WAYSIDE / RAIL INTERFACE AGREEMENT

IAxx

between

<insert other party/ies full name>

and

Australian Rail Track Corporation Limited

for the Insert interface name> at <insert location name>

Applicability

ARTC Network Wide	Interstate Network	Hunter Valley		
NSW	QLD	SA	VIC	WA

Publication Requirement

Internal	Group Executive Safety & Systems	ARTC
External	<insert other Party position>	<insert other party/ies abbreviated name>

Document Status

Version #	Date	Prepared by	Department Endorsement	Date Endorsed
add version number	/24	[redacted]	Safety & Systems	<add endorsement date>

Amendment Register

Page number	Revision number	Date of revision	Amendment details
			<insert information from earlier versions>
All	0.0	03/12/2021	Updated to ARTC template, • Reference to new National Act • Redefined incident management • Redefined emergency management • Redefined access, inductions and track protection • Risk assessment controls updated • ARTC details and contact numbers • ARTC Network changed from 12000 km of track to 8500 km • References to AS4292 removed • Added International ISO 31000:2009 Risk Management • National regulator • Change of design and logo • Reference changed from SP-05-02 to RLS-PR-003 • Sections 4.3.1.2, 4.3.1.3, 4.3.4.3, 4.3.4.4, 4.3.5.2 updated • Updated to Rail Safety National Law (WA) Act 2015 and Rail Safety National Law (Victoria). • 4.6.1 Location of Standards • 4.3.6.1 Location of Competencies • Notification / Authorisation process • 4.9 Written consent for third party application • ERMS / SFAIRP information added • Maintenance inclusions 4.3.3.1 / exclusions 4.3.3.2 • Asset life cycle • External Party works – work instruction • Summary tables added • CAA process, SARC & Rail Operations, definition & procedure updated • Summary tables updated.
All	0.1	<insert risk assessment date>	Updated, • SFAIRP Risk Assessment • Information from site visit • Diagram and photos.

Execution Page

This agreement comes into effect when signed by both parties unless otherwise agreed and may be terminated without cause by either party giving twelve (12) months written notice to the other party.

Signed on behalf of Australian Rail Track Corporation Ltd:

____
Signed

[redacted]
Name

Group Executive Safety & Systems
Position

____
Date

Signed on behalf of <insert other party/ies full name>

____
Signed

<insert name of signatory
Name

<insert position of signatory>
Position

____
Date

Table of Contents

Section **Page**

1 Purpose

- To define the interface boundary between ARTC and <insert other party/ies abbreviated name>
- To define the responsibilities of the interfacing parties relating to the interface
- To document the process for the safe operation of rail movements and maintenance across the interface.

2 Reference

<Include documents that are specifically mentioned & delete any that are not applicable>
<Connection agreement/lease/licence>
External Party Works – Work instruction PRO-WI-009
RLS-PR-003 Protocol for entering the ARTC rail corridor.
SA use ARTC Code of Practice for the Defined Interstate Network
VIC use TA20 ARTC Code of Practice for the Victorian Main Line Operations
ARTC NSW Network Rules and Procedures
Route Access Standards (RAS) Manual
SA Rail Safety National Law (South Australia) Act 2012 / NSW Rail Safety (Adoption of National Law) Act 2012 / Rail Safety National Law (Queensland) Act 2017 / Rail Safety National Law (Victoria) / Rail Safety National Law (WA) Act 2015.

3 Definitions & Descriptions

ARTC **Australian Rail Track Corporation Ltd** is a company in which shares are owned by the Commonwealth Government through the Minister for Finance and the Minister for Infrastructure, Transport and Regional Development. ARTC currently has responsibility for the management of approximately 8,500 route kilometres of standard gauge interstate track in South Australia, Victoria, New South Wales, Queensland and Western Australia.

CAA **Corridor Access Approval** is a record that details the location, time and protection required for work planned in the rail corridor.

ERMS **Enterprise Risk Management System** is the ARTC risk management system used to manage risk / controls for the ARTC Network.

eTAP **Electronic Track Access Protection** is ARTC's track protection app used when applying for rail corridor access/ or work on track authorities.

HBT **Hunter Bulk Terminal** Train management is coordinated by ARTC Terminal Coordinator

<insert other party/ies abbreviated name> **<insert other party/ies full name>** <Insert information re the other party's operation and how it interacts with ARTC etc>.

NIB **Network Information Book** Network Information Books contain operational information and detailed diagrams of ARTC owned rail corridors and leased interstate mainline standard gauge corridors.

The Network Information Books are updated periodically to include changes in infrastructure and / or processes.

Operational Boundary	The last point at which a movement can be held prior to entering another party's area of operational responsibility. This could be a signal, sign or other method of control.
Operational Overlap	The area between opposing operational boundaries. Responsibility for managing movements and activities in this area should be clearly defined.
Rail Operations	For normal train running with a path, including train crew changes, train inspections or where arrangements are made to undertake fuelling on a siding either leased from ARTC or owned by the rail operator for that purpose then no CAA is required.
RIM	**Rail Infrastructure Manager** Means the manager of rail infrastructure of the parties to which this agreement applies and includes all "rail infrastructure" within the meaning all of the Rail Safety Acts. ARTC is the RIM for the main line <insert other party/ies abbreviated name> is the RIM for the <insert other party/ies abbreviated name> siding.
RSO	**Rolling Stock Operator** Means the manager of Rolling Stock that accesses the Network pursuant to the parties Access Rights.
RTO	**Rail Transport Operator** a category of organisation that is eligible for rail safety accreditation as defined under the Rail Safety National Law. A rail transport operator is a rail infrastructure manager, a rolling stock operator or both.
SARC	**Safely Access the Rail Corridor** a nationally recognised training, which replaces the track Safety Awareness (TSA) and National Track Safety Awareness (NTSA) training.
SFAIRP	**So Far As Is Reasonably Practicable**
TMB	**Track Maintenance Boundary** The point either side of which each party is responsible for infrastructure maintenance.

4 General Requirements

4.1 Functional Areas Involved for Each Organisation

The functional areas involved for each organisation include:

- infrastructure
- signalling & telecommunications
- traffic management.

4.2 Definition of Interface

4.2.1 Property Boundary

Refer ARTC Property Manager.

4.2.2 Operational Boundary

<list operational boundaries>.

4.2.3 Track Maintenance Boundary

The track maintenance boundary is located at <insert details of TMB and km> and is identified by a sign.

Refer section 7 Graphics.

4.3 Issues to be Resolved Across the Interface and Responsibilities of Each Organisation

4.3.1 Risk Management

4.3.1.1 Method

A hazard identification process has been conducted by ARTC on generic hazards associated with interface management. The hazards identified form the basis for the subject matter included in this agreement.

4.3.1.2 Responsibility for risk management

ARTC and <insert other party/ies abbreviated name> shall be jointly responsible for risk management of the interface.

A risk assessment has been conducted to identify specific hazards associated with rail operations in relation to the interface. Responsibility for specific risks is allocated by agreement and documented. Refer section 4.3.1.3.

4.3.1.3 Specific risk controls to be applied across the interface

The generic corridor risk was rated at medium; <if no additional controls were needed keep "No additional controls were determined to be required" then delete "Additional controls that were approved are listed here" and update table>

Risk	Responsibility and Control
<Enter additional significant risks that may have been identified>	<Enter a brief summary of control and party responsible>

4.3.1.4 SFAIRP review process

ARTC's risk events including controls and hazards are subject to regular reviews with relevant SMEs and stakeholder reps as part of the ongoing maintenance of the ERMS.

<insert other party/ies abbreviated name>'s controls listed are linked to the specific controls contained within <insert other party/ies abbreviated name>'s safety management system and are identified in the <insert other party/ies abbreviated name>'s Risk Register for Railway Operations. The controls are regularly monitored by relevant operational personnel and form part of <insert other party/ies abbreviated name> Fatal and Severe Risk Control Standard.

4.3.1.5 Risk Management Review

The parties agree to review the risks and risk control measures contained in this agreement to ensure that they continue to provide effective safety controls of the railway operations which may affect the interfaces. This review will be undertaken:

- where changes are proposed to infrastructure or operations affecting the interfaces; and
- at such other times as deemed necessary by the parties or by legislation.

4.3.2 Management of Movements

ARTC is responsible for the management of movements over its managed track at and beyond the operational boundary toward the ARTC main line.

<insert other party/ies abbreviated name> is responsible for the management of movements over its managed track beyond the operational boundary away from the ARTC main line.

Access to either party's network will be in accordance with each party's respective rules & procedures.

Refer section 6 Operating Procedure.

4.3.3 Management of Infrastructure

4.3.3.1 Maintenance

ARTC is responsible for the management of maintenance of its managed track at and beyond the TMB toward the ARTC main line as indicated by the arrow on the boundary sign.

ARTC's responsibility for infrastructure also includes: <insert list of equipment maintained by ARTC around interface and on other party's land>

This maintenance activity includes :

- Scheduled Compliance inspection as in accordance with ARTC ESM-26-02 Technical Maintenance plan Fault call outs

<insert other party/ies abbreviated name> is responsible for the management of maintenance over its managed track beyond the TMB away from the ARTC main line.

4.3.3.2 Maintenance Exclusions

- Life expired asset replacements
- Major fault repairs (i.e. requires component replacement)
- Damaged Assets replacement
- Civil Maintenance support

ARTC can provide these services if <insert other party/ies abbreviated name> desires by entering in to service agreement or alternative Competent contractors with ARTC qualification can be engaged. Noting that any works requires the Local ARTC Signalling Engineer to review changes/works and ensure engineering compliance.

4.3.3.3 Track work operations

Refer section 6 Operating Procedure.

4.3.4 Incident Management

4.3.4.1 Incident management

Each party shall manage incidents wholly within its territory in accordance with that party's incident management plan.

Incidents affecting the track or related infrastructure across the interface shall be managed jointly and cooperatively by the parties.

4.3.4.2 Notification of incidents between organisations

If either ARTC or <insert other party/ies abbreviated name> become aware of an incident likely to affect infrastructure, operations or safety relating to the interface, they shall ensure that the other organisation is advised as soon as possible.

Refer section 8 Contact details.

4.3.4.3 Regulatory reporting

ARTC shall report on “reportable incidents” on the ARTC Network to the National Rail Safety Regulator under the terms of its accreditation.

<insert other party/ies abbreviated name> shall report on “reportable incidents” on the <insert other party/ies abbreviated name> siding to the National Rail Safety Regulator under the terms of its accreditation <need to confirm they have accreditation>.

4.3.4.4 Investigation

Investigation into incidents on the ARTC network shall be based on ARTC’s investigation procedures.

Investigation into incidents on the <insert other party/ies abbreviated name> Siding shall be based on <insert other party/ies abbreviated name> investigation procedures.

When an incident occurs across the interface, the investigation shall be carried out jointly by the affected organisations.

4.3.4.5 Preservation of evidence

Unless required by law or to ensure safety, ARTC and <insert other party/ies abbreviated name> shall not engage in any conduct that is likely to prejudice an investigation into an incident and reserve the right to undertake timely inspection of any track or rolling stock damaged as a result of an incident.

4.3.5 Emergency Management

4.3.5.1 Emergency management

An Emergency is an incident which requires a significant and co-ordinated response.

The impacting party shall notify the other signatories of this IA when an Emergency Response is in force and the status and potential to affect other parties.

Each party shall manage emergencies as per section 4.3.4 Incident management.

4.3.5.2 Emergency services

Each party shall coordinate with emergency services when the incident is wholly within its territory in accordance with that party’s incident management plan.

Coordination with emergency services where incidents affecting the track or related infrastructure across the interface shall be managed jointly by the parties.

4.3.6 Personnel Management

4.3.6.1 Competency

ARTC and <insert other party/ies abbreviated name> shall ensure their respective workers carrying out activities in relation to the interface point are conversant with and comply with the relevant safe working procedures and other policies required by both organisations.

ARTC's safety worker competencies can be found at
http://www.artc.com.au/work/contractors/rswc/

4.3.6.2 Health and fitness

ARTC and <insert other party/ies abbreviated name> shall ensure their respective workers carrying out activities at and about the interface point are fit for duty and medically assessed as competent to perform the allocated tasks.

4.3.6.3 Drug and alcohol policy

ARTC and <insert other party/ies abbreviated name> shall ensure their respective workers carrying out activities at and about the interface point are conversant with and comply with the drug and alcohol policies of the respective organisations.

4.3.7 Dispute Resolution

ARTC and <insert other party/ies abbreviated name> agree that any dispute arising out of the interpretation of this agreement, or as to whether either party has failed to satisfy any of its obligations under this Agreement, will be dealt with as follows:

- firstly, the party claiming that there is a dispute will send to the other party's representative a notice setting out the nature of the dispute;
- secondly, the representatives will try to resolve the dispute by direct negotiation, including by referring the matter to persons who may have authority to intervene and direct some form of resolution;
- thirdly, if there is no resolution or agreement, the dispute will be referred to the appropriate authority depending on situation for resolution.

Notwithstanding any dispute between the Parties, the Parties will continue to perform their obligations under this Agreement.

4.3.8 Change in Ownership

ARTC and <insert other party/ies abbreviated name> will notify each other as soon as practicable in the event either of them undergoes a change of Ownership.

4.4 Asset life cycle

This agreement covers the following life cycle aspects of the interface:

- operation
- monitoring
- maintenance
- modification.

During ARTC Compliance inspections the responsible ARTC signalling representative will advise the Asset Owner if the asset is near end of life or is faulty and should be replaced. Its recommended that the Asset owner has a 10-year Asset Management Plan as some of these assets have a high capital expenditure and some components have long lead times or are obsolete this will support maintaining a reliable infrastructure.

4.5 Information Required for Monitoring Safe Operation Across the Interface

4.5.1 Contacts for Each Organisation

Refer section 8 Contact details.

4.6 Engineering and Operational Compatibility

4.6.1 Standards

Through consultation, ARTC and <insert other party/ies abbreviated name> are committed to ensuring that appropriate safety, operational and engineering standards are applied across the interface.

Supporting documents are available on the ARTC Intranet and Extranet under the Engineering discipline of Track, Civil & Signalling.

4.6.2 Standards not Available

Where mutually recognised standards, procedures or agreements are not available, ARTC and <insert other party/ies abbreviated name> agree that these will be generated, and agreement reached prior to any works being undertaken.

4.7 Review of this agreement

4.7.1 Changes to the Interface

ARTC and <insert other party/ies abbreviated name> shall liaise with each other regarding any alteration to infrastructure, procedure or circumstance that might have impact on the safety or access arrangements between the two parties in relation to the interface and this agreement shall be amended accordingly.

Notwithstanding the above, this agreement will be reviewed by the parties at least every 5 years and amended as required.

4.8 Access to Other Party's area

ARTC and <insert other party/ies abbreviated name> shall liaise to ensure that any representative introduced at the interface are fully informed as to the requirements of the locality including any required accreditation, documentation, training, site induction or similar provision.

Note: - the access requirements have been dealt with as part of the SFAIRP risk assessment and appropriate controls added.

ARTC and <insert other party/ies abbreviated name> agree that either party may make use of third parties under contract or otherwise, to deliver any aspect of its operational or infrastructure obligations at or adjacent to the interface. References to ARTC and/or <insert other party/ies abbreviated name> are deemed to include these parties where appropriate.

Each party will ensure its contractors and subcontractors will comply with this agreement when engaged in railway operations to which this agreement relates.

4.9 Access to ARTC Rail Corridor

Any entry to the rail corridor must be in accordance with RLS-PR-003 Protocol for Entering the ARTC Rail Corridor and <insert other party/ies abbreviated name> will ensure that any representatives introduced at the interface are fully informed as to the requirements of the locality including any required accreditation, documentation, training, site induction or similar provision.

This Requires the Third Party to obtain "Written" consent from ARTC Property through the Third-Party Application process

Example Scenarios where this may be required:

- Access that through ARTC Corridor / Lease Land
- Activity that encroaches on ARTC Corridor / Lease Land
- Activity potentially affects the Mainline /ARTC Operations/LPA Limits
- Affect ARTC Signalling infrastructure or infrastructure ARTC is responsible for maintaining.
- Activity that affects track stability within ARTC Corridor Limits.

4.10 Notifications for types of work

The below list indicates what type of notification / authorisation that are required by <insert other party/ies abbreviated name> before works can be established.

Activity	Access the rail corridor under Siding Connection	Require additional consent from ARTC Property (Third Party Application)	Access the rail corridor under Blasting Deed
Any activity that could affect ARTC Track Stability. i.e. re-railing, steel replacement etc.	✗	✓	✗
Any activity that requires removal / modification of Signalling Equipment within the private interface by non ARTC staff.	✗	✓	✗
Entering the ARTC corridor / property to enable the isolation of the private siding / loop.	✓	✗	✗
If an activity within ARTC interface is undertaken within a scheduled major closedown (LPA).	✗	✓	✗
If an activity involves any major ground disturbance within ARTC interface.	✗	✓	✗
If the activity is contained within the private interface.	✓	✗	✗
Any activity involving inspections, investigations and surveys (including the use of drones) within ARTC interface.	✗	✓	✗
Blasting activities (excluding installation of new blast monitors)	✗	✗	✓
Rail Operations (refer to definitions and descriptions on page **Error! Bookmark not defined.**)	✓	✗	✗

5 Compliance and Auditing

5.1 Responsibility for Maintaining and Monitoring Compliance

ARTC and <insert other party/ies abbreviated name> agree to be jointly responsible through their respective representatives for maintaining and monitoring compliance with this agreement.

If owing to emergency it is not possible to comply with this document, every effort shall be made by the non-complying party to consult on the best course of action to ensure the safe conduct of activities at the interface.

5.2 Reporting Instances of Non-Compliance

Instances of non-compliance shall be brought to the attention of the relevant compliance officers of each party to be dealt with in accordance with their internal procedures.

5.3 Safety Auditing Compliance

ARTC is required to conduct regular safety audits under the terms of its accreditation.

<insert other party/ies abbreviated name><if accredited keep “is required to conduct regular safety audits under the terms of its accreditation” if not accredited keep “has agreed to conduct regular safety audits”.

5.4 Review of Compliance Requirements

Review of compliance requirements shall be conducted in association with review of the entire document.

5.5 Reciprocal Inspections and Audits

In the event ARTC and <insert other party/ies abbreviated name> agree that there is an issue adversely affecting safety regarding the interface, ARTC and <insert other party/ies abbreviated name> will allow relevant reciprocal inspections and audits to be undertaken to facilitate remedial action.

5.6 Auditing by Regulator

ARTC and <insert other party/ies abbreviated name> shall facilitate any required regulatory audit and provide information for that purpose as requested.

6 Operating Procedure

<insert other party/ies abbreviated name> is responsible for providing this operating procedure to operators, maintainers and other parties who might require it for access to the private siding.

All maintenance activity within the ARTC property boundary performed by <insert other party/ies abbreviated name> maintenance provider on <insert other party/ies abbreviated name> managed track must be co-ordinated with the Network Controller and comply with the ARTC Network Rules and Procedures.

Any person intending to access the rail corridor on the ARTC managed network for the purposes of performing work in an established work-site must be certified in the Safety Access the Rail Corridor (SARC) competency and have construction industry induction as a minimum:

An approved Corridor Access Approval is required to enter the Rail Corridor, in accordance with the existing ARTC procedure RLS-PR-003 “Protocol for entering the ARTC rail corridor”. An approved Corridor Access Approval is not approval of work or the required safe working arrangements and is only an approval for entry to the Rail Corridor to conduct approved work and establish the required safe working arrangements to undertake the work.

6.1 Movements Entering <insert other party/ies abbreviated name> siding

<Insert procedure> an example is When <insert other party/ies abbreviated name> rail traffic is required to enter the <insert other party/ies abbreviated name> siding, they must:

- Stop at the operational inward boundary clear of the toe of the points
- Operate points and shunt in clear of outward operational boundary.
- Notify the ARTC Network Controller when the rail traffic is in clear of points.

6.2 Movements Departing <insert other party/ies abbreviated name> siding

<Insert procedure> an example is When rail traffic is to exit the <insert other party/ies abbreviated name> siding, they must:

- Obtain permission from the ARTC Network Controller
- Stop at the operational Outward boundary
- Operate points and shunt in clear of inward operational boundary.
- Notify the ARTC Network Controller when the rail traffic is in clear of points.

6.3 Isolation procedure

<Insert procedure, some sites do not have an isolation switch>

ARTC shall allow short name access to the Private Siding Points Isolating Switch when required for the purpose of isolating the loop. Where appropriate short name personnel performing this duty will hold the “Safely Access the Rail Corridor competency” and perform no other task whilst within ARTC boundaries.

Note: - short name does not have to use the points isolation switch for all types of works. The Protection officer can use a risk-based approach to solve unique scenarios. I.e. may choose to use a work Authority.

6.3.1 Obtaining private siding points isolation

Prior to operation of the Private Siding Points Isolating Switch,

- short name or nominee will obtain the private isolation switch key from Location
- Obtain permission to operate the Points Isolating switch and confirm with the Network Controller that xxx points are set to divert rail traffic away from the line being worked.
- Once isolated, the Isolating switch box will be secured by a short name Isolation lock as per short name procedures.

If Private Siding Points Isolation Switch function is not available due to being used by another party, short name and ARTC to reach agreement on the protection requirements and methodology to be applied. (*Listed below*)

- *Xxxxx (Agreement from Mine Owner on any alternate protection arrangement)*

6.3.2 Hand back of private siding points isolation

short name or nominee, upon completion of works will

- Notify all employees that the safe working controls will be removed. Ensure the siding is safe to accept rail traffic

- Remove the lock securing the isolating switch box. Contact the Network Controller and advise the isolation will be fulfilled. Once given permission to return the isolation by the Network Controller, The Network Controller will advise that xx points have been returned to normal operation by turning the key to the "on" position.
- Confirm with the Network Controller, that all associated points are operational.
- Close and lock Isolation Switch box
- Return the keys to xxx.

At all times whilst working on or near the railway, even though full protection has been established, communication lines must be maintained between the Worksite Supervisor, Network Controller and short name Operations to cater for any unforeseen emergencies.

During track possessions, only programmed work trains or track vehicles involved in the possession will be allowed to enter or operate in the closed section of line.

6.4 Track Work Operations

Track work operations likely to affect the ARTC Network must be performed in accordance with ARTC Network Rules and Procedures by suitably qualified workers.

7 Graphics

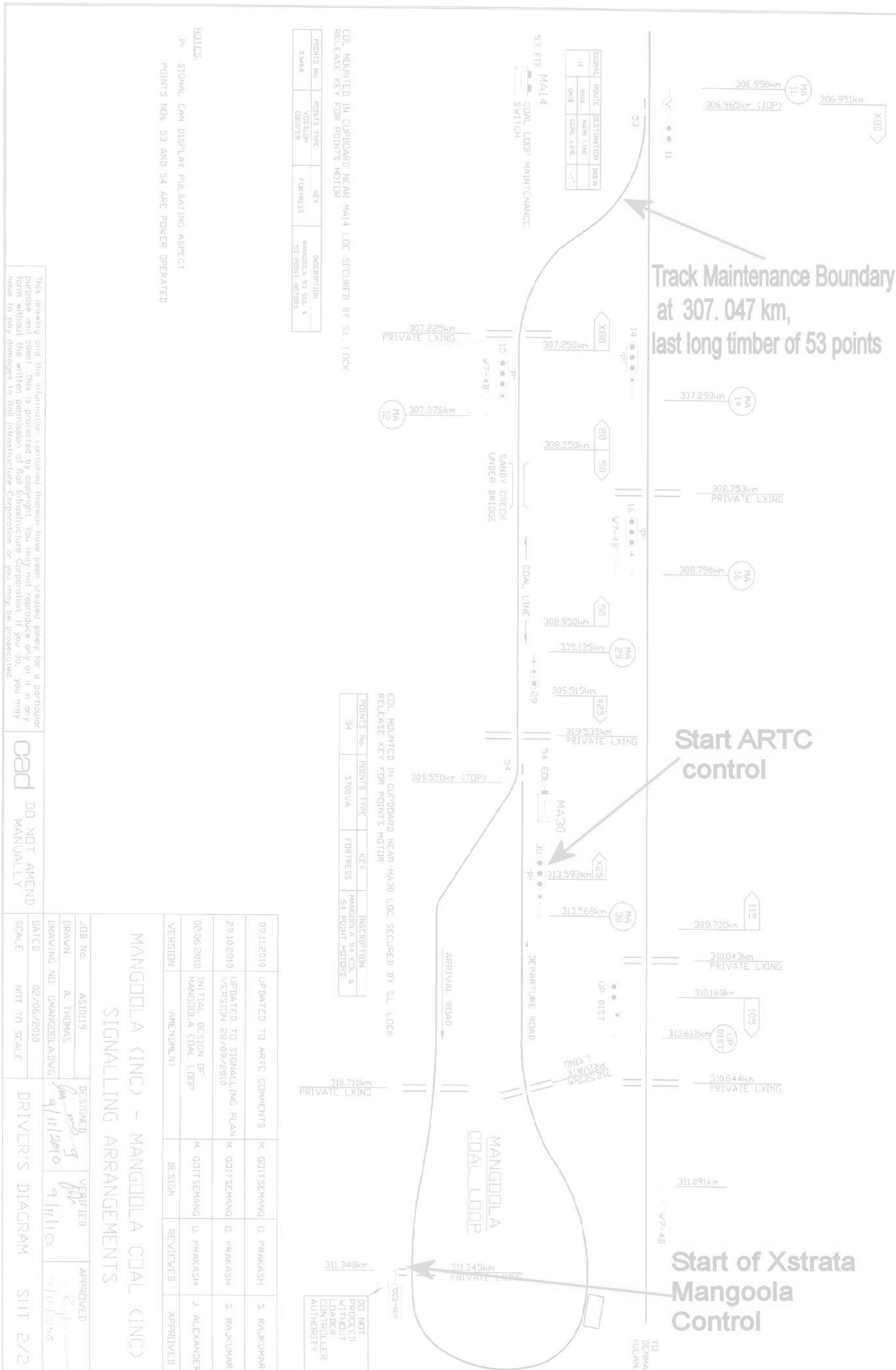

Figure 1 <Example of interface diagram note diagram are to align with the NIB>

Figure 2 <Example of interface sign and photo>

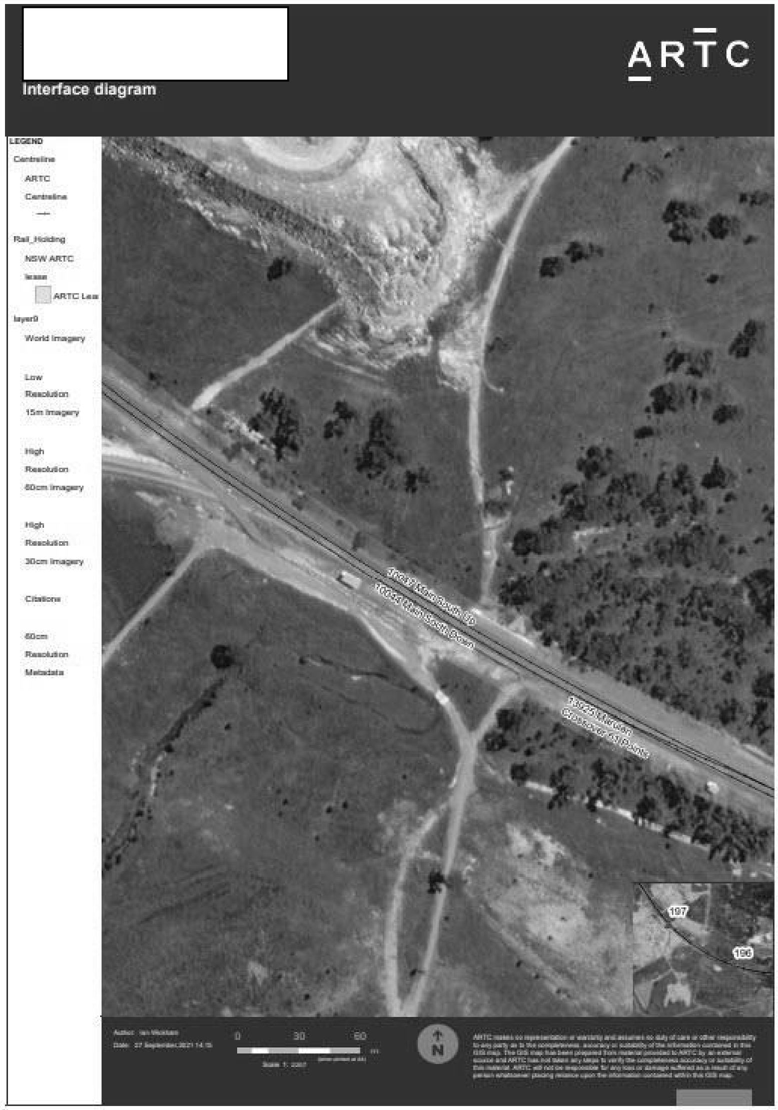

Figure 3 GIS diagram showing lease.

8 Contact details

<update details>

ARTC	Responsibility	Number
Network Controller <location>	Manages rail movements and maintenance operations	
Network Control <location> Emergency Contact **ONLY**	Emergency contact	
Train Transit Manager <location>	Train control supervisor	
Property Manager <location>	Identifying property boundary and access	
Area Manager	Manages track and signalling issues	
Integrated Scheduling Coordinator	Coordination of ARTC's Weekly Maintenance Plan and Issuer of CJN.	[redacted]
Safety Interface Officer	Contact for this agreement	[redacted]
<insert other party/ies abbreviated name>		
<add other parties position>	<add description of responsibility>	<add contact number>

9 Summary tables

Identified Risk and Responsibility

The following risks to safety that may arise from rail operations are identified and responsibility to manage that risk is as follows:

Risk Summary Table – Wayside / Rail Interfaces			
Top Risk Event	Key Causes	Key Controls	Risk Owner
Train derailment ERMS ID 0008 (5922)	Maintenance boundaries / responsibilities unclear (i.e. Rail Infrastructure Manager (RIM) role unclear)	1. Seek to execute the Rail - Rail Interface agreement 2. State based legislation 3. ARTC Leases 4. Policy, Strategy, Standards, Procedures, Inspection and maintenance Plans	RIMs
Infrastructure loss, degradation, constraint or imposed operational restrictions ERMS ID 0010	Infrastructure defects, failure or damage	1. Asset management framework and systems 2. Implement & apply Safe working protocols 3. Safety Management Systems 4. Design Standards 5. Route Access Standards	RIM / RSO
	Human Factors - Train Driver, Rail Mounted Vehicle (RMV) or Track Machine operator errors or wilful disregard	1. Driver training & license requirements 2. CAN and Operational notices 3. Network Controller instructions, Phoenix and CTC 4. Train speed monitoring 5. SMS 6. Communication protocols	RIM / RSO
	Human Factors - Safeworking errors on site i.e. Track Worker, Protection Officer, TFPC complacency, lack of route knowledge or wilful disregard	1. Communication protocols 2. Training / Site Inductions 3. SMS 4. Supervision Performance management	RIM / RSO
	Human Factors - Operations Centre worker error i.e. Terminal operator, Network Controller error or wilful disregard	1. Interface Agreements and Access Agreements 2. SMS 3. Training / Site Inductions 4. Network Controller instructions, Phoenix and CTC 5. Alarms in train control systems in signalled areas 6. Operational processes	RIM / RSO
Train to Train ERMS ID 0001	Refer to risk summary table 'Train to train'		RIM / RSO
Train to trackworker ERMS ID 0002	Refer to risk summary table 'Train to track worker'		RIM / RSO
Train to Person ERMS ID 0003	Refer to risk summary table 'Train to person'		RIM / RSO
The above risks are termed Top Risk Events by ARTC. The overall current risk rating in the Enterprise Risk Management System is 'Medium' across all risk events. The "Most Likely" consequence of all the identified risks listed range from 'Near Miss' to 'Recoverable Injury or illness', 'Material disruption recoverable in the short-term' and 'Short-term loss or confidence from a key stakeholder'.			

Risk Summary Table – Train to Track Worker at Interfaces			
Top Risk Event	Key Causes	Key Controls	Risk Owner
Train to Trackworker ERMS ID 0002	Access track at wrong location - or - Access track without authority (i.e. Rail Vehicle access and Workers)	1. Communication protocols 2. Journey planning 3. Network rules and procedures 4. Training / Site Inductions 5. Corridor Access Procedure	RIM / RSO
	Human Factors - Safeworking errors on site i.e. Track Worker, Protection Officer, TFPC complacency, lack of route knowledge or wilful disregard	1. Communication protocols 2. Training / Site Inductions 3. SMS 4. Supervision Performance management	RIM / RSO
	Human Factors - Train Driver, Rail Mounted Vehicle (RMV) or Track Machine operator errors or wilful disregard	1. Driver training & license requirements 2. CAN and Operational notices 3. Network Controller instructions, Phoenix and CTC 4. Train speed monitoring 5. SMS 6. Communication protocols	RIM / RSO
	Human Factors - Operations Centre worker error i.e. Terminal operator, Network Controller error (i.e. rollingstock Infringing adjacent line) or wilful disregard	1. Interface Agreements and Access Agreements 2. SMS 3. Training / Site Inductions 4. Network Controller instructions, Phoenix and CTC 5. Alarms in train control systems in signalled areas 6. Operational processes	RIM / RSO
	Rolling stock defect / irregularities / Train Integrity (i.e. rail worthiness of rail vehicles)	1. Compliance checks 2. Engineering standards 3. Inspections 4. Route Access Standards / Freight loading Standards 5. Vehicle registration standards	RIM / RSO
	Operator responsibilities unclear	1. Above Rail Interface agreement 2. Policy, Strategy, Standards, Procedures, Inspection and Maintenance Plans	RIM / RSO
	Infrastructure defects, failure or damage	1. Asset management framework and systems 2. Implement & apply Safe working protocols 3. Safety Management Systems 4. Design Standards 5. Route Access Standards	RIM / RSO
	Train driver or Track Worker medical condition or impairment	1. Medical standards 2. Drug and alcohol & fatigue management policy / procedures 3. SMS 4. Train In-cab controls (i.e. Vigilance, dead man's switch/pedal)	RIM / RSO
The above risks are termed Top Risk Events by ARTC. The overall current risk rating in the Enterprise Risk Management System is 'Very high' across this risk events. The "Most Likely" consequence of all the identified risks listed range from 'one or more fatalities'.			

Risk Summary Table – Train to person at Interfaces			
Top Risk Event	Key Causes	Key Controls	Risk Owner
Train to person ERMS ID 0003	Train driver medical condition or impairment	1. Medical standards 2. Drug and alcohol, fatigue management policy / procedures 3. SMS 4. Train In-cab controls (i.e. Vigilance, dead man's switch/pedal)	RIM / RSO
	Maintenance boundaries / Responsibilities unclear (i.e. boundary fencing / signage defined)	1. Seek to execute the Rail - Rail Interface agreement 2. Standards, Procedures, Inspection and Maintenance Plans	RIM
	Human Factors – Member of Public error (Incl. Trespass) or wilful disregard	1. Train visibility and conspicuity, and train horns/whistles 2. Public awareness and media campaigns 3. Standards, Procedures, Inspection and Maintenance Plans	RIM / RSO
	Human Factors - Train Driver, Rail Mounted Vehicle (RMV) or Track Machine operator errors or wilful disregard	1. Driver training & license requirements 2. CAN and Operational notices 3. Network Controller instructions, Phoenix and CTC 4. Train speed monitoring 5. SMS 6. Communication protocols	RIM / RSO
	Human Factors - Operations Centre worker error i.e. Terminal operator, Network Controller error or wilful disregard	1. Interface Agreements and Access Agreements 2. SMS 3. Training / Site Inductions 4. Network Controller instructions, Phoenix and CTC 5. Alarms in train control systems in signalled areas 6. Operational processes	RIM / RSO
	Rolling stock defect / irregularities / Train Integrity (i.e. rail worthiness of rail vehicles)	1. Compliance checks 2. Engineering standards 3. Inspections 4. Route Access Standards / Freight loading Standards 5. Vehicle registration standards	RSO
	Infrastructure defects, failure or damage (i.e. Bridge or station strike)	1. Asset management framework and systems 2. Implement & apply Safe working protocols 3. Safety Management Systems 4. Design Standards 5. Route Access Standards	RIM / RSO
The above risks are termed Top Risk Events by ARTC. The overall current risk rating in the Enterprise Risk Management System is 'Medium' across all risk events. The "Most Likely" consequence of all the identified risks listed range from 'Near Miss' to 'Recoverable Injury or illness', 'Material disruption recoverable in the short-term' and 'Short-term loss or confidence from a key stakeholder'.			

Risk Summary Table – Train to Train at Interfaces			
Top Risk Event	Key Causes	Key Controls	Risk Owner
Train to Train ERMS ID 0001	Access track without authority (i.e.. Rail vehicle access)	1. Communication protocols 2. Journey planning 3. Network rules and procedures 4. Training 5. Network Controller instructions, Phoenix and CTC	RIM / RSO
	Infrastructure defects, failure or damage	1. Engineering standards 2. Reporting 3. Asset management framework and systems 4. Implement & apply Safe working protocols 5. Safety Management Systems 6. Design Standards 7. Route Access Standards	RIM / RSO
	Human Factors - Safeworking errors on site i.e. Track Worker, Protection Officer, TFPC complacency, lack of route knowledge or wilful disregard	1. Communication protocols 2. Training / Site Inductions 3. SMS 4. Supervision Performance management	RIM / RSO
	Human Factors - Train Driver, Rail Mounted Vehicle (RMV) or Track Machine operator errors (i.e. rail vehicle overspeed, loss of control) or wilful disregard	1. Driver training & license requirements 2. CAN and Operational notices 3. Network Controller instructions, Phoenix and CTC 4. Train speed monitoring 5. SMS 6. Communication protocols 7. Speed restriction management 8. Speed alarms	RIM / RSO
	Human Factors - Operations Centre worker error i.e. Terminal operator, Network Controller error or wilful disregard	1. Interface Agreements and Access Agreements 2. SMS 3. Training / Site Inductions 4. Network Controller instructions, Phoenix and CTC 5. Alarms in train control systems in signalled areas 6. Operational processes	RIM / RSO
	Rolling stock defect / irregularities / Train Integrity (i.e. rail worthiness of rail vehicles)	1. Compliance checks 2. Engineering standards 3. Rollingstock design maintenance and inspections 4. Route Access Standards / Freight loading Standards 5. Wayside Systems	RIM / RSO
	Operator responsibilities unclear	1. Above Rail Interface agreement 2. Policy, Strategy, Standards, Procedures, Inspection and Maintenance Plans	RIM / RSO
	Train driver medical condition or impairment	1. Medical standards 2. Drug and alcohol, fatigue management policy / procedures 3. SMS 4. Train In-cab controls (i.e. Vigilance, dead man's switch/pedal)	RIM / RSO
The above risks are termed Top Risk Events by ARTC. The overall current risk rating in the Enterprise Risk Management System is 'Very High' across all risk events. The "Most Likely" consequence of all the identified risks listed range from 'one or more fatalities'.			