY	CLIENT	JUNEE TO ILLABO CLEARANCES ENHANCEMENT SITE OLYMPIC HIGHWAY / GATE J2I7 SWEPT PATH ANALYSIS 19.0m TRUCK & DOG
				-	-		-		-		A3
EXTERNAL REFERENCE FILES	REV	DATE	AMENDMENT / REVISION DESCRIPTION	WVR No.	APPROVAL	SCALES ON A3 SIZE DRAWING	DRAWINGS / DESIGN PREPARED BY	TITLE	NAME	DATE	
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								***	***	***	PREPARED FOR P. BILLINGHAM
								***	***	***	
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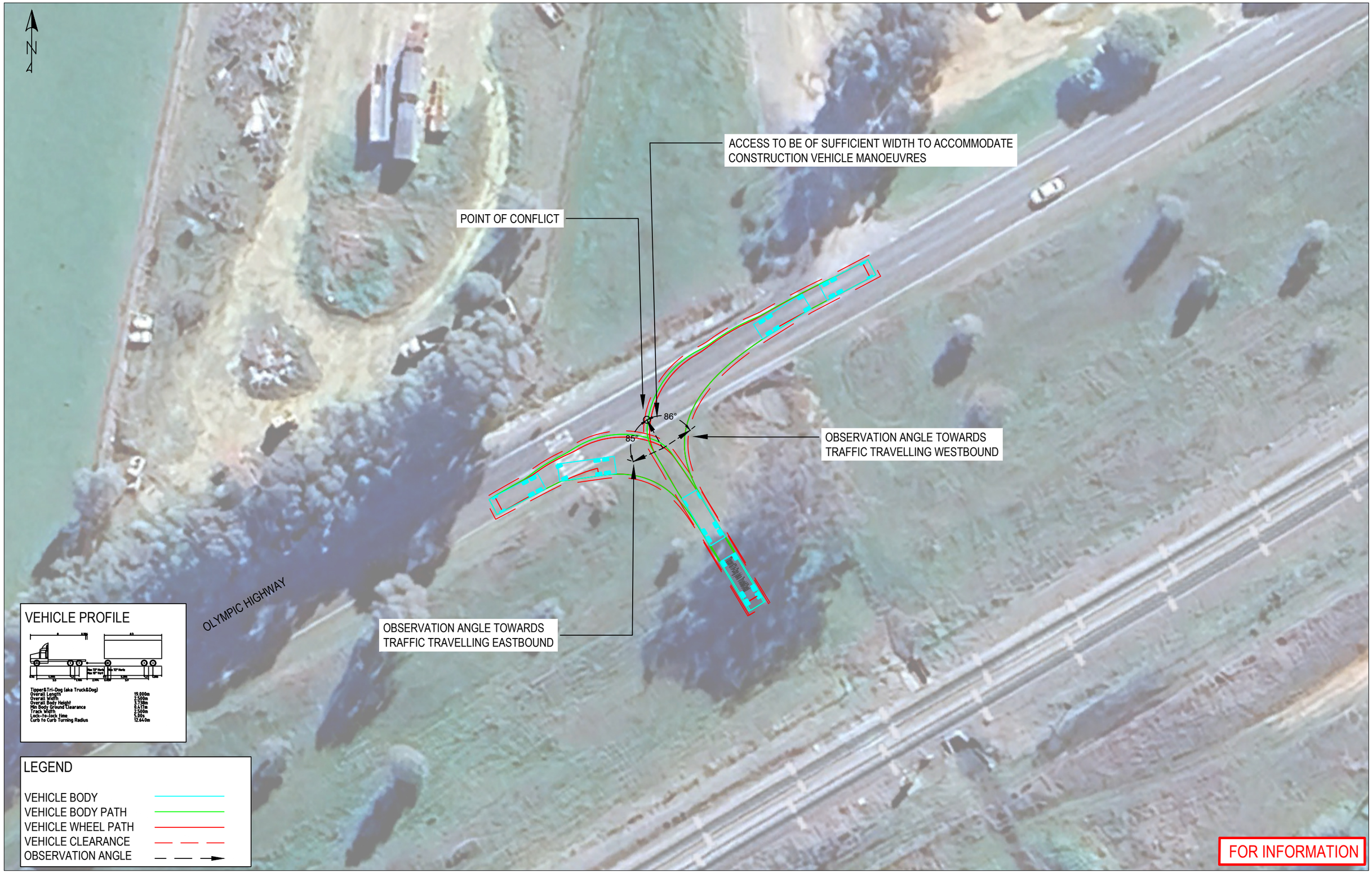
											ISSUE STATUS INITIAL REVISION / SHEET No. 10 / OF SHEET 21 / ISSUE 1



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				-	-		-		-		A3
EXTERNAL REFERENCE FILES	REV	DATE	AMENDMENT / REVISION DESCRIPTION	WVR No.	APPROVAL	SCALES ON A3 SIZE DRAWING	DRAWINGS / DESIGN PREPARED BY	TITLE	NAME	DATE	
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								***	***	***	
								***	***	***	
								***	***	***	
								***	***	***	
						CO-ORDINATE SYSTEM: MGA ZONE 55	HEIGHT DATUM: -				PREPARED FOR: P. BILLINGHAM
											-
											ISSUE STATUS: INITIAL REVISION / SHEET No.: 10 / OF SHEET: 21 / ISSUE: 1

N

POINT OF CONFLICT

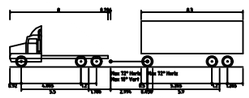
OBSERVATION ANGLE EXCEEDS 120 DEGREES (LEFT TURN). TO ENSURE VEHICLES CAN SAFELY PERFORM THE REQUIRED MANOEUVRE A SPOTTER WILL BE PRESENT

124°

ACCESS TO BE OF SUFFICIENT WIDTH TO ACCOMMODATE CONSTRUCTION VEHICLE MANOEUVRES

OLYMPIC HIGHWAY

VEHICLE PROFILE



Tipper&Tri-Dog (aka Truck&Dog)

Overall Length	19.800m
Overall Width	2.500m
Overall Body Height	3.730m
Min Body Ground Clearance	0.417m
Track Width	2.500m
Lock-to-lock time	5.00s
Curb to Curb Turning Radius	12.644m

LEGEND

- VEHICLE BODY
- VEHICLE BODY PATH
- VEHICLE WHEEL PATH
- VEHICLE CLEARANCE
- OBSERVATION ANGLE

FOR INFORMATION

DRAWING FILE LOCATION / NAME				DESIGN LOT CODE	DESIGN MODEL FILE(S) USED FOR DOCUMENTATION OF THIS DRAWING		PLOT DATE / TIME	PLOT BY
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EXTERNAL REFERENCE FILES	REV	DATE	AMENDMENT / REVISION DESCRIPTION	WVR No.	APPROVAL	SCALES ON A3 SIZE DRAWING	DRAWINGS / DESIGN PREPARED BY	
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CO-ORDINATE SYSTEM: MGA ZONE 55 — HEIGHT DATUM: -

CASE TRAFFIC & TRANSPORT

TITLE	NAME	DATE
DESIGNED	J. BUNN	17.03.25
***	***	***
***	***	***
***	***	***
***	***	***
***	***	***

CLIENT

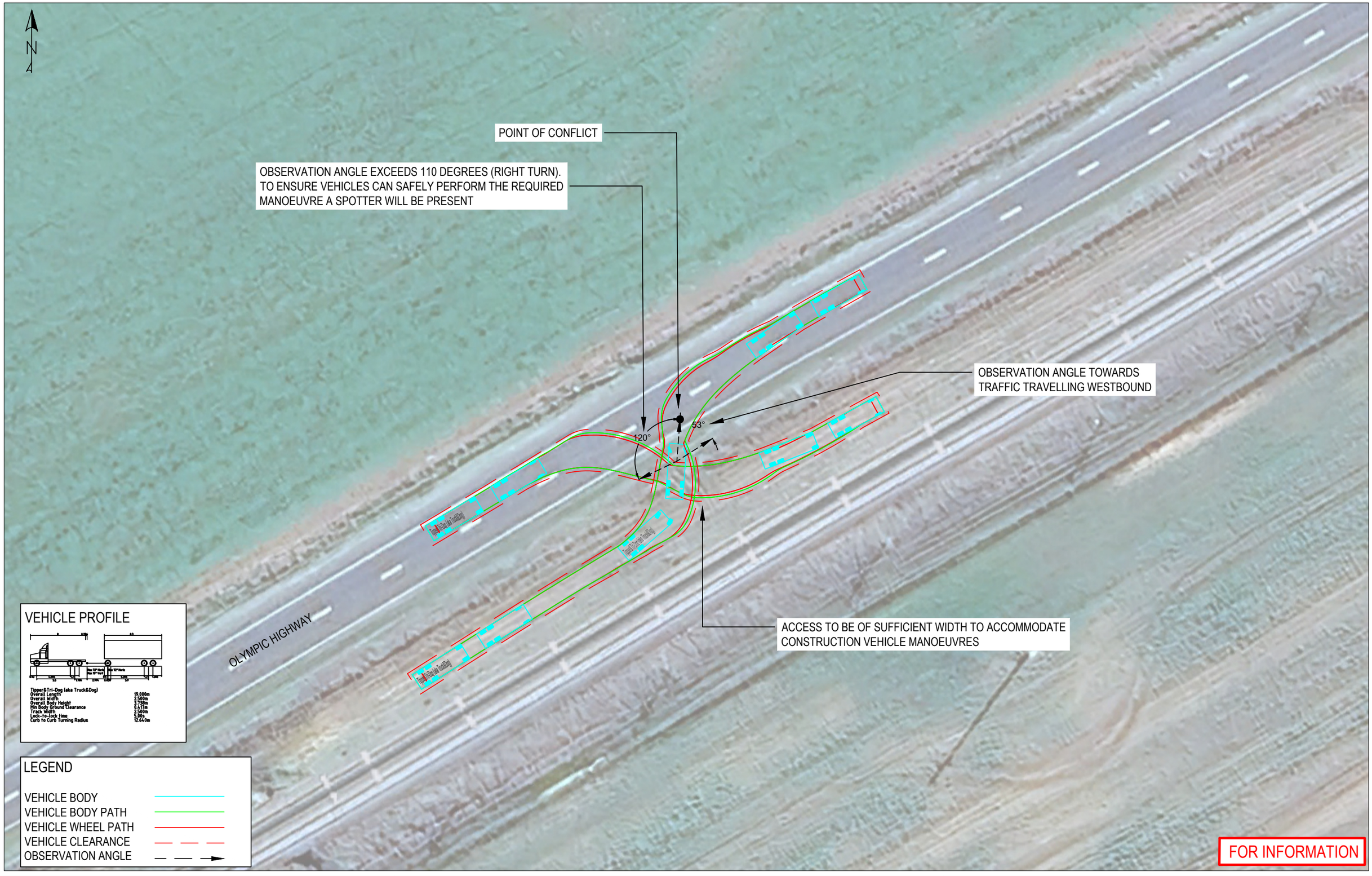
PREPARED FOR: P. BILLINGHAM

JUNEE TO ILLABO CLEARANCES ENHANCEMENT SITE
OLYMPIC HIGHWAY / GATE J2I8
SWEPT PATH ANALYSIS
19.0m TRUCK & DOG

A3

-

ISSUE STATUS	SHEET No.	OF SHEET	ISSUE
INITIAL REVISION	11	21	1



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SCALES ON A3 SIZE DRAWING: 0 5 10 Meters

CO-ORDINATE SYSTEM: MGA ZONE 55 | HEIGHT DATUM: -

DRAWINGS / DESIGN PREPARED BY: case TRAFFIC & TRANSPORT

PLOT DATE / TIME: - | PLOT BY: -

TITLE	NAME	DATE
DESIGNED	J. BUNN	17.03.25
***	***	***
***	***	***
***	***	***
***	***	***
***	***	***

CLIENT

PREPARED FOR: P. BILLINGHAM

JUNEE TO ILLABO CLEARANCES ENHANCEMENT SITE
OLYMPIC HIGHWAY / GATE J2I8
SWEPT PATH ANALYSIS
19.0m TRUCK & DOG

A3

-

ISSUE STATUS	SHEET No.	OF SHEET	ISSUE
INITIAL REVISION	12	21	1

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EXTERNAL REFERENCE FILES	REV	DATE	AMENDMENT / REVISION DESCRIPTION	WVR No.	APPROVAL	SCALES ON A3 SIZE DRAWING	DRAWINGS / DESIGN PREPARED BY	TITLE	NAME	DATE	PREPARED FOR	-	-
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								***	***	***			
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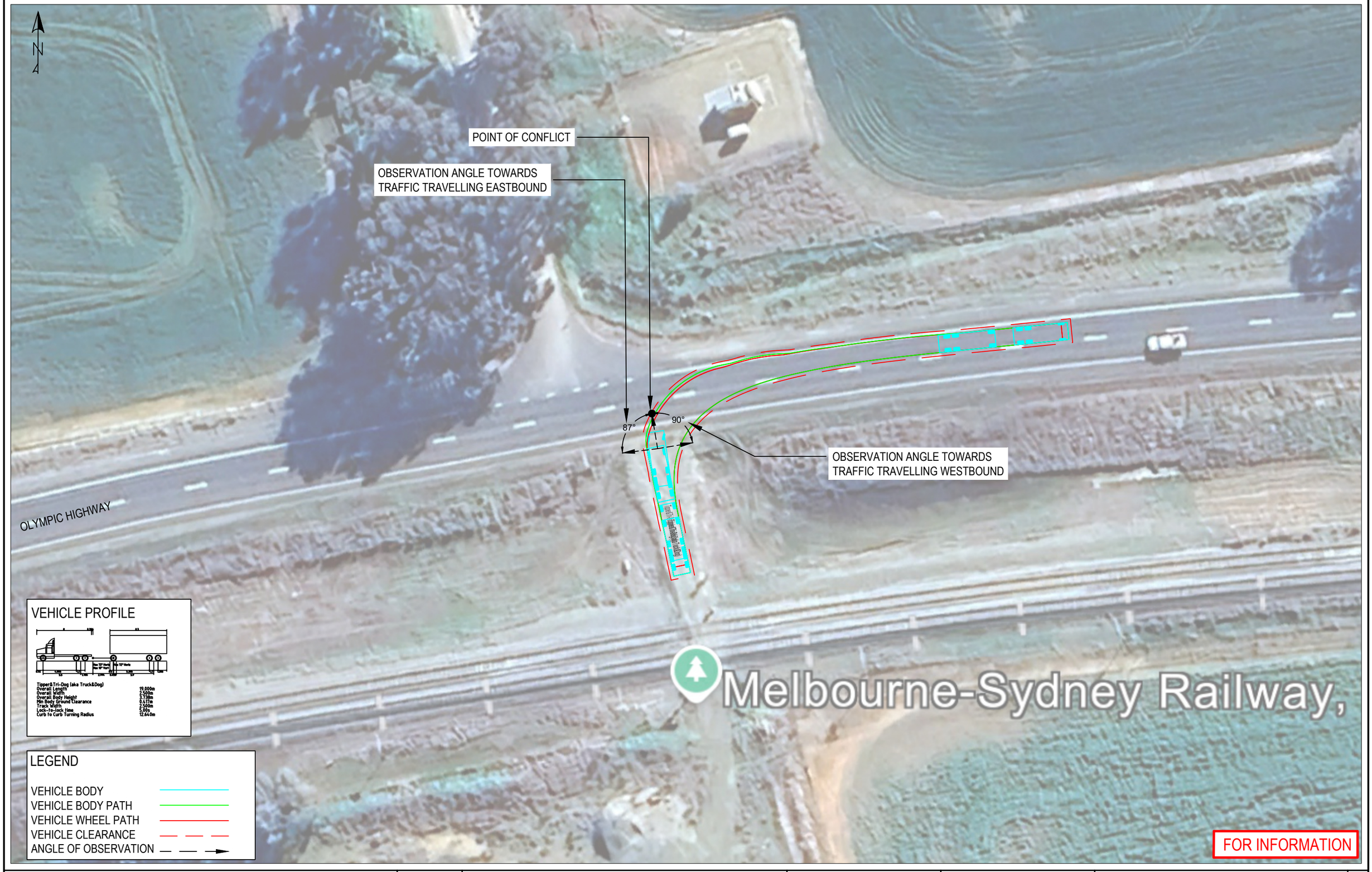

DRAWING FILE LOCATION / NAME				DESIGN LOT CODE		DESIGN MODEL FILE(S) USED FOR DOCUMENTATION OF THIS DRAWING		PLOT DATE / TIME		PLOT BY	CLIENT
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EXTERNAL REFERENCE FILES	REV	DATE	AMENDMENT / REVISION DESCRIPTION	WVR No.	APPROVAL	SCALES ON A3 SIZE DRAWING	DRAWINGS / DESIGN PREPARED BY	TITLE	NAME	DATE	PREPARED FOR
	1	17.03.25	INITIAL REVISION			0 5 10 Meters	case TRAFFIC & TRANSPORT	DESIGNED	J. BUNN	17.03.25	P. BILLINGHAM
						CO-ORDINATE SYSTEM: MGA ZONE 55		***	***	***	
						HEIGHT DATUM: -		***	***	***	
								***	***	***	
								***	***	***	
								***	***	***	

JUNEE TO ILLABO CLEARANCES ENHANCEMENT SITE
OLYMPIC HIGHWAY / GATE J2I9
SWEPT PATH ANALYSIS
19.0m TRUCK & DOG

A3

ISSUE STATUS	SHEET No.	OF SHEET	ISSUE
INITIAL REVISION	14	21	1

OBSERVATION ANGLE EXCEEDS 120 DEGREES (LEFT TURN).
TO ENSURE VEHICLES CAN SAFELY PERFORM THE REQUIRED
MANOEUVRE A SPOTTER WILL BE PRESENT

POINT OF CONFLICT

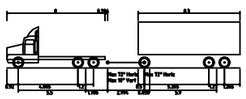
122°

ACCESS TRACK ADJACENT
RAIL CORRIDOR

ACCESS TO BE OF SUFFICIENT WIDTH TO ACCOMMODATE
CONSTRUCTION VEHICLE MANOEUVRES

OLYMPIC HIGHWAY

VEHICLE PROFILE



Tipper&Tri-Dog (aka Truck&Dog)

Overall Length	19.000m
Overall Width	2.500m
Overall Body Height	3.730m
Min Body Ground Clearance	0.417m
Track Width	2.500m
Lock-to-lock time	5.00s
Curb to Curb Turning Radius	12.640m

LEGEND

- VEHICLE BODY
- VEHICLE BODY PATH
- VEHICLE WHEEL PATH
- VEHICLE CLEARANCE
- ANGLE OF OBSERVATION

FOR INFORMATION

DRAWING FILE LOCATION / NAME				DESIGN LOT CODE	DESIGN MODEL FILE(S) USED FOR DOCUMENTATION OF THIS DRAWING		PLOT DATE / TIME	PLOT BY	CLIENT
				-	-		-	-	
EXTERNAL REFERENCE FILES	REV	DATE	AMENDMENT / REVISION DESCRIPTION	WVR No.	APPROVAL	SCALES ON A3 SIZE DRAWING	DRAWINGS / DESIGN PREPARED BY	TITLE / NAME / DATE	
	1	17.03.25	INITIAL REVISION			0 5 10 Meters	case TRAFFIC & TRANSPORT	DESIGNED J. BUNN 17.03.25	PREPARED FOR P. BILLINGHAM
						CO-ORDINATE SYSTEM MGA ZONE 55	HEIGHT DATUM -	*** *** ***	

JUNEE TO ILLABO CLEARANCES ENHANCEMENT SITE
OLYMPIC HIGHWAY / GATE J2I10
SWEPT PATH ANALYSIS
19.0m TRUCK & DOG

A3

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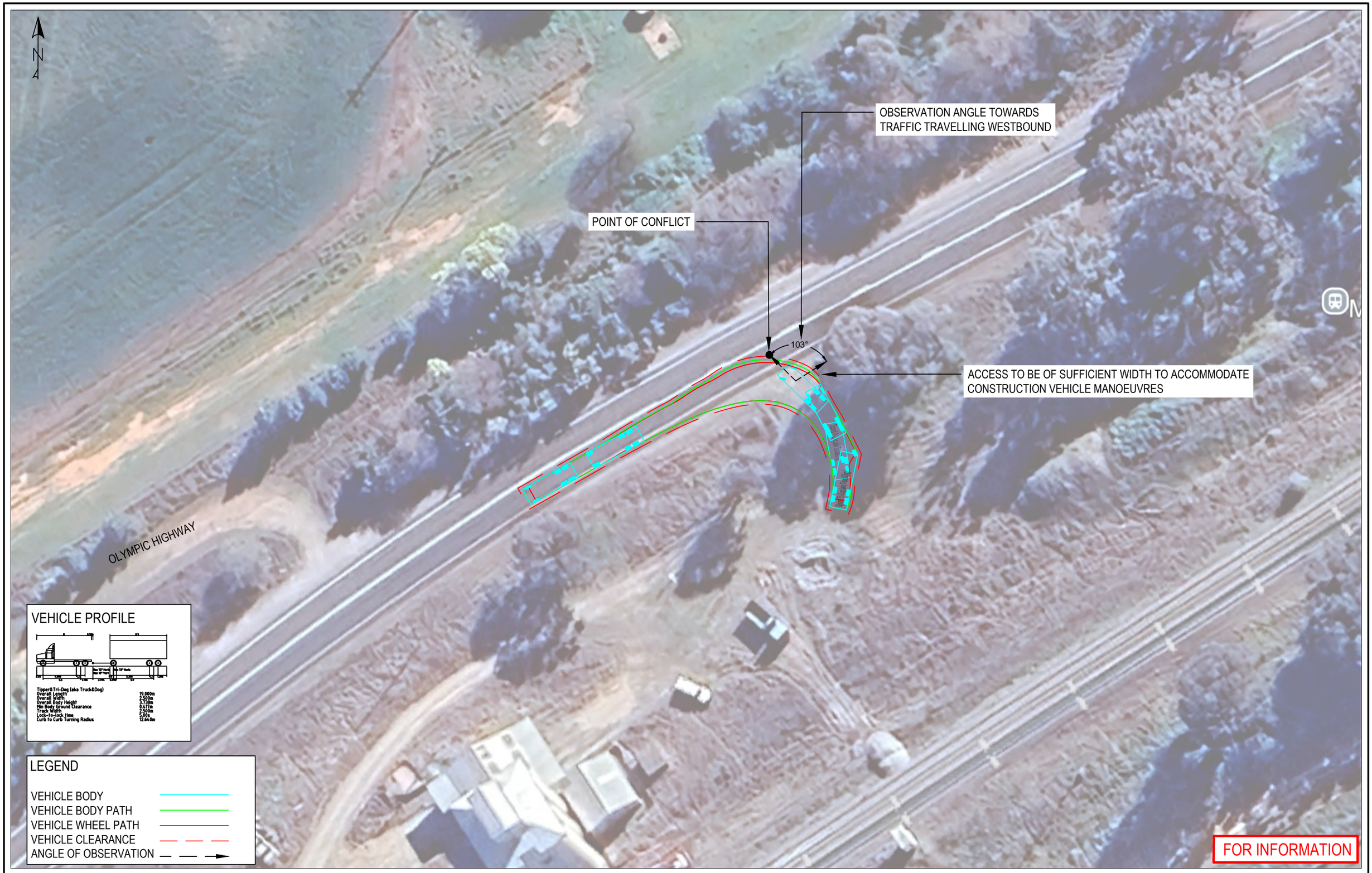
ISSUE STATUS	SHEET No.	OF SHEET	ISSUE
INITIAL REVISION	15	21	1



DRAWING FILE LOCATION / NAME				DESIGN LOT CODE	DESIGN MODEL FILE(S) USED FOR DOCUMENTATION OF THIS DRAWING	PLOT DATE / TIME		PLOT BY	CLIENT	JUNEE TO ILLABO CLEARANCES ENHANCEMENT SITE OLYMPIC HIGHWAY / GATE J2I11 SWEPT PATH ANALYSIS 19.0m TRUCK & DOG	A3
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EXTERNAL REFERENCE FILES	REV	DATE	AMENDMENT / REVISION DESCRIPTION	WVR No.	APPROVAL	SCALES ON A3 SIZE DRAWING	DRAWINGS / DESIGN PREPARED BY	TITLE	NAME	DATE	
	1	17.03.25	INITIAL REVISION			0 5 10 Meters	case TRAFFIC & TRANSPORT	DESIGNED	J. BUNN	17.03.25	PREPARED FOR P. BILLINGHAM
								***	***	***	
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								***	***	***	
								***	***	***	
						CO-ORDINATE SYSTEM MGA ZONE 55	HEIGHT DATUM -				ISSUE STATUS INITIAL REVISION SHEET No. 16 OF SHEET 21 ISSUE 1

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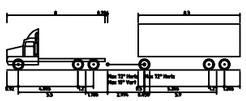
OLYMPIC HIGHWAY

VEHICLE PROFILE



Tipper&Tri-Dog (aka Truck&Dog)

Overall Length	19.000m
Overall Width	2.500m
Overall Body Height	3.738m
Min Body Ground Clearance	0.417m
Track Width	2.500m
Lock-to-lock time	5.00s
Curb to Curb Turning Radius	12.640m

LEGEND

VEHICLE BODY

VEHICLE BODY PATH

VEHICLE WHEEL PATH

VEHICLE CLEARANCE

FOR INFORMATION

DRAWING FILE LOCATION / NAME				DESIGN LOT CODE	DESIGN MODEL FILE(S) USED FOR DOCUMENTATION OF THIS DRAWING		PLOT DATE / TIME	PLOT BY	CLIENT	JUNEE TO ILLABO CLEARANCES ENHANCEMENT SITE OLYMPIC HIGHWAY / GATE J2I12 SWEPT PATH ANALYSIS 19.0m TRUCK & DOG
				-	-		-	-		A3
EXTERNAL REFERENCE FILES	REV	DATE	AMENDMENT / REVISION DESCRIPTION	WVR No.	APPROVAL	SCALES ON A3 SIZE DRAWING	DRAWINGS / DESIGN PREPARED BY	TITLE	NAME	DATE		
	1	17.03.25	INITIAL REVISION			0 5 10 Meters	case TRAFFIC & TRANSPORT	DESIGNED	J. BUNN	17.03.25	PREPARED FOR P. BILLINGHAM	-
								***	***	***		
								***	***	***		
						CO-ORDINATE SYSTEM MGA ZONE 55	HEIGHT DATUM -	***	***	***	ISSUE STATUS INITIAL REVISION	SHEET No. 17 OF SHEET 21 ISSUE 1
								***	***	***		

DRAWING FILE LOCATION / NAME				DESIGN LOT CODE	
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EXTERNAL REFERENCE FILES	REV	DATE	AMENDMENT / REVISION DESCRIPTION	WVR No.	APPROVAL
	1	17.03.25	INITIAL REVISION		

DESIGN MODEL FILE(S) USED FOR DOCUMENTATION OF THIS DRAWING	
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SCALES ON A3 SIZE DRAWING	DRAWINGS / DESIGN PREPARED BY
0 5 10 Meters	case TRAFFIC & TRANSPORT
CO-ORDINATE SYSTEM	HEIGHT DATUM
MGA ZONE 55	-

PLOT DATE / TIME		PLOT BY
-		-
TITLE	NAME	DATE
DESIGNED	J. BUNN	17.03.25
***	***	***
***	***	***
***	***	***
***	***	***
***	***	***

CLIENT

PREPARED FOR
P. BILLINGHAM

JUNEE TO ILLABO CLEARANCES ENHANCEMENT SITE
OLYMPIC HIGHWAY / GATE J2I12
SWEPT PATH ANALYSIS
19.0m TRUCK & DOG

A3

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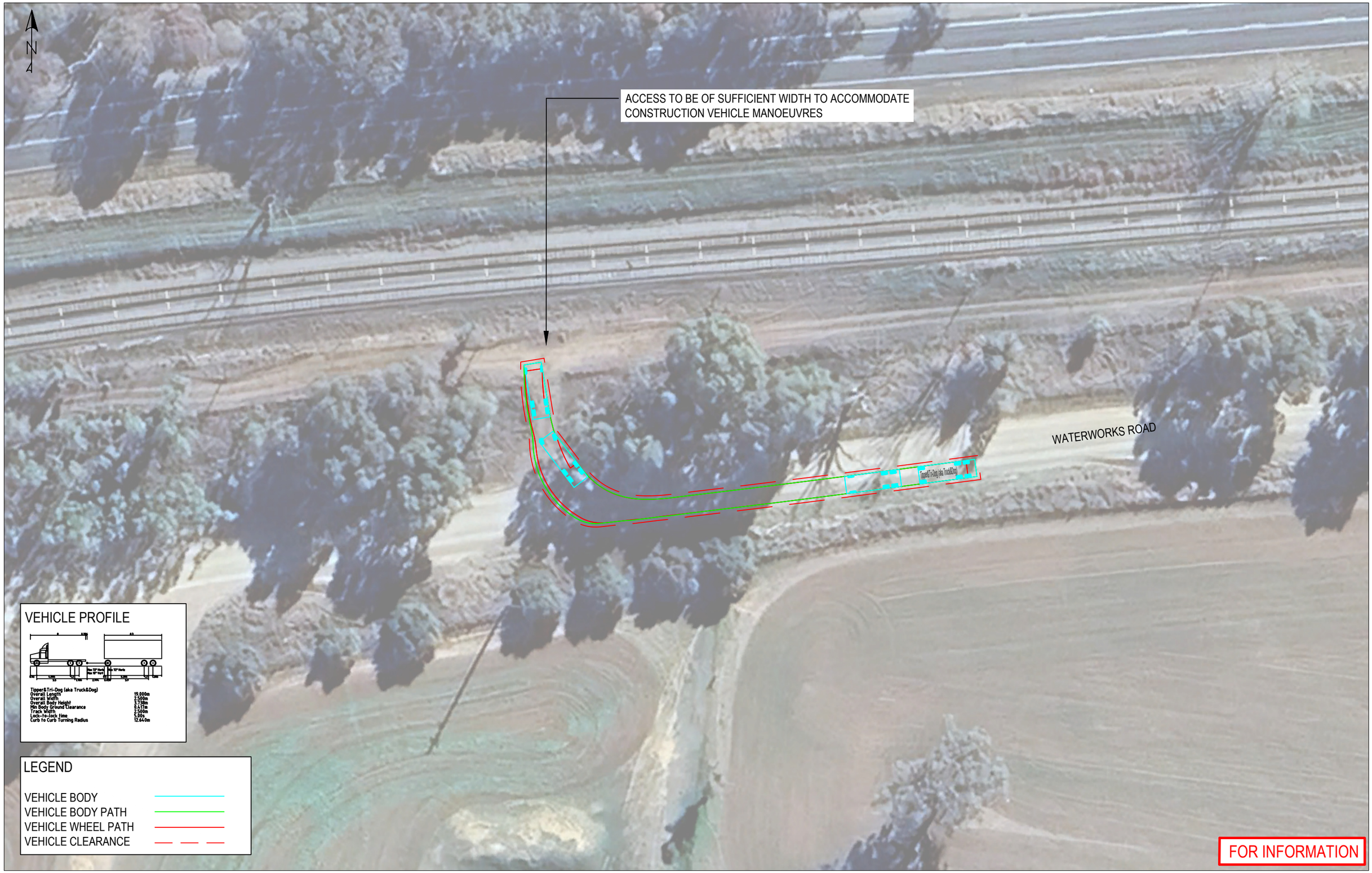
ISSUE STATUS	SHEET No.	OF SHEET	ISSUE
INITIAL REVISION	18	21	1



DRAWING FILE LOCATION / NAME					DESIGN LOT CODE	DESIGN MODEL FILE(S) USED FOR DOCUMENTATION OF THIS DRAWING		PLOT DATE / TIME		PLOT BY	CLIENT	JUNEE TO ILLABO CLEARANCES ENHANCEMENT SITE WATERWORKS ROAD / GATE J2I13 SWEPT PATH ANALYSIS 19.0m TRUCK & DOG	A3
					-	-		-		-			
EXTERNAL REFERENCE FILES	REV	DATE	AMENDMENT / REVISION DESCRIPTION	WVR No.	APPROVAL	SCALES ON A3 SIZE DRAWING	DRAWINGS / DESIGN PREPARED BY	TITLE	NAME	DATE	PREPARED FOR	-	-
	1	17.03.25	INITIAL REVISION			0 5 10 Meters	CASE TRAFFIC & TRANSPORT	DESIGNED	J. BUNN	17.03.25	P. BILLINGHAM		
						CO-ORDINATE SYSTEM: MGA ZONE 55	HEIGHT DATUM: -	***	***	***		ISSUE STATUS: INITIAL REVISION	SHEET No.: 19 / OF SHEET: 21 / ISSUE: 1

DRAWING FILE LOCATION / NAME					DESIGN LOT CODE	DESIGN MODEL FILE(S) USED FOR DOCUMENTATION OF THIS DRAWING		PLOT DATE / TIME		PLOT BY	CLIENT
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EXTERNAL REFERENCE FILES	REV	DATE	AMENDMENT / REVISION DESCRIPTION	WVR No.	APPROVAL	SCALES ON A3 SIZE DRAWING	DRAWINGS / DESIGN PREPARED BY	TITLE	NAME	DATE	PREPARED FOR
	1	17.03.25	INITIAL REVISION			0 5 10 Meters	CASE TRAFFIC & TRANSPORT	DESIGNED	J. BUNN	17.03.25	P. BILLINGHAM
						CO-ORDINATE SYSTEM: MGA ZONE 55		***	***	***	
						HEIGHT DATUM: -		***	***	***	
								***	***	***	
								***	***	***	
								***	***	***	

JUNEE TO ILLABO CLEARANCES ENHANCEMENT SITE
WATERWORKS ROAD / GATE J2I13
SWEPT PATH ANALYSIS
19.0m TRUCK & DOG

A3

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ISSUE STATUS	SHEET No.	OF SHEET	ISSUE
INITIAL REVISION	20	21	1

MARTINUS