

Schedules H – MFC Brief

MFC Brief

1. Gantry crane operating area covers the internal area from grid 24 to grid 26 and grid A to grid E on Drawing DWG-AR-01-A3-1003.
2. From 'track centre' line of 'maintenance road 1' to the face of the building structure dividing wall noted along grid F on Drawing DWG-AR-01-A3-1004 shall be 9000mm clear, which includes allocation for a 1000mm clear walkway.
3. Non-motorised mobile platforms (quantity of 6) will be provided for access to perform works on opposite door.

Schedules I – Train storage regime

Schedule I1 – Unit storage requirements

1. TfNSW's responsibility

Following an Into Storage Notice for a Unit until an Out of Storage Notice for that Unit and the Unit being delivered to the Maintenance Facility for Stored Unit Handover, TfNSW acknowledges and agrees that with respect to the Unit storage requirements set out in this Schedule I1, that it accepts the following responsibilities:

- (a) to ensure that the Unit storage requirements and the management of the storage are adequate and fit for TfNSW's purposes;
- (b) notwithstanding clause 36.1(e), to accept all risks and costs of damage except to the extent caused or contributed to by the Supplier or the Supplier's Associates, destruction to, or loss of the Unit while in storage except to the extent caused or contributed to by the Supplier or the Supplier's Associates, and that it will promptly notify the Supplier of any such instances except to the extent caused or contributed to by the Supplier or the Supplier's Associates;
- (c) to procure or allow the Supplier's Personnel access to the Unit at the Storage Facilities;
- (d) to limit access to the Unit at the Storage Facility by anyone other than the Supplier or NSW Rail Entity without the prior knowledge of the Supplier;
- (e) to manage TfNSW's Unit location plan and support the NIF Unit Storage Plan; and
- (f) to manage the Unit while in storage in accordance with the NIF Unit Storage Plan.

2. Supplier's responsibility

Following an Into Storage Notice until the last Out of Storage Notice, the Supplier acknowledges and agrees that with respect to the Unit storage requirements set out in this Schedule I1, that it accepts the following responsibilities:

- (a) to support TfNSW's activities (including train maintenance, storage and readiness activities) in respect of the Unit at the Storage Facility and in accordance with the NIF Unit Storage Plan;
- (b) to comply with the NIF Unit Storage Plan;
- (c) to participate in the Train Storage Working Group to consult with stakeholders on movements of the Units in accordance with the Interface Protocol;
- (d) to support the storage of Units in accordance with the NIF Unit Storage Plan; and
- (e) to prepare and provide input into TfNSW's Unit location plan at the Train Storage Working Group including the Supplier's Activities for Maintenance Services, Supplier initiated Fleet inspections and modifications.

3. Unit storage

- (a) **(General):** On and from the date of Amendment Deed No.2:
 - (i) if TfNSW determines that a Unit is or is to be a Stored Unit, it must provide the Supplier with a notice to that effect for that Unit (**Into Storage Notice**); and
 - (ii) every Unit that has:

- (A) achieved Provisional Acceptance pursuant to clause 16.1; and
- (B) been the subject of an Into Storage Notice,

must go into storage in accordance with the terms of this Schedule I1 until TfNSW provides the Supplier with the Out of Storage Notice pursuant to paragraph 3(f) of this Schedule I1 in respect of that Unit.

- (b) **(Train Storage Working Group):** The parties acknowledge and agree that:
 - (i) a Train Storage Working Group has been established pursuant to the NIF Unit Storage Plan;
 - (ii) a member of the Train Storage Working Group may appoint a delegate (with an appropriate level of seniority or experience) to attend Train Storage Working Group meetings in their absence;
 - (iii) the objectives of the Train Storage Working Group are to:
 - (A) monitor the overall status of the Stored Units and location plan and coordinate the performance of the parties' obligations under this Schedule I1;
 - (B) assist with the resolution of any matters referred to the Train Storage Working Group by a party; and
 - (C) review and consider such other matters relating to the Stored Units and Storage Facilities as are agreed between TfNSW and the Supplier from time to time;
 - (iv) it is not the function of the Train Storage Working Group to make decisions or otherwise act in a way which is binding on the parties. The Train Storage Working Group may, however, make recommendations to the parties;
 - (v) TfNSW's Train Storage Lead will convene and chair meetings of the Train Storage Working Group;
 - (vi) the Train Storage Working Group must meet:
 - (A) at least once every week during the Delivery Phase until all Stored Units have been removed from storage following TfNSW's provision of the final Out of Storage Notice pursuant to paragraph 3(f) of this Schedule I1; and
 - (B) at any other time requested by TfNSW's Train Storage Lead; and
 - (vii) the Supplier must not suspend or delay the performance of any obligation under a NIF Project Agreement for any reason pending the occurrence of, or consideration of any matter by, a meeting of the Train Storage Working Group.
- (c) **(Delivery to the Storage Facility):** Upon a Unit achieving Provisional Acceptance and an Into Storage Notice having been issued in respect of a Unit (and no Out of Storage Notice being issued), then in respect of that Unit:
 - (i) TfNSW will:
 - (A) where required, transport the Unit to a Storage Facility nominated by TfNSW, TAHE or the Operator; and
 - (B) without limiting any other obligations of the Supplier relating to the Provided Facility Sites under this deed, but subject to paragraph 3(d) of this Schedule I1, store the Unit at a Storage Facility until such time that TfNSW provides the Supplier with the Out of Storage Notice; and
 - (ii) the Supplier must continue performing the Maintenance Services (or other services required by paragraph 3(h) of this Schedule I1, or other services required for Stored

Units (as agreed by the parties from time to time)) in respect of that Unit until the earlier of:

- (A) the Stored Unit achieving Running Readiness; and
- (B) 30 June 2024.

(d) **(Return to Maintenance Facility):** If requested by the Supplier in accordance with the Interface Protocols, the NIF Unit Storage Plan and through the Train Storage Working Group process, TfNSW agrees to:

- (i) make Units available at the Maintenance Facility for Stored Unit Handover; and
- (ii) return Units from Storage Facilities to the Maintenance Facility for Stored Unit Handover,

promptly (and in any event within 20 Business Days of the Supplier's request) at no cost to the Supplier. For the avoidance of doubt, the transportation of a Stored Unit under this paragraph 3(d) will not impact that Unit's designation as a Stored Unit pursuant to this Schedule I1, and that Unit will remain a Stored Unit until such time that TfNSW provides the Supplier with the Out of Storage Notice for that Unit.

(e) **(Achievement of Interim Final Acceptance for Stored Units):** If the Supplier considers that a Stored Unit or a Unit that is to be stored meets the Interim Final Acceptance Criteria, then the Supplier may submit the Stored Unit for Interim Final Acceptance under clause 16.3.

(f) **(Out of Storage Notice):** When TfNSW determines that the Stored Units are no longer required to be stored pursuant to this Schedule I1, it must provide the Supplier with a notice that the Stored Units may, subject to paragraph 3(g) of this Schedule I1 and clause 16.6(c), be removed from the Storage Facilities, and must provide a notice in respect of each Unit once the Train Working Group determines (or absent agreement, TfNSW determines) that the Unit is to be removed from Storage (**Out of Storage Notice**).

(g) **(Out of Storage Process):**

- (i) Following receipt of the first Out of Storage Notice, and in consultation with the Supplier, the Train Storage Working Group will determine the:
 - (A) order of Stored Units to be removed from storage; and
 - (B) the date, time and Delivery Location for each Stored Unit, for Stored Unit Handover.
- (ii) If the Train Storage Working Group is unable to agree the matters in paragraph 3(g)(i)(A) and 3(g)(i)(B) of this Schedule I1, TfNSW will determine the matters in paragraph 3(g)(i)(A) and 3(g)(i)(B) of this Schedule I1.
- (iii) The parties agree it is the responsibility of:
 - (A) the Supplier to ensure that each Stored Unit is ready to be removed from storage in accordance with the directions of the Train Storage Working Group or TfNSW (as applicable) under this paragraph 3(g); and
 - (B) TfNSW to then transport each Stored Unit the subject of the Out of Storage Notice from the Storage Facility to the Delivery Location for Stored Unit Handover as determined by the Train Storage Working Group or TfNSW (as applicable) under this paragraph 3(g).

(h) **(Maintenance of Provisional Acceptance and Interim Final Acceptance status):** If a Stored Unit achieved:

- (i) Provisional Acceptance prior to being placed in a Storage Facility; and / or

- (ii) Interim Final Acceptance either prior to being placed in a Storage Facility or after being placed in a Storage Facility,
the Supplier must ensure that:
 - (iii) while in the Storage Facility, the Stored Unit remains in a state capable of satisfying the Provisional Acceptance Criteria or Interim Final Acceptance Criteria (as relevant); and
 - (iv) upon receiving the Out of Storage Notice, the Stored Unit still satisfies the Provisional Acceptance Criteria or Interim Final Acceptance Criteria (as relevant) within 10 Business Days following delivery of the Stored Unit to the Delivery Location determined under paragraph 3(g) of this Schedule I1.
- (i) **(Delivery Activities and Maintenance Phase Warranties unaffected):** Nothing in this Schedule I1 will detract from the warranties given by the Supplier pursuant to clauses 15.2 and 18.7.

4. Personnel support services

The Supplier must provide (at its cost) all necessary support services required for the proper performance of the Maintenance Services (or other services required by paragraph 3(d)(c) and paragraph 5 of this Schedule I1, or other services required for Stored Units as agreed by the parties from time to time) in respect of the Stored Units until the earlier of:

- (a) the last Stored Unit achieving Running Readiness; and
- (b) 30 June 2024.

5. Maintenance Services for Units in storage

The Supplier must provide (at no extra cost) the Maintenance Services (or other services required by paragraph 3(h) of this Schedule I1, or other services required for Stored Units as agreed by the parties from time to time) required in respect of the Stored Units until the earlier of:

- (a) the last Unit achieving Running Readiness; and
- (b) 30 June 2024.

Schedule I2 – NIF Unit Storage Plan

NIF Unit Storage Plan

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NIF Unit Storage Plan

VERSION HISTORY

Revision	Description	Prepared by	Reviewed by	Approved by	Date
0	Initial Project Release	G Thompson	W Green		

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1 INTRODUCTION

1.1 REVISIONS

Draft issues of this document are identified as Revision A, B, C etc. Upon initial issue, this will be changed to a sequential number commencing with Revision 0. Revision numbers will continue as required Rev 1, 2 and so on.

1.2 DISTRIBUTION

The controlled master copy of this document including the previous revisions are maintained on the RailConnect SharePoint site as well as the Project Document Control System (TeamBinder). All hard copies of this document are deemed to be uncontrolled.

1.3 ACCRONYMS AND ABBREVIATIONS

Acronyms	Meaning
AEO	Authorised Engineering Organisation
AIS	Asset Information System
AMS	Asset Management System
ASA	Asset Standards Authority
CM	Configuration Management
CMP	Configuration Management Plan
FRACAS	Failure, Reporting, Analysis and Corrective Action System
HRC	Hyundai Rotem Company
IDP	Integrated Delivery Program
NCR	Non-Conformance Report
NIF	New Intercity Fleet
NSWT	New South Wales TrainLink
PA	Provisional Acceptance
PCA	Physical Configuration Audit
RACI	Responsibility, Accountability, Communicate and Inform matrix
RCN	RailConnect NSW
SPR	Scope and Performance Requirement
ST	Sydney Trains
T&C	Test and Commissioning
TfNSW	Transport for New South Wales
TNAC	Transport Network Assurance Committee

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Acronyms	Meaning
VP	Verification Plan
UAB	Unit Acceptance Book
Unit	Unit means a multiple Car consist, to be semi-permanently coupled together for operation as a self-contained entity or as part of a Train, as more particularly described in SPR Appendix 02 and will normally appear as a 4-Car or 6-Car Train.
UGL	UGL Rail Services Pty Ltd

Table 1 - Acronyms & Abbreviations

1.4 APPLICABLE DOCUMENTS

The documents listed in Table 2 are applicable to this NIF Unit Storage Plan. Where a revision state is not shown, the revision will be as of the date of approval of that plan. Unless stated otherwise, the order of precedence of applicable documents is:

- Legislation
- Statutory requirements
- Regulation invoked standards
- Contract specifications
- Company invoked standards
- Company internal design standards.

Document Number	Title
Contract Number: TPD-14-3841 (including Schedule D2 & G)	The Project Deed – New Intercity Fleet
AS/NZS ISO/IEC 15288:2013	Systems and software engineering – System life cycle processes
RC-VEH-PL-0001	Project Management Plan
RC-VEH-PL-0003	System Safety Plan
RC-VEH-PL-0004	Authorisation and Accreditation Plan
RC-VEH-PL-0005	Verification Plan
RC-VEH-PL-0009	Configuration Management Plan
RC-VEH-PL-0010	Risk Management Plan
RC-VEH-PL-00014	Incident & Security Management Plan
RC-VEH-PL-0009	Environment & Sustainability Management Plan
RC-VEH-PL-012	Safety Management Plan
RC-VEH-PL-0011	Quality Plan
RC-VEH-PL-0002	Systems Engineering Management Plan

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Document Number	Title
HRC-VEH-PL-0013	Stakeholder Engagement Plan
UGL-MSS-PL-0006	Strategic Asset Management Plan
UGL-MSS-PL-0001	Asset Management Plan New Intercity Fleet (NIF) Units
IMO Procedure 04	Management of Communications, Meetings & Reports

Table 2 - Applicable Documents

2 PURPOSE

The purpose of this plan is to outline the strategy, processes and responsibilities for Stored Units in accordance with Schedules I Unit Storage Requirements of the Project Deed.

3 SCOPE

The scope of this NIF Unit Storage Plan includes identification of the processes and responsibilities for Stored Units. This plan addresses the following:

- Identification and engagement of key stakeholders in the storage process
- Appropriate timing and sequence of events, including timeframes for the delivery of notifications between all parties
- Functional roles and responsibilities for organisations involved

Key considerations are:

- Unit storage without any degradation of performance
- Intercity Services after storage
- Post PA Unit storage: managed by TfNSW/NSWT with Supplier support

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4 UNIT STORAGE PROCESS

UGL will manage the NIF Unit storage process with support from HRC and MEA including the following significant steps.

The Supplier will provide input into TfNSW's storage plan and TfNSW's Train Storage Movement Summary at the Train Storage Working Group including the Supplier's Activities for Maintenance Services, Supplier initiated Fleet inspections, modifications and the rectification of Minor Defects ("**Call In List**"). The Call In List will be a 3-month look-ahead and will be updated by the Supplier monthly in advance.

4.1 PLANNING

The NIF Unit storage requirements will be incorporated into the Train Plan in accordance with Schedule I.

Train Storage Working Group will comprise

- UGL Operations and Maintenance Manager (or delegate) – LEAD
- UGL Maintenance Planner
- HRC Fleet Operations manager (or delegate)

The Train Storage Working Group will obtain support from other stakeholders as required.

The Unit storage process will take account of the Call In List. The Supplier will work collaboratively with TfNSW/NSWT to support the movement of Stored Units into, and out of Storage Locations. The Supplier will support the movements and fault find where required through periodic inspections at the Storage Locations.

TfNSW and NSWT will work collaboratively with RailConnect to support the Supplier's Activities including facilitating access at Storage Locations to perform the Supplier's Activities.

The NIF Unit Storage Plan will take into account the Unit TMP requirements and where possible TMP will be completed prior to storage to minimise movements.

At every 90 days the Stored Units will be returned to the Maintenance Facility and another Unit will be recommended for storage in its place. 90 days maintenance, Preventive Maintenance, additional functional checks, any pending ECR's and the rectification of Minor Defects may be conducted during this time.

In addition to the 90 days activity and at the Supplier's request, the Stored Units will be returned to the Maintenance Facility for the rectification of Minor Defects as per 3(d) of Schedule I - "Return to Maintenance Facility".

Where a stored Unit is planned to return to a Storage Location after maintenance, the Supplier will review any opportunity for the Unit to undergo minimum 2 days of simulated Intercity Services, subject to discussion within Train Storage Working Group.

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Where a stored Unit is planned to go into Intercity Services after maintenance, the Unit will undergo shake down runs for minimum 2 days prior to going into Intercity Services.

Opportunities for simulated Intercity Services will be provided through post PA reliability assurance and training runs from the Maintenance Facility.

At any given time, a Unit should not remain stationary without movement for more than 6 weeks. Units are required to be move at least 200m back and forth every 6 weeks to avoid impact on the bearings.

4.2 NOTIFICATIONS

All attempts will be made to ensure the Units Certificate of Serviceability (COS) remain valid for the duration of the storage. If for some reason the Certificate of Serviceability expires and the issues are not safety related, TfNSW will support the Supplier in seeking waiver(s) as required to run the Unit on the network.

4.3 STORAGE LOCATIONS

The Storage Locations are defined as any facility nominated by TfNSW, TAHE or the Operator for the storage of Stored Units located within the rail network and within the bounds of Kiama, Lithgow or Newcastle.

Proposed Storage Locations include but not limited to:

- Lithgow yard
- Mt Victoria yard
- Enfield yard
- Broadmeadow yard
- Wollongong yard
- Teralba private siding

4.4 TRAIN MOVEMENTS

Unit movements to and from the Storage Locations will be added to the Train Plan by TfNSW and be undertaken by the Operator / locomotive provider with support from the Supplier.

If a Unit is stored at unpowered location, a locomotive will be used to haul the Unit into and out of the Storage Location. The Unit can be locomotive hauled from and returned to the Maintenance Facility or a powered location in close proximity to the Storage Location.

Unit preparation will be conducted by the Supplier's technician prior to NSW standard Train Preparation at the Storage Locations prior to moving on the Network.

If a Unit cannot be powered due to battery discharge, a locomotive may be required to haul the Unit(s) to a powered section of track, the Commissioning Facility, or the Maintenance Facility.

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When using a locomotive for hauling a Unit from the Maintenance Facility to a Storage Location, the locomotive is to be fitted with heavy duty coupler to allow movement up to 80 km/h.

When using a locomotive for hauling near the Storage Location, the locomotive may be fitted with emergency coupler and speeds restricted as per the limits of the emergency coupler used.

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4.5 S

TORAGE REQUIREMENTS

4.5.1 Unit Storage Requirements

These NIF Unit Storage Requirements are based on the Supplier's experience from other Projects and are not exhaustive. The Unit Storage Requirements may be revised by the Supplier based on the Supplier's observations on the Stored Units.

Unit requirements for Pre, During (powered and unpowered) and Post storage are detailed by sub system in the below table.

When a Unit is left under power, Unit status will be remotely monitored to confirm no HSCB/APS failure. This is to ensure the battery is not being drained.

PBS/Sub-system	Pre-Storage requirement	During storage – Powered	During storage – Unpowered	Post-storage requirement
EAP2 Battery	<p>Powered – Nil</p> <p>Unpowered – Ensure prior to storage, battery State of Charge is > 90%</p>	Nil	<p>After Stabling the Unit at Unit Storage location, turn OFF the Battery using Battery Isolation Switch in each Car</p> <p>After decoupling, turn ON batteries and raise pantograph.</p> <p>Battery SoC to be > 80% prior to movement</p>	<p>Powered – Nil, follow TMP</p> <p>Unpowered: If battery voltage is below 92 V, connect shore supply to power up the Unit.</p>

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PBS/Sub-system	Pre-Storage requirement	During storage – Powered	During storage – Unpowered	Post-storage requirement
			on the Network	
ACC – IEDR	Powered – Nil Unpowered – NI	CBSD , PBSB – EAD will be available (VIBS to be operated to get ZVR when ETCS goes into SF)	CBSD , PBSB – EAD will be available	Powered – Nil Unpowered – NI
PBSD	Powered – Nil Unpowered – NI	All doors to be closed	All doors to be closed	<u>When Unit returns to depot</u> Powered – follow TMP, Door cycling Unpowered – follow TMP, door cycling
CBSD	Powered – Nil Unpowered – NI	All doors to be closed Door can be open using smart card (provided zero speed signal available) Operate VIBS to receive continuous zero speed signal	All doors to be closed Door can be open using EAD	<u>When Unit returns to depot</u> Powered – Operate VIBS to Normal position prior to moving the Unit back to depot, follow TMP, Door cycling Unpowered – follow TMP, door cycling
IAD	Powered – Nil	-	-	<u>When Unit returns to depot</u>

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PBS/Sub-system	Pre-Storage requirement	During storage – Powered	During storage – Unpowered	Post-storage requirement
	Unpowered – NI			Powered – follow TMP, Door cycling (TBD) Unpowered – follow TMP, door cycling (TBD)
CAS/BRK AGTU	Powered – Nil Unpowered – NI	Nil (Green mode will be activated automatically)		Powered – Nil Unpowered – NI
CAS/BRK EPAC	Powered – Nil Unpowered – NI	Nil Perform usual Unit preparation brake test.	Parking Brakes are applied Prior to moving back : Follow dead haul procedure.	Powered – Nil Unpowered – NI <u>Usual TMP inspection</u>
TPS ATP / ETCS	Powered – Nil Unpowered – Nil	ETCS/ASDO will transit to system failure during prolonged storage which will affect zero speed signal output. Before leaving the Unit at Storage Location ➤ Operate VIBS, Turn	Nil	Powered – Nil Unpowered -Nil

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PBS/Sub-system	Pre-Storage requirement	During storage – Powered	During storage – Unpowered	Post-storage requirement
		<p>Off the ETCS circuit breakers.</p> <p>When preparing Unit at Storage Location for movement, prior to Stabling/Un-stabling for Train prep</p> <p>➤ Turn ON the ETCS circuit breakers, operate VIBS to Normal position</p>		
CCS	<p>Powered – Nil</p> <p>Unpowered – Close fresh air damper manually after stabling</p>	Nil	Nil	<p>Powered - Nil</p> <p>Unpowered – The followings to be checked prior to making HVAC operational.</p> <ul style="list-style-type: none"> - Check if any humidity/condensation exists at the inside of HVAC control panel. - Check the condition of fresh air and return air filter. - Check the condition of fresh air inlet to find if there are any accumulated leaves or

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PBS/Sub-system	Pre-Storage requirement	During storage – Powered	During storage – Unpowered	Post-storage requirement
				dust. - HVAC self check (Mona) is required to ensure HVAC system is health
FIR	Nil	Nil	Nil	Nil
IVI Coupler	Powered / Unpowered – Electrical heads are cleaned and closed. Lubricants iaw the TMP is applied on the coupler head.	Nil	Nil	Powered – Nil Unpowered - Nil
GUS – Bogies	Powered – Nil Unpowered – Nil	Move Unit at every 6 weeks at least 200 meters	Move Unit at every 6 weeks at least 200 meters using locomotive Prior to moving the Units back to the depot, check each airbag is inflated, check health on TMS.	Powered - NIL Unpowered – Check if TMP has activities to check secondary suspension condition, if not need to check after storage.
ETB	Powered – Nil	Move Unit at every 6 weeks at least 200	Move Unit every 6 weeks at least 200	Powered – Nil

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PBS/Sub-system	Pre-Storage requirement	During storage – Powered	During storage – Unpowered	Post-storage requirement
	Unpowered - Nil	meters	meters using locomotive	Unpowered – Nil
EAP1	Powered – Nil	Nil	Nil	Powered – Nil
	Unpowered – Nil			Unpowered – Nil
EMP1	Powered – Nil	Move Units at every 6 weeks at least 200 meters. Monitor any trip out of HSCB units. Report faults to MEA for review or investigation.		Powered – Check TMP activities.
	Unpowered - Nil			Unpowered – Check TMP activities.
TCC1	Powered – Switch OFF the Passenger Information System Circuit Breaker (PISCB) located on the Electrical Distribution Board – EDB-BK in the A/A1 car and EDB-A in the B/B1/C/C1 car EDB-C for the D car	Monitor AIS linkage once a week	Nil	Powered – switch On the PISCB. Follow TMP – Test internal/external/22" displays, perform functional check of PI's, CCU, speakers, CCTV Monitors, cameras, mobile gateway, TMS.
	Unpowered - Nil			Unpowered – perform functional check of PI's, CCU, speakers, CCTV Monitors, cameras, mobile gateway, TMS.

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PBS/Sub-system	Pre-Storage requirement	During storage – Powered	During storage – Unpowered	Post-storage requirement
EMP2 (Pantograph)	Powered – Nil Unpowered – Nil	Nil	Nil	Nil
OPR/PAS	Powered – Unpowered – Attach internal sun blocking to the crew compartment windows when at the storage location	Nil	Nil	Powered – Unpowered – Remove sun blocking prior to unit departing storage location
CEB	Powered – Nil Unpowered – Nil	Nil	Nil	Powered – Nil Unpowered – Nil
TCC2	Powered – Nil Unpowered – Nil	Nil	Nil	Powered – Nil Unpowered – Nil
CMS	Powered – Nil Unpowered - Ensure that Icarus(UPS) is charged	Nil	Nil	Powered – Nil Unpowered – .Recharge Icarus(UPS) at least one time each 90 days.

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PBS/Sub-system	Pre-Storage requirement	During storage – Powered	During storage – Unpowered	Post-storage requirement
				<p>Recharge can be done by raising pantograph for two hours.</p> <p>Alternatively, UPS can be recharged with external cable, following maintenance procedure. (Same applies for Spares Icarus (UPS) if in stock)</p> <p>2. Normal preventive maintenance schedule has to be performed as described in the manual. (Example: desiccant salt check to prevent humidity damage)</p> <p>3. Unplug all output cables of the Icarus if storage will last more than 30 days is not mandatory but recommended</p>
EAP2	Powered /Unpowered – Nil	Nil	Nil	Nil
TOI	<p>Powered/Unpowered :</p> <p>Do a system drainage in order to drain the water of the FWT, Toilet module piping and WC</p>	Nil	Nil	<p>1.Fill the FWT with clean water.</p> <p>2.Take off the expanding drain plug bung from the WC bowl.</p> <p>3.Do 10 WC flushes (the pinch valve must</p>

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PBS/Sub-system	Pre-Storage requirement	During storage – Powered	During storage – Unpowered	Post-storage requirement
	<p>system.</p> <p>2.Empty the WWT tank (and clean the inside)</p> <p>3.Make sure there is no water at the WC bowl (especially waste water) and close the WC bowl output with an expanding drain plug bung. (This action will avoid any possibility of bad smells coming from the WWT.)</p>			<p>recover the elasticity by doing some cycles)</p> <p>4.Do 2 door open- close cycles</p> <p>5.Do 2 washbasin tap cycles.</p> <p>6.Check there is no warnings or errors at the HMI.</p>
LIT	Nil	Nil	Nil	Nil
BOD	Nil	Nil	Nil	Nil
OPR (Wiper)	Nil	Nil	Nil	Empty the water tank, flush and refill
Electronics equipment	Powered – Nil	Nil	Use of desiccants (Locations to be	Powered – Nil Unpowered – Visual inspection, remove

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PBS/Sub-system	Pre-Storage requirement	During storage – Powered	During storage – Unpowered	Post-storage requirement
	Unpowered -		reviewed)	desiccants

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4.5.2 Security

TfNSW will arrange for, and assume the risk and the costs for, security of Units in the Storage Locations.

4.5.3 Vandalism

If vandalism, damage or graffiti (including major graffiti) occurs to a Unit in a Storage Location it will be treated as a TfNSW Defect under the Project Deed providing it is not caused or contributed to by the Supplier.

The Supplier will arrange for rectification which will involve returning the set to the Maintenance Facility for external graffiti removal.

4.6 POST STORAGE REQUIREMENTS

The Supplier will support the post-storage activities to enable a Unit coming Out Of Storage to enter Intercity Service. This is expected to include shakedown runs on the network and a Unit being returned to the Maintenance Facility at least 10 business days prior to the planned commencement of Intercity Service for that Unit.

5 UNIT STORAGE RESPONSIBILITIES AND ACCOUNTABILITIES

5.1 OVERVIEW

TfNSW's responsibilities are summarised in paragraph 1 of Schedule I.

The Supplier's responsibilities are summarised in paragraph 2 of Schedule I.

- The IMO Representatives (or assigned Supplier representatives) are responsible for authorising the NIF Unit Storage Plan (this plan), in conjunction with the three IMO representatives and for ensuring the requirements of this document are implemented across the Supplier's Project Teams.

5.2 STAKEHOLDERS AND INTENDED AUDIENCE

This document is intended for the following stakeholders and audiences:

- RailConnect and the partner companies
- TfNSW as the Contract Principal.
- NSWRT as fleet operators
- Sydney Trains as the RIM of known Storage Locations
- ROM

5.3 KEY ROLES

5.3.1 RailConnect

Accountabilities for RailConnect key roles in the Unit Storage process are listed below:

- IMO Representatives (or assigned Supplier representatives)
 - Authorising the NIF Unit Storage Plan (this plan)

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- Provide Notice of Forthcoming Unit numbers to be delivered into Storage Locations;
 - Provide inputs for RailConnect TMP and MD rectification planned activities;
 - Any other requirement for performing RailConnect activities
- UGL Operations and Maintenance Manager
 - Support that the Units are stored in an appropriate manner within the timeframe as agreed with TfNSW.
- Maintenance Engineers and Technician
 - Attend storage locations to complete required tasks

5.3.2 NSW

- Train Drivers
 - Will complete work as directed by NSW.
- Track Access Manager
 - Manage and undertake Unit movements in accordance with the Train plan

5.3.3 TfNSW

Accountabilities for TfNSW key roles in the Unit storage process are listed below.

- TfNSW's Representative
 - Issue Into Storage Notice
 - Issue Out of Storage Notice
- Train Storage Lead
 - Support the NIF Unit Storage Plan.
 - Prepare with stakeholders' the movement summary and issue weekly
 - Chair Train Storage Working Group and issue minutes
 - Make all endeavours to provide suitable storage locations to meet requirements
 - Arrange security at Storage Location
 - Organise locomotive hauls as required

6 MANAGING THE TRAIN STORAGE MOVEMENT SUMMARY

The Train Storage Movement Summary is the summary of Units movements as agreed in the Train Storage Working Group and summarises all movements relating to Units in storage and is managed and administered by TfNSW.

The Train Storage Movement Summary will be based on the Call In List and availability of crew to conduct the movements, to be discussed and agreed in Storage Working Group.

The IMO Representatives (or assigned Supplier representatives) may propose changes to the Train Storage Movement Summary. The below process details the high level process for proposing changes.

- 1) The Supplier to update a version of the Train Storage Movement Summary with the proposed changes based on the Call In List and any other Call Ins that may be requested.

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- 2) The Supplier is responsible for reviewing the RACI and consulting with the affected parties. Any proposed changes should come with a brief justification and impact assessment.
- 3) The Supplier to provide the updated and consulted version of the Train Storage Movement Summary with TfNSW to review.
- 4) Taking into account the Call In List, TfNSW to review the proposed changes and incorporate into the live Train Storage Movement Summary.
- 5) At the Train Storage Working Group, the Supplier to present the proposal and the affected parties to clarify any additional impacts not noted in the Supplier's assessment of the proposed changes.
- 6) The TfNSW Storage Lead to make decision on the proposed changes to be incorporated into the train storage movement summary.
- 7) To ensure parties have time to review changes, the following timeline should be considered (based on the working group being conducted on a Wednesday)
 - a) Monday (2 business days prior to Train Storage Working Group): All proposed changes to be discussed with the Supplier. The Supplier to submit proposed changes to TfNSW for review.
 - b) Tuesday (1 business days prior to Train Storage Working Group): TfNSW to email working group with the draft train storage movement summary, outlining some of the major proposed changes.
 - c) Wednesday (in working group): Train Storage Working Group TfNSW Storage Lead to make a determination on the changes.
- 8) Following the working group, TfNSW to distribute the current version of the Train Storage Movement Summary.

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7 RACI FOR TRAIN STORAGE MOVEMENTS

The below RACI details the parties involved in Unit storage movements and the parties impacted by the changes.

The intent of this RACI is to capture the parties to be engaged for a variety of activities to enable appropriate consultation prior to the Mariyung Train Storage Working Group.

Activities	Organisation				
	TfNSW	RailConnect	NSW Trains	Sydney Trains	ROM
Develop Train Storage Movement Summary and update as discussed in the Train Storage Working Group	R	C	C	I	I
Propose changes to any part of the Train Storage Movement Summary	C	R	I	C	C
Into Storage Notices	R	C	I	I	C
Delivery to Storage Location	R	C	C	I	I
Supplier's Activities at Storage Locations	C	R	I	I	I
Return to Maintenance Facility for Supplier's Activities	R	C	C	I	I
Out of Storage Notices	R	C	I	I	I
Out of Storage Process	R	C	I	I	I
Manage Call In List	C	R	C	I	I
Change TMP date (post-PA)	C	R	I	I	C
Change train number (post-PA)	C	R	I	I	C
Change TMP date (pre-PA)	C	R	I	I	I
Change train number (pre-PA)	C	R	I	I	I
Propose alternative transfer dates	C	R	C	C	C
Establish and modify train paths	C	C	R	I	I
Establish and modify train crewing arrangements	I	I	R	I	I
Manage changes to infrastructure	C	I	I	R	I
Manage access to Sydney Trains locations	C	C	I	R	I
Facilitate management of Freight Operator relationships	R	C	I	R	I
Manage/monitor/coordinate maintenance requirements between NSW & the Supplier and any other requirements for Maintenance Phase under the Deed.	I	C	C	I	R/A

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Schedules J – Additional MF Works provisions

Schedule J1 – Additional MF Works provisions part 1

1. Integration with existing Maintenance Facility

1.1 Prior MF Works are fit for Supplier's purposes

The Supplier warrants that, provided that the Prior MF Works are designed and constructed in accordance with the NIF Project Agreements and MFC Works Contract, the Prior MF Works will be fit for the purpose of enabling the Supplier to comply with its obligations under this deed.

1.2 Prior Maintenance Facility Works

- (a) The Supplier acknowledges and agrees that, subject to paragraph 1.2(e) of this Schedule J1, it is responsible for the design development, coordination and integration of the Additional MF Works with the Prior MF Works.
- (b) The Supplier warrants and represents to that:
 - (i) it has reviewed and inspected the Prior MF Works (without undertaking any tests) prior to the date of Amendment Deed No. 2;
 - (ii) if, in the execution of the Additional MF Works the Supplier identifies any Defective Prior MF Works, it must promptly notify TfNSW in accordance with paragraph 1.2(d) of this Schedule J1; and
 - (iii) subject to any entitlement under paragraph 1.2(e) of this Schedule J1:
 - (A) the Additional MF Works Contract Value allows for all costs and expenses which may be incurred by the Supplier as a direct or indirect result of matters referred to, identified in, reasonably to be inferred from or contemplated by the Prior MF Works; and
 - (B) the scope of the Additional MF Works includes all ancillary work which may arise from matters referred to in, identified in, reasonably to be inferred from, or contemplated by, the Prior MF Works.
- (c) Without limiting paragraph 1.2(e) of this Schedule J1, TfNSW does not warrant the adequacy, completeness or suitability of the Prior MF Works, and the Supplier is to satisfy itself as to the correctness of those works to the extent that they relate to the Additional MF Works.
- (d) If the Supplier considers that any part of the Prior MF Works is Defective Prior MF Work it must provide TfNSW with a notice in writing, within 10 Business Days after the Supplier became aware of the defect or should have become aware of the defect. The notice must set out the following details:
 - (i) the reasons why the Prior MF Work is Defective Prior MF Work; and
 - (ii) the steps the Supplier proposes to correct the Defective Prior MF Work.
- (e) Subject to the Supplier's compliance with paragraph 1.2(d) of this Schedule J1, TfNSW must within 10 Business Days of the Supplier's notice under and in accordance with paragraph 1.2(d) of this Schedule J1, issue the Supplier with written directions in respect of the Defective Prior MF Work. If TfNSW accepts the Supplier's determination that the Prior MF Work is Defective Prior MF Work, TfNSW will (at its election):
 - (i) have the Defective Prior MF Works rectified, in which case the Supplier may be entitled to make a claim for delay or disruption in respect of a Compensation Event in accordance with clause 29; or

- (ii) instruct a Variation under clause 27 of this deed for the Supplier to rectify the Defective Prior MF Works either in total or to the extent required to carry out the Additional MF Works.
- (f) If the Supplier does not notify TfNSW under paragraph 1.2(d) of this Schedule J1 of any Defective Prior MF Work, the Supplier is deemed to have satisfied itself of the adequacy, completeness and suitability of the Prior MF Works or any part thereof, and no circumstance, feature or requirement arising out of or in connection with the Prior MF Works shall entitle the Supplier to Claim and the Supplier has no Claim against TfNSW or TAHE arising out of or in connection with those Prior MF Works.
- (g) Notwithstanding paragraphs 1.2(a) to 1.2(f), the Supplier has no Claim against TfNSW or TAHE arising out of or in connection with the integration of the Additional MF Works with the MFI Works.

1.3 Co-ordination and integration with existing Maintenance Facility

- (a) The Supplier acknowledges and agrees that:
 - (i) the Maintenance Facility will continue to be occupied and used during the carrying out of Additional MF Works by the Supplier;
 - (ii) TfNSW and TAHE must have uninterrupted access to the Maintenance Facility to conduct the operations of the Maintenance Facility; and
 - (iii) the Supplier must perform the Additional MF Works in a manner that minimises interference with the conduct of the operations of TfNSW and TAHE.
- (b) The Supplier must:
 - (i) ensure the operations of the Maintenance Facility are not impeded or otherwise adversely affected by the execution of the Additional MF Works;
 - (ii) co-operate with TfNSW and TAHE in seeking to minimise the possible disruption and interference to the operations of the Maintenance Facility;
 - (iii) ensure that any existing services (including Utility Services) to the Maintenance Facility are not impeded, interfered with, interrupted or adversely affected as a result of the performance of the Additional MF Works;
 - (iv) immediately notify TfNSW and TAHE of any complaint made to the Supplier in relation to performance of the Additional MF Works; and
 - (v) perform the Additional MF Works so as to ensure the Additional MF Works are fully integrated and co-ordinated with the Maintenance Facility including any Prior MF Works.

2. Additional MF Works

2.1 Performance of Additional MF Works

- (a) The Supplier must design, construct, commission and hand-over the Additional MF Works in accordance with:
 - (i) the SPR;
 - (ii) the Technical Documents prepared by the Supplier in accordance with the requirements of this deed;
 - (iii) any Variation Order; and
 - (iv) the other requirements of the NIF Project Agreements.
- (b) The Supplier warrants that the Supplier has fully informed itself as to:

- (i) the nature of the work, materials and construction plant and equipment necessary for the execution of the Additional MF Works;
- (ii) the facilities at the Maintenance Facility Site;
- (iii) the constraints imposed on the manner in which the Additional MF Works may be performed (including under Rail Industry Standards);
- (iv) the means of access to and egress from the Maintenance Facility Site and transport facilities for deliveries to the Maintenance Facility Site and the constraints thereon applying or to apply from time to time; and
- (v) the availability of car parking and parking for other vehicles both on and off the Maintenance Facility Site and the restrictions thereon.

2.2 Additional MF Works Practical Completion of Additional MF Works

The Supplier must give TfNSW's Representative:

- (a) at least 10 Business Days' notice of the date on which the Supplier expects to achieve Additional MF Works Practical Completion; and
- (b) a written request for TfNSW's Representative to issue an Additional MF Works Practical Completion Certificate for the Additional MF Works, which request must not be given earlier than 10 Business Days after the date on which the Supplier gives notice under paragraph 2.2(a).

2.3 Issue of Additional MF Works Practical Completion Certificate for Additional MF Works

- (a) Within 10 Business Days of the receipt of a request under paragraph 2.2(b) and confirmation from the Supplier that, in its opinion, Additional MF Works Practical Completion has been achieved, TfNSW's Representative must either:
 - (i) if Additional MF Works Practical Completion in respect of the Additional MF Works has been achieved, issue a certificate (**Additional MF Works Practical Completion Certificate**) for such Additional MF Works:
 - (A) certifying the Date of Additional MF Works Practical Completion; and
 - (B) specifying any Minor Defects; or
 - (ii) if Additional MF Works Practical Completion has not been achieved in respect of the Additional MF Works, issue a notice (**Additional MF Works Rejection Notice**) to the Supplier stating the reasons why an Additional MF Works Practical Completion Certificate has not been issued for such Additional MF Works. If TfNSW's Representative notifies the Supplier under this paragraph 2.3(a)(ii), then the Supplier must undertake such works as are necessary to address the reasons and the procedure described in this paragraph 2.3 will reapply.
- (b) If the Date of Additional MF Works Practical Completion occurs in respect of the Additional MF Works before the anticipated date for Additional MF Works Practical Completion, TfNSW:
 - (i) must issue an Additional MF Works Practical Completion Certificate stating the Date of Additional MF Works Practical Completion for such Additional MF Works as the date on which the Additional MF Works Practical Completion was achieved in respect of those Additional MF Works; and
 - (ii) may, in its sole and absolute discretion, exercise its rights under paragraph 5.4(b).
- (c) When TfNSW's Representative is of the opinion (acting reasonably) that Additional MF Works Practical Completion has been achieved in respect of the Additional MF Works, TfNSW's Representative may issue an Additional MF Works Practical Completion Certificate for the Additional MF Works, whether or not the Supplier has made a request for it to be issued.

- (d) TfNSW's Representative may exercise its right under paragraph 2.3(c) in its absolute discretion and is not obliged to do so for the benefit of the Supplier.
- (e) An Additional MF Works Practical Completion Certificate is final and binding on the parties for the purposes only of establishing that the requirements for Additional MF Works Practical Completion for the relevant Additional MF Works have been satisfied and the date on which it occurred.

2.4 Rectification of Minor Defects in Additional MF Works

- (a) If any Minor Defects are identified in an Additional MF Works Practical Completion Certificate in respect of any part of the Additional MF Works, the Supplier must within 10 Business Days provide TfNSW with a draft plan identifying its proposed schedule for the rectification of those Minor Defects (**Draft Minor Defect Rectification Plan**)
- (b) TfNSW must, within 10 Business Days of receiving the Draft Minor Defect Rectification Plan in accordance with paragraph 2.4(a):
 - (i) approve the Draft Minor Defect Rectification Plan, in which case the Draft Minor Defect Rectification Plan will be deemed the Minor Defect Rectification Plan; or
 - (ii) reject the Draft Minor Defect Rectification Plan and provide written reasons for the rejection, in which case:
 - (A) within five Business Days of TfNSW's notice of rejection, the Supplier must submit a revised Draft Minor Defect Rectification Plan to TfNSW for approval;
 - (B) the Supplier's revised Draft Defect Rectification must address the matters identified in TfNSW's reasons for rejection referred to in paragraph 2.4(b)(ii); and
 - (C) the process in this paragraph 2.4(b) shall re-apply.
- (c) The Supplier must rectify all Minor Defects identified in an Additional MF Works Practical Completion Certificate in accordance with a Minor Defect Rectification Plan approved under this paragraph 2.4.

3. Legal Requirements for construction work

3.1 Long service leave levy

Before commencing any part of the Additional MF Works that is building or construction work under the *Building and Construction Industry Long Service Payments Act 1986* (NSW), the Supplier must:

- (a) pay (or procure payment) to the Building and Construction Industry Long Service Payments Corporation, or its agent, the amount of the long service levy payable in respect of the building and/or construction work; and
- (b) produce to TfNSW's Representative the document evidencing payment of the levy.

3.2 Building Code

- (a) This paragraph 3.2 applies if any part of the Additional MF Works are Building Code Work.
- (b) The Supplier must comply, in the performance of the Additional MF Works, with the Building Code. Copies of the Building Code are available at <https://employment.gov.au/building-code>.
- (c) Compliance with the Building Code shall not relieve the Supplier from responsibility to perform its obligations under this deed, or from liability for any Defect in the Additional MF Works arising from compliance with the Building Code.

- (d) Where a change in this deed is proposed and that change would affect compliance with the Building Code, the Supplier must submit a report to the Commonwealth specifying the extent to which the Supplier's compliance with the Building Code will be affected.
- (e) The Supplier must maintain adequate records of the compliance with the Building Code by:
 - (i) the Supplier;
 - (ii) the Supplier's Subcontractors; and
 - (iii) the Supplier's other related entities (as defined in section 3(2) of the Building Code and referred to in section 8 of the Building Code).
- (f) If the Supplier does not comply with the requirements of the Building Code in the performance of this deed such that sanction is applied by the Minister for Employment, the Code Monitoring Group or the Commonwealth, without prejudice to any rights that would otherwise accrue, those parties will be entitled to record that non-compliance and take it, or require it to be taken, into account in the evaluation of any future tenders that may be lodged by the Supplier or a related entity in respect of work funded by the Commonwealth or its agencies.
- (g) While acknowledging that value for money is the core principle underpinning decisions on government procurement, when assessing tenders, the Supplier may give preference to Subcontractors that have a demonstrated commitment to:
 - (i) adding and/or retaining trainees and apprentices;
 - (ii) increasing the participation of women in all aspects of the industry; or
 - (iii) promoting employment and training opportunities for indigenous Australians in regions where significant indigenous population exists.
- (h) The Supplier must not appoint a Subcontractor in relation to the Additional MF Works where:
 - (i) the appointment would breach a sanction imposed by the Minister for Employment; or
 - (ii) the Subcontractor has had an adverse court or tribunal decision (not including decisions under appeal), for a breach of workplace relations law, WHS law, or workers' compensation law and the Subcontractor has not fully complied, or is not fully complying, with the order.
- (i) The Supplier agrees to require that it and its Subcontractors and its related entities (as defined in section 3(2) of the Building Code) provide the Commonwealth or any person authorised by the Commonwealth, including a person occupying a position in the Fair Work Building Industry Inspectorate, with access to:
 - (i) inspect any work, material, machinery, appliance, article or facility;
 - (ii) inspect and copy any record relevant to the Additional MF Works; and
 - (iii) interview any person,
 as is necessary to demonstrate its compliance with the Building Code.
- (j) Additionally, the Supplier agrees that the Supplier and its related entities (as defined in Section 3(2) of the Building Code) will agree to a request from the Commonwealth or any person authorised by the Commonwealth, including a person occupying a position in the Fair Work Building Industry Inspectorate, to produce a specified document within a specified period, in person or by post.
- (k) The Supplier must ensure that all Subcontracts impose obligations on subcontractors equivalent to the obligations under this paragraph 3.2.

3.3 Crown Building Work

- (a) The Supplier must, in relation to any part of the Additional MF Works that is Crown Building Work (as defined in section 109R of the EP&A Act), certify (on behalf of TfNSW) the Crown Building Work (on behalf of TfNSW) as required by section 109R of the EP&A Act.
- (b) Any certification under paragraph 3.3(a) will not lessen or otherwise affect:
 - (i) the Supplier's other liabilities or responsibilities under this deed or otherwise according to law; or
 - (ii) TfNSW's rights against the Supplier, whether under this deed or otherwise according to law.

4. NSW Code

4.1 NSW Code and NSW Guidelines

In addition to terms defined in this deed, terms used in this paragraph 4 have the same meaning as is attributed to them in the NSW Guidelines. The NSW Code and NSW Guidelines are available at www.industrialrelations.nsw.gov.au.

4.2 Primary obligation

- (a) In carrying out any NSW Code Work, the Supplier must at all times comply with, and meet any obligations imposed by, the NSW Code and the NSW Guidelines.
- (b) The Supplier must notify the CCU and TfNSW of any possible non-compliance with the NSW Code and NSW Guidelines and of remedial action taken, within 24 hours of becoming aware of the possible non-compliance.
- (c) The Supplier must ensure that each Subcontract imposes on the relevant Subcontractor equivalent obligations to those in this paragraph 4, including that the Subcontractor must at all times comply with, and meet any obligations imposed by, the NSW Code and the NSW Guidelines.
- (d) The Supplier must not appoint or engage any Subcontractor in relation to any NSW Code Work where that appointment or engagement would breach a sanction imposed on the Subcontractor in relation to the NSW Code or NSW Guidelines.

4.3 Access and information

- (a) The Supplier must maintain adequate records of compliance with the NSW Code and NSW Guidelines by it and its Subcontractors.
- (b) The Supplier must allow, and take reasonable steps to facilitate, authorised persons (including personnel of the CCU) to:
 - (i) enter and have access to sites and premises controlled by Supplier, including the Maintenance Facility Site;
 - (ii) inspect any work, material, machinery, appliance, article or facility;
 - (iii) access information and documents;
 - (iv) inspect and copy any record relevant to the project;
 - (v) have access to Supplier's Personnel; and
 - (vi) interview any person,

as is necessary for the authorised person to monitor and investigate compliance with the NSW Code and NSW Guidelines by the Supplier and its Subcontractors.

- (c) The Supplier must comply with any request from an authorised person (including personnel of the CCU) for the production of specified documents by a certain date, whether in person, by post or electronic means.

4.4 Sanctions

- (a) The Supplier warrants that, at the time of entering into this deed, neither it, nor any of its Associates, are subject to a sanction in connection with the NSW Code or NSW Guidelines that would have precluded it from responding to a procurement process for work to which the NSW Code and NSW Guidelines apply.
- (b) If the Supplier does not comply with, or fails to meet any obligation imposed by, the NSW Code or NSW Guidelines, a sanction may be imposed against it in connection with the NSW Code or NSW Guidelines.
- (c) Where a sanction is imposed:
 - (i) it is without prejudice to any rights that would otherwise accrue to the parties to this deed; and
 - (ii) the State (through its agencies, Ministers and the CCU) is entitled to:
 - (A) record and disclose details of non-compliance with the NSW Code or NSW Guidelines and the sanction; and
 - (B) take them into account in the evaluation of future procurement processes and responses that may be submitted by the Supplier, or its related entities, in respect of work to which the NSW Code and NSW Guidelines apply.

4.5 Compliance

- (a) The Supplier bears the cost of ensuring its compliance with the NSW Code and NSW Guidelines, including in respect of any positive steps it is obliged to take to meet its obligations under the NSW Guidelines. The Supplier is not entitled to make, and TfNSW and TAHE will not be liable upon, any Claim against TfNSW or TAHE arising out of or in any way in connection with the Supplier's compliance with the NSW Code and the NSW Guidelines.
- (b) Compliance with the NSW Code and NSW Guidelines does not relieve the Supplier from responsibility to perform any NSW Code Work or any other obligation under this deed, or from liability for any Defect in the NSW Code Work or from any other legal liability, whether or not arising from its compliance with the NSW Code and NSW Guidelines.
- (c) Where a Variation is proposed that may be likely to affect compliance with the NSW Code and NSW Guidelines, the Supplier must immediately notify TfNSW's Representative of the Variation, or likely Variation, and specify:
 - (i) the circumstances of the proposed Variation;
 - (ii) the extent to which compliance with the NSW Code and NSW Guidelines will be, or is likely to be, affected by the Variation; and
 - (iii) what steps the Supplier proposes to take to mitigate any adverse impact of the Variation (including any amendments it proposes to the workplace relations management plan).
- (d) TfNSW will direct the Supplier as to the course it must adopt within 10 Business Days of receiving notice from the Supplier under paragraph 4.5(c).

5. Payment

5.1 Application

- (a) This paragraph 5 applies only to payment claims in respect of the Additional MF Works.

- (b) Clauses 25.4(b) and 25.6 of this deed will only apply in relation to any payment claim in respect to the Additional MF Works to the extent they are not contrary to any law.

5.2 Not used

5.3 Payment schedule for Additional MF Works

- (a) Within 10 Business Days of receipt of a valid payment claim under clause 25.1 of this deed for any Additional MF Works, TfNSW's Representative will assess the claim and issue to TfNSW and the Supplier's Representative a payment schedule setting out:
- (i) the amount determined by TfNSW's Representative as payable by TfNSW to the Supplier under this deed; and
 - (ii) if the amount referred to in paragraph 5.3(a)(i) is less than the amount claimed by the Supplier in its payment claim:
 - (A) the calculations employed by TfNSW's Representative to arrive at the amount referred to in paragraph 5.3(a)(i); and
 - (B) the reasons for the difference.
- (b) Any failure by TfNSW's Representative to set out in a payment schedule an amount which TfNSW is entitled to retain, deduct, withhold or set-off from the amount which would otherwise be payable to the Supplier by TfNSW will not prejudice the rights of TfNSW (including to subsequently exercise its rights to retain, deduct, withhold or set-off any amount).
- (c) In determining the amount payable by TfNSW to the Supplier under this deed, TfNSW's Representative will not have regard to work which has been performed which is not in compliance with this deed.
- (d) If the Supplier fails to make a payment claim, TfNSW's Representative may nevertheless, in its absolute discretion, issue a payment schedule.

5.4 Payment in respect of Additional MF Works

- (a) Subject to the provisions of this deed, within the earlier of:
- (i) five Business Days of TfNSW's Representative issuing a payment schedule under paragraph 5.3; or
 - (ii) 15 Business Days of receipt of a valid payment claim under clause 25.1 of this deed,
- TfNSW will procure payment to the Supplier, or the Supplier will pay to TfNSW (as the case may be), the amount determined as due to the Supplier or TfNSW (as the case may be) in respect of the Additional MF Works.
- (b) If prior to the date for payment as specified in paragraph 5.4(a), the Supplier has not provided a payment claim which complies with the requirements set out in clause 25.4, then TfNSW:
- (i) must pay (or procure the payment of) to the Supplier the amount specified in the payment schedule as being due to the Supplier in respect of the Additional MF Works; and
 - (ii) may withhold (or procure the withholding of) the amount paid in accordance with paragraph 5.4(b)(i) from the next payment to be made to the Supplier by (or on behalf of) TfNSW for the Supplier's failure to comply with TfNSW's requirements under clause 25.4 until the Supplier has provided a payment claim which complies with the requirements set out in clause 25.4.

5.5 Evidence of payment of workers and Subcontractors

The Supplier is not entitled to give TfNSW a payment claim under clause 25 of this deed, unless the Supplier has in respect of the Additional MF Works provided TfNSW's Representative with a signed

Supporting Statement. The signed Supporting Statement is to be included as Annexure A to the statutory declarations that are to be provided in accordance with clauses 24.1(a) and 24.1(b).

5.6 Business Day

In paragraphs 5.3 and 5.4, '**Business Day**' means any day in New South Wales other than a Saturday, Sunday or public holiday or 27, 28, 29, 30 or 31 December.

6. Additional MF Works Principal Contractor

6.1 Procure consent – Additional MF Works

The Supplier must procure that UGL Engineering Pty Limited (ABN 96 096 365 972) consents to being appointed as Principal Contractor in respect of the Additional MF Works for the period from the Date for Additional MF Works Commencement until the Date of Additional MF Works Practical Completion in connection with the Additional MF Works Activities and the Additional MF Works.

6.2 Obligations of Principal Contractor

The Supplier must ensure that UGL Engineering Pty Limited (ABN 96 096 365 972):

- (a) accepts the appointment as, and complies with the obligations of, a Principal Contractor under the WHS Law;
- (b) accepts any revised appointment as Principal Contractor that may be necessary as a result of a Change in Mandatory Requirements which occurs after the date of Amendment Deed No. 2; and
- (c) is able to discharge the obligations required of a Principal Contractor.

6.3 Supplier to assist

The Supplier must do all things necessary to assist, and refrain from doing anything that may impede, UGL Engineering Pty Limited (ABN 96 096 365 972) in discharging its Principal Contractor obligations under WHS Law.

6.4 Functions and duties of Principal Contractor

If the appointment of UGL Engineering Pty Limited (ABN 96 096 365 972) as Principal Contractor is not effective for any reason, the Supplier must procure that UGL Engineering Pty Limited (ABN 96 096 365 972) exercises and fulfils the functions and duties of the Principal Contractor under the WHS Law as if it had been validly appointed and authorised as Principal Contractor as contemplated by paragraph 6 of this Schedule J1.

6.5 Indemnity

The Supplier must indemnify TfNSW and TAHE against any Loss suffered by TfNSW or TAHE arising out of or in any way in connection with:

- (a) any failure of the Supplier to comply with paragraph 6 of this Schedule J1; and
- (b) any failure of UGL Engineering Pty Limited (ABN 96 096 365 972) to discharge the obligations required of a Principal Contractor in the performance of the Additional MF Works Activities.

Schedule J2 – Additional MF Works provisions part 2

Schedule J2 - Additional MF Works provisions part 2

1. Definitions and Interpretation

1.1 Definitions

In this Schedule J2, unless the context otherwise indicates:

"Additional Contamination" means any Contamination which the Supplier discovers on the MF Site which was not described in, or could not have reasonably been inferred from, the Baseline Environmental Site Assessment.

"Additional MF Works Activities" means all things or tasks which the Supplier is, or may be, required to do to comply with its obligations under this deed in respect of the Additional MF Works, including:

- (a) the design, construction, commissioning and hand-over of the Additional MF Works;
- (b) the provision of Temporary Works and Construction Plant;
- (c) Commissioning and Operational Readiness; and
- (d) anything incidental or ancillary to the obligations in paragraphs (a) to (c).

"Additional MF Works Defects Liability Period" means the period stated in Schedule 1, as extended by paragraph 8.6.

"ASA Authorisation" means an authorisation issued by the ASA to a legal entity which verifies that it has the relevant systems in place to carry out the class of Asset Lifecycle work specified in the authorisation, subject to any specified conditions of the authorisation.

"ASA Charter" means the document which identifies the ASA's objectives, functions, powers and governance and the duties of NSW Rail Entities and AEOs in relation to the ASA (as amended from time to time), a copy of which can be found on www.asa.transport.nsw.gov.au.

"ASA Requirements" has the meaning assigned to it in the ASA Charter.

"Asset Lifecycle" has the meaning assigned to it in the ASA Charter.

"Asset Lifecycle Services" means the aspects of the Additional MF Works Activities which relate to the Asset Lifecycle of Transport Assets.

"Business Day" means any day other than a Saturday, Sunday, public holiday in New South Wales or 27, 28, 29, 30 or 31 December.

"Codes and Standards" means:

- (a) the relevant building codes (including the National Construction Code), Standards Australia codes, standards, specifications, guidelines, rules, procedures or other publications current at the date of Amendment Deed No. 2 (including the Disability (Access to Premises – Buildings) Standards 2010), including any specified or required by this deed;

- (b) NSW Government APIC Policy, NSW Guidelines, Environmental Management Guidelines (4th edition) (December 2019), Work Health and Safety Management Guidelines (6th edition) (December 2019), Quality Management System Guidelines for Construction (December 2019), GREP and any other NSW Government guidelines and requirements specified or required by this deed; and
- (c) if (and to the extent) the codes and standards referred to in paragraphs (a) or (b) are irrelevant, then relevant international codes, standards, specifications, guidelines, rules, procedures or other publications current at the date of this Amendment Deed No. 2.

"Codes of Conduct" means the following documents:

- (a) the 'Transport for NSW Statement of Business Ethics', a copy of which is available on the TfNSW website;
- (b) TfNSW's 'Our Code of Conduct', a copy of which is available on the TfNSW website; and
- (c) the New South Wales Government 'Supplier Code of Conduct', November 2019, a copy of which is available at www.buy.nsw.gov.au,

as updated from time to time.

"Commissioning" has the meaning given to that term in the TfNSW Standard Requirements.

"Configuration Change Acceptance Notice" means a notice of that name issued by the Configuration Control Board in respect of Technical Documents.

"Configuration Control Board" means the board established by TfNSW to manage configuration changes for the Infrastructure & Services Division of TfNSW's programs and projects in accordance with the Configuration Management Framework.

"Configuration Management Framework" means the framework established by the ASA from time to time for configuration management.

"Construction Environmental Management Plan" means the plan which forms part of the Project Plans which are required to be provided and implemented by the Supplier pursuant to the TfNSW Standard Requirements.

"Construction Plant" means equipment, appliances, machinery and things used in the execution of the Additional MF Works Activities but not forming part of the Additional MF Works.

"Date for Additional MF Works Practical Completion" means in respect of the Additional MF Works or a Separable Portion the date, or the last day of the period of time, specified in Schedule 1 for the Additional MF Works or that Separable Portion, as adjusted under this deed by an extension of time determined by TfNSW's Representative or pursuant to any determination by an expert or any litigation.

"Date of Final Completion of Additional MF Works" means;

- (a) the date determined in accordance with paragraph 12.8(e)(i) as the date Final Completion of Additional MF Works was achieved; or

- (b) where another date is determined in any determination by an expert or any litigation pursuant to clause 41 and Schedule B6 of the This deed as the date upon which Final Completion of Additional MF Works was achieved, that date.

"Document" means any document which is required to be submitted for the review of TfNSW's Representative under this deed.

"Extra Land" means the land referred to in paragraph 3.4(a).

"Final Completion of Additional MF Works" means the stage in the execution of the Additional MF Works Activities when:

- (a) all Additional MF Works Defects Liability Periods (including any extension under paragraph 8.6) have expired and the Supplier has rectified all Defects in accordance with the deed;
- (b) the Supplier has:
- (i) carried out and passed all tests which:
 - A. are required under this deed to be carried out and passed before the Additional MF Works reach Final Completion of Additional MF Works; or
 - B. must necessarily be carried out and passed to verify that the Additional MF Works are in the condition this deed requires them to be in at Final Completion of Additional MF Works;
 - (ii) obtained all Approvals that it is required under this deed to obtain which:
 - A. were not obtained before Additional MF Works Practical Completion of the Additional MF Works or the last Separable Portion to reach Additional MF Works Practical Completion; or
 - B. are to be obtained prior to Final Completion of Additional MF Works,

and provided such Approvals to TfNSW's Representative;
 - (iii) given to TfNSW's Representative all other documents or information referred to in this deed:
 - A. which are required for the use, operation, maintenance and repair of the Additional MF Works but which were not obtained before Additional MF Works Practical Completion of the Additional MF Works or the last Separable Portion to reach Additional MF Works Practical Completion; or
 - B. which are required to be handed over to TfNSW's Representative before Final Completion of Additional MF Works; and
 - (iv) complied with all performance requirements under this deed that must be verified before Final Completion of Additional MF Works; and
- (c) the Supplier has done everything else which it is required to do under this deed before Final Completion of Additional MF Works.

"GREP" means the NSW Government Resource Efficiency Policy.

"Inspection" includes auditing, surveillance, monitoring, testing, review, examination and measuring.

"Institution" means any:

- (a) authorised deposit taking institution holding an authority to carry on banking business in Australia under the terms of the *Banking Act 1959* (Cth); or
- (b) insurance company which is regulated by the Australian Prudential Regulatory Authority and has the Required Bond Rating.

"Latent Conditions" has the meaning given in paragraph 3.5(a).

"MF Site" means:

- (a) the lands and other places described in Schedule 1; and
- (b) any other lands and places made available to the Contractor by the Principal for the purpose of performing the Additional MF Works.

"Monument" has the meaning given to that term in the *Surveying and Spatial Information Regulation 2017* (NSW).

"Operational Readiness" has the meaning given to that term in the TfNSW Standard Requirements.

"Other Incidents" means:

- (a) any work health and safety or environmental or security incident arising from the performance of (or failure to perform) the Additional MF Works Activities including:
 - (i) a fatality or injury to any person including any incident which must be reported to New South Wales WorkCover Authority;
 - (ii) loss of containment, escape of or migration of Contamination off-MF Site and into the Environment;
 - (iii) any fire or dangerous event on the MF Site or Extra Land;
 - (iv) a security breach;
 - (v) any unauthorised removal of trees;
 - (vi) a non-compliance with an Approval; or
 - (vii) any public complaint; or
- (b) any unplanned and/or undesired event which results in or has the potential to result in injury, ill-health, damage to or loss of property, interruption to operations or environmental impairment,

and includes:

- (c) a Safety Issue, breach of procedure, quality failure and/or injuries to contractors and members of the public; and

(d) a Notifiable Incident.

"Preliminary Design for Additional MF Works" means the preliminary design of the Additional MF Works (if any) which appears in the SPR.

"Project Work Health and Safety Management Plan" means the plan which forms part of the Project Plans and which must:

- (a) set out in adequate detail the procedures the Supplier will implement to manage the Additional MF Works and the performance of the Additional MF Works Activities from a work health and safety perspective; and
- (b) describe how the Supplier proposes to ensure the Additional MF Works and Additional MF Works Activities are performed consistently with Legal Requirements in relation to work health and safety.

"Railway Track" or "Rail Track" or "Track" or "Line" means the rails fastened on sleepers or transoms and founded on ballast or bridge decking or concrete slab, associated signalling and overhead wiring components (in electrified areas).

"Relevant Matters" has the meaning given to that term in paragraph 9.15(a).

"Remediation Action Plan" has the meaning given to that term in paragraph 3.8(c)(ii)C.

"Remediation Steps" has the meaning given to that term in paragraph 3.8(c)(ii)A.1).

"Service" includes any service facility or item of public or private infrastructure, including railway systems, railway structures and equipment (including existing overhead wiring), pedestrian and vehicular corridors, water, electricity, gas, fuel, telephone, existing drainage, sewerage, industrial waste disposal and electronic communications service.

"Survey Certificate" has the meaning given to that term in the *Surveying and Spatial Information Regulation 2017* (NSW).

"Survey Plan" has the meaning given to that term in the *Surveying and Spatial Information Act 2002* (NSW).

"Temporary Works" means any temporary works required to be carried out or provided by the Supplier for the purpose of the execution of the Additional MF Works Activities but not forming part of the Additional MF Works.

"TfNSW Standard Requirements" or "TSRs" means the documents which appear as Exhibit A to this deed.

"Transport Assets" has the meaning assigned to it in the ASA Charter.

"WHS Guidelines" means the NSW Government Work Health and Safety Management Guidelines (6th edition), December 2019 or any document issued from time to time which amends or substitutes this document.

"Workplace Relations Management Plan" means the plan described in the NSW Guidelines developed in relation to the Additional MF Works.

1.2 Interpretation of this Schedule J2

A reference in this Schedule J2 to a paragraph, schedule or annexure, is a reference to a paragraph, schedule or annexure in this Schedule J2, unless stated otherwise.

1.3 Application of this Schedule J2

The provisions of this Schedule J2 only apply in respect of the performance of the Additional MF Works Activities.

1.4 Not used**1.5 Not used****1.6 Not used**

2. Supplier's obligations**2.1 General**

The Supplier:

- (a) must execute the Additional MF Works Activities, including design, construct, commission and hand-over the Additional MF Works and each Separable Portion, in accordance with this deed;
- (b) warrants that the Temporary Works will at all reasonable times be fit for their intended purposes as set out in or reasonably ascertainable from this deed;
- (c) warrants that the Additional MF Works and each Separable Portion will upon Additional MF Works Practical Completion be, and be capable of remaining at all relevant times, fit for their intended purposes as set out in or reasonably ascertainable from this deed;
- (d) must, unless otherwise agreed by TfNSW's Representative in writing, employ the person or persons specified in Schedule 1, including the Supplier's Representative, in the performance of the Additional MF Works Activities;
- (e) must use all reasonable efforts to inform itself of the requirements of TfNSW and regularly consult with TfNSW during the performance of the Additional MF Works Activities; and
- (f) must liaise, cooperate and confer with others as directed by TfNSW.

2.2 Not used**2.3 Not used****2.4 Not used****2.5 Not used****2.6 Not used****2.7 Not used****2.8 Not used****2.9 Not used**

2.10 Incident Management Reporting

- (a) The Supplier must identify clear guidelines for responding to any Other Incident arising from the performance of the Additional MF Works Activities and establish procedures to ensure that TfNSW's Representative is promptly notified of any Other Incident in accordance with the TfNSW Standard Requirements.
- (b) Should an Other Incident occur which:
 - (i) is reportable under any relevant Legal Requirement, the Supplier must immediately report the Other Incident to the relevant Authority and TfNSW's Representative in accordance with the TfNSW Standard Requirements; and
 - (ii) relates to rail safety, the Supplier must notify TfNSW and any relevant NSW Rail Entity management centre or the nearest network control officer.
- (c) In relation to any environmental or safety Other Incident involving Contamination, Pollution or other waste that arises during the performance of the Additional MF Works Activities, the Supplier must:
 - (i) at its own cost promptly take all appropriate action to manage and dispose of all Contamination, Pollution or other waste arising from the Other Incident;
 - (ii) comply with all relevant Legal Requirements including any requirements to give notice to a relevant Authority; and
 - (iii) at its own cost manage the Other Incident in a manner which minimises damage to the reputation of TfNSW including complying with any reasonable request of TfNSW's Representative.
- (d) If the Supplier causes or contributes to the occurrence of an Other Incident and fails to ensure that TfNSW is promptly notified, TfNSW, may without prejudice to any other right it has under this deed, immediately terminate the deed or the parts of the deed relating to the Additional MF Works by written notice to the Supplier.
- (e) Without prejudice to TfNSW's other rights under this deed, if TfNSW forms the reasonable view, upon the occurrence (or imminent risk of the occurrence) of an Other Incident, that the Supplier is not taking adequate measures to manage the Other Incident or control or eliminate the adverse impact or the risk of such an Other Incident arising in the future, TfNSW may (but has no obligation) to take such actions as it deems necessary to overcome and alleviate the cause and consequences of any Other Incident. If TfNSW takes any such action it will be entitled to recover its reasonable costs and expenses from the Supplier as a debt due from the Supplier to TfNSW.
- (f) Without prejudice to TfNSW's other rights under this deed and without limiting the Supplier's rights under paragraph 3.8, TfNSW's Representative may issue a direction under paragraph 10.14 requiring the Supplier to suspend the carrying out of the whole or any part of the Additional MF Works Activities in the event:
 - (i) of any Other Incident involving:
 - A. a significant spill of Contamination;

- B. any accident or release of Contamination which it believes may pose a danger to health, life or property; or
- C. any actual damage or harm to the Environment or a significant risk of harm to the Environment; or
- (ii) any safety incident occurs which leads to, or has the potential to lead to, a fatality or injury to person (including any incident which must be reported to New South Wales WorkCover Authority) or damage to property.

The Principal will not be liable upon any Claim by the Supplier for any cost, expense, loss, delay, disruption or penalty arising out of or in connection with:

- (iii) any suspension due to a direction to suspend issued, or for the failure to issue a notice to suspend, in the circumstances set out in this paragraph 2.10(f); and
- (iv) complying with a direction issued under paragraph 2.10(g), including complying with the steps which Principal's Representative directs that the Supplier must take before TfNSW's Representative will issue a direction to recommence the Additional MF Works Activities.
- (g) If TfNSW's Representative issues a notice to suspend in the circumstances set out in paragraph 2.10(f), the Supplier may not recommence the Additional MF Works Activities in respect of the part of the Additional MF Works Activities to which the notice relates until TfNSW's Representative issues a direction to the Supplier permitting the Supplier to recommence the Additional MF Works Activities affected by the notice to suspend.

If TfNSW's Representative issues a notice to suspend in the circumstances set out in paragraph 2.10(f) TfNSW's Representative may also direct the Supplier as to the steps which the Supplier must take before TfNSW's Representative will issue a direction pursuant to paragraph 10.14 permitting the Supplier to recommence the Additional MF Works Activities affected by the notice to suspend. In these circumstances the Supplier must, at its cost, comply with the direction of TfNSW's Representative, and only once TfNSW's Representative is satisfied that the Supplier has complied with the requirements of the direction issued under this paragraph 2.10(g) will TfNSW's Representative issue a direction to the Supplier permitting the Supplier to recommence the Additional MF Works Activities affected by the notice to suspend.
- (h) The Principal will be entitled to recover its reasonable costs and expenses for any action TfNSW's Representative deems necessary to avoid the issue of any notice to suspend in the circumstances set out in paragraph 2.10(f), as a debt due and payable from the Supplier to TfNSW.
- (i) Nothing in this paragraph 2.10 affects the operation of any other provision of this deed.

2.11 Not used

2.12 Not used

2.13 Commissioning and Operational Readiness

The Supplier acknowledges that:

- (a) Commissioning and Operational Readiness are part of the Additional MF Works Activities; and
- (b) Commissioning and Operational Readiness must be completed as a condition precedent to Additional MF Works Practical Completion of the Additional MF Works.

3. The MF Site and location of the Additional MF Works

3.1 Access

- (a) The Supplier acknowledges and agrees that it may only access the MF Site and in accordance with the terms of the Additional MF Works Licence.
- (b) Subject to paragraph 3.1(c) and any other provision of this deed affecting access, TfNSW will:
 - (i) give, or ensure the Supplier has, access to the MF Site by the dates set out in Schedule 1 (and if a period is specified in relation to access to a part of the MF Site, then by the last day of that period); and
 - (ii) once access to a part of the MF Site is provided to the Supplier, thereafter continue to allow, or ensure that the Supplier is continued to be allowed, access to that part of the MF Site.
- (c) Without limiting the terms of the Additional MF Works Licence, the Supplier acknowledges and agrees that:
 - (i) access to the MF Site or any part thereof will only confer on the Supplier a right to such management and control as is necessary to enable the Supplier to execute the Additional MF Works Activities in accordance with this deed and to discharge its responsibilities under the WHS Law, including to discharge its responsibilities as principal contractor;
 - (ii) TfNSW is not obliged to give access to, and the Supplier must not access, any part of the MF Site until the Supplier has:
 - A. complied with clause 21.1 and Schedule E7 of this deed;
 - B. submitted all Project Plans to TfNSW's Representative under paragraph 9.8 and TfNSW's Representative has not rejected those proposed Project Plans in accordance with Schedule B2 of this deed;
 - C. effected the insurance policies required under clause 37 of the this deed and paragraph 1 and 5 of Schedule E6 of this deed;
 - D. complied with clause 37 of this deed and paragraph 1 and 5 of Schedule E6 of this deed with respect to each insurance policy; and
 - E. complied with the matters set out in Schedule 1;

- (iii) TfNSW is not obliged to provide, and the Supplier may not be given, exclusive access to the MF Site;
 - (iv) TfNSW is not obliged to carry out any work or provide any facilities to the Supplier which may be necessary to enable the Supplier to obtain access to the MF Site or carry out the Additional MF Works Activities;
 - (v) TfNSW and others will engage Other Contractors to work upon or in the vicinity of the MF Site and Extra Land at the same time as the Supplier; and
 - (vi) not used.
- (d) not used.
- (e) The Principal's obligations under paragraph 3.1(b) and the Supplier's right of access in respect of each part of the MF Site will cease upon the issue of an Additional MF Works Practical Completion Certificate in respect of the last Separable Portion occupying that part of the MF Site, except to the extent set out in the Additional MF Works Licence or required to allow the Supplier to comply with its obligations during the Additional MF Works Defects Liability Periods.
- (f) Failure by TfNSW to give access pursuant to paragraph 3.1(b) will not be a breach of this deed but will entitle the Supplier to:
 - (i) an extension of time to any relevant Date for Additional MF Works Practical Completion under clause 29 of this deed if the requirements of that clause are satisfied; and
 - (ii) subject to paragraph 3.1(g), have the Additional MF Works Contract Value increased by the additional costs reasonably and necessarily incurred by the Supplier as a direct result of the failure of TfNSW to give access as required by paragraph 3.1(b) as determined by TfNSW's Representative up to but not exceeding the maximum daily amount set out in clause 29.12(b)(i) of this deed.
- (g) The Supplier's entitlement under paragraph 3.1(f)(ii) will be:
 - (i) reduced by an amount to account for:
 - A. any contribution to the delay by the Supplier, including any failure of the Supplier to comply with TfNSW's access procedures or requirements; or
 - B. any failure by the Supplier to take all reasonably practicable steps necessary, both to preclude the cause of the delay and to avoid or minimise the consequences of the delay, as determined by TfNSW's Representative; and
 - (ii) its only right to payment of money arising out of or in any way in connection with a failure by TfNSW to give the Supplier access to any part of the MF Site.

3.2 Temporary Works

The Supplier must carry out all Temporary Works required to execute the Additional MF Works Activities. All the Temporary Works must be fit for their intended purpose as set out in or reasonably ascertainable from this deed.

3.3 Management and Control of the MF Site

At all times after being given access to, or having access to, the MF Site or a part of the MF Site under paragraph 3.1 (including any Track Possession) and before the Date of Additional MF Works Practical Completion of the Additional MF Works or the last Separable Portion to reach Additional MF Works Practical Completion, the Supplier:

- (a) without limiting any right of TfNSW or TfNSW's Representative under this deed, will, or the Principal Contractor appointed by the Supplier will, be responsible for the management and control of the MF Site;
- (b) must control access to, and the security and maintenance of, the MF Site or that part, except where TfNSW's Representative advises otherwise;
- (c) must ensure public safety on and adjacent to the MF Site or that part;
- (d) must provide for the continuous safe passage of the public, road and railway system users on existing roads, footpaths access ways, cycleways and Rail Tracks affected by the Additional MF Works Activities in accordance with this deed;
- (e) must, subject to paragraphs 3.1 and 3.9 and the TfNSW Standard Requirements, and any relevant Legal Requirements, limit access to the MF Site to its employees, Subcontractors and their employees and Subcontractors, and those with a legitimate interest in being on the MF Site as part of the Additional MF Works Activities;
- (f) must not impede access or Services to private property without the consent of TfNSW's Representative and the relevant owner or occupier; and
- (g) must ensure that existing buildings (including residences, whether occupied or unoccupied) on the MF Site are preserved and protected from damage (including from theft and vandalism) until (where relevant) they are due for demolition by the Supplier if that forms part of the Additional MF Works Activities.

3.4 Land in Addition to the MF Site

The Supplier must:

- (a) procure for itself and at its own cost the occupation or use of or relevant rights over any land or buildings in addition to the MF Site, including any land owned by a NSW Rail Entity, which is necessary or which it may require for the purposes of carrying out the Additional MF Works Activities;
- (b) at its own cost carry out all activities and procure all Services necessary to make the Extra Land suitable for use by the Supplier;
- (c) as a condition precedent to Additional MF Works Practical Completion of the Additional MF Works or any Separable Portion:

- (i) rehabilitate any Extra Land in accordance with the requirements of all relevant Authorities and other relevant persons; and
- (ii) unless not required by TfNSW's Representative in writing, provide to TfNSW's Representative a properly executed certificate in the form of Schedule 13 or a release on terms otherwise satisfactory to TfNSW's Representative from all claims or demands (whether for damages or otherwise howsoever arising) from the owner or occupier of, and from other persons having an interest in, such Extra Land; and
- (d) without limiting clause 38.1 of this deed, indemnify TfNSW against any damage, expense, loss, cost or liability suffered or incurred by TfNSW arising out of or in any way in connection with a claim by the owner or occupier of, or any other person having any interest in any Extra Land, provided that the Supplier's liability to indemnify TfNSW will be reduced proportionally to the extent that an act or omission of TfNSW, an Other Supplier or an agent of TfNSW contributed to the damage, expense, loss, cost or liability.

3.5 Latent Conditions

- (a) Subject to the exclusions in paragraphs 3.5(b)(i), 3.5(b)(ii), 3.5(b)(iii) and 3.5(b)(iv), Latent Conditions are:
 - (i) sub-surface physical conditions on the MF Site or its surroundings (including artificial things) which differ materially from the sub-surface physical conditions which should reasonably have been anticipated by a competent and experienced contractor at the date of Amendment Deed No. 2 if such a contractor had:
 - A. examined all information made available in writing by TfNSW to the Supplier for the purpose of tendering (including the Information Documents);
 - B. examined all information (including the Information Documents) relevant to the risks, contingencies and other circumstances having an effect on the Additional MF Works Contract Value and obtainable by the making of reasonable enquiries; and
 - C. inspected the MF Site and its surroundings (without undertaking any tests); and
 - (ii) any Services on the MF Site which are:
 - A. not identified in the Information Documents;
 - B. not capable of otherwise having been anticipated by the Supplier at the date of Amendment Deed No. 2 if it had done the things referred to in paragraph 3.5(a)(i)A, B and C; and
 - C. discovered only after the Supplier has undertaken potholing of the Services identified in the Additional MF Works Scope, including drawings and specifications, or Information Documents to confirm their exact location; and
 - D. operational and have not been made redundant by the owner of the Services.

- (b) Latent Conditions exclude:
 - (i) weather conditions or physical conditions regardless of their severity which are a consequence of weather conditions at the MF Site;
 - (ii) Contamination;
 - (iii) any Valuable Find; and
 - (iv) Defective Prior MF Works.
- (c) If during the execution of the Additional MF Works Activities, the Supplier becomes aware of a Latent Condition the Supplier must:
 - (i) promptly; and
 - (ii) where possible before the physical conditions are disturbed, give written notice thereof to TfNSW's Representative.

The Supplier must provide in that notice to TfNSW's Representative a statement specifying:

 - (iii) the conditions encountered and in what respects the Supplier considers they constitute a Latent Condition;
 - (iv) the additional work and additional resources which the Supplier estimates to be necessary to deal with the Latent Condition;
 - (v) the time the Supplier anticipates will be required to deal with the Latent Condition and the expected delay in achieving Additional MF Works Practical Completion (if any) as a result of dealing with the Latent Condition; and
 - (vi) other details reasonably required by TfNSW's Representative.
- (d) The Supplier acknowledges and agrees that it will have no Claim or entitlement arising out of or in connection with Latent Conditions.

3.6 Not used

3.7 Things of Value Found

All valuable minerals, fossils, coins, articles or objects of value or antiquity, and other remains or things of geological, archaeological, anthropological or other special interest found on the MF Site (all "**Valuable Finds**") are, and will as between the Supplier and TfNSW be and remain, the property of TfNSW.

The Supplier must:

- (a) immediately notify TfNSW's Representative if it discovers a Valuable Find;
- (b) ensure the Valuable Find is protected and not lost, removed, disturbed or damaged; and
- (c) comply with any directions of TfNSW's Representative in relation to the Valuable Find.

Despite the acknowledgements, warranties, releases and indemnities referred to in clauses 10.1 to 10.4 of this deed:

- (d) the Additional MF Works Contract Value will be increased by the additional costs reasonably and necessarily incurred by the Supplier as determined by TfNSW's Representative in complying with TfNSW's Representative's directions under this paragraph 3.7; and
- (e) the Supplier will be entitled to make a claim for an extension of time under clause 29 of this deed in respect of any delays the Supplier suffers in complying with TfNSW's Representative's directions under this paragraph 3.7,

but only to the extent that the Valuable Find could not have been reasonably anticipated by a competent and experienced contractor having done those things referred to in paragraphs 3.5(a)(i)A, B and C, as determined by TfNSW's Representative.

3.8 Contamination

- (a) The parties acknowledge and agree that:
 - (i) the Supplier has been provided with the Baseline Environmental Site Assessment in respect of the MF Site;
 - (ii) the Baseline Environmental Site Assessment identifies Contamination on, in, under or migrating from the MF Site, including in areas under, surface soils generally and locations which have been filled and in any structures;
 - (iii) there may be Contamination (other than that identified in the Baseline Environmental Site Assessment) on, in, under or migrating from the MF Site including in areas under Tracks, surface soils generally and locations which have been filled and in any structures;
 - (iv) TfNSW does not make any representation or warranty (express or implied) as to the nature or extent of any Contamination; and
 - (v) subject to paragraph 3.8(f), part of the Additional MF Works Activities include taking the appropriate steps referred to in this paragraph 3.8:
 - A. in respect of any Contamination identified in the Baseline Environmental Site Assessment;
 - B. in respect of any Contamination the Supplier discovers on the MF Site; and
 - C. regardless of whether the Supplier provides the notice and report referred to in paragraph 3.8(c) and whether or not the Contamination was referred to in (or was reasonably able to be inferred from) the Baseline Environmental Site Assessment.

The Supplier must provide for the management of any Contamination that may be present on, in, under or migrating from the MF Site (including in any structures) in the Construction Environmental Management Plan and the Project Work Health and Safety Management Plan and take all measures required to protect workers and others from Contamination in accordance with Legal Requirements, the WHS Guidelines and the TfNSW Standard Requirements.

- (b) Without limiting paragraph 3.8(a), and clause 6.1 of this deed, the Supplier must:
- (i) undertake any investigations it considers reasonable or necessary, undertake any investigation to delineate the nature and extent of any Contamination on, in, under or migrating from the MF Site (including in any structures) prior to commencing any part of the Additional MF Works Activities on the MF Site in order to identify the steps necessary to deal with any Contamination as part of the Additional MF Works Activities; and
 - (ii) carry out a Contamination audit prior to commencing any demolition work or construction work on structures which could potentially contain Contamination and provide a copy of the audit report to TfNSW's Representative.
- (c) Without limiting any obligation of the Supplier to comply with all Approvals, the Supplier must in respect of all Contamination, whether described in or reasonably able to be inferred from the Baseline Environmental Site Assessment, Additional Contamination or otherwise:
- (i) notify TfNSW's Representative in writing within 5 Business Days of becoming aware of the existence of any Contamination on, in, under or migrating from the MF Site (including in any structures), and thereafter provide TfNSW's Representative with such further written details as TfNSW's Representative may request including a copy of any investigation report prepared pursuant to paragraph 3.8(b);
 - (ii) promptly after providing a notice under paragraph 3.8(c)(i), submit a notice for the review of TfNSW's Representative under Schedule B2 of this deed containing:
 - A. details of the steps which the Supplier proposes to take to:
 - 1) Remediate or otherwise deal with the Contamination so that the MF Site is Remediated to a standard suitable for the proposed use of the MF Site ("**Remediation Steps**"). For the avoidance of doubt, the Supplier is permitted to incorporate Remediation Steps to address the Contamination which was present on, in under or migrating off the MF Site prior to the date of Amendment Deed No. 2 into the Additional MF Works where such incorporation is specified in the Additional MF Works Scope;
 - 2) unless TfNSW's Representative directs otherwise, incorporate the Contamination into the Additional MF Works in preference to its disposal off site where this is technically and economically feasible;
 - 3) dispose of Contamination off-site to a licensed waste disposal facility in accordance with paragraph 3.12 if:
 - a) this more economically viable than remediating and or otherwise dealing with the Contamination in situ; or

- b) TfNSW's Representative has directed the Supplier to do so; and
 - 4) report to all relevant Authorities if required to do so, in each case in accordance with any relevant Legal Requirements, Approvals and any written direction from a relevant Authority;
- B. the Supplier's estimate of any amount which will be payable in respect of any Additional Contamination under paragraph 3.8(f) to comply with the Remediation Steps and where the estimate is not a fixed lump sum the proposed administration and verification measures to evidence the cost of the Remediation Steps; and
- C. a plan documenting the Remediation Steps determined pursuant to the criteria in paragraph 3.8(c)(ii)A ("**Remediation Action Plan**");
- (iii) only after TfNSW's Representative has had the period referred to in Schedule B2 of this deed (or such shorter period as TfNSW's Representative may advise to the Supplier in writing) and has not rejected the Supplier's notice under paragraph 3.8(c)(ii), implement the Remediation Action Plan in accordance with relevant Legal Requirements, Approvals and any direction of a relevant Authority where applicable; and
- (iv) in dealing with any Contamination:
 - A. take all measures necessary to protect workers and others in accordance with Legal Requirements and the WHS Guidelines;
 - B. take all reasonable steps to ensure that the Contamination is quarantined from other in-situ or excavated materials so as to prevent cross-contamination; and
 - C. provide waste classification reports and documents demonstrating that cross-contamination has not occurred.
- (d) Not used.
- (e) The Supplier acknowledges and agrees that:
 - (i) subject to paragraph 3.8(f), the Supplier will not be entitled to any increase in the Additional MF Works Contract Value or to make any other Claim for payment:
 - A. for complying with this paragraph 3.8, other than for the amount referred to in paragraph 3.8(f);
 - B. in respect of carrying out investigations of the MF Site or Extra Land to determine the presence and extent of any Contamination present on, in, under or migrating from the MF Site (including in any structures) or Extra Land;

C. in respect of any costs incurred in the management, handling and disposal of the following types of General Solid Waste (non-putrescible) as defined in clause 49 of Schedule 1 of the POEO Act:

- 1) glass, plastic, rubber, plasterboard, ceramics, bricks, concrete or metal;
- 2) paper or cardboard;
- 3) household waste from municipal clean ups that does not contain food waste;
- 4) grit, sediment, litter and gross pollutants from stormwater treatment devices that does not contain free liquids;
- 5) building and demolition waste;
- 6) garden waste;
- 7) virgin excavated natural material; and
- 8) wood waste;

D. for any costs incurred arising out of or in connection with any delay or disruption to the Additional MF Works Activities resulting from the presence of any Contamination on, in, under or migrating from the MF Site (including in any structures) or Extra Land including arising out of or in connection with complying with its obligations under this paragraph 3.8, regardless of whether the Contamination was referred to in (or reasonably able to be inferred from) the Baseline Environmental Site Assessment or otherwise; or

E. for managing the remediation works on the MF Site or Extra Land;

- (ii) subject to paragraph 3.8(e)(iii), the Supplier will not be entitled to an extension of time in respect of any delay arising out of or in connection with the discovery of Contamination or the discharge of its obligations under this paragraph 3.8, regardless of whether the Contamination was referred to in (or reasonably able to be inferred from) the Baseline Environmental Site Assessment or otherwise; and
- (iii) the Supplier may, if it is delayed as a consequences of Additional Contamination and the requirements of paragraphs 3.8(f)(ii) to 3.8(f)(iv) have been satisfied, claim an extension of time to the Date for Additional MF Works Practical Completion in accordance with clause 29 of this deed.

(f) Where:

- (i) there is Additional Contamination;

- (ii) the Supplier has complied with its obligations under paragraph 3.8(c) in respect of all Contamination encountered in performing the Additional MF Works Activities;
- (iii) it is not technically feasible or permitted by any Legal Requirements to incorporate that Additional Contamination into the Additional MF Works as contemplated by paragraph 3.8(c)(ii)A; and
- (iv) the Supplier has disposed of the Additional Contamination off-site to a licensed waste disposal facility in accordance with paragraph 3.12,

the Supplier may claim an increase to the Additional MF Works Contract Value in accordance with clause 29 for the additional costs reasonably and necessarily incurred by the Supplier as a result of the disposal of the Additional Contamination but, without limiting paragraph 3.8(e)(iii), excluding the costs of delay or disruption or any other items set out in paragraph 3.8(e)(i).

3.9 Principal's Right to Access and Inspect

Subject to paragraph 3.13, the Supplier must:

- (a) without limiting paragraphs 3.3 and 3.4, minimise disruption or inconvenience to:
 - (i) TfNSW, occupiers (including railway system or rail passengers and other users), tenants and potential tenants of the MF Site, Extra Land or any other land or buildings on or adjacent to the MF Site or any Extra Land or a part thereof in their occupation or use of, or attendance upon, any part of the MF Site and Extra Land, including any occupation or use of the Additional MF Works, a Separable Portion or a part thereof under paragraph 12.6; and
 - (ii) others having a right of access to the MF Site, Extra Land or any other land or buildings on or adjacent to the MF Site or any Extra Land; and
- (b) at all times:
 - (i) give TfNSW's Representative, TfNSW and any person authorised by either TfNSW's Representative or TfNSW access to:
 - A. the Additional MF Works;
 - B. the MF Site; or
 - C. any other areas where the Additional MF Works Activities are being carried out,

including unobstructed vehicular access through the MF Site; and
 - (ii) provide TfNSW and TfNSW's Representative with every reasonable facility necessary for the Inspection of the Additional MF Works Activities, including the Supplier's compliance with the Approvals.

3.10 Additional MF Works to be constructed within MF Site

- (a) Subject to paragraph 3.10(b), the Supplier must ensure that the Additional MF Works are constructed within the relevant boundaries of the MF Site stipulated in Schedule 1.

- (b) TfNSW acknowledges and agrees that the Supplier may perform certain Additional MF Works Activities in locations other than the MF Site.

3.11 Condition Surveys

The Principal has undertaken a condition survey of the properties listed in Schedule 1. The Supplier may undertake further condition surveys of these properties.

The Supplier must:

- (a) identify and prepare a condition survey of all property on or in the vicinity of the Maintenance Facility Site or any Extra Land that could be affected or damaged by the Additional MF Works Activities and as required by the Planning Approval;
- (b) prepare this condition survey a minimum of two weeks prior to commencing any work on the MF Site, or on any Extra Land which is necessary for performing the Additional MF Works Activities or undertaking the Additional MF Works, where that work could damage property on or off the MF Site; and
- (c) in preparing this condition survey must use suitably skilled, qualified, and experienced personnel or Subcontractor.

3.12 Waste Disposal

- (a) The Supplier must remove from the MF Site and Extra Land and dispose of any Contamination or other waste pursuant to its obligations under this deed to a licensed waste facility in accordance with all relevant Legal Requirements and Approvals.
- (b) The Supplier must:
 - (i) ensure that the entity that carries out the storage, treatment, transport and disposal of the Contamination or other waste from the MF Site holds all relevant Approvals that are necessary; and
 - (ii) procure and provide evidence of such Approvals to TfNSW's Representative upon request.
- (c) The Supplier must ensure that its employees and agents, as applicable, are suitably trained in correct and safe methods of loading, unloading and handling any Contamination or other wastes and that they comply with all applicable Legal Requirements.
- (d) Not used.

3.13 Principal not in Control

The Supplier and Principal acknowledge that nothing in this deed, including the right to inspect pursuant to paragraph 3.9 or any audit by TfNSW or TfNSW's Representative at any time, will be construed to mean or imply that:

- (a) the Principal has any management or control over the Additional MF Works Activities or the MF Site or Extra Land; or
- (b) the Principal has any responsibility for any act or omission by the Supplier or its Subcontractors or agents including compliance or non-compliance with any relevant Legal Requirements, Approvals or this deed.

4. Compliance

4.1 Not used

4.2 TfNSW Standard Requirements

The Supplier must comply with the requirements of the TfNSW Standard Requirements.

4.3 Environmental Management

The Supplier must:

- (a) hold and maintain an environmental management system which complies with the requirements of TfNSW Standard Requirements for so long as any Additional MF Works Activities are carried out;
- (b) as part of the Project Plans, document, implement and maintain a contract specific Construction Environmental Management Plan for the management of environmental matters in accordance with the TfNSW Standard Requirements;
- (c) carry out the Additional MF Works Activities in accordance with the Construction Environmental Management Plan;
- (d) supervise Subcontractor's activities and ensure that they are complying with all relevant Legal Requirements, Approvals and TfNSW Standard Requirements in relation to environmental management on the MF Site and Extra Land; and
- (e) use, and be able to demonstrate the use of, ecologically sustainable development principles (including any TfNSW sustainability initiatives) in the design and construction of the Additional MF Works, Temporary Works and all other Additional MF Works Activities.

4.4 WHS Management

The Contactor must:

- (a) hold and maintain an WHS management system for so long as any Additional MF Works Activities are carried out that complies with the WHS Guidelines and the TfNSW Standard Requirements;
- (b) as part of the Project Plans, develop, document and implement a contract specific Project Work Health and Safety Management Plan in accordance with the WHS Guidelines and TfNSW Standard Requirements;
- (c) carry out the Additional MF Works Activities in accordance with the Project Work Health and Safety Management Plan;
- (d) create a safe working environment for ensuring the safety of all authorised personnel on the MF Site and Extra Land and that no unauthorised individual gains access to the MF Site; and
- (e) supervise any Subcontractor's activities and ensure that they are complying with all relevant Legal Requirements, Approvals and the TfNSW Standard Requirements in relation to the WHS management on the MF Site and Extra Land.

4.5 No Relief from Obligations

The Supplier will not be relieved from any of its liabilities or responsibilities under this deed (including under paragraph 8 or otherwise according to law) nor will the rights of TfNSW whether under this deed or otherwise according to law be limited or otherwise affected, by:

- (a) the implementation of, and compliance with, any management system or plan by the Supplier;
- (b) compliance with the Project Plans by the Supplier;
- (c) any release, authorisation, approval or agreement by TfNSW's Representative, or any other person acting on behalf of TfNSW or TfNSW's Representative, particularly those concerning or relating to the Supplier proceeding past any hold point or witness point identified in the Additional MF Works Scope, the TfNSW Standard Requirements or otherwise directed by TfNSW's Representative;
- (d) any failure by TfNSW, TfNSW's Representative or any other person acting on behalf of TfNSW or engaged by TfNSW to detect any Defect, particularly whilst participating in any hold point or witness point procedure, including where such a failure is the result of a negligent act or omission; or
- (e) any inspections arranged by TfNSW's Representative under the deed or any related discussions between the Supplier's Representative and TfNSW's Representative.

4.6 Authorised Engineering Organisation

The Supplier must ensure that UGL Engineering Pty Limited (ABN 96 096 365 972), or any other contractor approved by TfNSW to perform the Additional MF Works:

- (a) obtains prior to commencing the Additional MF Works Activities; and
- (b) maintains throughout the performance of the Additional MF Works Activities,

AEO status:

- (c) necessary for completion of the Additional MF Works Activities; and
- (d) in accordance with the authorisation and accreditation requirements of the SPR.

4.7 ASA Compliance

- (a) Without limiting paragraphs 4.7(b) and 4.7(c), if the Supplier or its Subcontractors have ASA Authorisation to carry out the Asset Lifecycle Services the Supplier must:
 - (i) ensure that ASA Authorisation to carry out the Asset Lifecycle Services is held and maintained for so long as the Additional MF Works Activities are carried out; and
 - (ii) on and from the date that ASA Authorisation was granted, comply (and must ensure that its Subcontractors and all personnel for which the Supplier is responsible comply) with the conditions of the applicable ASA Authorisation.

- (b) The Supplier must (and must ensure that its Subcontractors and all personnel for which the Supplier is responsible):
 - (i) implement and comply with any ASA Requirements applicable to the Asset Lifecycle Services;
 - (ii) immediately notify TfNSW's Representative in writing of any non-compliance with clause 8.3 of this deed and paragraph 4.7(a) of this Schedule;
 - (iii) cooperate fully with the ASA in the performance of the ASA's functions;
 - (iv) provide access to premises and resources as reasonably required by the ASA, including so that the ASA can effectively carry out its review, surveillance and audit functions;
 - (v) comply with the directions, instructions and requirements issued by the ASA;
 - (vi) notify the ASA of any matter that could reasonably be expected to affect the exercise of the ASA's functions;
 - (vii) provide the ASA with any information relating to its activities or any documents or other things reasonably required by the ASA in the exercise of its functions; and
 - (viii) provide TfNSW with such reasonable assistance as may be reasonably required by TfNSW to enable TfNSW to cooperate fully with the ASA and to implement and comply with ASA Requirements.
- (c) The Supplier acknowledges and agrees that it is not entitled to make (and neither TfNSW nor the ASA will be liable upon) any Claim arising out of or in connection with the requirements to obtain, or any delays or failure by the ASA in granting the Supplier or its Subcontractors ASA Authorisation or the obligation to comply with ASA Requirements with respect to ASA Authorisation.

5. Design and Technical Documents

5.1 Supplier's Design

The Supplier:

- (a) must prepare and complete the design of the Additional MF Works and the Temporary Works (including the Technical Documents), so that it is fit for its intended purpose as set out in or reasonably ascertainable from this deed and otherwise complies with the requirements of this deed; and
- (b) warrants that:
 - (i) it has fully and carefully reviewed the SPR including any Preliminary Design for Additional MF Works;
 - (ii) the completed design of the Additional MF Works and the Temporary Works as represented in the Technical Documents will:

- A. satisfy the requirements of the SPR, (including any Preliminary Design for Additional MF Works) and the other requirements of this deed; and
- B. be and remain at all relevant times fit for their intended purposes as set out in or reasonably ascertainable from this deed; and
- (iii) construction in accordance with the completed design of the Additional MF Works and the Temporary Works will satisfy the requirements of the SPR (including any Preliminary Design for Additional MF Works) and the other requirements of this deed.

5.2 Information

TfNSW must provide the information set out in Schedule 2 to this Schedule J2 to the Supplier within 10 Business Days of the date of issue of the Notice to Proceed.

5.3 Technical Documents

- (a) The Supplier must submit all Technical Documents:
 - (i) progressively to TfNSW's Representative in accordance with this deed; and
 - (ii) at the times set out in:
 - A. the SPR;
 - B. the TfNSW Standard Requirements; and
 - C. the Delivery Program.
- (b) The Supplier must upon each submission of the Technical Documents to TfNSW's Representative for review (including at the completion of the design of each design package) ensure that the Technical Documents are accompanied by the following documents:
 - (i) the Supplier's Certificate of Design Compliance in the form of Schedule 19;
 - (ii) a register of records of design verification and reviews applicable to the design package and other compliance records required by this deed (all records being satisfactorily completed and signed);
 - (iii) a register of any outstanding design non-conformities and unresolved issues;
 - (iv) a register of deficiency notices and evidence of their close out; and
 - (v) a register of concessions (if any) granted for non-conforming Technical Documents.

5.4 Review of Technical Documents

- (a) The Technical Documents must be submitted to TfNSW's Representative.

- (b) Schedule B2 of this deed applies to all Technical Documents.
- (c) Where any Technical Document comprises a design package which the deed requires TfNSW to submit to the Configuration Control Board, after this Technical Document has been submitted for the review of TfNSW's Representative under Schedule B2 of this deed, and:
 - (i) TfNSW's Representative gives the Supplier the notice referred to in paragraph 4.1 of Schedule B2 of this deed in respect of that Technical Document; or
 - (ii) the relevant period of time in Schedule B2 of this deed has expired and TfNSW's Representative has not rejected the Technical Document or made any comments on the Technical Document (except, in the case of comments, where the Supplier has responded to the comments within the required time period required by Schedule B2 of this deed in a manner satisfactory to TfNSW's Representative),

TfNSW will use reasonable endeavours to obtain a Configuration Change Acceptance Notice (where relevant) for the relevant design package from the Configuration Control Board.

- (d) Where:
 - (i) the Technical Document for the relevant Supplier's design package to which paragraph 5.4(c) applies, complies with the requirements of this deed;
 - (ii) the Configuration Change Acceptance Notice (where relevant) for that design package is not issued within 10 Business Days after the commencement of TfNSW's obligation under paragraph 5.4(c) to use reasonable endeavours to obtain the Configuration Change Notice; and
 - (iii) as a result, the Supplier is actually or will be delayed in achieving Additional MF Works Practical Completion,

the Supplier will be entitled to make a claim for an extension of time and delay costs under clause 29 of this deed.

- (e) The Principal's obligations under paragraph 5.4(c) do not:
 - (i) create any liability for TfNSW in respect of the content of the Technical Documents; or
 - (ii) relieve the Supplier of its obligations in this deed in respect of the Technical Documents.

5.5 Copies of Technical Documents

- (a) The Supplier must, in accordance with paragraph 5.3, progressively submit to TfNSW's Representative the number of copies specified in Schedule 1 of all Technical Documents, whether complete or work in progress, which it intends to use for design or construction purposes.
- (b) The Supplier must give TfNSW's Representative the number of copies specified in Schedule 1 of:

- (i) all survey information used in the design of the Additional MF Works and the Temporary Works; and
- (ii) all final Technical Documents.

5.6 Availability of Technical Documents

The Supplier must keep available for the use of TfNSW's Representative and any person authorised by TfNSW's Representative:

- (a) on the MF Site, at least one complete set of all Technical Documents that the Supplier is entitled to use for construction purposes pursuant to paragraphs 5.4 and 9.8, and any construction related documents provided by TfNSW; and
- (b) at any area on or off the MF Site where the Additional MF Works Activities are being carried out, one copy of each of those items specified in paragraph 5.6(a) insofar as they are relevant to the Additional MF Works Activities being carried out in that area.

5.7 Not used

5.8 Delivery Up

If this deed is frustrated or terminated or the parts of this deed relating to the Additional MF Works are terminated, the Supplier must:

- (a) immediately deliver the original and all sets and copies of all Technical Documents (whether complete or not), including fully detailed electronic versions in unlocked native format (with all logic links intact and nothing hidden or protected), then in existence to TfNSW; and
- (b) provide such details, memoranda, explanations, documentation and other assistance as TfNSW reasonably requires in relation to the Technical Documents.

5.9 Not used

6. Not used

7. Construction

7.1 Construction

- (a) The Supplier must construct and handover to TfNSW the Additional MF Works and construct the Temporary Works:
 - (i) in accordance with:
 - A. subject to paragraph 7.1(b), the SPR and any Technical Documents that has been prepared by the Supplier in accordance with the requirements of the deed and not rejected by TfNSW's Representative under Schedule B2 of this deed;

- B. any direction of TfNSW's Representative given or purported to be given under a provision of this deed; and
 - C. the other requirements of this deed; and
- (ii) so that they are and will remain at all relevant times fit for their intended purposes as set out in or reasonably ascertainable from this deed.
- (b) If there is any ambiguity, discrepancy or inconsistency between this deed (including the SPR) and any Technical Documents which has been prepared by the Supplier and not rejected by TfNSW's Representative under Schedule B2 of this deed, then, unless otherwise directed by TfNSW's Representative, the requirements of this deed will prevail.
- (c) At monthly intervals during the construction work and at the Additional MF Works Practical Completion of the Additional MF Works or each Separable Portion, the Supplier must submit to TfNSW's Representative a Certificate of Construction Compliance in the form of Schedule 20.

7.2 Not used

7.3 Not used

7.4 Not used

7.5 Setting Out

The Supplier must:

- (a) set out the Additional MF Works in accordance with the requirements of this deed, based on information and survey marks (including any survey peg, bench mark, reference mark, signal, alignment, level mark or any other mark for the purpose of setting out, checking or measuring work) identified by the Supplier that are suitable for their purposes;
- (b) carry out any survey (including providing all instruments and things) that may be necessary for this purpose; and
- (c) for this purpose keep all survey marks in their true positions.

If the Supplier discovers an error in the position, level, dimensions or alignment of any part of the Additional MF Works, the Supplier must immediately notify TfNSW's Representative and, unless TfNSW's Representative otherwise directs, the Supplier must at its cost rectify the error.

7.6 Survey

The Supplier must, as a condition precedent to Additional MF Works Practical Completion of the Additional MF Works or any Separable Portion, and as otherwise required by TfNSW's Representative, submit to TfNSW's Representative:

- (a) for its review under Schedule B2 of this deed, a Survey Plan for the Additional MF Works or the relevant Separable Portion that:
 - (i) has regard to the setback requirements in the National Construction Code;

- (ii) has regard to any stratum lots whether above or below ground;
 - (iii) has regard to the survey control requirements of any relevant NSW Rail Entity;
 - (iv) shows the location of all Monuments, and their relation to horizontal and vertical boundaries;
 - (v) shows all internal title boundaries;
 - (vi) shows all easements; and
 - (vii) shows the location of the Additional MF Works and all Services; and
- (b) a Survey Certificate which complies with all Legal Requirements addressed to TfNSW and signed by a land surveyor registered under the *Surveying and Spatial Information Act 2002* (NSW) stating that:
- (i) the whole of the Additional MF Works or the Separable Portion has been constructed within the relevant boundaries of the MF Site stipulated in Schedule 1;
 - (ii) the elements of the Additional MF Works or the Separable Portion are in the positions and within the tolerances required by Legal Requirements and this deed;
 - (iii) the survey information included in the configuration materials provided pursuant to the TfNSW Standard Requirements complies with the requirements of this deed; and
 - (iv) any other matter identified by TfNSW's Representative with regard to survey and the MF Site, complies with the requirements of this deed.

7.7 Cleaning Up

In carrying out the Additional MF Works Activities, the Supplier must:

- (a) keep the MF Site, Extra Land and the Additional MF Works clean and tidy and free of refuse;
- (b) regularly remove rubbish, litter, graffiti and surplus material from the MF Site and Extra Land; and
- (c) as a condition precedent to Additional MF Works Practical Completion of the Additional MF Works or a Separable Portion, remove all rubbish, surplus materials, Construction Plant and Temporary Works from the MF Site and Extra Land or the part of the MF Site or Extra Land relevant to the Additional MF Works or the Separable Portion.

7.8 Not used

7.9 Not used

7.10 Not used

7.11 Not used

7.12 Power Isolations

- (a) If the Supplier requires a power isolation for the performance of the Additional MF Works Activities the Supplier must liaise with the relevant NSW Rail Entity and provide it with no less than:
 - (i) the period stated in Schedule 1 prior written notice in respect of each power isolation that falls on a weekend; or
 - (ii) the period stated in Schedule 1 prior written notice in respect of each power isolation that falls on a weeknight,
 and identify whether a power isolation is required.
- (b) TfNSW may assist the Supplier to obtain a requested power isolation, but is under no obligation to do so and the Supplier acknowledges that TfNSW does not warrant, guarantee, assume any duty of care or other responsibility that the requested power isolation will be granted by any relevant NSW Rail Entity.
- (c) If a power isolation is granted by a NSW Rail Entity, the Supplier must:
 - (i) make the necessary arrangements for the power isolation in accordance with the requirements of the deed; and
 - (ii) subject to paragraph 7.12(d), pay TfNSW within 20 Business Days after the relevant power isolation the relevant amount (in respect of each power isolation).
- (d) If:
 - (i) the Date for Additional MF Works Practical Completion of the Additional MF Works or a Separable Portion is extended due to a Compensation Event; and
 - (ii) as a result of the cause giving rise to the extension of time, the Supplier requires a power isolation in order to achieve Additional MF Works Practical Completion by the Date for Additional MF Works Practical Completion,
 then (as between TfNSW and the Supplier) TfNSW will pay for such power isolation.
- (e) The Supplier acknowledges and agrees that:
 - (i) TfNSW or any other relevant NSW Rail Entity may alter or cancel any power isolation at any time; and
 - (ii) its only remedy for:
 - A. any failure by any relevant NSW Rail Entity to provide a power isolation referred to in paragraph 7.12(a); or
 - B. cancellation of Power Isolation once it has been obtained,
 is set out in clause 29 of this deed.

8. Defects

8.1 Defects Liability

- (a) Subject to paragraph 8.2, the Supplier must rectify all Defects whether or not they are identified and notified by TfNSW's Representative.
- (b) Without limiting paragraph 8.1(a), the Supplier must rectify any Defects in the Additional MF Works or any Separable Portion which existed at Additional MF Works Practical Completion of the Additional MF Works or that Separable Portion as soon as possible after Additional MF Works Practical Completion of the Additional MF Works or that Separable Portion.
- (c) When rectifying Defects which existed at Additional MF Works Practical Completion, the Supplier must do so at times and in a manner which causes as little inconvenience to the occupants or users of the Additional MF Works or Other Contractors as is reasonably possible.
- (d) The parties acknowledge and agree that this paragraph 8.1 does not apply to the extent that a Defect is a Minor Defect the subject of a Draft Minor Defect Rectification Plan that has been approved by TfNSW pursuant to paragraph 2.4(b)(i) of Schedule J1.

8.2 Defect Notification

If at any time prior to the expiration of any Additional MF Works Defects Liability Period (including for the avoidance of doubt prior to Additional MF Works Practical Completion of the Additional MF Works or any Separable Portion), TfNSW's Representative discovers or believes there is a Defect in the Additional MF Works, TfNSW's Representative may give the Supplier a direction which identifies the Defect and does one or more of the following:

- (a) requires the Supplier to rectify the Defect, or any part of it, and specifying the time within which this must occur; or
- (b) advises the Supplier that TfNSW will accept the work, or any part of it, despite the Defect.

8.3 Rectification of Defect

If a direction is given under paragraph 8.2(a):

- (a) the Supplier must rectify the Defect (or the part of it notified):
 - (i) within the times specified in TfNSW's Representative's direction, which must be reasonable (having regard to the nature of the Defect and impact of the Defect on the use of the Additional MF Works) and will generally be limited to the periods during which the rectification work will cause minimal or no inconvenience to the operators, including any NSW Rail Entity (where relevant), and occupants of the Additional MF Works; and
 - (ii) if after Additional MF Works Practical Completion of the Additional MF Works or relevant Separable Portion:
 - A. at other times otherwise agreed with TfNSW's Representative;

- B. in accordance with the requirements of the operators of the Additional MF Works, including any NSW Rail Entity (where relevant), and any other relevant Authority;
 - C. so as to minimise the impact on the use of the Additional MF Works or the Separable Portion; and
 - D. in a manner which causes as little inconvenience as possible to users of the Additional MF Works or the Separable Portion or the public, any Service or any access to the Additional MF Works or the Separable Portion; and
- (b) if the Supplier does not comply with paragraph 8.3(a)(i), TfNSW's Representative may, without prejudice to any other rights that TfNSW may have against the Supplier with respect to the Defect under this deed or otherwise under any Legal Requirements, advise the Supplier that an Other Contractor will rectify (or has rectified) the Defect, or any part of it, or carry out (or has carried out) a Variation to overcome the Defect, or any part of it, and such rectification work carried out at will be at the Supplier's expense, and the cost of the rectification work incurred by TfNSW will be a debt due from the Supplier to TfNSW.

The Supplier must pay TfNSW all costs incurred by TfNSW in providing access to the Additional MF Works, or arranging the availability of any resources (including the resources of any other NSW Rail Entity), as may be necessary for the Supplier to rectify any Defect during the Additional MF Works Defects Liability Period.

8.4 No Claim for Correction of Defect

Where a direction is given under paragraph 8.2(a), the Supplier will not be entitled to make a Claim against TfNSW for rectifying the Defect (or the part notified) and must bear all costs, losses and expenses suffered or incurred in rectifying the Defect.

8.5 Acceptance of Work

If a direction is given under paragraph 8.2(b):

- (a) where the value to TfNSW of the Additional MF Works is reduced (which will include having regard to any additional operating or maintenance costs) arising out of or in any way in connection with the Defect (or the part notified), the Additional MF Works Contract Value will be reduced by the amount determined by TfNSW's Representative as the higher of the cost of rectifying the Defect (or the part notified) and the diminution in the value to TfNSW of the Additional MF Works; or
- (b) where the value to TfNSW of the Additional MF Works increases because of the acceptance of the Defect (or the part notified):
 - (i) TfNSW's Representative will determine an amount by subtracting the cost of rectifying the Defect from the increased value of the Additional MF Works; and
 - (ii) the Additional MF Works Contract Value will:
 - A. be reduced by the amount determined by TfNSW's Representative, where that amount is negative; and

- B. not be changed where the amount determined by TfNSW's Representative is positive.

8.6 Extension of Additional MF Works Defects Liability Period

If:

- (a) TfNSW's Representative gives the Supplier a notice under paragraph 8.2(a) during any Additional MF Works Defects Liability Period; and
- (b) the Supplier rectifies the Defect (or the part notified),

the relevant Additional MF Works Defects Liability Period for the work required by the notice will be extended by the period set out in Schedule 1, commencing upon completion of the rectification of the Defect (or the part notified).

Notwithstanding any other provision in this deed, the Supplier's obligation to rectify any Defects pursuant to this paragraph 8.6 will cease at the end of the day that is 2 years after the Date of Additional MF Works Practical Completion.

8.7 Defect Rectification by Other Contractor

Where paragraph 8.3(b) applies:

- (a) without limiting or otherwise affecting clause 8.13 of this deed, the Supplier must not impede the Other Contractor from having sufficient access to the MF Site or Extra Land to rectify the Defect or carrying out the Variation; and
- (b) any costs, losses or damages suffered or incurred by TfNSW arising out of or in any way in connection with, the Other Contractor rectifying the Defect or carrying out the Variation, will be a debt due from the Supplier to TfNSW.

8.8 Rights Not Affected

Neither TfNSW's rights, nor the Supplier's liability, whether under this deed or otherwise according to Legal Requirements in respect of Defects, whether before or after the expiration of any relevant Additional MF Works Defects Liability Period, will be in any way affected or limited by:

- (a) the rights conferred upon TfNSW or TfNSW's Representative by this paragraph 8 or any other provision of this deed;
- (b) the exercise of, or the failure by TfNSW or TfNSW's Representative to exercise, any such rights; or
- (c) any notice or direction of TfNSW's Representative under paragraph 8.2.

9. Administration

9.1 Not used

9.2 Not used

9.3 Not used

9.4 Not used

9.5 MF Site Meetings

The Supplier must convene meetings on the MF Site or such other place (or places) as TfNSW's Representative may direct at:

- (a) prior to the Date of Additional MF Works Practical Completion of the Additional MF Works or the last Separable Portion to reach Additional MF Works Practical Completion, weekly or such longer intervals as may be directed in writing by TfNSW's Representative; and
- (b) monthly intervals after the Date of Additional MF Works Practical Completion of the Additional MF Works or the last Separable Portion to reach Additional MF Works Practical Completion until all Additional MF Works Defects Liability Periods (including any extension under paragraph 8.6), have expired or at such other intervals as may otherwise be agreed in writing.

9.6 Not used

9.7 Not used

9.8 Submission for Review by TfNSW's Representative

- (a) The parties acknowledge and agree that:
 - (i) clause 14 and Schedules B1 and B2 of this deed apply in relation to the Technical Documents for the Additional MF Works; and
 - (ii) Schedule B2 of this deed applies in relation to the Project Plans.
- (b) The Supplier must not commence construction of any part of the Additional MF Works to which any Document (other than the Delivery Program) submitted to TfNSW's Representative applies, unless TfNSW's Representative has had the period referred to in Schedule B2 to review the Document and has not rejected the Document or made any comments on the Document (except in the case where the Supplier has responded to TfNSW's Representative's comments within the required time period and in a manner satisfactory to TfNSW's Representative).
- (c) The Supplier must not amend for construction purposes any Document that has:
 - (i) been submitted to TfNSW's Representative; and
 - (ii) not been rejected or not had comments made about it ,
 unless the Supplier submits the proposed amendments to TfNSW's Representative, in which case Schedule B2 will re-apply.
- (d) TfNSW's Representative does not assume or owe any duty of care or other responsibility to the Supplier to review, or in reviewing, a Document submitted by the Supplier, including for errors, omissions or non-compliance with this deed.
- (e) The Supplier will not be entitled to make, and TfNSW will not be liable upon, any Claim arising out of or in any way in connection with TfNSW's Representative not detecting and notifying the Supplier of any errors, omissions or non-compliance with the requirements of this deed in any Document submitted.

- (f) No review of, comment upon or rejection of, or failure to review or comment upon or reject, a Document prepared by the Supplier, or any other direction by TfNSW's Representative in connection with the Document, will:
 - (i) constitute a Variation Order pursuant to Schedule E3 to this deed, unless TfNSW's Representative has issued to the Supplier a written order to implement a Variation in accordance with paragraph 1.10 of Schedule E3 to this deed;
 - (ii) relieve the Supplier from or alter its liabilities or obligations, whether under this deed or otherwise according to any Legal Requirements; or
 - (iii) limit or otherwise affect TfNSW's rights against the Supplier, whether under this deed or otherwise according to any Legal Requirements.
- (g) In considering any Document, TfNSW's Representative may consult with and take into account any views or requirements of any relevant Authority.
- (h) Unless otherwise advised by TfNSW's Representative in writing, the Supplier must submit the number of copies of a Document stated in this deed, or if no number is stated then:
 - (i) an electronic version on CD (in both pdf and native formats), which must be virus free;
 - (ii) 1 printed original; and
 - (iii) 3 printed copies (2 bound and 1 unbound).

9.9 Work Method

Whether or not this deed prescribes a particular work method or a work method is otherwise a part of this deed or reviewed or approved (expressly or impliedly) by TfNSW's Representative, the fact that any work method that the Supplier adopts or proposes to adopt is impractical or impossible or that the Supplier, with or without the approval of TfNSW's Representative, uses another work method will:

- (a) not entitle the Supplier to make any Claim against TfNSW arising out of or in any way in connection with the work method proving to be impractical or impossible or any change in the work method; and
- (b) not cause the deed to be frustrated.

9.10 Not used

9.11 Not used

9.12 NSW Government Aboriginal Participation Policy

The Supplier must:

- (a) comply with the requirements of the NSW Government APIC Policy;
- (b) submit its Additional MF Works Aboriginal Participation Plan to TfNSW's Representative for review in accordance with paragraph 9.8, within 20 Business Days of the date of issue of the Notice to Proceed;

- (c) enter the requirements of the approved plan as per the reporting requirements of the NSW Government APIC Policy to:
 - (i) NSWP.Policy@treasury.nsw.gov.au; and
 - (ii) TfNSW in a form, and to an electronic portal or document management system, as directed by TfNSW's Representative;
- (d) report monthly to TfNSW on its progress towards the requirements in its Additional MF Works Aboriginal Participation Plan, in accordance with the NSW Government APIC Policy; and
- (e) provide a final Additional MF Works Aboriginal Participation Report to TfNSW's Representative at the completion of the Additional MF Works, identifying if Aboriginal participation requirements were met and following approval by TfNSW, submit the report to:
 - (i) NSWP.Policy@treasury.nsw.gov.au; and
 - (ii) TfNSW in a form, and to an electronic portal or document management system, as directed by TfNSW's Representative.

9.13 Waste Reduction and Purchasing Policy

The Supplier must:

- (a) use its best endeavours to reduce wastage and increase the use of recycled materials in accordance with the GREP;
- (b) address as part of the Construction Environment Management Plan the measures to be taken to reduce wastage and increase the use of recycled materials in the areas of paper products, office consumables, vegetation and landscaping materials, and construction and demolition materials; and
- (c) provide reports to TfNSW's Representative in such format and within such times as may be required by TfNSW's Representative for the use by TfNSW in complying with its GREP obligations to report performance.

9.14 Training of apprentices and trainees

The Supplier must comply with the training management requirements set out in the TSRs.

9.15 National Greenhouse and Energy Reporting Act 2007 (Cth)

The Supplier acknowledges and agrees that:

- (a) if any of the Additional MF Works Activities, or the activities of any of the Supplier's personnel, in connection with the Additional MF Works Activities (the **"Relevant Matters"**) constitute a "facility" within the meaning of the NGER Legislation, then, for the purposes of the NGER Legislation, the Supplier has operational control of that facility and will comply with any obligations arising in respect of TfNSW's activities under the NGER Legislation;
- (b) if, despite the operation of paragraph 9.15(a), TfNSW incurs, or (but for this paragraph) would incur, a liability under or in connection with the NGER Legislation as a result of or in connection with any of the Relevant Matters, and

the NGER Legislation provides that such liability can be transferred by TfNSW or the NSW Government or any of its agencies to the Supplier, the Supplier must, on the written request of TfNSW, do all things reasonably necessary to ensure the liability is transferred to the Supplier;

- (c) if TfNSW requests it, the Supplier must provide Emissions and Energy Data to TfNSW:
 - (i) to the extent that, in a manner and form that, and at times that, will enable TfNSW to comply with the NGER Legislation irrespective of whether TfNSW or the Supplier or any other person has an obligation to comply with the NGER Legislation in connection with any Relevant Matters; and
 - (ii) otherwise as requested by TfNSW from time to time;
- (d) the Supplier must also provide to TfNSW all Emissions and Energy Data and other information which the Supplier provides to any other person under the NGER Legislation in connection with any Relevant Matters, at the same time as the Supplier provides that Emissions and Energy Data or other information to that other person;
- (e) the Supplier must:
 - (i) collect and record all such Emissions and Energy Data as may be required to enable reporting under the NGER Legislation or enable the Supplier to discharge its obligations under this paragraph 9.15, and keep that Emissions and Energy Data for at least 7 years after the end of the year in which the Relevant Matters occur; and
 - (ii) permit any persons appointed or authorised by TfNSW to examine, monitor, measure, copy, audit and/or verify the Emissions and Energy Data and co-operate with and provide all reasonable assistance to any such persons (including by doing such things as giving access to premises, plant and equipment, producing and giving access to documents and answering any relevant questions);
- (f) TfNSW may provide or otherwise disclose the Emissions and Energy Data and any other information which TfNSW obtains under this paragraph 9.15 to any other person, and may otherwise use the Emissions and Energy Data and other information for any purpose as TfNSW sees fit; and
- (g) nothing in this paragraph 9.15 is to be taken as meaning that TfNSW has agreed to perform any statutory obligation that the Supplier may have regarding the provision of Emissions and Energy Data to any Authority.

10. Time and Progress

10.1 Rate of Progress

- (a) The Supplier must:
 - (i) immediately commence, and thereafter regularly and diligently progress the Additional MF Works Activities;

- (ii) proceed with the Additional MF Works Activities with due expedition and without delay; and
 - (iii) achieve Additional MF Works Practical Completion of the Additional MF Works and each Separable Portion by the relevant Date for Additional MF Works Practical Completion.
- (b) Without limiting the Supplier's rights under the SOP Act, the Supplier must not suspend the progress of the whole or any part of Additional MF Works Activities except where directed by TfNSW's Representative under paragraph 10.14.
 - (c) Without limiting paragraphs 10.1(d) to 10.1(g) or paragraph 10.4, the Supplier must give TfNSW's Representative reasonable advance notice of any information, documents or directions required by the Supplier to carry out the Additional MF Works Activities in accordance with this deed.
 - (d) The Principal and TfNSW's Representative will not be obliged to furnish information, documents or directions earlier than TfNSW or TfNSW's Representative, as the case may be, should reasonably have anticipated at the date of Amendment Deed No. 2.
 - (e) TfNSW's Representative may, by written notice expressly stated to be pursuant to this paragraph 10.1, direct in what order and at what time the various stages or parts of the Additional MF Works Activities must be performed. If the Supplier can reasonably comply with the direction, the Supplier must do so. If the Supplier cannot reasonably comply, the Supplier must notify TfNSW's Representative in writing, giving reasons. For the avoidance of doubt, no direction by TfNSW's Representative will constitute a direction under this paragraph 10.1 unless the direction is in writing and expressly states that it is a direction under this paragraph 10.1.
 - (f) If compliance with a written direction expressly stated to be pursuant to this paragraph 10.1 causes the Supplier to necessarily incur more or less cost than otherwise would have been incurred, the difference will be dealt with and valued as if it were a Variation except where the direction was necessary because of, or arose out of or in any way in connection with, a failure by the Supplier to comply with its obligations under this deed.
 - (g) Such costs will be the Supplier's sole entitlement, and the Supplier will not be entitled to make, and TfNSW will not be liable upon, any other Claim, arising out of or in any way in connection with any direction pursuant to this paragraph 10.1.

10.2 The Supplier's Programming Obligations

The Supplier must:

- (a) prepare and provide a Delivery Program that complies with and includes the details required by this deed and any requirements of TfNSW's Representative;
- (b) submit the Delivery Program to TfNSW's Representative for its review in accordance with Schedule B2 of this deed within the earlier of:
 - (i) the number of Business Days as set out in Schedule 1 after the date of issue of the Notice to Proceed; or
 - (ii) any time required by the TfNSW Standard Requirements;

- (c) when directed to do so by TfNSW's Representative, prepare and submit to TfNSW's Representative specific detailed programs and schedules for the Additional MF Works Activities within 5 Business Days of receipt of such a direction;
- (d) update, revise and submit to TfNSW's Representative an updated Delivery Program:
 - (i) to allow for delays to non-critical activities, extensions of time granted by TfNSW's Representative to any Date for Additional MF Works Practical Completion, the actual progress made by the Supplier, Variations and any other changes to the Additional MF Works Activities but excluding claims for extensions of time to any Date for Additional MF Works Practical Completion which have been submitted by the Supplier to the extent that they have not been granted by TfNSW's Representative; and
 - (ii) on a monthly basis or whenever directed to do so by TfNSW's Representative;
- (e) prepare and provide for TfNSW's Representative's information only versions of all Delivery Programs prepared in accordance with paragraph 10.2(d) that also allow for those claims for an extension of time to any Date for Additional MF Works Practical Completion that have been made by the Supplier in accordance with clause 29 of this deed but to which TfNSW's Representative has not yet extended the Date for Additional MF Works Practical Completion under clause 29 of this deed;
- (f) comply with the requirements of TfNSW's Representative and its other obligations under this deed in preparing and using programs, including the requirements in paragraph 9.8; and
- (g) not depart without reasonable cause from a Confirmed Delivery Program that has been submitted to TfNSW's Representative for review under paragraph 9.8 and not been rejected by TfNSW's Representative within 20 Business Days.

10.3 Supplier not Relieved

No submission of, review of or comment upon, acceptance or rejection of, or any failure to review or comment upon or reject, a program (including the Confirmed Delivery Program) prepared by the Supplier, by TfNSW's Representative in connection with the program, will:

- (a) relieve the Supplier from or alter its liabilities or obligations under this deed, including the obligation under paragraph 10.1;
- (b) evidence or constitute notification of a delay or the claiming of or the granting of an extension of time to any Date for Additional MF Works Practical Completion or a direction by TfNSW's Representative to compress, disrupt, prolong or vary any, or all, of the Additional MF Works Activities; or
- (c) affect the time for the performance of TfNSW's or TfNSW's Representative's obligations under this deed.

10.4 Compression by Supplier

If the Supplier chooses to compress the Additional MF Works Activities or otherwise accelerate progress:

- (a) neither TfNSW nor TfNSW's Representative will be obliged to take any action to assist or enable the Supplier to achieve Additional MF Works Practical Completion before any Date for Additional MF Works Practical Completion;
- (b) the time for carrying out the obligations of TfNSW or TfNSW's Representative will not be affected; and
- (c) the Supplier does so at its own cost and risk.

10.5 Importance of Additional MF Works Practical Completion on Time

The Supplier acknowledges:

- (a) the importance of complying with its obligations under paragraph 10.1; and
- (b) that a Date for Additional MF Works Practical Completion will only be extended in accordance with clause 29 of this deed, or when so determined under clause 41 and Schedule B6 of this deed.

10.6 Risk and Notice of Delay

- (a) Except as expressly provided for in clause 29 of this deed, the Supplier accepts the risk of all delays in, and disruption to, the carrying out of the Additional MF Works Activities and performance of its obligations under this deed both before and after any Date for Additional MF Works Practical Completion.
- (b) The Supplier must within 10 Business Days of the commencement of an occurrence causing any delay or which is likely to cause delay, give TfNSW's Representative written notice of any delay or likely delay to the carrying out of the Additional MF Works Activities, details of the cause and how any Date of Additional MF Works Practical Completion is likely to be affected (if at all).

10.7 Not used

10.8 Not used

10.9 Not used

10.10 Not used

10.11 Not used

10.12 Not used

10.13 Not used

10.14 Suspension

TfNSW's Representative may direct the Supplier to suspend and, after a suspension has been directed, to re-commence, the carrying out of all or a part of the Additional MF Works Activities. Nothing in this paragraph limits TfNSW's rights under paragraph 2.10.

If the suspension under this paragraph 10.14 arises in the circumstance set out in paragraph 2.10(f) then paragraphs 2.10(f), 2.10(g) and 2.10(h) will apply, otherwise where it arises as a result of:

- (a) the Supplier's failure to carry out its obligations in accordance with this deed (including under clause 8.3 this deed or paragraph 4.7 or where the Supplier otherwise fails to comply with its obligations in relation to engineering authorisation or ASA compliance in accordance with this deed or where any process, procedure, test method, calculation, analysis or report required by this deed has resulted in or will result in a non-conformance), the Supplier will not be entitled to make, and TfNSW will not be liable upon, any Claim arising out of, or in any way in connection with, the suspension; or
- (b) a cause other than the Supplier's failure to perform its obligations in accordance with this deed:
 - (i) a direction to suspend under this paragraph 10.14 will entitle the Supplier to:
 - A. be paid by TfNSW the additional costs reasonably and necessarily incurred by it as a direct result of the suspension as determined by TfNSW's Representative; and
 - B. an extension of time to any relevant Date for Additional MF Works Practical Completion where it is otherwise so entitled under clause 29 of this deed;
 - (ii) the Supplier must take all steps possible to mitigate the additional costs incurred by it as a result of the suspension; and
 - (iii) the Supplier will not be entitled to make, and TfNSW will not be liable upon, any Claim arising out of, or in any way in connection with, the suspension other than as allowed under this paragraph 10.14(b).

10.15 Direction to Compress

If the Supplier makes a claim under clause 29 of this deed, TfNSW's Representative may direct the Supplier to compress the Additional MF Works Activities by taking those measures which are necessary to overcome or minimise the extent and effects of some or all of the delay, which may include taking the measures necessary in order to achieve Additional MF Works Practical Completion of the Additional MF Works or a Separable Portion by the relevant Date for Additional MF Works Practical Completion.

Prior to commencing any such compression the Supplier must give TfNSW's Representative an estimate of the costs of taking all such necessary measures.

TfNSW's Representative may give such a direction whether or not the cause of delay for which the Supplier has made its claim under clause 29 of this deed entitles the Supplier to an extension of time to any relevant Date for Additional MF Works Practical Completion.

10.16 Withdrawal of Compression Direction

TfNSW's Representative may at any time by notice in writing withdraw any direction given by it under paragraph 10.15, after which the Supplier will be entitled to any extension of time to which it may have otherwise been entitled in respect of the cause of delay in respect of which the Supplier made a claim under clause 29 of this deed. Any such extension will be determined having regard to the effect which the compression of the Additional MF Works Activities taken by the Supplier prior to the withdrawal of the direction has had on mitigating the delay which is the subject of the claim for an extension of time made by the Supplier under clause 29 of this deed.

10.17 Partial Compression

If TfNSW's Representative gives the Supplier a direction to compress under paragraph 10.15 and it only applies to part of a delay, the Supplier's entitlement to any extension of time to any relevant Date for Additional MF Works Practical Completion, which it otherwise would have had, will only be reduced to the extent to which the direction to compress requires the Supplier to compress to overcome the delay.

10.18 Compression

If TfNSW's Representative gives a direction to the Supplier under paragraph 10.15:

- (a) whether or not the Supplier provides a cost estimate under paragraph 10.15, the Supplier must comply with the direction;
- (b) if the Supplier would, but for the direction, have been entitled to an extension of time to the relevant Date for Additional MF Works Practical Completion for the cause of delay in respect of which the Supplier made a claim under clause 29 of this deed, the Supplier will, to the extent it would have been entitled to an extension of time, be entitled to be paid the lesser of:
 - (i) the sum of:
 - A. the extra costs reasonably incurred by the Supplier (which, if TfNSW's Representative gives a notice to withdraw the direction under paragraph 10.16 will be those extra costs incurred prior to the giving of such notice) and directly attributable to compressing the Additional MF Works Activities, as determined by TfNSW's Representative; and
 - B. that percentage of the amount under paragraph 10.18(b)(i)A stipulated in Schedule 1; and
 - (ii) the cost estimate (if any) provided by the Supplier pursuant to paragraph 10.15; and
- (c) the Supplier will not be entitled to make, and TfNSW will not be liable upon, any Claim arising out of, or in any way in connection with, the cause of delay and the direction, other than for the amount it is entitled to under this paragraph 10.18.

10.19 Principal's Right to Liquidated Damages not Affected

The Principal's rights to liquidated damages under paragraph 12.7 for a failure by the Supplier to achieve Additional MF Works Practical Completion of the Additional MF Works or a Separable Portion by any relevant Date for Additional MF Works Practical Completion will not be affected by TfNSW's Representative giving the Supplier a direction to compress under paragraph 10.15.

10.20 Supplier's Entitlements

This paragraph 10 and clause 29 of this deed are an exhaustive code of the Supplier's rights arising out of or in any way in connection with any delay or disruption in respect of the Additional MF Works and the Supplier waives all rights pursuant to any Legal Requirements to claim any relief from its obligations under this deed (in respect of delay or disruption to the Additional MF Works) otherwise than in accordance with this paragraph 10 and clause 29 of this deed. The parties acknowledge and agree that this paragraph 10.20 does not limit the Supplier's rights pursuant to any Legal Requirements

to claim any relief from its obligations under this deed in respect of any other entitlements unrelated to delay or disruption to the Additional MF Works.

11. Payment

11.1 Not used

11.2 Not used

11.3 Payment Schedules

The issue of a payment schedule by TfNSW's Representative does not constitute approval of any work nor will it be taken as an admission or evidence that the part of the Additional MF Works or Additional MF Works Activities covered by the payment schedule has been satisfactorily carried out in accordance with this deed.

Failure by TfNSW's Representative to set out in a payment schedule an amount, or the correct amount, which TfNSW is entitled to retain, deduct, withhold or set-off from the amount which would otherwise be payable to the Supplier by TfNSW will not prejudice TfNSW's right to subsequently exercise its right to retain, deduct, withhold or set-off any amount under this deed.

Where TfNSW has notified the Supplier in accordance with clause 53.1(h)(iv) of this deed that it no longer proposes to issue a recipient created tax invoice for a taxable supply made by the Supplier for TfNSW, the Supplier must, within 2 Business Days after receipt of the payment schedule issued by TfNSW's Representative give TfNSW's Representative a tax invoice (which complies with the GST Legislation) for the amount of the payment schedule.

11.4 Not used

11.5 Not used

11.6 Not used

11.7 Unfixed Plant and Materials

The Supplier is only entitled to make a claim for payment for plant or materials intended for incorporation in the Additional MF Works but not yet incorporated, and TfNSW is only obliged to make payment for such plant or materials in accordance with clause 25.9 and paragraph 5.4 of Schedule J1 of this deed if:

- (a) the Supplier provides evidence of:
 - (i) ownership of the plant or materials;
 - (ii) identification and labelling of the plant and materials as the property of TfNSW; and
 - (iii) adequate and secure storage and protection;
- (b) security acceptable to the Principal in the form of the unconditional undertaking in the form of Schedule F4 to the deed issued by an Institution approved by the Principal in an amount equal to the payment claimed for the unfixed plant and materials has been provided by the Contractor to the Principal;

- (c) the plant and materials are on the MF Site or are available for immediate delivery to the MF Site;
- (d) the insurance held and the storage arrangements for the unfixed plant and materials are acceptable to TfNSW's Representative;
- (e) the condition of the unfixed plant and materials has been confirmed in an inspection by TfNSW's Representative; and
- (f) if the PPSA applies, the Supplier has registered a Security Interest in the unfixed plant and materials in favour of TfNSW in accordance with clause 47.1 of this deed.

The only such unfixed plant or materials to be allowed for in a payment schedule are those that have become or (on payment) will become the property of TfNSW. Upon a payment against a payment schedule that includes amounts for unfixed plant and materials, title to the unfixed plant and materials included will vest in TfNSW.

The security provided in accordance with paragraph 11.7(b) will be released once the applicable unfixed plant and materials are incorporated into the Additional MF Works.

11.8 Not used

11.9 Completion Payment Claim

No later than 20 Business Days after the issue of the Additional MF Works Practical Completion Certificate for the Additional MF Works or the last Separable Portion to reach Additional MF Works Practical Completion, but subject to paragraph 25.4 of this deed the Supplier may lodge with TfNSW's Representative a payment claim marked "Completion Payment Claim" stating;

- (a) the Additional MF Works Contract Value;
- (b) all payments received on account of the Additional MF Works Contract Value; and
- (c) the balance, if any, due to the Supplier.

The Completion Payment Claim must be accompanied by such information as TfNSW's Representative may reasonably require.

With the Completion Payment Claim the Supplier must lodge with TfNSW's Representative a First Statement of Outstanding Claims. The First Statement of Outstanding Claims must identify all Claims that the Supplier wishes to make against TfNSW in respect of any fact, matter or thing arising out of, or in any way in connection with, the Additional MF Works Activities, the Additional MF Works or this deed which occurred prior to the date of submission of the Completion Payment Claim.

The Completion Payment Claim and First Statement of Outstanding Claims must address all facts, matters or things arising out of, or in any way in connection with, the Additional MF Works Activities, the Additional MF Works or this deed up to the date of submission of the Completion Payment Claim in respect of all Claims included in the Completion Payment Claim and First Statement of Outstanding Claims.

11.10 Release after Completion Payment Claim

The Supplier releases TfNSW from any Claim in respect of any fact, matter or thing arising out of, or in any way in connection with, the Additional MF Works Activities, the Additional MF Works or this deed that occurred prior to the date of submission of the Completion Payment Claim, except for any Claim which:

- (a) has been included in the Completion Payment Claim or First Statement of Outstanding Claims which is given to TfNSW's Representative within the time required by, and in accordance with paragraph 11.9; and
- (b) has not been barred under another provision of this deed.

11.11 Final Payment Claim

No later than 20 Business Days after the expiration of the last Additional MF Works Defects Liability Period, but subject to clause 25.4 of this deed the Supplier may lodge with TfNSW's Representative a payment claim marked "Final Payment Claim" stating:

- (a) the Additional MF Works Contract Value;
- (b) all payments received on account of the Additional MF Works Contract Value; and
- (c) the balance, if any, due to the Supplier.

The Final Payment Claim must be accompanied by such information as TfNSW's Representative may reasonably require.

With the Final Payment Claim the Supplier must lodge with TfNSW's Representative a Second Statement of Outstanding Claims. Without limiting paragraph 11.10, the Second Statement of Outstanding Claims must identify all Claims that the Supplier wishes to make against TfNSW in respect of any fact, matter or thing arising out of, or in any way in connection with, the Additional MF Works Activities, the Additional MF Works or this deed which occurred prior to the date of submission of the Final Payment Claim.

The Final Payment Claim and Second Statement of Outstanding Claims must address all such facts, matters or things arising out of or in any way in connection with the Additional MF Works Activities the Additional MF Works or this deed up to the date of submission of the Final Payment Claim in respect of all Claims included in the Final Payment Claim and Second Statement of Outstanding Claims.

11.12 Release after Final Payment Claim

The Supplier releases TfNSW from any Claim in respect of any fact, matter or thing arising out of, or in any way in connection with, the Additional MF Works Activities, the Additional MF Works or this deed that occurred prior to the date of submission of the Final Payment Claim, except for any Claim which:

- (a) has been included in the Final Payment Claim or Second Statement of Outstanding Claims which is given to TfNSW's Representative within the time required by, and in accordance with, paragraph 11.11; and
- (b) has not been barred under another provision of this deed.

11.13 Not used**11.14 Correction of Payment Schedules**

TfNSW's Representative may, in any payment schedule:

- (a) correct any error; and
- (b) modify any assumptions or allowances made,

in any previous payment schedule issued by TfNSW's Representative.

11.15 Not used**11.16 SOP Act**

- (a) The Supplier must ensure that a copy of any written communication it delivers to TfNSW of whatever nature in relation to the SOP Act, including a payment claim under the SOP Act, is provided to TfNSW's Representative at the same time.
- (b) In responding to the Supplier under the SOP Act, TfNSW's Representative acts as the agent of TfNSW and TfNSW authorises TfNSW's Representative to issue payment schedules on its behalf (without affecting TfNSW's right to issue a payment schedule itself).
- (c) If, within the time allowed by the SOP Act for the service of a payment schedule by TfNSW, TfNSW does not:
 - (i) serve the payment schedule itself; or
 - (ii) notify the Supplier that TfNSW's Representative does not have authority from TfNSW to issue the payment schedule on its behalf,

then a payment schedule issued by TfNSW's Representative under this deed which relates to the period relevant to the payment schedule will be taken to be the payment schedule for the purpose of the SOP Act (whether or not it is expressly stated to be a payment schedule).

- (d) If an adjudication occurs under the SOP Act and TfNSW has paid an adjudicated amount to the Supplier:
 - (i) the amount will be taken into account by TfNSW's Representative in issuing a payment schedule under paragraph 11.3;
 - (ii) if it is subsequently determined pursuant to the deed that the Supplier was not entitled under the deed to payment of some or all of the adjudicated amount that was paid by TfNSW ("**overpayment**"), the overpayment will be a debt due and payable by the Supplier to TfNSW which the Supplier must pay to TfNSW upon demand and in respect of which the Supplier is not entitled to claim or exercise any set-off, counterclaim, deduction or similar right of defence; and
 - (iii) if the adjudicator's determination is quashed, overturned or declared to be void, the adjudicated amount then becomes a debt due and payable by the Supplier to TfNSW upon demand and in respect of which the Supplier is not entitled to claim or exercise any set-off, counterclaim, deduction or similar right of defence.

- (e) For the purposes of section 17(3) of the SOP Act the Supplier irrevocably chooses the Resolution Institute, as the "authorised nominating authority" (as that term is defined in the SOP Act) for any adjudication application it may make under the SOP Act in respect of the subject matter of this deed.
- (f) Without limiting clauses 24, 25.13 and paragraph 5.5 of Schedule J1 of this deed, TfNSW may withhold any amount that is less than or equal to the amount claimed to be owed under a payment withholding request served on TfNSW pursuant to Division 2A of Part 3 of the SOP Act.
- (g) If TfNSW withholds from money otherwise due to the Supplier any amount that is less than or equal to the amount claimed to be owed under a payment withholding request served on TfNSW pursuant to Division 2A of Part 3 of the SOP Act, then:
 - (i) TfNSW may plead and rely upon Division 2A of Part 3 of the SOP Act as a defence to any claim for the money by the Supplier from TfNSW; and
 - (ii) the period during which TfNSW retains money due to the Supplier pursuant to an obligation under Division 2A of Part 3 of the SOP Act will not be taken into account for the purpose of determining:
 - A. any period for which money owed by TfNSW to the Supplier has been unpaid; and
 - B. the date by which payment of money owed by TfNSW to the Supplier must be made.
- (h) The Supplier agrees not to commence proceedings to recover any amount withheld by TfNSW pursuant to a payment withholding request served on TfNSW pursuant to Division 2A of Part 3 of the SOP Act.
- (i) Any amount paid by TfNSW pursuant to section 26C of the SOP Act will be a debt due from the Supplier to TfNSW.
- (j) If TfNSW withholds money pursuant to a payment withholding request served on TfNSW pursuant to Division 2A of Part 3 of the SOP Act and the Supplier:
 - (i) pays the amount claimed to be due under the adjudication application to which the payment withholding claim relates; or
 - (ii) becomes aware that the adjudication application to which the payment withholding claim relates has been withdrawn,
 then the Supplier must so notify TfNSW within 3 Business Days of the occurrence of the event in paragraphs 11.16(j)(i) or 11.16(j)(ii) above (as applicable) by providing to TfNSW a statement in writing in the form of a statutory declaration together with such other evidence as TfNSW may require evidencing that the amount has been paid or the adjudication application has been withdrawn (as the case may be).

11.17 Not used

12. Additional MF Works Practical Completion

12.1 Progressive Inspection and Testing

At any time prior to Additional MF Works Practical Completion of the Additional MF Works or a Separable Portion, TfNSW's Representative may direct that any materials or work forming part of the Additional MF Works Activities in respect of the Additional MF Works or that Separable Portion be tested. The Supplier must provide such assistance, documentation, records, personnel (including Subcontractors) and samples and make accessible such parts of the Additional MF Works Activities or Additional MF Works as may be required. On completion of any test the Supplier must make good the Additional MF Works Activities or Additional MF Works so that they fully comply with this deed.

The TfNSW's Representative may direct that any part of the Additional MF Works Activities or the Additional MF Works must not be covered up or made inaccessible without TfNSW's Representative's prior approval.

The tests prescribed in this deed must be conducted by the Supplier as and when provided for in this deed, or may be conducted by TfNSW's Representative or a person (that may include the Supplier) nominated by TfNSW's Representative.

Any testing required to be done by an independent authority must be carried out by an authority recognised by the Joint Accreditation System of Australia and New Zealand.

Unless otherwise stated in this deed before conducting a test under this deed TfNSW's Representative or the Supplier must give not less than 2 Business Days' notice in writing to the other of the time, date and place of the test. If the other party does not then attend, the test may nevertheless proceed.

Without prejudice to any other rights or remedies under this deed, if the Supplier or TfNSW's Representative delays in conducting a test, the other, after giving reasonable notice in writing of intention to do so, may conduct the test.

Each party must promptly make the results of tests available to the other and to TfNSW's Representative.

Where TfNSW's Representative directs that materials or work be tested, the costs of and incidental to testing must be valued under in accordance with Schedule E3 of this deed and must be borne by TfNSW or paid by TfNSW to the Supplier unless:

- (a) this deed provides that the Supplier must bear the costs or the test is one which the Supplier was required to conduct other than pursuant to a direction under this paragraph 12.1;
- (b) the test shows that the material or work is not in accordance with this deed; or
- (c) the test is in respect of a part of the Additional MF Works Activities or the Additional MF Works covered up or made inaccessible without TfNSW's Representative's prior approval where such was required.

Where the extra costs are not to be borne by TfNSW, they will be borne by the Supplier and will be a debt due from the Supplier to TfNSW or paid by the Supplier to TfNSW on demand.

12.2 Not used

12.3 Not used**12.4 Unilateral Issue of Additional MF Works Practical Completion Certificate**

If at any time a notice required to be given by the Supplier to TfNSW's Representative under paragraph 2.2 of Schedule J1 is not given by the Supplier yet TfNSW's Representative is of the opinion that Additional MF Works Practical Completion of the Additional MF Works or a Separable Portion has been achieved, TfNSW's Representative may at any time and for any reason in its absolute discretion issue an Additional MF Works Practical Completion Certificate under paragraph 2.3(a)(i) of Schedule J1 for the Additional MF Works or the Separable Portion.

12.5 Hand Over upon Additional MF Works Practical Completion

The Supplier acknowledges that TfNSW may require a progressive handover of the Additional MF Works and that this handover will take place by the Supplier handing over each Separable Portion once that Separable Portion has reached Additional MF Works Practical Completion. The Principal's obligations under paragraph 3.1(b) in respect of the MF Site will then cease in respect of so much of the MF Site, access to which was provided for that Separable Portion which is handed over to TfNSW.

12.6 Part of the Additional MF Works or a Separable Portion

- (a) Without limiting paragraph 12.6(b), Separable Portions may be created by TfNSW's Representative issuing a written direction to the Supplier clearly identifying for each Separable Portion, the:
 - (i) portion of the Additional MF Works;
 - (ii) Date for Additional MF Works Practical Completion; and
 - (iii) respective amounts for security, delay damages and liquidated damages (which will unless otherwise stated in TfNSW's Representative's direction all be calculated pro-rata according to the ratio of TfNSW's Representative's valuation of the Separable Portion to the Additional MF Works Contract Value).
- (b) Without limiting paragraph 12.6(a), TfNSW may, after the Supplier is given written notice by TfNSW's Representative, occupy or use any part of the Additional MF Works or a Separable Portion although the whole of the Additional MF Works or the Separable Portion (as the case may be) has not reached Additional MF Works Practical Completion.
- (c) If TfNSW's Representative gives a notice under paragraph 12.6(b):
 - (i) TfNSW must allow the Supplier reasonable access to the part of the Additional MF Works or the Separable Portion referred to in the notice and being occupied or used by TfNSW, to enable the Supplier to bring the Additional MF Works or the relevant Separable Portion of which the area being occupied or used forms part to Additional MF Works Practical Completion; and
 - (ii) this will not otherwise limit or affect the obligations of the parties under this deed, including the obligation of the Supplier to achieve Additional MF Works Practical Completion of the Additional MF Works or the relevant Separable Portion of which the area being occupied or used

forms part, by the relevant Date for Additional MF Works Practical Completion.

12.7 Liquidated Damages for Delay in Reaching Additional MF Works Practical Completion

- (a) Subject to paragraph 12.7(d), if Additional MF Works Practical Completion of the Additional MF Works or a Separable Portion has not occurred by the Date for Additional MF Works Practical Completion for the Additional MF Works or the Separable Portion, the Supplier must pay TfNSW liquidated damages at the rates stated in Schedule 1 for every day after the Date for Additional MF Works Practical Completion of the Additional MF Works or the Separable Portion up to and including:
 - (i) the Date of Additional MF Works Practical Completion of the Additional MF Works or the Separable Portion; or
 - (ii) the date that this deed is terminated under clauses 33 or 34 of this deed.

whichever is first.
- (b) The parties:
 - (i) agree that the amount of liquidated damages provided for in Schedule 1 constitutes a reasonable and good faith pre-estimate of the anticipated or actual loss or damage that will be incurred by TfNSW as a result of Additional MF Works Practical Completion of the Additional MF Works or a Separable Portion not occurring on or before the relevant Date for Additional MF Works Practical Completion (except for amounts referred to in paragraph 12.7(c));
 - (ii) desire to avoid the difficulties of proving damages in connection with such failure and agree that the liquidated damages payable by the Supplier in accordance with paragraph 12.7(a) are reasonable and do not constitute nor are they intended to be a penalty; and
 - (iii) agree that the amount of liquidated damages payable by the Supplier under paragraph 12.7(a) will be recoverable from the Supplier as a debt immediately due and payable to TfNSW.
- (c) If paragraph 12.7(a) is found for any reason to be void, invalid or otherwise inoperative so as to disentitle TfNSW from recovering liquidated damages, TfNSW will be entitled to recover general damages as a result of the Supplier failing to achieve Additional MF Works Practical Completion of the Additional MF Works or a Separable Portion by the relevant Date for Additional MF Works Practical Completion, but the Supplier's liability for such damages (whether per day or in aggregate) will not be any greater than the liability which the Supplier would have had if paragraph 12.7(a) had not been void, invalid or otherwise inoperative.
- (d) The Supplier's aggregate liability under paragraphs 12.7(a) and 12.7(c) is limited to the Liquidated Damages Cap Additional MF Works.

12.8 Final Completion of Additional MF Works

- (a) The Supplier must give TfNSW's Representative written notice no less than 45 Business Days before it anticipates completing all the work to be completed prior to achieving Final Completion of Additional MF Works.
- (b) TfNSW's Representative and the Supplier's Representative must, no earlier than 20 Business Days before the end of the latest Additional MF Works Defects Liability Period, jointly inspect the Additional MF Works at a mutually convenient time.
- (c) Following the joint inspection under paragraph 12.8(b), TfNSW's Representative must issue a notice to TfNSW and the Supplier containing a list of the items that are apparent and it believes must be completed before Final Completion of Additional MF Works is achieved.
- (d) If TfNSW's Representative issues a notice under paragraph 12.8(c), the Supplier must continue to bring the Additional MF Works to Final Completion of Additional MF Works and thereafter when the Supplier considers it has achieved Final Completion of Additional MF Works, the Supplier must notify TfNSW's Representative in writing by means of a Contractor's Certificate of Final Completion of Additional MF Works in accordance with Schedule 22. Thereafter, TfNSW's Representative and the Supplier's Representative must jointly inspect the Additional MF Works at a mutually convenient time.
- (e) Following the joint inspection under paragraph 12.8(d), TfNSW's Representative must within 15 Business Days of receipt of a notice under paragraph 12.8(d), or of receipt of a notice under paragraph 12.8(f), issue a notice to TfNSW and the Supplier:
 - (i) if satisfied that Final Completion of Additional MF Works has been achieved, stating the date on which TfNSW's Representative determines Final Completion of Additional MF Works was achieved; or
 - (ii) if not satisfied that Final Completion of Additional MF Works has been achieved:
 - A. containing a list of the items which it believes must be completed before Final Completion of Additional MF Works is achieved; or
 - B. stating that it believes the Supplier is so far from achieving Final Completion of Additional MF Works that it is not practicable to issue a list as contemplated by paragraph 12.8(e)(ii)A.
- (f) If TfNSW's Representative issues a notice under paragraph 12.8(e)(ii)A or paragraph 12.8(e)(ii)B, the Supplier must continue to proceed to bring the Additional MF Works to Final Completion of Additional MF Works and thereafter when it considers it has achieved Final Completion of Additional MF Works of the Additional MF Works the Supplier must notify TfNSW's Representative in writing after which the second sentence of paragraph 12.8(d), paragraph 12.8(e) and this paragraph 12.8(f) will reapply.

12.9 Effect of Additional MF Works Practical Completion Certificate or Final Completion of Additional MF Works

If a notice is issued under paragraph 12.8(e)(i) or if an Additional MF Works Practical Completion Certificate is issued under paragraph 2.3 of Schedule J1 this will not:

- (a) constitute approval by TfNSW or TfNSW's Representative of the Supplier's performance of its obligations under this deed;
- (b) be taken as an admission or evidence that the Additional MF Works or the Separable Portion complies with the requirements of this deed; or
- (c) prejudice any rights or powers of TfNSW or TfNSW's Representative.

13. Not used

14. Not used

15. Not used

16. General

16.1 Not used

16.2 Not used

16.3 Not used

16.4 Not used

16.5 Not used

16.6 Not used

16.7 Not used

16.8 Not used

16.9 Not used

16.10 Not used

16.11 Not used

16.12 Not used

16.13 Not used

16.14 Not used

16.15 Not used

16.16 Not used

16.17 Not used

16.18 Not used

16.19 Not used

16.20 Not used

16.21 Not used

16.21A Not used

16.22 Not used

16.23 Not used

16.24 Not used

16.25 Not used

16.26 Not used

16.27 Australian Government Requirements

This paragraph 16.27 applies if so stated in Schedule 1.

(a) The Supplier:

(i) declares as at the date of Amendment Deed No. 2; and

(ii) must ensure that during the term of this deed,

that in relation to the Additional MF Works and Temporary Works, the Supplier and each of their Subcontractors and each Related Entity:

(iii) complies with and acts consistently with, the Building Code;

(iv) meets the requirements of section 11 of the Building Code;

(v) is not subject to an Exclusion Sanction or a formal warning that any further failure to comply with the Building Code may result in the imposition of an Exclusion Sanction;

(vi) has not had been the subject of an adverse decision, direction or order or failed to comply with a decision, direction or order, made by a court or tribunal for a breach of the BCI(IP) Act, a designated building law, work health and safety law, competition and consumer law or the *Migration Act 1958* (Cth) (other than a decision, direction or order that is stayed or has been revoked);

(vii) has not been required to pay any amount under an adjudication certificate or owed any unsatisfied judgement debts to a Building Supplier or Building Industry Participant;

(viii) only uses products that comply with the relevant Australian standards published by, or on behalf of, Standards Australia;

(ix) unless approved otherwise by the ABC Commissioner, is not excluded from performing Building Work funded by a state or territory government; and

- (x) complies with the Workplace Relations Management Plan approved by the ABCC in accordance with Part 6 of the Building Code.
- (b) The Supplier acknowledges and agrees that compliance with the Building Code does not relieve the Supplier from any responsibility or obligation under this deed, or from liability from any Defect arising from compliance with the Building Code.
- (c) The Supplier must promptly:
 - (i) notify the ABCC of:
 - A. any breach or suspected breach of the Building Code as soon as practicable but no later than 2 Business Days after becoming aware of the breach or suspected breach and advise the ABCC of the steps proposed to be taken by the Supplier to rectify the breach; and
 - B. the steps taken to rectify any breach of the Building Code with 14 days of providing a notification under paragraph 16.27(c)(i)A; and
 - (ii) give TfNSW a copy of any notification given by the Supplier to the ABCC under paragraph 16.27(c)(i) and respond to any requests for information by TfNSW concerning matters related to the Building Code so as to enable TfNSW to comply with its obligations under section 28 of the Building Code.
- (d) The Supplier acknowledges the powers and functions of the ABC Commissioner and the ABCC under the BCI(IP) Act and the Building Code and must ensure that it (and must procure that its Subcontractors and each Related Entity) complies with any requests made by the ABCC and the ABC Commissioner within those powers and functions, including requests:
 - (i) for entry under section 72 of the BCI(IP) Act;
 - (ii) to interview any person under section 74 of the BCI(IP) Act;
 - (iii) to produce records or documents under sections 74 and 77 of the BCI(IP) Act; and
 - (iv) for information concerning matters relating to the Building Code under subsection 7(c) of the Building Code.
- (e) The Supplier must only enter into a Subcontract for any aspect of the Additional MF Works, the Temporary Works or the Additional MF Works Activities if:
 - (i) the Subcontractor has submitted a Declaration of Compliance including the further information outlined in Attachment A to the Declaration of Compliance, which the Supplier agrees is substantially in the same form as the model declaration of compliance applicable to contractors and subcontractors in relation to the Building Code; and
 - (ii) the Subcontract with the Subcontractor includes an equivalent clause to this paragraph 16.27.

- (f) The Supplier must provide the Commonwealth, TfNSW and the ABCC with any Subcontractor's Declaration of Compliance referred to in paragraph 16.27(e)(i) promptly upon request.
- (g) The Supplier must maintain adequate records of the compliance with the Building Code by:
 - (i) the Supplier;
 - (ii) any Subcontractors; and
 - (iii) any Related Entity of the Supplier.
- (h) In this paragraph 16.27:
 - (i) **"ABC Commissioner"** means the Australian Building and Construction Commissioner referred to in subsection 15(1) of the BCI(IP) Act;
 - (ii) **"ABCC"** means the body referred to in subsection 29(2) of the BCI(IP) Act;
 - (iii) **"BCI(IP) Act"** means the Building and Construction Industry (Improving Productivity) Act 2016 (Cth);
 - (iv) **"Building Contractor"** has the same meaning as in the BCIIIP Act;
 - (v) **"Building Industry Participant"** has the same meaning as in the BCIIIP Act;
 - (vi) **"Building Code"** means the *Code for the Tendering and Performance of Building Work 2016* in force pursuant to section 34 of the BCIIIP Act available at: <https://www.legislation.gov.au/Details/F2017C00668>.
 - (vii) **"Building Work"** has the same meaning as in subsection 3(4) of the Building Code;
 - (viii) **"Declaration of Compliance"** means a declaration in substantively the same form as the model declaration of compliance applicable to contractors and subcontractors in relation to the Building Code, including the further information outlined in 'Attachment A' to that model declaration of compliance;
 - (ix) **"Enterprise Agreement"** has the same meaning as in the Fair Work Act 2009;
 - (x) **"Exclusion Sanction"** has the same meaning as in subsection 3(3) of the Building Code; and
 - (xi) **"Related Entity"** has the same meaning as in subsection 3(2) of the Building Code.

16.28 Chain of responsibility legislation

- (a) Without limiting clause 6.1 of this deed, to the extent heavy vehicles are used in the performance of the Additional MF Works Activities, the Supplier:

- (i) acknowledges that it is a primary duty holder under the COR Laws with responsibility for developing COR Systems;
 - (ii) must ensure that:
 - A. any heavy vehicles are appropriately maintained with loads that do not exceed vehicle mass or dimension limits and are appropriately secured;
 - B. operators carrying freight containers have a valid Container Weight Declaration; and
 - C. drivers do not exceed speed limits or regulated driving hours, do not drive while impaired by fatigue and observe minimum rest requirements;
 - (iii) must proactively provide reasonable assistance to TfNSW's Representative to enable TfNSW (and any of TfNSW's personnel) to satisfy its duties and responsibilities under the COR Laws;
 - (iv) must obtain and maintain, and ensure that each of its personnel or Subcontractors obtains and maintains, all approvals required to enable the applicable activity, function or task to be undertaken lawfully;
 - (v) must undertake any audits or monitoring as requested by TfNSW's Representative to demonstrate compliance with this paragraph 16.28; and
 - (vi) warrants that it is familiar with and has the capability and resources to comply with the COR Laws and ensure that its personnel and Subcontractors comply with all COR Laws.
- (b) Each Subcontract that the Supplier enters into must include provisions expressly requiring the Subcontractor to comply with the COR Laws and each further Subcontract that a Subcontractor enters into must also contain a clause to the same effect which is binding on the Subcontractor.
- (c) Where used in this paragraph 16.28:
- (i) **"COR Laws"** means any section of the Heavy Vehicle Law under which the Supplier is "a party in the chain of responsibility" (within the meaning given to that term under the Heavy Vehicle Law);
 - (ii) **"COR Systems"** means policies, procedures, standards, training and systems designed to ensure, so far as is reasonably practicable, compliance with the COR Laws;
 - (iii) **"Heavy Vehicle Law"** means the:
 - A. Heavy Vehicle National Law (NSW) within the meaning of that term under the Heavy Vehicle (Adoption of National Law) Act 2013 (NSW); and
 - B. regulations in force under the Heavy Vehicle National Law (NSW) as applied (with modifications) under the Heavy Vehicle (Adoption of National Law) Act 2013 (NSW) as amended, reproduced or updated from time to time; and

- (iv) terms which are defined in the Heavy Vehicle Law have the meaning given in the Heavy Vehicle Law.

16.29 Not used

17. Not used

18. Not used

19. Codes of Conduct

- (a) The Supplier must at all times perform the Additional MF Works in compliance with the Codes of Conduct.
- (b) Prior to the engagement of any Subcontractor by the Supplier, the Supplier must obtain a written acknowledgement from such Subcontractor that it has received, read, understood and will comply with the Codes of Conduct.

20. Not used

Schedule 1 Contract Particulars

Date for Additional MF Works Practical Completion:
(Clause 1.1 of this Deed)

Date for Additional MF Works Practical Completion of the Separable Portion

Separable Portion 1:

Construction of road 5

Separable Portion 2:

Construction of the additional storage capacity through construction of a warehouse

Separable Portion 3:

Installation of an additional train lifting jack

Separable Portion 4:

Construction of a sound proofed enclosure to the graffiti removal area

Additional MF Works Defects Liability Period:
(Paragraph 1.1)

Project Plans
(Clause 1.1 of this deed)

1. Construction Environmental Management Plan,
2. Project Work Health and Safety Management Plan
3. Project Training Management Plan.

The MF Site
(Paragraphs 1.1 and 3.10)

That part of the Maintenance Facility Site on which the Additional MF Works are to be constructed.



The principal contractor under the WHS legislation is:
(Paragraph 6 of Schedule J1)

Person

UGL Engineering Pty Limited (ABN 96 096 365 972)

Period of Appointment

During the periods in which the Supplier has access to the MF Site or a part of the MF Site

MF Site access dates: (Paragraph 3.1(a) and 3.1(b)(i))	Date of the issue of the Notice to Proceed
MF Site access preconditions: (Paragraph 3.1(c)(ii)E)	Nil
Condition Surveys exist for the following properties: (Paragraph 3.11)	None
Number of copies of Technical Documents and survey information: (Paragraph 5.5)	4 (3 bound and 1 unbound) plus one copy in electronic format
Parts of the MF Site within which the Additional MF Works must be located: (Paragraphs 3.10 and 7.6(b)(i))	within the Maintenance Facility Site
New Additional MF Works Defects Liability Period: (Paragraph 8.6)	
Supplier's Personnel (Paragraph 2.1(d))	Refer to Schedule A7 of this deed.
Prior notice in respect of additional power isolations (clauses 7.12(a)(i) and 7.12(a)(ii))	<ul style="list-style-type: none"> • 26 weeks prior notice in respect of each power isolation that falls on a weekend. • 20 weeks prior notice in respect of each power isolation that falls on a weeknight or which requires a power isolation only.
Supplier's programming obligations (Paragraph 10.2(b))	Within 10 Business Days of the date of issue of the Notice to Proceed
Causes of delay entitling Supplier to extension of time: (Clause 29.1 of this deed)	Relief Events under clause 29.1 of this deed
Percentage for compression (paragraph 10.18(b)(i)(B))	10%
Liquidated damages: (Paragraph 12.7(a))	
Applicability of Building Code: (Paragraph 16.27)	Paragraph 16.27 does apply.

Schedule 2 Information

Design Inputs Requirements

Table B1: HV and Traction Power

Inputs / Packages	Description
DP19.3 - Electrical – Traction Substation 1500V report	New Intercity Fleet Maintenance Facility – Traction Substation 1500 V
DP19.2 Electrical – HV Power site-wide report	New Intercity Fleet Maintenance Facility – Kangy Angy HV Power site wide
DP04 CSR	New Intercity Fleet Maintenance Facility – Site Wide CSR
DP14 Permanent Way	New Intercity Fleet Maintenance Facility – Site Wide Permanent way
DP15.0 & 15.1 Overhead Wiring	New Intercity Fleet Maintenance Facility – Railway Overhead Wiring
DP15.2 OHW -Retractable Overhead Conductor system	New Intercity Fleet Maintenance Facility – Railway Retractable Overhead Wiring
DP19.5 – Earthing and Bonding	New Intercity Fleet Maintenance Facility – Earthing & Bonding
DP20.8 Main Building structure	New Intercity Fleet Maintenance Facility – Main Facility Building - Structural
DP19.4 Electrical - LV power site wide	New Intercity Fleet Maintenance Facility – LV Power Site Wide
DP21.3 Traction substation D & c Elec. Building	New Intercity Fleet Maintenance Facility – Kangy Angy Traction SS
DP19.2 Electrical – HV Power site-wide	New Intercity Fleet Maintenance Facility – Kangy Angy HV Power site wide

Table B2: Overhead Wiring

Inputs	Description
OHW Detailed survey in dgn or dwg	The Supplier to conduct their own survey.
OHW Detailed survey in spreadsheet	The Supplier to conduct their own survey.
Overhead Wiring Layouts	Both PDF and CAD Model files
Retractable Overhead Wiring Layouts	Both PDF and CAD Model files
1500 V DC Sectioning Diagram	Both PDF and CAD Model files
Existing Structure Diagrams	Both PDF and CAD Model files
Existing Tension Length Diagrams	Both PDF and CAD Model files
Existing DSS (Services) Information	The Supplier to engage Sydney Trains, as custodians of the DSS, for the provision of this information.
Existing Geotechnical information	Existing Geotechnical information of the founding material on site.
Existing Switching and feeding drawings	Both PDF and CAD Model files.

Inputs	Description
Existing OHW Cross sections	Both PDF and CAD Model files. Existing cross section drawings including OHW arrangement details covering the scope of works
Existing OHW Profiles	Both PDF and CAD Model files
As Built Cantilever Data Sheets	Standing Roads 1 to 4
As Built Dropper Tables	Standing Roads 1 to 4
As Built information for Overhead Wiring package DP15.0 & DP15.1.	Both PDF and CAD Model files
As Built information for Retractable Overhead Wiring package DP15.2.	Both PDF and CAD Model files
As Built information for Main Facility Building – Structural Package	Both PDF and CAD Model files
As Built information for Site Wide CSR Package	Both PDF and CAD Model files
As Built information for Main Facility Building – Architectural Package	Both PDF and CAD Model files
F+F Retractable Conductor rail design* Manual F+F system drawings * F+F component drawings * F+F Conductor rail installation & maintenance manual*	Both PDF and CAD files *F+F supplier will need to be engaged during the detailed design

Table B3: Earthing and Bonding

Inputs / Packages	Description
Existing 66kV and 11kV substation CIT test report	For input into system model of connected earthing system to the new 11kV substation
Existing facility 1500V bonding / isolation and continuity test report if available	Inform the effectiveness of any existing bonding and isolation measures
Updated 11kV and 66kV network earth fault levels and fault clearance times from Sydney Trains	Updated parameters for EPR assessment of new 11kV substation
Up to date 1500V DCCB settings from Sydney Trains	Updated parameters for bonding circuit calculations to confirm tripping of appropriate DCCBs The Supplier to engage Sydney Trains, as custodians of the 1500V DCCB settings, for the provision of this information.
Earthing, bonding, electrolysis and lightning protection philosophy for operating of the maintenance facility	Standalone document as noted in the original Kangy Angy Maintenance Facility Works Brief 4.13.2(a)(v)

Schedule 3 Not used

Schedule 4 Not used

Schedule 5 Not used

Schedule 6 Not used

Schedule 7 Not used

Schedule 8 Not used

Schedule 9 Not used

Schedule 10 Not used

Schedule 11 Not used

Schedule 12 Not used

Schedule 13 Property Owner's Certificate

(Paragraph 3.4(c)(ii))

This deed poll is made the _____ day of _____ 20____

To: **Transport for NSW (ABN 18 804 239 602)** of 7 Harvest Street, Macquarie Park NSW 2113 and **Transport Asset Holding Entity, formerly known as Rail Corporation New South Wales (ABN 59 325 778 353)** of 20-44 Ennis Road, Milsons Point NSW 2061 ("Principal")

By: [_____].

Property Address:

1. I/We confirm that the following works has been carried out and completed on my/our property to my/our satisfaction:

[Insert description of works on property and property]
2. I/We confirm that our land has been rehabilitated and all damage and degradation on it repaired.
3. I/We release the Principal from all claims and actions which I/we may have arising out of or in connection with the works referred to in paragraph 1.
4. This deed poll may not be revoked or otherwise modified without the prior written consent of the Principal.

Executed as a deed poll.

Signed sealed and delivered

by _____ in the presence
of: _____

Signature

Signature of Witness

Name of Witness in full

Schedule 14 Not used

Schedule 15 Not used

Schedule 16 Not used

Schedule 17 Not used

Schedule 18 Not used

Schedule 19 Supplier's Certificate of Design Compliance

(Paragraph 5.3)

SUPPLIER'S CERTIFICATE OF DESIGN COMPLIANCE					
SUPPLIER:					
<u>DESIGN PACKAGE</u>	DESCRIPTION				
_____	_____				
_____	_____				
_____	_____				
_____	_____				
_____	_____				
(Attach schedule of work packages if insufficient space)					
<p>I certify that the design for the packages or part thereof described above has been completed to the extent indicated above in accordance with the requirements of the deed between TfNSW, TAHE and the Supplier, and complies with the requirements of the deed, subject to the register of outstanding minor design non-conformances and unresolved issues attached.</p> <p>I further certify that the attached compliance records as required by the deed reflect the true status of the design packages.</p> <table><tr><td>SIGNATURE: _____ (Supplier's Representative)</td><td>SIGNATURE: _____ (Supplier's Subcontractor)</td></tr><tr><td>DATE: _____</td><td>DATE: _____</td></tr></table>		SIGNATURE: _____ (Supplier's Representative)	SIGNATURE: _____ (Supplier's Subcontractor)	DATE: _____	DATE: _____
SIGNATURE: _____ (Supplier's Representative)	SIGNATURE: _____ (Supplier's Subcontractor)				
DATE: _____	DATE: _____				

Schedule 20 Supplier's Certificate of Construction Compliance

(Paragraphs 7.1(c))

SUPPLIER'S CERTIFICATE OF CONSTRUCTION COMPLIANCE	
SUPPLIER:	
<u>WORK PACKAGE</u> 	<u>DESCRIPTION</u>
<i>(Attach schedule of work packages if insufficient space)</i>	
<p>I certify that the procurement/construction of the work packages or part thereof described above have been completed to the extent indicated above in accordance with the requirements of the deed between TfNSW, TAHE and the Supplier, and comply with the requirements of the deed, subject to the register of outstanding minor construction non conformance and unresolved issues attached.</p> <p>I further certify that the attached compliance records as required by the deed reflect the true status of the work packages.</p>	
NAME: _____ SIGNATURE: _____ DATE: / / <div style="text-align: center; margin-top: -10px;"><i>(Supplier's Representative)</i></div>	

Schedule 21 Not used

Schedule 22 Supplier's Certificate of Final Completion of Additional MF Works

(Paragraph 12.8(d))

SUPPLIER'S CERTIFICATE OF FINAL COMPLETION OF ADDITIONAL MF WORKS	
SUPPLIER:	
I hereby certify that Final Completion of Additional MF Works has been achieved by[the Supplier] in accordance with the requirements of the deed (including all Variation Orders detailed in (a) below) between TfNSW, TAHE and the Supplier.	
I further certify that:	
(a)	All Variation Orders (including concessions) are listed in the attached compliance register.
(b)	All identified Defects (including any non-conformities have been satisfactorily rectified and their documentation closed out.
(c)	All required documentation has been submitted.
(d)	All notices regarding system deficiencies have been satisfactorily closed out.
I further certify that the attached compliance records as required by the deed reflect the true status of the Separable Portion/the Additional MF Works.	
SIGNATURE: _____ (Supplier's Representative)	DATE: / / /

Schedule 23 Not used

Schedule 24 Not used

Schedule 25 Not used

Schedule 26 Not used

Schedule 27 Not used

Schedule 28 Not used

EXHIBIT A TfNSW STANDARD REQUIREMENTS

The TfNSW Standard Requirements comprises the following documents:

- (a) TfNSW Standard Requirement (Works Contracts) – Applicable to the More Trains More Services Program; and
- (b) TfNSW Standard Requirements (Works Contracts) ANNEXURE A – Applicable to Infrastructure and Place, Divisional Management System.



TfNSW Standard Requirements (Works Contracts)

Applicable to the More Trains More Services Program

Process owner: Director Commercial

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Document History

Version	Date of approval	Doc. control no.	Summary of change
1.0	7 September 2019	6236171_6	First release for MTMS Incentivised Delivery Agreement Request for Proposal
2.0	11 October 2019	6236171_8	Addendum 1 item 3.12 - Updated to correct references to Reference Documents
3.0	21 February 2020	6236171_10	Final IDA Version – Addendum 1 tracked changes accepted

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1. Introduction

This TfNSW Standard Requirements (TSR) document describes TfNSW's requirements and processes for the management of the IDE Activities.

The IDE must comply with the requirements detailed in this TSR, including its Annexures unless noted otherwise in Annexure A - Additional Project Requirements.

Without limiting or otherwise restricting the requirements of the Works Brief, the IDE must comply with the requirements of the Reference Documents listed in Annexure H of this TSR.

Wherever used in this TSR, capitalised words and phrases have their general dictionary meaning unless otherwise noted in Schedule 1 of the IDA or Annexure B of this TSR.

2. Project Administration

2.1. Contract Management Plan (CMP)

- (a) The IDE must have in place, maintain and consistently apply until Final Completion, a CMP with sections and Sub plans describing how the project will be delivered. The CMP must include the content described in Annexure C.
- (b) The IDE Activities must be carried out in accordance with the CMP.
- (c) The timing and frequency for the initial and subsequent submissions of the CMP to the Principal's Representative for review in accordance with the Agreement, is nominated in Annexure A of this TSR.
- (d) The CMP must also address any additional requirements for the CMP set out in the Works Brief.

2.2. IDE's Program

Without limiting the Agreement, the IDE's Program and all other programs must comply with the requirements of Annexure D. The timing for submission and updates of the IDE's Program is nominated in Annexure A of this TSR. The IDE's Program must also include any additional requirements for the IDE's Program set out in the Works Brief.

2.3. Document Management

The IDE must use the nominated electronic document management tool listed in Annexure A.

2.4. Daily Site Diary

Unless noted otherwise in Annexure A, the IDE:

- (a) must submit a daily site diary for every working day, in the format specified in '[TfNSW Daily Site Diary FT-551](#)'; and
- (b) must submit the daily site diary to the Principal's Representative within 1 Business Day of every working day.

2.5. Monthly Reporting

Unless noted otherwise in Annexure A, the IDE must prepare a progress report on a monthly basis which complies with Annexure G. The IDE must submit the progress report to the Principal's Representative for review in accordance with the Agreement.

2.6. Audit

- (a) Should TfNSW establish a Compliance Working Group (**CWG**), the IDE must provide suitably competent attendees and resources until Final Completion.
- (b) The IDE must attend the CWG meetings and participate efficiently to ensure the success of the CWG as well as ensuring that all audits are coordinated, lead and managed through the CWG.
- (c) TfNSW may also utilise independent auditors to assist with its inspections, including audit and surveillance.
- (d) When any audit or inspection is to be undertaken by TfNSW, the IDE must:
 - (i) make available, all records and Documents;
 - (ii) make suitable facilities available to accommodate the audit and audit team; and
 - (iii) provide all reasonable assistance during the audit including the participation of representatives from the IDE and Subcontractor organisations.
- (e) The IDE must ensure that all recommendations arising from any audit are actioned in accordance with appropriate corrective and preventive systems in a timely and agreed manner.
- (f) The IDE must provide the Principal's Representative with a program of audits and the audit results when requested.

2.7. Training, Competence and Reference Checks

The IDE must ensure that all personnel engaged in carrying out the IDE Activities:

- (a) are inducted, appropriately trained and made aware of the requirements of the Agreement with particular focus on incident management and reporting procedures, community enquiries or complaints and media enquiries, prior to commencing work or performing any function on the Site;
- (b) maintain records of all training and inductions carried out;
- (c) attend any training provided by TfNSW specified in Annexure A;
- (d) are subject to police criminal record checks, when directed by the Principal's Representative. The IDE must promptly notify the Principal's Representative if any offences have been recorded; and
- (e) hold certificates of competency for the operation of plant and are assessed and deemed competent to operate the plant for its intended use to the satisfaction of the IDE.

2.8. Incident Management

- (a) The IDE must provide immediate (no later than 1 hour after the incident occurs) verbal notification to the Principal's Representative of any incident or Issue following the agreed protocol.
- (b) Incidents are to be reported using the TfNSW classification matrix must be reported as soon as possible (no later than the completion of the shift) using the TfNSW InControl Incident Management System (INX). All incidents that are notifiable to a regulator will be recorded in INX, including the report reference number/code, regardless of its rating.



- (c) All incidents that involve a member of public, regardless of rating, must be reported by the IDE in INX. All incidents must be investigated by the IDE and closed out within 2 days. The IDE must seek exemption from the Principal's Representative where this time frame cannot be met.
- (d) Should INX not be accessible, the IDE must report in a manner that enables effective and subsequent recording into INX.
- (e) A preliminary report, is to be provided to the Principal's Representative within 24 hours of the incident occurrence. The report will provide:
 - (i) the immediate actions taken;
 - (ii) identify any known contributors to the Incident;
 - (iii) describe processes implemented to ensure the event does not reoccur in the immediate term; and
 - (iv) basic information on the incident (including the time, date, what happened, basic diagram, photo, who was involved). Where persons are injured, non-intrusive information on the injury and care provided.
- (f) The IDE must complete investigations of all minor incidents within 5 Business Days of the incident and record these in the IDE's incident management system. Incidents requiring input into TfNSW INX management system must be investigated with a report provided to the Principal's Representative within 20 Business Days of the incident. The Principal's Representative may issue terms of reference for major investigations where appropriate. If the Principal's Representative requires the appointment of an external independent investigator, the IDE will bear the cost of this appointment.
- (g) TfNSW may participate in any investigation being undertaken by the IDE or initiate its own investigation. If TfNSW instigates its own investigation, the IDE must provide TfNSW with all assistance reasonably required for the purposes of the investigation, this includes the waiver of legal professional privilege over any investigation report prepared by, or on behalf of, the IDE. TfNSW and the IDE may agree that any investigation report that is subject to legal professional privilege may, between the IDE and TfNSW, be subject to a common interest privilege.
- (h) The IDE must comply with the requirements of '[TfNSW Environmental Incident Classification and Reporting PR-105](#)' and '[TfNSW Environmental Incident/Non-Compliance Report FT-101](#)' in relation to all environmental incidents.
- (i) In the event of an incident or Issue, the IDE must not contact or provide information to any person (other than that which is required to directly manage the incident or to comply with any Law), including any stakeholder, the media or the public, without the prior approval of the Principal's Representative. The IDE must make available senior personnel to respond to the community, the media and other stakeholders when required by the Principal's Representative.
- (j) All notifiable occurrences under WHS Legislation, Rail Safety National Law, Heavy Vehicle National Law or maritime law must be reported immediately to the Principal's Representative and to the relevant regulatory authority. Where any type of notice, infringement or fine by a regulator has been issued to the IDE in relation to undertaking the Works, the IDE must immediately notify the Principal's Representative and provide the Principal's Representative with a copy of the notice, infringement or fine within 24 hours of receipt.
- (k) The IDE must provide the Principal's Representative with all necessary Communications Materials that may need to be disseminated as a result of such



incidents, when required by the Principal's Representative.

3. Planning, Sustainability and Environmental Management

3.1. Planning and Approvals

- (a) Where the IDE is responsible for a submission to an Authority for an Approval (including for the purposes of applying for, changing or complying with an Approval), or where an Authority requests a document submission, the IDE must provide that submission to the Principal's Representative for review in accordance with the Agreement.
- (b) The IDE must comply with the nominated environmental compliance monitoring system, where nominated in Annexure A.
- (c) In the event of Pre-Construction Works, the IDE must submit the details of the Pre-Construction Works to the Principal's Representative using the form '[TfNSW Pre-Construction Minor Works Approval FT-202](#)' for review in accordance with the Agreement.
- (d) Consistency checklists and Environmental reviews are to be completed by the IDE where stated in Annexure A.

3.2. Environmental Management

- (a) The IDE must provide sufficient competent environmental resources on and offsite to ensure effective implementation of the Construction Environmental Management Plan (**CEMP**) and the broader requirements of the Agreement.
- (b) The IDE Activities, Project Works and Temporary Works must be provided, having regard to the following Reference Documents:
 - (i) [Air Quality Management Guideline SD-107](#);
 - (ii) [Chemical Storage and Spill Response Guidelines SD-066](#);
 - (iii) [Concrete Washout Guidelines SD-112](#);
 - (iv) [Discharge or Reuse Water Approval FT-207](#);
 - (v) [Fauna Management Guideline SD-113](#);
 - (vi) [Out-of-Hours Work Application Form \(EPL Variation NOT Required\) FT-079](#);
 - (vii) [Register of Out-of-Hours Work Applications FT-082](#);
 - (viii) [Removal or Trimming Vegetation Application FT-078](#);
 - (ix) [Unexpected Heritage Finds Guideline SD-115](#);
 - (x) [Vegetation Management \(Protection and Removal\) Guideline SD-111](#);
 - (xi) [Water Discharge and Reuse Guideline SD-024](#);
 - (xii) [Water Sensitive Urban Design Guideline SD-106](#); and
 - (xiii) [Weed Management and Disposal Guideline SD-110](#).
- (c) The IDE's Environmental Management System must comply with the requirements nominated in Annexure A.
- (d) Where non-compliances or incidents arise in the IDE Activities, an event report must be completed in the INX system by the IDE and returned to the Principal's



Representative in accordance with [‘TfNSW Environmental Incident Classification and Reporting PR-105’](#).

- (e) The IDE must develop, implement and maintain Environmental Control Maps (**ECMs**) in accordance with all Approvals and comply with [‘TfNSW Guide to Environmental Control Map SD-015’](#) as well as preparing each ECM as a map in both A0 and A3 sizes.
- (f) The IDE must progressively review and update the ECMs (to incorporate works progression and changing characteristics of the Site), amending environmental protection measures where those identified fail to achieve continuous compliance with the environmental obligations under the Agreement.
- (g) The IDE must submit all ECMs to the Principal’s Representative for review in accordance with the Agreement.
- (h) The IDE must comply with section 7.5 Documented Information of AS/NZS ISO 14001:2016 – ‘Environmental management systems – Requirements with guidance for use’, and retain all environmental records for a period of no less than 5 years from Completion.
- (i) The IDE must provide the Principal’s Representative with copies of the environmental records stated in Part 3 of Annexure E. Any records not required to be stored on-site must be forwarded to the Principal’s Representative within 3 Business Days of a request.
- (j) The IDE must comply with the [‘TfNSW Construction Noise and Vibration Strategy ST-157’](#) and undertake simple noise assessments using the [‘TfNSW Construction Noise Estimation Tool FT-150’](#). The IDE must complete out-of- hours-works (**OOHW**) applications using the TfNSW OOHW application system.

3.3. Sustainability Requirements

Unless otherwise nominated in Annexure A, the IDE must:

- (a) comply with the [‘TfNSW Sustainable Design Guidelines version 4.0’](#) to meet the minimum design rating as nominated in Annexure A;
- (b) submit a completed [‘TfNSW Sustainable Design Guidelines version 4.0 Electronic Checklist’](#) in electronic format to the Principal’s Representative for review in accordance with the Agreement at the intervals nominated in Annexure A, confirming compliance with the requirements of [‘TfNSW Sustainable Design Guidelines version 4.0’](#);
- (c) prepare and submit to the Principal’s Representative for review in accordance with the Agreement, a report containing the required Greenhouse Data using the [‘Carbon Estimate Reporting Tool \(CERT\)’](#) at each of the following stages, as nominated in Annexure A:
 - (i) SDR (or equivalent) design stage;
 - (ii) CDR (or equivalent) design stage;
 - (iii) during the construction phase, 5 Business Days after the end of the periods:
 - A. commencing 1 January and ending 30 June; and
 - B. commencing 1 July and ending 31 December; and
 - (iv) at Completion;
- (d) prepare and submit for review by the Principal’s Representative in accordance with the Agreement, a Climate Risk Assessment (CRA) Report in accordance with the



'[TfNSW Climate Risk Assessment Guidelines SD-081](#)' at the commencement of SDR (or equivalent) stage of design. This report must, as a minimum:

- (i) identify any project-specific climate change direct and indirect risks (utilising climate modelling data against 2 timelines), including the closest future year at which projections are available to the assets forecast useful life;
 - (ii) recommend risk mitigation measures to reduce the identified climate risks; and outline how risk mitigation measures will be addressed through the design process to reduce 'extreme' and 'high' risks to 'medium', and to 'low' where practicable; and
 - (iii) demonstrate how the recommended risk mitigation measures will carry through to the construction phase and could be applied in the operational phase of the Project;
- (e) obtain an Infrastructure Sustainability Council of Australia (**ISCA**) minimum 'design', 'as built' and/or 'operational' rating as nominated in Annexure A. When submitting IS ratings to ISCA, the data, evidence and submissions are required to be submitted to TfNSW, for data collection and record of sustainability implementation on the project;
 - (f) prepare and submit for review by the Principal's Representative in accordance with the Agreement, a whole of life costing report in accordance with ASA Standard 'T MU AM 01001 ST Life Cycle Costing', at SDR (or equivalent) design stage and updated at CDR (or equivalent) design stage;
 - (g) complete any photovoltaic solar installations approved as part of the Works, in accordance with ASA Standard 'T HR SS 80006 ST Renewable Energy Installations - Photovoltaic and Battery Systems';
 - (h) submit for review and approval a sustainability deliverables summary; and
 - (i) attend any meetings requested by the TfNSW's sustainability representative and participate efficiently to ensure the successful implementation of sustainability initiatives in the Project.

3.4. NSW Government Resource Efficiency Policy (GREP)

The IDE must, unless nominated otherwise in Annexure A:

- (a) make available documents and evidence to assure TfNSW that the Works and IDE Activities are compliant with the requirements of the GREP;
- (b) comply with the following requirements, to the extent they apply to the Works or IDE Activities:
 - (i) E3 – Minimum standards for new electrical appliances and equipment;
 - (ii) E4 – Minimum standards for new buildings, such that all new office buildings and fit-outs will be designed and built to a predicted performance of at least 4.5 stars for NABERS energy rating. For building types other than office buildings and fit outs, and where the facilities have projected development costs over \$10 million, the buildings must be designed and built so that energy consumption is predicted to 10% lower than if built to minimum compliance with National Construction Code requirements;
 - (iii) W3 – Minimum standards for new water using appliances; and
 - (iv) A2 – Low volatile organic compound surface coatings; and
- (c) prepare the following reporting tools in the form provided by TfNSW, and submit to the Principal's Representative for review in accordance with the Agreement:



- (i) a [‘TfNSW Non-road diesel plant data collection workbook FT-439’](#), containing an inventory of diesel-powered Construction Plant used in the IDE Activities, which is to be submitted to the Principal’s Representative within 1 month of the Commencement Date, and on 31 July (containing data from the January to June reporting period) and 31 January (containing data from the July to December reporting period) of each calendar year; and
- (ii) a [‘TfNSW Waste Data Collection Worksheet FT-436’](#) to be submitted to the Principal’s Representative on 31 July (containing data from the January to June reporting period) and 31 January (containing data from the July to December reporting period), of each calendar year.

4. Social Procurement Workforce

4.1. General Requirements

The IDE must achieve is responsible for the achievement of the social procurement workforce requirements both directly and throughout its supply chain including its Subcontractors. The social procurement workforce requirements apply to personnel by the IDE and its supply chain in Australia.

Unless otherwise nominated in Annexure A, the IDE must comply with:

- (a) the [‘NSW Government Aboriginal Participation in Construction \(APIC\) Policy, June 2018’](#);
- (b) the [‘NSW Procurement Directive PBD-2017-05 Construction training and skills development’](#); and
- (c) [‘TfNSW Social Procurement Workforce Guide SD-120’](#).

4.2. Priority Group Targets

Unless otherwise nominated in Annexure A, the IDE must ensure that:

- (a) 1.5% of the higher of either the Target Outturn Cost or the Actual Outturn Cost is spent on Aboriginal participation, in accordance with the [‘NSW Government Aboriginal Participation in Construction \(APIC\) Policy, June 2018’](#);
- (b) the workforce engaged directly on the Project by the IDE and throughout its supply chain includes a minimum of:
 - (i) 20% of all trades positions are Apprentices;
 - (ii) the percentage nominated in Annexure A of the total workforce are aged under 25 years old at the date of the Agreement;
 - (iii) the percentage nominated in Annexure A of the total labour force is made up of Learning Workers;
 - (iv) the percentage nominated in Annexure A of the total workforce are Women in Non-Traditional Roles;
 - (v) the percentage nominated in Annexure A of the total workforce are from disadvantaged, disabled and under-represented groups. These groups include long-term unemployed, humanitarian new entrants (including refugees and asylum seekers) and people with a disability;
 - (vi) the number of work placements per annum (pro rata) nominated in Annexure A, are for people over 16 years of age currently in school; and
 - (vii) the number of graduate placements per annum (pro rata) nominated in Annexure A, are for university undergraduates or recent graduates.



4.3. Resources and Training

- (a) The IDE must engage and deploy a suitably experienced resource(s) to manage, coordinate and deliver the social procurement workforce requirements.
- (b) All workers responsible for the supervision of Aboriginal and/or humanitarian new entrants must attend relevant cultural awareness training.

4.4. Social Procurement and Industry Participation

Unless otherwise nominated in Annexure A, the IDE must:

- (a) allocate the percentage nominated in Annexure A of the higher of either the Target Outturn Cost or the Actual Outturn Cost on indirect activities or social and disability enterprises that benefit disadvantaged, disabled and under-represented groups;
- (b) work with local community groups, training providers and employment support organisations to maximise employment opportunities for people and businesses in the local community;
- (c) maximise opportunities for small to medium enterprises and social enterprises in the supply chain to deliver works, services or supplies that are required for the IDE Activities and across the supply chain;
- (d) alert small to medium enterprises of potential tenders and supply opportunities;
- (e) develop and implement programs for engagement with local universities including scholarships, cadetships and graduate opportunities;
- (f) identify and implement programs offering community benefits; and
- (g) provide an education program to local schools and colleges through the delivery of regular ambassador programs.

4.5. Data Collection and Reporting

Unless otherwise noted in Annexure A, the IDE must:

- (a) use an electronic access control software application to track and report labour hours performed by its direct and indirect workforce, including hours completed by the target workforce groups;
- (b) submit a quarterly progress report demonstrating how the targets listed in section 4.2 and 4.4 are being progressively achieved; and
- (c) provide an Aboriginal Participation Plan in accordance with the requirements on the [‘NSW Government Aboriginal Participation in Construction \(APIC\) Policy, June 2018’](#) and report monthly on progress towards the requirements in the Aboriginal Participation Plan.

5. Safety Management

5.1. General Requirements

- (a) The IDE must advise the Principal’s Representative at all times, the name of the senior management representative responsible for implementing the safety requirements of the Agreement and monitoring the effectiveness of the IDE’s safety management system in complying with all safety requirements.
- (b) The IDE must manage safety risks in accordance with ‘AS/NZS ISO 31000:2018 – Risk management’, and must eliminate all risks to health and safety, or where not possible, minimise those risks so far as is reasonably practicable applying, maintaining and reviewing the prescribed Hierarchy of Control Measures.



- (c) The IDE must implement the TfNSW's Rail Industry Worker (**RIW**) electronic system, easy access card systems, unless otherwise nominated in Annexure A. The IDE must ensure that all workers are provided with an access card and log in and out each shift.
- (d) The IDE must effectively manage, through the RIW system, fatigue, emergency response, alcohol and other drugs use, training, induction and competency records. The IDE must ensure adequate numbers of sign on location points (whereby workers can easily log on and off each shift) exist. Each location point is to be provisioned with an alcoholizer or breathalyser, which is to be incorporated into the sign-on unit and used as part of the daily sign-on for all workers and visitors accessing the Site.
- (e) The IDE must provide a Chain of Responsibility Management Plan as required by Heavy Vehicle National Law (HVNL) and, upon request, provide evidence of compliance with the HVNL and regulations. Heavy Vehicles used on the project must have, as a minimum, an In Vehicle Monitoring System (**IVMS**) unless exempted by the Principal's Representative. Any breaches of the HVNL, including speed and fatigue, must be recorded as an incident and information provided to the Principal's Representative on request or as required by the incident management system.
- (f) As part of the determination of whether risks have been eliminated or minimised so far as is reasonably practicable, the IDE must convene a risk assessment workshop(s) prior to undertaking work on the Site. The IDE must provide the Principal's Representative with a documented risk register that identifies all hazards, risk, ranking (in accordance with the '[TfNSW Enterprise Risk Management Quick Reference Guide SD-445](#)') and controls to be implemented.
- (g) The IDE must conduct a risk assessment workshop, similar to section 5.1(f), prior to the start of each work package. The IDE must advise the Principal's Representative of the workshop and extend invitations to attend to the Principal's Representative and the IDE's nominees.
- (h) The IDE must provide approved and authorised Safe Work Method Statements (SWMS) that are applicable to the Project at any time requested by the Principal's Representative. SWMS for high risk tasks must be provided to TfNSW's safety representative prior to the IDE commencing the IDE Activities on the Site, or as requested by TfNSW's safety representative. The IDE acknowledges and agrees that by exercising its right under this section 5.1(h), the Principal's Representative is not assuming any management or control of the Site or the IDE Activities, and is only receiving the SWMS for information to monitor the IDE's compliance with its obligations under the Agreement and/or any applicable Laws.
- (i) The IDE must actively participate in, and provide reports to, the Project Safety Leadership Team (**PSLT**). The structure (including participants), content and reporting requirements are documented in the 'PSLT Charter'. As a minimum, reporting will include: a monthly all Incident report in a format that is agreed and documented in the 'Charter', and; a schedule of targets and actual completion for the visible leadership program agreed to and documented within the 'Charter', safety initiatives that the project will be implementing to improve the safety culture and any results.

5.2. Safety Control Measures

- (a) The IDE must ensure that quick hitch attachments fitted to excavators and other earth moving machinery are of the fully automatic type with a secondary locking attachment. The secondary attachment is to be capable of preventing the excavator attachment from releasing in the event of a partial or total failure of the power supply or when the operator stops operating the machine. All half-hitch, mechanical-hitch, form-lock,



semi-automatic types are prohibited.

- (b) Where the operating envelope of mobile plant is capable of encroaching within 3 metres of the rail network Danger Zone or the safe approach distance to live electrical infrastructure, the IDE must implement the use of programmable zone limiting devices that limit the hoisting and/or slewing and which are designed to be 'fail safe' or which meet Category 4 reliability in accordance with 'AS4024.1-2014 Safety of Machinery' or a safety integrity level (SIL) of 3 under 'AS 61508 Functional safety of electrical / electronic / programmable electronic safety-related systems'.
- (c) The IDE must ensure that records for modification, inspection, maintenance and repair of each item of plant on site are kept and maintained up to date. These records must be made available and provided to the Principal's Representative upon request.
- (d) The IDE Activities must be undertaken in compliance with the relevant WHS Legislation and '[TfNSW Working Near Utilities PR-159](#)' and the IDE must, as a minimum, demonstrate how it will manage:
 - (i) development of the combined utilities drawings;
 - (ii) positive and effective isolation of energy sources;
 - (iii) potholing to positively identify underground services;
 - (iv) non-destructive digging methods and service locations (for example, by utilising a ground penetrating radar);
 - (v) Dial Before You Dig and Detailed Services Survey (DSS) service searches;
 - (vi) the potential for unidentified underground services; and
 - (vii) outlining the penetration/excavation permit process, including the use of Hold Points to ensure controlled approval management of the process.
- (e) Live electrical work is not permitted to be carried out on the Site, and isolated circuits must be treated as live until they have been proven otherwise dead by testing. The only exception to the above is for the purpose of testing, as specified in the Safework NSW Code of Practice 'Managing Electrical Risks in the Workplace'.
- (f) The use of portable earphone equipped music players on the Site is prohibited.
- (g) Fires or burning off are not permitted anywhere on the Site unless an exemption is granted by the Principal's Representative.
- (h) The IDE must provide a defibrillator (and suitable training in its use for its first aid personnel) at each major first aid location, and must ensure persons trained in the use of the defibrillator are on the Site at all times.
- (i) An IVMS must be fitted in all Heavy Vehicles used on the Site, except to the extent that such Heavy Vehicles are used by non-Project related delivery drivers, and any suppliers providing one-off deliveries.
- (j) All breaches in relation to section 5.2(i) must be managed in accordance with section 2.8 of this TSR. Incidents involving speeding, fatigue and log book breaches must be monitored, reported and acted upon by the IDE.
- (k) Fatigue must be managed by the IDE in accordance with the requirements set out in '[TfNSW Fatigue Management Standard ST-011](#)'.

5.3. Alcohol and Other Drugs

- (a) TfNSW's policy of zero tolerance of alcohol and illegal drug use applies to the Agreement and all of the IDE Activities. Alcohol and illegal drugs are not permitted on



any Site or on premises controlled or managed by TfNSW. The IDE must develop policies and procedures to ensure this policy of zero tolerance of alcohol and illegal drugs use is adhered to at all times.

- (b) The IDE must develop and implement effective alcohol and drug testing procedures inclusive of the number of tests to be performed annually and the periods throughout the year that testing will take place. All alcohol and drug testing procedures must be in line with relevant Laws and Australian Standards.
- (c) The IDE must ensure that all persons associated with the IDE Activities (including the IDE's personnel, visitors, workers and agents) are aware of their obligations to comply with all alcohol and other drug requirements.
- (d) Any persons under the influence of alcohol or drugs are prohibited from working on any projects carried out for, controlled or managed by TfNSW, regardless of their work location. Prescription and over-the-counter drugs may also affect a person's ability to work safely and the IDE (in consultation with the Principal's Representative) will determine its policy in relation to prescription and over-the-counter drugs on a case-by-case basis.
- (e) All personnel and workers of either the a Participant or any Subcontractor may be subject to alcohol and drug testing by the TfNSW's authorised testing officer or agent at any time whilst carrying out the IDE Activities (including within the IDE's Site amenities or facilities).
- (f) Testing for the presence of alcohol and other drugs may be undertaken at any time that workers are present on the Site, including:
 - (i) before performing duties (pre-sign on, primarily alcohol test);
 - (ii) during the performance of duties (random and reasonable cause); and
 - (iii) following any incident.
- (g) The IDE must immediately remove anyone from Site that tests positive to alcohol or drug tests or who refuses an alcohol or drug test, and must notify the Principal's Representative immediately.
- (h) Each individual that signs on at the commencement of each shift declares themselves to be free of alcohol and drugs.
- (i) In addition to the requirements set out in this section 5.3, if the IDE Activities are in or adjacent to the Rail Corridor and the rail environment, the applicable alcohol and other drugs procedures must comply with the Rail Safety National Law and the testing regime must include prestart testing prior to Track Possessions.

6. Communications, Stakeholder and Community Liaison

6.1. General Requirements

The IDE must:

- (a) appoint suitably qualified and experienced personnel to fulfil the communications requirements of the Agreement and must consult the Principal's Representative prior to taking any action that may impact on stakeholders and the community;
- (b) proactively identify positive media and/or community relations opportunities, informing TfNSW of these opportunities in a timely manner;
- (c) comply with all reasonable suggestions and requests of the community;
- (d) obtain approval from the Principal's Representative before releasing any marketing,



promotional or Communications Materials, including social media and professional networking sites. The Principal's Representative will require a minimum of 5 Business Days to review and approve or reject any submission;

- (e) ensure that any Communications Materials are distributed at least 7 days prior to the IDE commencing any part of the Works the subject matter of such Communications Materials (including any OOHV); and
- (f) in relation to media:
 - (i) immediately make any enquiry or contact by the media or elected government representatives known to TfNSW;
 - (ii) not make any statement (verbal or written) or provide any photographs or illustrations on social media or to the media, or to elected government representatives regarding the IDE Activities without the prior written approval of the Principal's Representative;
 - (iii) not permit any media or elected government representative on to the Site without the prior written approval of the Principal's Representative; and
 - (iv) record all contact with the media and elected government representatives, project related articles (paper and web based) and online discussions (blogging) in the Communications Management System (**CMS**) and send copies of articles or web links to the Principal's Representative.

6.2. Meetings with Community and Stakeholders

- (a) The IDE must not meet the community or stakeholders without seeking prior approval from the Principal's Representative, providing the Principal's Representative with a minimum of 3 Business Days' notice in each case.
- (b) The IDE must ensure that suitable persons, adequately informed and qualified to participate and take the lead during meetings where requested by the Principal's Representative are available to attend meetings at all times, including 'after-hours'. The IDE must also provide relevant materials for presentation and distribution at such meetings.

6.3. Ensuring Public Safety and Wellbeing

The IDE must ensure the safety and wellbeing of the public including access, egress and general public safety in and around the Site. This includes public thoroughfares around the Site that have been impacted by the Works. Any incidents resulting from the IDE Activities involving the public must be reported immediately to the Principal's Representative and documented in INX in accordance with section 2.8.

6.4. Communications Management Control Group (CMCG)

- (a) The IDE must provide administration and attend all CMCG meetings, established by TfNSW. The CMCG may comprise representatives from Other Contractors, the IDE, TfNSW and others invited by the Principal's Representative.
- (b) At each CMCG meeting the IDE must provide the following information:
 - (i) a summary of current and upcoming IDE Activities, likely impacts, and proposed communication strategies;
 - (ii) an update on any current or emerging issues and/or opportunities;
 - (iii) an update on complaints received and actions taken to resolve them; and



- (iv) other information as requested by the Principal's Representative.

6.5. Communication Materials and Notifications

- (a) All written, verbal or photographic/illustration information to be seen and made available to others (including any Communications Materials) must be submitted for approval to the Principal's Representative, who will require a minimum of 5 Business Days to review and approve or reject any submission. All written Communications Materials produced by the IDE must be of professional quality, in colour and must comply with the ['TfNSW WCAG 2.0 Quick reference guide'](#), ['TfNSW Editorial Style Guidelines'](#) and ['The NSW Government Brand Guidelines, August 2017'](#).
- (b) The IDE must issue written notifications to relevant stakeholders and the community at least 5 Business Days before commencing any activity with the potential to impact the relevant stakeholders and the community. The notification must use the template provided by TfNSW and the IDE must outline the distribution details on a map, including a distribution zone of at least 500m radius from the relevant activity. Notifications must be distributed by the IDE to the relevant stakeholders and the community on a monthly basis.
- (c) During Emergency Works, the IDE must provide written and verbal notification to properties immediately adjacent to or impacted by the works at least two hours before commencing any activities. In such circumstances notifications do not have to be provided to the Principal's Representative for prior review and approval on the basis that subsequently, a copy of the distributed notification is provided to the Principal's Representative in electronic format.
- (d) For activities that have significant impacts to customers or stakeholders, a detailed specific management plan, outlining the IDE's strategy to deal with the impact may be required by TfNSW prior to the activities commencing. The Principal's Representative will require a minimum of 5 Business Days to review and approve or reject any specific management plan.

6.6. Communications Management System

- (a) The IDE must complete formal familiarity training using TfNSW's web-based Communications Management System (CMS) for collecting and recording details of all community and stakeholder contact.
- (b) The IDE must record all contact with the community, media, government representatives, Project-related articles (both print media and online articles) and online discussions (including any discussions on blogging websites) in the CMS and must update and maintain the CMS with accurate details within 24 hours of the contact to ensure easy identification and rapid distribution of information when required.
- (c) Entries into the CMS must provide an accurate, succinct summary of the contact and include contact details, relevant Communications Materials and correspondence (including notifications, letters, meeting minutes and emails), and actions required and must be updated by the IDE as soon as actions are closed out.
- (d) The IDE must provide TfNSW with information within the requested timeframes, to respond to media and government enquiries.

6.7. Complaints and Enquiries

- (a) The IDE must respond to complaints and enquiries received regarding the IDE Activities, through a variety of avenues including TfNSW's 24-hour response line or Project



information line, in writing (letter or email), direct to TfNSW via telephone, or direct to the IDE or its Subcontractors.

- (b) When responding to complaints the IDE must unless otherwise directed by the Principal's Representative in writing:
 - (i) record details of every complaint received, how the complaint was managed and closed out in the CMS, and provide an email summary of this to the Principal's Representative by 3:00pm on the day the complaint was received;
 - (ii) immediately investigate and determine the source of the complaint, including an immediate return call, and within a maximum of 2 hours after receiving the complaint, to the complainant (where received by telephone). Where the complaint does not relate to the IDE Activities, the IDE must immediately notify the Principal's Representative;
 - (iii) provide an oral response to the complainant regarding what action is proposed, immediately, within a maximum of 2 hours from the time of the complaint. If no return phone number was provided, or if the complaint was received in written (email or letter) format, the complaint must be responded to (and must include an outline of the issue and the remedial actions proposed or taken by the IDE) within a maximum period of 24 hours for emails and 5 Business Days for letters from the time of receipt;
 - (iv) provide draft written responses to TfNSW for review and approval or rejection within 12 hours for emails or 3 Business Days for letters from receipt of the complaint (and in any event prior to sending); and
 - (v) forward a scanned signed copy of the approved written response to the Principal's Representative on the day it is sent and record it in the CMS.
- (c) When responding to enquiries the IDE must:
 - (i) provide an oral response to the person or entity making the enquiry within a maximum of 2 hours from the time of the enquiry (during standard construction hours as outlined in the Planning Approval), or the next Business Day (during all other times), unless otherwise requested by the person or entity making such enquiry;
 - (ii) record all details of enquiries and how they were closed out in CMS; and
 - (iii) forward information on any enquiries received and the response given to TfNSW in writing by 3:00pm on the day the enquiry is received.

6.8. Construction Site

- (a) The IDE must submit a written request to the Principal's Representative providing at least 48 hours' notice, for any requests by the community and stakeholders to access the Site. The IDE must not provide access unless the Principal's Representative has granted approval in writing to the IDE.
- (b) The IDE must accommodate all visits to the Site by the TfNSW's authorised representatives. The IDE acknowledges that any photograph, film or video taken by either the IDE or TfNSW's representatives is the property of TfNSW, who may use them for any purpose it chooses, and without the IDE's approval.
- (c) TfNSW may provide the IDE with requirements for shade cloth, hoarding, signage and graphics, which must be installed by the IDE as directed by the Principal's Representative.



- (d) The IDE must install wayfinding signage to direct pedestrians, commuters and vehicles that identify changes to traffic and access at least 7 calendar days before:
 - (i) making changes to pedestrian routes;
 - (ii) impacting on cycle ways;
 - (iii) changing traffic conditions;
 - (iv) disrupting access to public transport modes; and
 - (v) changing parking arrangements.
- (e) All Temporary Works, Project Works and items erected as a part of the IDE Activities must be constantly maintained and free from graffiti and advertising not otherwise authorised by the Principal's Representative, until Final Completion.
- (f) The IDE must carry out daily inspections, and remove or cover any graffiti and unauthorised advertising as detailed below:
 - (i) offensive graffiti and unauthorised advertising material must be removed or covered within 24 hours;
 - (ii) highly visible (yet non-offensive) graffiti must be cleaned or covered within 1 week; and
 - (iii) graffiti that is neither offensive nor highly visible must be cleaned or covered during normal operations within one month.
- (g) The IDE must ensure its employees and the employees of Subcontractors are adequately inducted and trained on the communication requirements of the Agreement, with particular focus on incident management, incident reporting procedures, community enquiries or complaints and media enquiries, prior to commencing the Works.

7. Property

7.1. General

- (a) The IDE must appoint a site-based person to be the Property Representative, who must be present during all inspections undertaken by the Principal's Representative or delegate.
- (b) If any findings by the Principal's Representative or delegate from inspections are notified to the IDE, these findings must be actioned within the timeframes reasonably required by the Principal's Representative or delegate. The IDE must provide written notification to TfNSW that the findings of the Principal's Representative or delegate have been closed out within the timeframes specified.
- (c) The IDE must provide the property records described in Part 2 of Annexure E.

7.2. Pre Commencement Property Risk Assessment

- (a) Unless otherwise specified in Annexure A, the IDE must undertake a comprehensive risk assessment of the Site and any property adjacent to the Site, in consultation with the Principal's Representative prior to the commencement of any of the IDE Activities on the Site or adjacent to the Site. If agreed in writing with the Principal's Representative, the IDE and the Principal's Representative may undertake a staged risk assessment on the Site or on any property adjacent to the Site.



- (b) This risk assessment must identify the potential impacts of the IDE Activities on the Site or on any property adjacent to the Site, and the control measures that are required to be implemented in order to provide protection in accordance with the requirements of the Agreement.
- (c) With respect to the Site and any property adjacent to the Site (and, where the Site is at more than one location, for each part of the Site and for any property adjacent to each part of the Site), this risk assessment must include:
 - (i) permanent and temporary Site access requirements and timing;
 - (ii) access to or across any properties adjacent to the Site and the timing of such access requirements;
 - (iii) crane slew radius, air rights and impacts on properties adjacent to the Site or the Rail Corridor;
 - (iv) any future subdivision, easements, other title interests or divestment requirements;
 - (v) any future commercial impacts of resultant works; and
 - (vi) Site investigation and contamination.

7.3. Access

7.3.1. Ownership and Rights of Access

- (a) The IDE and each Participant must ensure it has the necessary legal rights to access the appropriate property prior to commencing the IDE Activities. To assist the IDE, TfNSW has developed a non-exhaustive list of applicable legislation, described in [‘TfNSW Property Compliance Register ST-175’](#).
- (b) For land in respect of which TfNSW is not procuring access in accordance with the Agreement, the IDE must procure title searches on property required for the performance of the IDE Activities prior to commencing that part of the IDE Activities.
- (c) IDE Activities to be undertaken on roads e.g. RMS owned lands or Council property, require a Work Authorisation Deed (**WAD**), Section 138 permit or other *Roads Act 1993* (NSW) consent or agreement with the owner or Authority. If this has not been obtained or effected (as applicable) by TfNSW prior to the relevant Reference Date, and it is not TfNSW’s responsibility under the Agreement, the IDE must negotiate the WAD, permit or other consent or agreement on behalf of TfNSW to gain access to the lands and determine who will be the rightful owner of any new structures, and who will be responsible for future asset management.
- (d) The IDE must submit any such WADs, permits, consents or agreements to the Principal’s Representative for review in accordance with the Agreement, before they are provided to the relevant owner or Authority for negotiation and execution.

7.3.2. Neighbouring Property

- (a) The IDE is responsible for managing the Site and minimising the impact of the IDE Activities on the owners, tenants and other relevant stakeholder of properties adjacent to the Site (**adjoining owners**) from the relevant Reference Date until Final Completion.
- (b) The IDE must, at least 2 weeks prior to commencement of the Works and IDE Activities on the Site, identify all owners, tenants, and other relevant stakeholders of properties adjacent to the Site who may be impacted by the IDE Activities, and provide



the Principal's Representative with a consolidated list that includes details of:

- (i) the addresses of the adjacent owners, tenants, and other relevant stakeholders;
 - (ii) the use of the land by the adjacent owners, tenants, and other relevant stakeholders;
 - (iii) the primary contact names, phone numbers and email addresses of the adjacent owners, tenants, and other relevant stakeholders;
 - (iv) the likely impact that the IDE Activities will have on the properties adjacent to the Site; and
 - (v) any past correspondence received by the IDE from any owners, tenants, or other relevant stakeholders of properties adjacent to the Site in respect of the Works and the IDE Activities.
- (c) Where access is required to a property or properties adjacent to the Site, the IDE must ensure that each Participant has the necessary legal rights and must comply with the *Access to Neighbouring Land Act 2000* (NSW) and the Agreement. In such cases, the IDE must prepare an application for access to such property or properties adjacent to the Site and submit it to the Principal's Representative for review in accordance with the Agreement, prior to submitting the application to the local court.

7.4. Surveys

7.4.1. General

- (a) All land surveys must be carried out in accordance with *RMS Specification G71*.
- (b) The land surveys must include details of above ground property boundaries, below ground property boundaries, easements, strata, existing building and structures, any other line that confers ownership, and any special rights or special obligations.
- (c) The IDE must verify survey control for the Works, and must carry out all boundary and engineering surveys in accordance with the *Surveying and Spatial Information Act 2002* (NSW) and the *Surveying and Spatial Information Regulation 2017* (NSW).

7.4.2. Care, protection and preservation of survey control and cadastral marks

- (a) No survey control or cadastral marks including permanent survey marks, boundary marks, reference marks and bench marks (as defined by the *Surveying and Spatial Information Act 2002* (NSW) and *Surveying and Spatial Information Regulation 2017* (NSW)) are to be damaged, disturbed or destroyed without prior authorisation from the NSW Surveyor General.
- (b) The IDE must comply with *RMS Specification G71* for care, protection and preservation of survey control and cadastral marks.
- (c) The IDE must comply also with *RMS Specification G71* for submission of the project quality requirements for construction surveys.
- (d) The IDE must maintain an up-to-date Survey Control and Cadastral Marks Register of all survey control marks that make up the Survey Control Network and the cadastre in accordance with *RMS Specification G71*.
- (e) The IDE must submit to the Principal's Representative, the final Survey Control and Cadastral Marks Register, with evidence demonstrating:
 - (i) all destroyed survey control and cadastral marks have been replaced in accordance with the NSW Surveyor General's Direction Nos. 11 and 12;



and

- (ii) all cadastral plans, locality sketches and diagrams relating to the Survey Control Network and the cadastre have been submitted to the NSW Surveyor General's as required by NSW Surveyor General's Direction Nos. 11 and 12.

7.4.3. Pre-Construction Land Surveys

- (a) The IDE must verify survey control for the Works.
- (b) The IDE must:
 - (i) carry out boundary and engineering surveys in accordance with the *Surveying and Spatial Information Act 2002* (NSW) and the *Surveying and Spatial Information Regulation 2017*(NSW);
 - (ii) prior to commencing any activity which could affect existing property, undertake a survey:
 - A. to identify and record the location of the construction site boundary in relation to existing infrastructure;
 - B. to identify and record the location and details of existing and proposed easements; and
 - (iii) provide the Principal's Representative with reports on the location of the Site boundary tenures and any easements in relation to existing property prior to commencing the relevant part of the Works or IDE Activities.

7.4.4. Post Construction Land Surveys

- (a) The IDE must collect as built survey data in relation to land surveys.
- (b) If any part of the Project Works or Temporary Works is proposed to be, or has been built outside the relevant boundaries of the Site, and no formal agreement has been reached with the adjoining property owner, the IDE must cease work in this area and immediately notify the Principal's Representative.

7.5. Property Damage

- (a) In carrying out the condition surveys, the IDE must minimise disruption to property owners, tenants and other stakeholders.
- (b) The Principal's Representative may direct the IDE to carry out additional condition surveys in respect of property if it considers that property has the potential to be damaged as part of the IDE Activities. TfNSW may appoint a representative to attend the undertaking of any condition surveys.
- (c) In addition to the requirements set out in the Agreement and this TSR, the IDE must comply with all requirements for condition surveys and ongoing monitoring as set out in any Third Party Agreements.

7.6. Pre- and Post Construction Condition Surveys

- (a) Unless stated otherwise in Annexure A, the IDE must, at least 2 weeks prior to the commencement of the IDE Activities on the Site, carry out pre-construction condition surveys to record the existing condition of adjoining land and property prior to construction, and to assess the susceptibility of critical services, structures, infrastructure or buildings, to damage or unacceptable changes or alterations as a result of the IDE Activities.



- (b) Unless stated otherwise in Annexure A, the IDE must perform a post-construction condition survey on each property previously subject to a pre-construction condition survey promptly following the completion of construction activities on the relevant property.
- (c) Post-construction condition survey reports must include a determination of the cause of any monitored change or any damage identified since pre-construction or previous construction surveys, and the IDE's proposed remedial works or activities in respect of such changes or damage. If damage is found to have been caused by the IDE Activities, the IDE must:
 - (i) provide the Principal's Representative with a proposal setting-out the remedial action required;
 - (ii) obtain the property owner's acceptance, in a form agreed to by the Principal's Representative, of the compensation, repair or reinstatement work, and release from future claims and actions; and
 - (iii) if no damage is found to have been caused by the IDE Activities, the IDE must provide copies of the reports referred to in sections 7.6(a) and 7.6(b) to the property owner and the Principal's Representative.

7.6.1. Condition Survey Requirements

- (a) The IDE must engage an independent third party to ensure compliance against the minimum standard of condition surveys.
- (b) The IDE must ensure that the surveyor engaged to carry out the survey referred to in section 7.6(a) similarly carries out the survey referred to in section 7.6(b).
- (c) The IDE must submit all condition survey reports to the Principal's Representative for review in accordance with the Agreement.
- (d) Each survey referred to in this section 7.6 must include a report which must contain a certificate from the surveyor who performed the survey certifying that the survey has been completed and is an accurate assessment of the condition of the property or asset.
- (e) The IDE must ensure that the processes and procedures for performing all condition surveys are based on industry best practices. Examples of acceptable standards for condition surveys of buildings include:
 - (i) sections 4 and 5 of the 'Royal Institute of Chartered Surveyors (RICS) Guidance Note 63/2010 Building surveys and technical due diligence'; and
 - (ii) AS 4349.0-2007 'Inspection of Buildings – General Requirements', and with specific regard to the heritage elements (if any) within the Site.
- (f) The IDE's reports on condition surveys of buildings must (as a minimum) record the following features:
 - (i) major features of the buildings and developments including location, type, construction, age and present condition, including any defects or damage;
 - (ii) type of foundations, including columns, walls and retaining structures;
 - (iii) an assessment of the susceptibility of the building to further movement or stress;
 - (iv) an assessment of the effectiveness of water-proofing systems in basements to the anticipated movements caused by the IDE Activities; and
 - (v) an assessment of the susceptibility of the building to changes in water levels



resulting from the IDE Activities.

7.6.2. Construction Phase Property Monitoring

- (a) The IDE must implement a monitoring and inspection regime for properties with the potential to be detrimentally or negatively affected by the IDE Activities.
- (b) The monitoring and inspection regime must address the requirements of the Agreement, the Planning Approvals and Third Party Agreements and agreements made with any Authority.

7.7. Pre-Commencement Property Compliance Checklist

Prior to commencement of the Works or IDE Activities on the Site, the IDE must submit the Property Compliance Checklist in Part 1 of Annexure E to the Principal's Representative for review in accordance with the Agreement, to demonstrate that all property obligations have been met.



Annexure A Additional Project Requirements

For the Initial Project, also refer to Exhibit A.1 in the Project-Specific Schedules and Exhibits (Initial Project) section.

For each Additional Project, also refer to Exhibit A.n.



Annexure B Definitions

The following definitions apply:

Apprentice	A person who has been employed in a recognised trade vocation and who has entered into a training contract with his/her employer under the <i>Apprenticeship and Traineeship Act 2001</i> .
Asset Handover	Point in time at which the control of certain specified assets is transferred to an Operator/Maintainer and/or Asset Owner for their ongoing operation and maintenance.
Asset Owner	Organisation who will ultimately own the assets subject to the Asset Handover. In some cases this may also be the Operator/Maintainer.
CDR	Critical design review (or equivalent) stage of the design as developed in accordance with the IDE's systems engineering processes.
Codes and Standards	The codes and standards to which the IDE Activities, Project Works or Temporary Works must comply, including those nominated in the Agreement, the TSRs and Works Brief (and, for the avoidance of doubt, includes the ASA Requirements).
Commissioning	Systematic process of ensuring that all infrastructure, equipment and systems installed in a Project perform interactively in accordance with the design intent and the Operator/Maintainer's functional and operational needs.
Communications Materials	All written, verbal or photographic/illustration information to be seen and made available to others, including any media responses, all forms of social media, press releases, marketing and promotional materials, notifications, material placed on construction hoardings, shade cloths and fences.
Configuration Materials	The Design Documentation which is required in support of Asset Handover, describing the operation and maintenance requirements the assets delivered under the Agreement.
Contract Management Plan (CMP)	The Management Plan to be developed by the IDE in accordance with the requirements of this TSR, which acts as a framework for bringing together all the management requirements for the IDE Activities into a coordinated and integrated plan.
Danger Zone	As defined in the RailSafe Network Rules and Procedures.
Design Documentation	As defined in the Agreement, or otherwise: any design documents that are required to be submitted to TfNSW or Principal's Representative.



Detailed Services Survey	As defined in the Program Brief.
Earned Value	Method of measuring and reporting project cost performance based on integrated time, cost and scope elements in accordance with ' TfNSW Earned Value Management using Primavera P6 WI-005 '.
Emergency Works	Unplanned work which must be undertaken immediately in order to avoid damage to property or injury to people.
Environmental Control Map (ECM)	A document prepared to assist in the planning and delivery of construction works, specific to a work area and/or activity that identifies the physical location of physical protection measures, work method controls and monitoring requirements to minimise the impact of construction activities on the environment and community.
Environmental Management System	A tool for managing the impacts of an organisation's activities on the environment and provides a structured approach to planning and implementing environment protection measures.
Final Completion	As defined in the Agreement, or if not so defined: the expiry of the Defects Liability Period.
Fruin Level of Service	A level of service Standard for pedestrian access created by John J Fruin PhD.
Global Possession Calendar and Standard Working Calendar	Default calendars in TfNSW's P6 database which can be made available on request.
Hierarchy of Control Measures	As defined in Part 3.1 of the <i>Work Health and Safety Regulation 2017</i> (NSW).
Heavy Vehicle	As defined by section 6 of the Heavy Vehicle National Law.
Heavy Vehicle National Law	The <i>Heavy Vehicle National Law</i> (NSW) No 42a.
Hold Point	Verification point identified in the Works Brief beyond which the relevant part of the IDE Activities may not proceed without the verification and subsequent written authorisation of the Principal's Representative or the relevant person nominated in the TSR.
IDE's Program	The program submitted by the IDE in accordance with Section 1(a)(i) of Annexure D, as updated in accordance with the Agreement from time to time.
Issue	Any issue associated with the IDE Activities that may have an impact on the community or may attract the attention of the media, such as an event which impacts on the normal operation of transport services, a timetable delay or access blockage etc.



Learning Workers	<p>Trainees (completing a training contract) and workers, current and new, who are updating their qualifications to meet the needs of the Project. This includes full and part qualification accredited training.</p> <p>Learning Workers excludes trainees and workers who undertake training required by legislation, associated regulations, standards and accreditations or for the various approvals, licences, and permits that may be necessary for commencement, implementation and control of the Project Works, Temporary Works and the IDE Activities.</p>
Management Plans	Any of the management plans or Sub plans to be developed by the IDE in accordance with the requirements of this TSR and the Agreement which describe how the IDE will manage related matters and issues that arise during the term of the Project.
NABERS	The National Australian Built Environment Rating System.
National Counter Terrorism Alert Levels	Levels described in the Australian Government's National Terrorism Public Alert System and referenced on the Australian National Security website.
Other Contractor	As defined in the Agreement, or otherwise: any contractor, consultant, artist, tradesperson or other person engaged by TfNSW or others to do work, other than the IDE and its Subcontractors.
Other Contractor Work	As defined in the Agreement, or otherwise: the works to be undertaken by an Other Contractor on a part of the Site during any period in which the IDE has been engaged as principal contractor in respect of that part of the Site.
Operator/Maintainer	An organisation that, post Asset Handover, will operate and maintain the assets, which may also be the Asset Owner.
Operational Readiness	A process used to ensure that the Works are safely integrated into the Rail Network, with all necessary plans, Documents, Approvals, staff training and any other related activity completed, so as to ensure a safe and smooth transition into operation.
PDR	Preliminary design review (or equivalent) stage of the design, as developed in accordance with the IDE's systems engineering processes.
Planning Approval	As defined in the Agreement, or otherwise: any Approval issued from time to time by either TfNSW or the Minister for Planning and Infrastructure (acting in their capacity as determining authority) under the <i>Environmental Planning and Assessment Act 1979</i> (NSW) in respect of the IDE Activities, and any mitigation measures and statement of commitments that are required to be complied with or fulfilled.



Pre-Construction Works	Defined in a Planning Approval as works other than the construction, where those defined pre-construction activities are (within specified constraints) able to be undertaken prior to the approval to commence construction.
Project Rail Safeworking Coordinator	A person appointed by TfNSW, accountable for monitoring the management of worksite protection and rail safety requirements for controlled and managed worksites on the programs/projects being delivered by TfNSW on behalf of the NSW State government.
Property Representative	The Property Representative appointed by the IDE under section 7.1(a).
RailSafe Network Rules & Procedures	Australian Network Rules and Procedures as defined by the Rail Industry Safety Standards Board.
Rail Safety	Rail Safety as defined in the Rail Safety National Law.
Rail Safety National Law	The <i>Rail Safety National Law</i> (NSW) No 82a.
Rail Safety Work	Rail Safety Work as defined in the Rail Safety National Law.
Rail Safety Worker (RSW)	Rail Safety Worker as defined in the Rail Safety National Law.
Rail Transport Operator	An entity defined by the Rail Safety National Law as a rail operator or rail transport operator.
Reference Documents	The documents listed in Annexure H to this TSR.
RMS	Roads and Maritime Services, a corporation constituted by section 46(1) of the <i>Transport Administration Act 1988</i> (NSW).
Safe Work Method Statement (SWMS)	As defined in section 5 of the <i>Work Health and Safety Regulation 2017</i> (NSW).
SDR	System definition review (or equivalent) stage of the design as developed in accordance with the IDE's systems engineering processes.
Sub plan	A standalone Management Plan which is included in the overall CMP.
Trainee	A person who has been employed in a recognised traineeship vocation and who has entered into a training contract with his/her employer under the <i>Apprenticeship and Traineeship Act 2001</i> (NSW).
Vehicle Registration Database	TfNSW's database recording a rail vehicle's ownership and technical details to indicate that the vehicle has met TfNSW's acceptance requirements and is authorised to operate on rail infrastructure managed by TfNSW.



Witness Point	Point identified in the TSR or Works Brief where the Principal's Representative, or the relevant person nominated in the TSR, may review, witness, inspect, or undertake tests on any component, method, or process of the IDE Activities.
Women in Non-Traditional Roles	<p>Women in non-traditional trades or vocational education and training pathways and/or occupations where women are underrepresented. For example:</p> <ul style="list-style-type: none"> • all trades in construction, metals, engineering and electrical; and • completing Certificate 3, Diplomas and Advanced Diplomas in surveying, environmental, drafting and project management, <p>but excludes women working as traffic controllers.</p>
Work Breakdown Structure (WBS)	Framework of discrete work elements (or tasks) used to organise and define the total project work scope, cost, and schedule control elements.
Worksite Protection	The safety measures adopted, in relation to rail operations, to protect persons brought or invited to any part of the Site located within the Rail Corridor.
Worksite Protection Personnel	The protection officer assigned to implement the required Worksite Protection for work within the Rail Corridor.
Worksite Protection Plan	The protection officer's plan documenting the safety measures adopted, in relation to rail operations, to protect persons brought or invited to any part of the Site located within the Rail Corridor.

Annexure C Management Plans

1 General

The Contract Management Plan (**CMP**) is the Project-specific overarching Management Plan that includes all other Management Plans as Sub plans that must be developed under the Agreement. The CMP must describe the complete management activities, systems and processes which the IDE will employ during the IDE Activities.

The IDE Activities must be carried out in compliance with all Management Plans developed by the IDE.

2 CMP Sections

Unless otherwise noted in Annexure A, the CMP must include the following sections.

2.1 Contract Management

The contract management section must:

- (a) explain in a systematic, coordinated and integrated structure, the managerial structure for performing the IDE Activities in the delivery of the Works;
- (b) define responsibilities, resources and processes for planning and performing the IDE Activities and verifying that the Works meet the requirements of the Agreement;
- (c) describe the key roles and responsibilities and provide an organisation chart covering the key roles and Subcontract interfaces;
- (d) define the interface and associated responsibilities of the IDE, Subcontractors, Interface Contractors, Other Contractors and other relevant third parties as well as TfNSW;
- (e) describe how the ASA Authorisation covers the full scope of the Agreement including all Subcontracts;
- (f) describe how the IDE will comply with all relevant Laws, Codes and Standards and requirements, applicable to the IDE Activities;
- (g) list all Documents required to be developed by the IDE, under the Agreement;
- (h) list all Documents required to be submitted to the Principal's Representative under the Agreement;
- (i) list all approvals to be sought from TfNSW and others;
- (j) define the reporting mechanisms in the case of incidents and protocols for communicating with Authorities; and
- (k) identify the responsible person for developing and updating the CMP and its sections.

2.2 Construction and Site Management (C&SM)

The C&SM section must:

- (a) detail how the IDE will comply with its obligations under the Agreement in relation to the control, establishment, security, use and rehabilitation of the Site including the arrangements to provide access to, within and through the Site for TfNSW, Other Contractors and any other person nominated by TfNSW;
- (b) describe how security management will reflect the National Counter Terrorism Alert Levels and develop procedures to communicate and respond to changes in the

National Counter Terrorism Alert Levels;

- (c) document how notification of a terrorism incident will be made to the Principal's Representative and Law enforcement authorities, and the roles and responsibilities of the IDE's employees and Subcontractors in such an event;
- (d) describe procedures for the preparation and implementation of Management Plans before the start of the related Works or IDE Activities;
- (e) describe procedures for the management of Subcontractors;
- (f) describe procedures for the IDE's mobilisation and demobilisation to carry out the IDE Activities, including mobilisation and demobilisation of personnel, Construction Plant and equipment; and
- (g) address the Site related management of interfaces with any Authority, stakeholders and Other Contractors.

2.3 Design Management

The design management section applies to both the Project Works and Temporary Works and must be based on the IDE's management systems and processes as assessed by the Asset Standards Authority (**ASA**) as part of its ASA Authorisation and must include the measures, including audit and verification that the IDE will utilise to ensure that, as a minimum:

- (a) all design tasks are appropriately resourced by competent personnel;
- (b) all design personnel are aware of the requirements of the Agreement and any obligations of designers under the WHS Legislation;
- (c) all designs are prepared in accordance with requirements of the Agreement;
- (d) design packages are identified and a schedule is included which identifies each unique package, its scope, discipline and the stages of submission in accordance with any requirements of the Works Brief;
- (e) the development of the design is effectively coordinated and the interrelationships identified and managed across all:
 - (i) design interfaces, including with existing systems, operational systems, and maintenance systems;
 - (ii) design stages;
 - (iii) design packages, where the design work has been portioned into design packages; and
 - (iv) design disciplines (e.g. electrical, civil, track, signalling and rolling stock);
- (f) the Configuration Management processes set out in the Works Brief including control gate submissions are detailed;
- (g) the IDE demonstrates familiarity with the Site and its constraints and the existing infrastructure so the Works are designed and configured so as to achieve optimal integration from a human, asset and systems perspective in their operations and maintenance;
- (h) a system for the management of design review comments is incorporated;
- (i) all stakeholders in relation to the design have been appropriately identified, that appropriate stakeholder consultation is undertaken and includes workshops and presentations of the design to relevant parties including the design and sustainability review panel;



- (j) all design assumptions are documented and verified;
- (k) all designs are checked, reviewed and verified by competent personnel and that verification or proof engineering is conducted;
- (l) a requirements management process is adopted in accordance with 'ASA Systems Engineering Standard T MU AM 06006 ST' and the related requirements of the Works Brief;
- (m) all methodologies, sequencing, staging, temporary or enabling works are taken into account and the associated risks are managed in the design;
- (n) an asset maintenance strategy and an asset operations strategy are delivered with the design;
- (o) safety, sustainability, reliability, availability and maintainability are demonstrated in the design;
- (p) durability assessment and durability statements are included with the design;
- (q) all completed designs or completed portions of the design are accompanied by a design assurance certificate from the AEO;
- (r) the process for managing design changes, and how this integrates with the configuration management activities in regards to the I&P Configuration Control Board (I&P CCB) and the Transport Network Assurance Committee (TNAC);
- (s) all inspection and test criteria are developed for the delivery of the Works for incorporation in the inspection and test documentation that will verify and validate the Project Works and Temporary Works;
- (t) all documentation is compliant with requirements of the Agreement, 'ASA Engineering Drawings & CAD Requirements T MU MD 00006 ST' and other discipline specific ASA Requirements;
- (u) risk arising from all hazards identified in the preliminary hazard analysis and systems hazard analysis are designed out or carried over, in the ['TfNSW Project Specific Risk Register SD-001'](#); and
- (v) all designs comply with relevant Codes and Standards and the ASA Requirements.

2.4 Digital Engineering (DE)

The DE section must:

- (a) describe the IDE's approach to provide an engineering accurate digital representation of the physical Works (as per the Works Brief), containing a data rich DE model with all associated information required to optimise the delivery, operations and maintenance of the assets;
- (b) describe the IDE's procedures to be adopted to ensure compliance with the requirements outlined in the ['TfNSW Digital Engineering Standard – Part 2 ST-207'](#) and the related requirements of the Works Brief;
- (c) describe how DE will be integrated and managed with the other sections in the CMP and its sections and Sub plans; and
- (d) describe how the Digital Engineering Execution Plan (DEXP), as a Sub Plan to the CMP, is to be used to ensure that the IDE delivers the DE outcomes listed in the Works Brief and the ['TfNSW Digital Engineering Standard – Part 2 ST-207'](#).

2.5 Commuter and Passenger Management (C&PM)

The C&PM section must include:

- (a) drawings showing (as a minimum) the layout of public areas, including facilities provided for operational staff and patrons and systems drawings at each stage of construction;
- (b) drawings showing the proposed arrangement of the passenger facilities clearly showing the position of hoardings and provisions for interchange to other transport services. Clearances and free area of platforms and the like should be clearly documented. Fruin Level of Service diagrams must accompany the drawings and they must indicate the proposed level of service for the proposed arrangement;
- (c) drawings showing proposed arrangement of signage covering existing signage and new temporary signage. Details must include location, size and wording of temporary and permanent way finding signage and proposed modification to any existing signage;
- (d) drawings showing proposed arrangement of passenger information panels including temporary relocations and modifications;
- (e) a program clearly indicating when configuration will be changed and proposed period of change;
- (f) identification of controlled Site access points;
- (g) identification of delineation lines and material to be used for delineation;
- (h) identification of access points from public modes of transport and general ingress and egress points; and
- (i) identification and accommodation of level changes via ramps, stairs, and other means.

2.6 Traffic Management

The traffic management section must:

- (a) be consistent with and comply with the traffic configuration of the local road network as it exists at various stages during construction and in respect of:
 - (i) the management of traffic on the Site;
 - (ii) WHS Legislation, the *Roads Act 1993* (NSW) and all other applicable Laws;
 - (iii) Approvals, including any from RMS, NSW Police, State Emergency Services or any local or municipal councils;
 - (iv) the RMS' [‘Traffic Control at Work Sites Manual’](#);
 - (v) the need for traffic control plans; and
 - (vi) AS 1742.3-2009 ‘Manual of uniform traffic control devices Traffic control for works on roads’;
- (b) provide details of certificates, licences, consents, permits and approvals, including in respect of working hours;
- (c) include traffic management procedures for the Site, including those required to manage:
 - (i) modifications to existing roads/paths and traffic patterns;
 - (ii) changes to public transport routes and services;



- (iii) impacts on residents and/or commercial enterprises; and
- (iv) the impact of construction traffic within the Site and outside the Site on the adjacent public road system;
- (d) include procedures to ensure the appropriate notification of relevant emergency services prior to implementing road and pedestrian traffic modifications such as street closures or changes to station access;
- (e) address the safety of customers, members of the public, construction, public traffic and contract personnel;
- (f) consider changes to traffic usage patterns (average, low and peak flows as well as special events or traffic embargoes);
- (g) include relevant detail from the IDE's Program including relevant dates for commencement of the IDE Activities and achievement of Completion;
- (h) describe the management of emergencies and incidents in the context of access and egress;
- (i) describe requirements in relation to the occupation of, or access through, private properties;
- (j) describe coordination of traffic management with TfNSW, Other Contractors and other parties;
- (k) include procedures for obtaining relevant certificates, licences, consents, permits and approvals;
- (l) include the traffic management plans nominated in Annexure A; and
- (m) show expected number of vehicle movements each hour, based on the predicted maximum monthly material generation amounts and hours of operation of Worksites.

2.7 Defect Management

The defect management section must:

- (a) address all contractual requirements for managing Defects;
- (b) clearly specify the strategy for managing any Defects raised by the IDE, TfNSW, the Operator/Maintainer or Asset Owner;
- (c) clearly specify the process in relation to joint inspection of review of the Works, and notifications to be provided prior to Completion of any Portion or the whole of the Works; and
- (d) include a procedure for the management of Defects which must include the use of TfNSW's preferred software system where specified in Annexure A.

2.8 Audit Management

The audit management section must outline the methodology, process and procedures adopted by the IDE to assure itself that the requirements of the Agreement are being met, including:

- (a) preparation of risk based audit schedules for the Works and any Subcontractor activities that also take account of previous audit outcomes;
- (b) supply of competent and experienced resources to carry out audit management and implement the audit schedule;
- (c) reporting, analysing and determining trends based on those audits;



- (d) implementation of corrective and preventative actions as an outcome from those audits; and
- (e) measures to assess the effectiveness of the corrective and preventative actions.

2.9 Risk Management

The risk management section must address the management of risks applicable to the undertaking of the IDE Activities in delivery of the Works and:

- (a) provide an outline of the framework and approach for developing, utilising, and maintaining a risk register capable of supporting effective risk management and reporting risk information;
- (b) describe the management of risks applicable to the undertaking all of the IDE Activities;
- (c) provide details of the IDE's approach to risk management in accordance with ISO 31000:2018 'Risk Management – Guidelines', and its risk framework, processes and internal controls to manage;
- (d) include processes and procedures for the systematic identification, assessment, treatment and management of hazards and risks;
- (e) provide details on the timing and scope of the IDE's internal and external risk review processes, compliance, and audit related activities, including methods used to ensure that risk control measures and tasks are on schedule and effective;
- (f) describe how the risks identified are integrated and managed with the other sections in the CMP and its sections and Sub plans;
- (g) describe specific control measures, including safe work methods to be implemented to eliminate or mitigate risks;
- (h) include methods to be used to monitor effectiveness of safe work methods and control measures;
- (i) nominate the persons responsible for monitoring implementation of the control measures;
- (j) include consultative processes employed by the IDE in relation to risk management and the persons involved;
- (k) demonstrate the application of the Hierarchy of Control Measures undertaken to lessen the risks so far as is reasonably practicable; and
- (l) include and maintain a register of risks which includes:
 - (i) a description of the risk or hazard and likely impacts;
 - (ii) the risk level assessed for each hazard; and
 - (iii) the residual risks or hazards.

2.10 Commissioning & Operational Readiness Management (CORM)

The CORM section must:

- (a) document systems and processes to ensure that the programming and coordinating of all Commissioning activities, including activities which may be carried out by or interface with third parties (including any Track Possessions) are defined;
- (b) describe the IDE Activities in relation to the requirements in the Works Brief relating to Commissioning, Asset Handover and Operational Readiness including the requirements for Commissioning Management Plans;
- (c) define the operational readiness tasks and responsibilities of each organisation

involved in transitioning the Project into operation;

- (d) define the maintenance readiness tasks and responsibilities of each organisation involved in transitioning the Project into the operations and maintenance phase; and
- (e) define the document submission requirements relating to the Configuration Materials for Track Possessions, Asset Handover, the CCB gateway 4 and 5 process and Completion.

3 CMP Sub plans

The CMP must include the following stand-alone Sub plans, as nominated in Annexure A.

3.1 Construction Environmental Management Plan (CEMP)

Where nominated in Annexure A, the CEMP must comply with the relevant requirements of the 'NSW Government Environmental Management System Guidelines' and the Planning Approval, and must include the following:

- (a) details of the Environmental Management System to be applied;
- (b) the environmental protection measures, and inspection and monitoring regime to be employed;
- (c) the procedures to be implemented to verify that the IDE Activities relating to environmental management matters are compliant with the requirements of the Agreement, including all Authorities and Approvals, as well as details of the system to track Planning Approvals;
- (d) procedures for the management of incidents, non-conformances, non-compliances, Defects, complaints and reporting, reflecting the fact that the IDE must not communicate (phone, mail, email etc.) directly with any Authority unless allowed to do so under Law or (unless permitted under Law) unless written consent is provided by TfNSW and a communications protocol has been established;
- (e) management of sustainability matters; and
- (f) record keeping.

3.2 Sustainability Management Plan (SMP)

The SMP must include the following:

- (a) Demonstrate how the IDE will provide strong leadership and promote sustainability as a core value, establishing and enforcing high standards of performance and ensuring relevant expertise is available.
- (b) Details of the sustainability resource/s to be employed by the IDE, their roles and responsibilities and organisational structure.
- (c) The approach and/or procedures of how the IDE will meet all the sustainability requirements and targets for the Works including:
 - (i) sustainability tool ratings;
 - (ii) sustainability in design;
 - (iii) sustainability in construction;
 - (iv) whole of life costing;
 - (v) sustainable procurement requirements;
 - (vi) innovation or positive legacy opportunities;

- (vii) reporting and data collection requirements;
 - (viii) handover requirements at Completion; and
 - (ix) integration/overlap with other Management Plans.
- (d) Details of processes or systems to be utilised by the IDE to manage sustainability outcomes (i.e. energy, procurement, waste, biodiversity, heritage, urban design, community and stakeholders).

3.3 Social Procurement Workforce Plan (SPWP)

The SPWP must include the following:

- (a) the processes, systems and proposed delivery methodology to achieve the social procurement workforce requirements;
- (b) details of the social procurement workforce resource(s) to be employed by the IDE, their roles and responsibilities and organisational structure;
- (c) an assessment of the current and future workforce skill needs and whether the IDE can meet higher targets than the requirements in sections 4.2 and 4.4;
- (d) strategies to obtain funding, subsidies and grants to support achievement of the requirements in section 4.2 and section 4.4;
- (e) methods for social procurement workforce data collection; and
- (f) details of how Apprentices, Trainees, and people from disadvantaged groups will be mentored.

3.4 Community Liaison Management Plan (CLMP)

The CLMP must include the following:

- (a) details of the community relations resources to be employed by the IDE;
- (b) a comprehensive, Project-specific analysis of issues and proposed strategies to manage these issues through the duration of the project;
- (c) details of the communication tools (traditional and digital) and activities that will be used to inform and engage the community and stakeholders;
- (d) a comprehensive stakeholder list, highlighting issues/interests and strategies for dealing with each audience and mitigating potential issues/concerns;
- (e) a program for the implementation of community liaison activities relating to key construction tasks with strategies for minimising impacts and informing the community;
- (f) details of key messages to be used in the Communications Materials;
- (g) details of the community and stakeholder consultation, methodologies and timeframes required to meet the Planning Approval;
- (h) policies and procedures for handling community complaints and enquiries, including the IDE's nominated 24 hour contact for management of complaints and enquiries;
- (i) details of activities which will be undertaken to monitor and evaluate the effectiveness of the community liaison activities;
- (j) analysis of other major projects/influences in the area with the potential to result in cumulative impacts to the community and strategies for managing these;
- (k) details of procedures for obtaining approval from the Principal's Representative, where required in the Agreement, including this TSR;



- (l) details of the approach to engaging with and involving local community/interest groups in the successful delivery of the project; and
- (m) a business management strategy which includes details of businesses that may be impacted by the Works or the IDE Activities, the potential impacts to business continuity, the engagement tools, forums and activities that will be used to keep them consulted and informed.

A summary of the CLMP must be provided for uploading to TfNSW's website.

3.5 Property Management Plan (PMP)

The PMP must address the IDE's approach to the management of property and must describe:

- (a) the property resources to be engaged in the project including Subcontractors and consultants;
- (b) processes for identification, mitigation and treatment of property related risk;
- (c) definition of the Site including the use of any additional lands as well as access control and security measures;
- (d) management of relations with all adjoining owners, tenants, stakeholders, Other Contractors, Interface Contractors and TfNSW;
- (e) how the IDE will minimise disruption to property owners, tenants and other stakeholders and procedures for the complaint resolution process;
- (f) processes for management of property survey and site set out;
- (g) processes for ensuring all design and construction occurs within the allowable boundaries;
- (h) processes to avoid and monitor for unwanted damage to property on the Site and adjoining properties;
- (i) a list of the properties and assets which will be subject to a condition survey by the IDE;
- (j) processes for managing condition surveys and identification of actual damage, how it occurred and how that damage will be rectified;
- (k) processes for dispute management in relation to damage and how each dispute will be processed, managed and resolved including a property damage claim process flowchart;
- (l) noise, vibration and settlement limits that will prevent the damage of existing property and items by the IDE Activities and the need to transfer these criteria into method statements and inspection and test plans to ensure that any IDE Activities are within the above limits and minimise damage risks; and
- (m) sample letters for permission to conduct a property condition survey, letter of introduction for property condition survey staff, and sample property condition reports.

The IDE must prepare a summary of the CLMP for uploading on to TfNSW's website.

3.6 Work Health and Safety Management Plan (WHSMP)

The management of health and safety as well as the means of developing the required safety culture must be documented in the WHSMP. The WHSMP must:

- (a) detail how the IDE will continuously promote a safer, healthier, more productive workplace, by establishing and maintaining an effective safety management system that facilitates the flow of information both within the IDE's organisation and between



the IDE's organisation, Subcontractors and TfNSW;

- (b) detail how the IDE will provide strong leadership and promote safety as a core value, establishing and enforcing high standards of performance and ensuring relevant expertise is available. The WHSMP will also provide details of how the implementation of the IDE's leadership program will be measured to determine its success. This will also include details of how the IDE will communicate to their workforce of 'what good looks like';
- (c) detail how the IDE will ensure ongoing open and effective consultation and further, mutual trust with the Principal's Representative, providing timely response to safety issues and concerns within requested timeframes as advised by the Principal's Representative;
- (d) describe the means of providing the Works and otherwise performing the IDE Activities in accordance with the safety management requirements stated in the Agreement, under any applicable Law, and this TSR;
- (e) demonstrate compliance with the 'NSW Government Work Health and Safety Management Systems and Auditing Guidelines' (edition 5, September 2013). Additionally this will be included in the WHSMP requirements matrix which shall form part of this plan;
- (f) describe how the IDE will manage WHS risks in accordance with ISO 31000:2018 'Risk Management - Guidelines';
- (g) ensure that where the IDE Activities involve work in or adjacent to the Rail Corridor or the rail environment, provision for rail safeworking arrangements, based upon (without limitation) compliance with the Rail Safety National Law and RailSafe Network Rules and Procedures are provided;
- (h) contain a requirements matrix to demonstrate compliance which will readily direct TfNSW to the particular parts of the IDE's Management Plans where WHS requirements of this TSR and the Agreement are addressed;
- (i) describe how the IDE's safety management system and safety culture supports:
 - (i) the encouragement of teamwork and of worker involvement in promoting and maintaining a positive safety culture;
 - (ii) a 'One Team' approach to safety across all participants in the Project (including Subcontractors);
 - (iii) senior management's commitment to safety;
 - (iv) a commitment to work with the Principal's Representative to develop Project-specific lead and lag KPIs;
 - (v) a shared care and concern for hazards;
 - (vi) workers adapting to their changing environment where required;
 - (vii) organisational learning through monitoring, analysis and feedback systems;
 - (viii) methods for providing feedback and setting timeframes for such provision;
 - (ix) methods to communicate and share learning from successes and failures;
 - (x) methods to demonstrate how Site safety rules will be reflected in practice, and how such rules will be incorporated into the IDE Activities; and
 - (xi) methods to enable the ongoing development of safety improvements developed in consultation and communication with the Principal's Representative, as required.

3.7 Workplace Relations Management Plan (WRMP)

The WRMP must:

- (a) be in accordance with the [New South Wales Industrial Relations Guidelines: Building and Construction Procurement, July 2013, Updated September 2017](#); and
- (b) reflect any industrial relations plan submitted with the IDE's tender submission.

3.8 Digital Engineering Execution Plan (DEXP)

The DEXP must:

- (a) comply with the plan requirements in the '[TfNSW Digital Engineering Standard – Part 2 ST- 207](#)'; and
- (b) be based on the '[TfNSW Digital Engineering Execution Plan \(DEXP\) FT-532](#)'.

3.9 Other Plans

The CMP must include as a Sub plan, any other Management Plan required under the Agreement including the Works Brief.



Annexure D IDE's Program

1 General

- (a) The IDE must:
- (i) unless noted otherwise in Annexure A or the Agreement, submit the IDE's 'Baseline Program' to the Principal's Representative for review in accordance with the Agreement, within 10 Business Days of the Reference Date;
 - (ii) update the IDE's Program on a monthly basis and submit to the Principal's Representative for review and acceptance in accordance with the Agreement by the first Business Day of the month (with a status date of the first calendar day of the month to account for all of the previous month's progress) unless otherwise specified in Annexure A and at any other times required by the Agreement;
 - (iii) comply with '[TfNSW Scheduling Standard ST-123](#)' and provide the IDE's Program in the latest version of Primavera P6 (XER format), as a single P6 project, not broken into multiple parts;
 - (iv) develop, status and maintain the IDE's Program in Primavera P6 on TfNSW's planning environment. The IDE will be given access to TfNSW's planning environment via Citrix or other at no extra cost to the IDE;
 - (v) ensure that each update to the IDE's Program is archived within TfNSW's planning environment, and will be able to export the program file (no more than once per week) via a request to the Principal's Representative. The file will be emailed to the IDE; and
 - (vi) not import any programs into TfNSW's Primavera database. TfNSW will import the IDE's Program into TfNSW's P6 planning environment database, maintain the database security and control the access to the database, but will not make changes to the IDE's Program without the approval of the IDE.
- (b) As a minimum, the IDE's Program must:
- (i) define approved additional activities and/or additional working days in a separate Work Breakdown Structure (**WBS**) and cost breakdown structure item, so that cost and time of the additional activities can be clearly distinguished from the original scope;
 - (ii) have a separate WBS structure outlining each step of the design review process for each individual design package; where relevant;
 - (iii) group the Works and milestones into a WBS that is aligned to the payment schedule or other form of cost breakdown structure included in the Agreement and agreed with the Principal's Representative;
 - (iv) show Earned Value in accordance with 'AS 4817-2006 Project Performance Measurement using Earned Value' and '[TfNSW Earned Value Management using Primavera P6 WI-005](#)';
 - (v) include budgeted cost, actual and actual cost input into the relevant WBS items each month;
 - (vi) show the Principal's Representative's review periods in accordance with the requirements set out in the Agreement; and
 - (vii) ensure the schedule is compliant with the requirements outlined in the '[TfNSW Digital Engineering Standard – Part 2 ST-207](#)', the related



requirements of the Works Brief and as required by the Principal's Representative.

2 Program Setup and Maintenance

The IDE's Program must:

- (a) include all key activities, milestones and deliverables detailed in this TSR and the Agreement and any other activities and deliverables directed by the Principal's Representative;
- (b) include requirements for the submission, review and approval of all Documents and other deliverables including the Management Plans and Design Documentation;
- (c) include the required submission and approval timeframes and resources for community notification and consultation;
- (d) outline the dates when the IDE will require information, documents, materials or instructions from TfNSW and the dates when the IDE will provide information or Documents to TfNSW. These dates must be consistent with dates that TfNSW could reasonably have anticipated at the date of the Agreement;
- (e) provide start and finish dates for all elements of the IDE Activities (including design, procurement and construction activities), milestones, Track Possessions, external dependencies, TfNSW deliverables, Operator/Maintainer deliverables and any other significant events and contractual Dates for Completion;
- (f) show the lead times for the supply of information, selection of Subcontractors, approvals, and the supply of equipment by TfNSW, its agents or persons for whom the IDE is not responsible. Each period must be represented in a separate activity from the IDE's activity for the relevant items;
- (g) clearly identify the access requirements and activities, including Track Possessions and any outages;
- (h) show activities for Site mobilisation, establishment and demobilisation;
- (i) clearly identify the critical path activities and any milestones;
- (j) add and maintain codes, resources and expense activities as directed by the Principal's Representative;
- (k) show quantities and rates as requested by the Principal's Representative;
- (l) identify time leads and lags, resources and other constraints;
- (m) show calendars identifying the working and non-working days for the Works. Project calendars are to be up-to-date and reflect changes to the available working periods. The calendars must reflect the Global Possession Calendar and Standard Working Calendar which can be provided on request. No other allowances for wet weather or other such contingencies are to be made in the calendars;
- (n) reflect the time scheduled, remaining duration and actual physical progress of the Works, and be consistent with all constraints on access, performance and coordination;
- (o) show allowance for weather and other event contingencies in a single activity at the end of the critical path and prior to Completion; and
- (p) show Commissioning and Asset Handover activities, including the time allowed for testing and Commissioning of major items.



3 Program Quality

- (a) The IDE must maintain the quality of the IDE's Program and satisfy the criteria (by remaining below the acceptable thresholds) set out in the table in section 3.1 below.
- (b) Further assessment criteria and thresholds may be added or modified by the Principal's Representative. Deviations from the stated thresholds must be approved by the Principal's Representative prior to being accepted.
- (c) The quality of the IDE's Program will be assessed upon each submission.

3.1 Program Quality Thresholds

Criteria	Description	Remarks	Acceptable Threshold
Missing Predecessors	Total number of activities that are missing predecessors	Activities that have missing predecessors are known as open-ended activities. Open ends cause time and risk analysis calculations to be erroneous. Ideally, all open ends should be fixed in a program during the planning phase.	Less than 1%
Missing Successors	Total number of normal activities that are missing successors	Activities that have missing successors are known as open-ended activities. Open ends cause time and risk analysis calculations to be erroneous. Ideally, all open ends should be fixed in a program during the planning phase	Less than 1%
Merge Hotspot	The total number of activities with a high number of predecessor links	Also known as merge bias, merge hotspot is an indication as to how complex the start of an activity is. If the number of links is greater than two, then there is a high probability that the activity in question will be delayed due to the cumulative effect of all links having to complete on time in order for the activity to start on time.	Less than 2.5%
Diverge Hotspot	The total number of activities with a high number of successor links	A diverge hotspot is an indication as to how complex the end of an activity is. If the number of links is greater than two, then there is a high probability that the activity in question may delay a large number of successors.	Less than 2.5%
Critical	Number of critical activities	The number of critical tasks within a grouping. Typically critical activities have total finish float of zero. Primavera programs may have critical activities with more than zero float	No threshold



Criteria	Description	Remarks	Acceptable Threshold
		depending on the threshold set in Primavera P6.	
0 to 20 Days Float	Total number of activities with positive float of more than zero and less than or equal to 20 days	Near critical activities should be closely monitored during execution to ensure a successful project delivered on time.	No threshold
Hard Constraints (Finish on, Start on, Mandatory Finish, Mandatory Start)	Number of activities with hard or two-way constraints	Hard or two-way constraints such as Must start on or Must finish on should be avoided. Consider using soft constraints if absolutely necessary. Includes normal activities and milestones that are planned, in-progress, or complete.	Zero
Soft Constraints (Start On or After, Finish On or After)	Number of activities with soft or one-way constraints	Soft or one-way constraints such as start no earlier than or finish no later than, constrain an activity in a single direction. While not as impactful as hard constraints, soft constraints do impact critical path method calculations in a program and should be reviewed carefully.	Zero
High Float	Excessive free total float	Number of activities with total float greater than 2 months. Activities must be agreed with the Principal's Representative	Less than 5%
Negative Float	Total number of activities with total finish float less than 0 working days	Negative float is a result of an artificially accelerated or constrained program. Negative float indicates that a program is not possible, based on the current Completion dates. Compare this metric to constraint metrics to determine which activities (with negative float) are being impacted by constraints. Ideally, there should not be any negative float in the program. Includes normal activities and milestones that are planned or in-progress.	Zero
High Duration	Total number of activities that have a duration longer than 10 days. This number should not exceed 5%	Total number of activities that have a duration longer than 10 days. Activities must be agreed with the Principal's Representative.	Less than 5%



Criteria	Description	Remarks	Acceptable Threshold
Zero Duration	Normal activities having a Zero duration	Normal activities having a Zero duration	Zero
Wrong Status	Activities started or completed in the future	All activities with status in the future must be corrected in order to maintain an accurate execution plan. Includes only normal activities and milestones that are in progress or complete	Zero
Start to Finish (SF) Predecessors	Total number of activities with SF logic links	Start-to-finish links are deliberately used very rarely because they have the unusual effect that the successor happens before the predecessor. Generally a poor practice when planning. Includes only normal activities and milestones that are planned, in-progress, or complete.	Zero
Leads and Lags	Lags in excess of 10 days	A lag is a duration applied to a logic link often used to represent non-working time between activities such as concrete curing. Lags tend to hide detail in programs and cannot be 'statused' like normal activities. Lags should typically be replaced with activities. Includes normal activities and milestones that are planned, in-progress, or complete. Leads and lags will not be accepted on any critical activities with zero float.	Zero
Logic on summaries		A summary is not a true activity. Logic should be tied to activities within the schedule.	Zero
Reverse logic		As a result of a negative lag (a lead), the successor activity starts before their predecessor.	Zero



Annexure E Records

These requirements apply as indicated in Annexure A

Part 1 Pre Commencement Property Compliance Checklist

(for use pre Site occupation or pre construction)

Compiled by: _____ On behalf of: _____ Contract

#: _____ Date: _____

#	Issue	Circle relevant answer and add comment	Attachment
1	Has the IDE been liaising with the Principal's Representative?	Y N Comment: [insert text here]	
2	Have all properties affected by the project been identified?	Y N Comment: [insert text here]	
3	Has a list of all affected properties been issued to the Principal's Representative? (Where such properties have not been supplied already by TfNSW)	Y N Comment: [insert text here]	
4	Is access required to properties owned by other parties?	Y N provide details Comment: [insert text here]	
5	Are all agreements in place with other landowners to permit the IDE to undertake the Works?	Y N Comment: [insert text here]	
7	Have all surveys been conducted?	Y N Comment: [insert text here]	
8	Have all surveys been cross-checked with the designs?	Y N Comment: [insert text here]	
9	Do any of the proposed Works or IDE Activities fall outside the property / Site boundaries?	Y N Comment: [insert text here]	
10	If so, has the IDE entered into appropriate agreements to build on the adjoining land?	Y N Comment: [insert text here]	
11	Are new easements, strata, MOU's or WAD's with stakeholders required for the Project?	Y N Comment: [insert text here]	



#	Issue	Circle relevant answer and add comment	Attachment
12	Have any new easement, stratum, MOU's or WAD's been drafted and issued to the Principal's Representative for review?	Y N Comment: [insert text here]	
13	Have all property Pre-construction Condition Surveys been conducted and submitted?	Y N Comment: [insert text here]	
14	Has asset management been considered in design?	Y N Comment: [insert text here]	
15	Are there any other property risks?	Y N Comment: [insert text here]	

RECEIVED by TfNSW

Signed: _____ Received by: _____ Date: _____

REVIEWED by Principal's Representative

Signed: _____

Name: _____

Date: _____

Acceptable? (Conforms to Agreement requirements): Y/N provide reasons:

Comments provided: Y/N (attach
comments) No Comments or no further

Comments: Y/N



Part 2 Property Records

Required Record or Reference
Index of all property records noting issues/versions and where they are held
Qualifications/skills and competency records of IDE's personnel (including Subcontractors)
Induction and training records for IDE's personnel and Subcontractors
Property control and constraints maps (Worksite maps)
List of all adjoining property owners and details of all interaction / communications and complaints
Evidence of property inputs/outputs within the design development process including any sustainability initiatives
Surveillance, audit of Subcontractors' property performance and controls
Non-conformance and non-compliance property reports and register

Part 3 Environmental and Sustainability Records

Required Record or Reference
Copies of all completed forms, templates required under the Codes and Standards, and applicable guidelines
IDE's non compliance, Incident, near miss, non conformance reports and register
Preventive and corrective action reports and register
Environmental audit reports
Sustainability audit reports
Environmental Control Maps
Index of all environmental records (prior to Completion)
Index of all sustainability records (prior to Completion)
Induction and training records
Records/checklists of inspection and testing
Records of environmental management reviews for the Project
Record of sustainability systems reviews for the Project
Register of equipment, calibration frequency and certificates
Surveillance, audit of Subcontractors' environmental and sustainability performance and controls



Part 4 Social Procurement Workforce Records

Required Record or Reference
Training attendance records for personnel that attended cultural awareness training
Staff records of personnel engaged to meet targets and requirements in sections 4.2 and 4.4
Copies of contracts awarded to meet the targets and requirements in section 4.2 and 4.4



Annexure F Working in and Adjacent to the Rail Corridor

The requirements apply unless nominated otherwise in Annexure A.

1 The Operating Railway System

The IDE acknowledges and agrees that:

- (a) it is aware that Sydney Trains or another Operator/Maintainer may continue to use areas adjacent to, or within the Site as part of normal operations of the railway system on a commercial basis during the undertaking of the Works;
- (b) the continuance of normal operations of the railway system, including within the Site, adjoining areas and railway stations, on a commercial basis by Sydney Trains or another Operator/Maintainer during the performance of the IDE Activities must be maintained to the satisfaction of the Operator/Maintainer as notified by the Principal's Representative. The IDE must ensure that the railway system operations and infrastructure are not impeded or interfered with by reason of the performance of the IDE Activities, except where this is approved in writing beforehand by the Principal's Representative;
- (c) it must maintain and coordinate sufficient access to the railway system, for users and operators, so as not to hinder main traffic routes, including access to and from operating railway station platforms, ticketing areas and the Rail Corridor, and the flow of traffic, including on or accessing the Site and the adjoining areas, except where this is approved in writing beforehand by the Principal's Representative;
- (d) it must, in performing the IDE Activities, do everything that could be reasonably expected of the IDE to avoid Sydney Trains or another Operator/Maintainer breaching any obligation it may have arising out of or in connection with the continuing operation of the railway system on a commercial basis;
- (e) The IDE must:
 - (i) ensure access and egress for Sydney Trains or another Operator/Maintainer and its Contractors to the Site to undertake regular inspections and to complete maintenance and repairs of the Operator/Maintainer's infrastructure where required. This includes complying with any Sydney Trains standards for access to the rail corridor including Sydney Trains R.A.I.N. Operational Process Document (DSYD2019/267825);
 - (ii) ensure access and egress to those parts of the Site required by Other Contractors are made available and coordinated so as to minimise any interference with or disruption;
 - (iii) ensure emergency egress routes (including routes to the Rail Corridor and its support system) are maintained at all times and that emergency systems (including the Sydney Trains emergency warning intercommunication system and fire alarm panels) remain operational throughout the duration of the Agreement;
 - (iv) provide a safe place for persons carrying out Rail Track inspections and/or maintenance work, for example, refuges in any hoarding/fencing constructed adjacent to the Rail Track;
 - (v) comply with any Sydney Trains or other Operator/Maintainer standards applicable to the IDE Activities including for work that is adjacent to an operating rail line and to live overhead wires;



- (vi) ensure that whilst undertaking the IDE Activities, no employees or Construction Plant (including, for example, by the slewing of cranes) of the IDE, Subcontractors or consultants enter an operating Rail Corridor, except as permitted by Sydney Trains 'RailSafe Network Rules'; and
- (vii) all times, and to the satisfaction of the Principal's Representative, carry out the IDE Activities in a manner that will ensure the safety of all property and persons, including the general public, travelling public, station lessees, railway traffic, railway system personnel, road traffic and any person associated or engaged in connection with the Works or the IDE Activities.

2 Track possessions

2.1 Arrangements for Track Possessions

- (a) The Track Possessions available to the IDE are set out in the Agreement. For each Track Possession to be utilised by the IDE, the IDE must attend and incorporate the requirements from:
 - (i) the 'Tier 6 Possession Coordination Meeting' with Sydney Trains held approximately 12 weeks prior to the Track Possession. This meeting will decide the coordination of all activities in the Track Possession, working hours, movements of equipment and work trains in the Track Possession area;
 - (ii) the 'Possession Coordination Meeting' with Sydney Trains held approximately two weeks prior to the Track Possession to discuss train movements and safe working; and
 - (iii) the 'Pre-Possession Meeting' with Sydney Trains, usually held prior to the Track Possession to confirm the detailed arrangements for the Track Possession and coordinate the activities of each party working in the Track Possession.
- (b) For each Track Possession to be utilised by the IDE, the IDE must conform to the requirements of the relevant Rail Transport Operator.
- (c) If a Track Possession involves an asset or partial asset being handed over to the Asset Owner or Operator/Maintainer (even if only for maintenance prior to it being commissioned), a Commissioning event and formal Asset Handover will be required. In these circumstances, the following documents related to the assets being handed over are required to be submitted to the Principal's Representative for review at least six weeks prior to the Track Possession:
 - (i) Safe Work Method Statements;
 - (ii) residual risk assessments;
 - (iii) relevant Configuration Materials including operations and maintenance manuals, drawings, as directed by the Principal's Representative;
 - (iv) Design Documentation; and
 - (v) any other Documents required, as directed by the Principal's Representative.
- (d) Where power isolation is required, the IDE must specify what power is required to be shut down and the time and duration required for the power isolation. This information must be submitted to the Principal's Representative for review, in accordance with the Agreement at least 16 weeks prior to each Track Possession.



2.2 Interface Arrangements during Track Possessions

- (a) The IDE may not have exclusive access to any Rail Tracks or areas within the vicinity of Rail Tracks during a Track Possession. The IDE must coordinate the IDE Activities with those sharing the Track Possession, including parties involved in the operation or maintenance of the rail system and Other Contractors. This includes, where required, the IDE allowing for Operator/Maintainers' Contractors and Other Contractors to pass through the worksites during the Track Possessions.
- (b) The extent of Operator/Maintainer's Contractors and Other Contractors activities on or within the vicinity of the Rail Track during Track Possessions will be determined at the 'Tier 6 Possession Coordination Meeting'.
- (c) The IDE must ensure that all persons invited or brought onto the Site by the IDE or Other Contractors, and those who enter an area within the Rail Corridor undertake all necessary Site inductions and obey all directions given by the Worksite Protection Personnel.
- (d) Prior to the end of the Track Possession, an appropriately qualified inspector holding the appropriate competencies must approve adequate completion of the relevant Works and sign off on 'Sydney Trains Certificate of Practical Completion/Certification (W42F01)'.
- (e) Any Defects listed in the certificate referred to in section 2.2(d) must be rectified by the IDE to the satisfaction of the Principal's Representative within 5 Business Days of the issue of the certificate.
- (f) The Principal's Representative may alter, cancel or curtail any Track Possession at any time.

2.3 Requesting Additional Track Possessions

- (a) It is unlikely that, in addition to those specified in the Agreement, weekend Track Possessions, the Operator/Maintainer's resources and/or Track Possessions (with or without power) in overnight periods when trains are not running, will be available. If the IDE requires Additional Track Possessions, power isolation and/or the Operator/Maintainer's resources, they are to be arranged by the IDE at the IDE's own cost. This includes reimbursing TfNSW for any costs that it incurs in respect of granting (or assisting in the obtaining of any grant of) the Additional Track Possessions and procuring (or assisting in procuring) the Operator/Maintainer's resources. The allocation of these additional costs will be in accordance with the Compensation Framework.
- (b) The IDE must provide a written request for Additional Track Possessions or power isolation of overhead and transmission lines with a notice period as specified in the Agreement.
- (c) Upon a written request by the IDE, TfNSW will seek to facilitate obtaining Additional Track Possessions, power isolations and/or the Operator/Maintainer's resources for the IDE by arranging a meeting between the IDE and the Operator/Maintainer. At this meeting or subsequent meetings, possible dates for Track Possessions, power isolations and/or additional Operator/Maintainer's resources may be identified.
- (d) TfNSW does not guarantee the granting of, and is not obliged to arrange Additional Track Possessions, power isolations or Operator/Maintainer resources on any particular date, or at all.



2.4 Planning and Managing Track Possessions

To ensure that Track Possessions are managed effectively and safely, the IDE must:

- (a) prepare, maintain and update policies and procedures for planning and managing Track Possession work in accordance with the 'Sydney Trains Possession Manual';
- (b) prepare and submit to the Principal's Representative for review for conformance with the 'Sydney Trains Possession Manual', six weeks prior to each Track Possession:
 - (i) a consolidated plan comprising all information required in advance of the Track Possession including that detailed in the 'Sydney Trains Possession Manual'; and
 - (ii) a program including:
 - A. the elements of the Works to be completed prior to the Track Possession;
 - B. an hour by hour breakdown of the elements of the Works to be carried out during the Track Possession;
 - C. milestones and the time and date by which they must be achieved so as to ensure that the rail infrastructure can be reinstated within the allocated time and which, if not achieved by the nominated time, would result in the IDE bringing work to an end and commencing reinstatement of the rail infrastructure and other works to avoid a delay in returning the Track Possession and/or delays to trains;
 - D. adequate allowance of time at the beginning and end of the Track Possession to safely remove and reinstate the affected rail infrastructure to operational condition and for providing and removing safeworking protection and the Operator/Maintainer inspections and certifications;
 - E. the specific risks to be managed during the Track Possession and the procedures to be followed in managing these risks;
 - F. any potential interface issue in any way connected with work carried out by an Other Contractor or involving the Operator/Maintainer's operational and maintenance activities; and
 - G. progress/program review meetings scheduled during the Track Possession as requested by the Principal's Representative and/or the Operator/Maintainer; and
- (c) immediately comply with any instructions by the Principal's Representative to vary the program, or curtail the IDE Activities if the Principal's Representative considers that continuing with intended IDE Activities will result in a delay to returning the Track Possession and/or delay to trains.

2.5 Certification of Work in Track Possessions

Before handover of an area at the end of any Track Possession the IDE must provide to the Principal's Representative and, if required by the Principal's Representative, to the Operator/Maintainer as well, the following:

- (a) for any form of civil or structural works that will support operating Rail Track, written certification by the IDE's designers (including design Subcontractors) that the relevant works are safely able to support the operating rail infrastructure;
- (b) for any adjustments to or interruptions of service to signalling, track, overhead wiring



or high voltage infrastructure, written certification from the IDE's designers (including design Subcontractors) that such infrastructure is suitable for operations and complies with the approved design;

- (c) for any adjustments to or interruptions of service to signalling, overhead wiring or high voltage infrastructure, written certification from a Sydney Trains (or other relevant Operator/Maintainer's) representative that such infrastructure is suitable for operations; and
- (d) all other infrastructure certification as required by Sydney Trains or the relevant Operator/Maintainer and/or Asset Owner.

3 Rail Safety

3.1 Project Work Notification and Work Activity Advice

The IDE must:

- (a) complete and submit the relevant Operator/Maintainer's 'Project Work Notification' (or other applicable document) to the Principal's Representative at least six weeks prior to the planned IDE Activities, including any works in a Track Possession;
- (b) comply with the requirements of the applicable TfNSW/Rail Transport Operator Safety Interface Agreement;
- (c) produce a Work Activity Advice using the form '[TfNSW Work Activity Advice Form FT-105](#)' 4 weeks prior to commencing work, which must cover a particular part of the IDE Activities and include the SWMS applicable to that part of the IDE Activities; and
- (d) conduct a pre-work briefing with all personnel involved, including the Worksite Protection Personnel as defined in the RailSafe Network Rules and Procedures, prior to commencing.

3.2 Competencies

- (a) The IDE must provide the Principal's Representative with a list of activities which identifies the positions required to undertake these activities and which of these positions are Rail Safety Workers. TfNSW may require alteration of the designation of Rail Safety Workers as nominated by the IDE.
- (b) Any person supervising or setting up safe work arrangements for the Works on or in the vicinity of the Rail Corridor must hold the qualifications required by the Rail Transport Operator and TfNSW.
- (c) The IDE must ensure that no person undertakes Rail Safety Work unless they have been issued with a certificate of competency under the Rail Safety National Law.
- (d) The IDE must consult with the Principal's Representative to obtain a determination as to when the RIW card is required. The IDE must ensure that any visitors required to enter the Rail Corridor complete the relevant safety inductions.

3.3 Fatigue Management, Medical and Health Management

For workers carrying out Rail Safety Work the IDE must apply the following fatigue, medical and health minimisation controls:

- (a) implement a fatigue management program that:
 - (i) addresses the requirements of the Rail Safety National Law and the Agreement;
 - (ii) restricts workers to no more than 12 hours worked at a time not including



- travel time to and from work, unless there is a declared incident in which case work can be performed up to a maximum of 16 hours at a time, as long as workers are not required to drive a motor vehicle or operate heavy plant or equipment after the 12th hour;
- (iii) restricts workers that have worked more than 12 hours from driving after finishing work;
 - (iv) includes periods of 11 hours rest away from work;
 - (v) restricts the maximum number of work days to 12 work days in 14 consecutive days;
 - (vi) minimises to five consecutive occasions where eight hours are worked at night (i.e. after normal office hours) or four consecutive occasions where 10 hours are worked at night or three consecutive occasions where 12 hours are worked at night without a 48 hour rest break;
 - (vii) ensures employees receive a minimum of 48 consecutive hours free of work in a 14-day period; and
 - (viii) has the capacity to replace or relieve workers where unplanned or unavoidable extended hours have created a risk to employee health and safety;
- (b) inform such persons that they are subject to medicals and health assessments in accordance with the 'National Standard for Health Assessments of Rail Safety Workers';
 - (c) ensure that the 'National Standard for Health Assessments of Rail Safety Workers' are undertaken and documented including re-examinations. The documented records must be maintained according to the *State Records Act 1998* (NSW); and
 - (d) inform such persons that additional medical and health assessments may be required to be undertaken where they are involved in a safety accident or where there is reasonable cause for concern that person may be unable to perform work safely (such as upon return from a long illness).

3.4 Work on Track Methods for Working Safely

- (a) Unless specified otherwise in any safeworking notice by the Principal's Representative, the primary work on track methods for working safely are:
 - (i) 'construction site' - a worksite under construction without any rail traffic movements, or traction power systems being installed. Worksite Protection and RIW Identification are not required; and
 - (ii) 'TfNSW Rail Site' - A Principal's Representative managed and controlled rail-site which has no interface access with other rail sites or rail systems.
- (b) Work within or potential to impact the Danger Zone requires local possession authority in accordance with the RailSafe Network Rules and Procedures.
- (c) Should a TfNSW Rail Site encroach on the Danger Zone of any other adjoining Rail Transport Operator rail sites, then:
 - (i) adjacent line protection must be implemented and managed in accordance with the rules of the adjoining Rail Transport Operator; and
 - (ii) an access interface is considered removed if points that allow entry and exit to the rail-site are secured and a physical barrier is established at the limits of the TfNSW Rail Site.



- (d) Where the IDE Activities are undertaken within a rail-site managed and controlled by another accredited Rail Transport Operator, the other Rail Transport Operator's Network Rules and Procedures apply.

3.5 Worksite Protection Personnel

- (a) Worksite Protection is required for carrying out the Works within the Rail Corridor in accordance with the RailSafe Network Rules and Procedures and/or the requirements of the Rail Transport Operator.
- (b) The Worksite Protection Personnel are required to hold a minimum of Worksite Protection Personnel level 2 accreditation (PO2).
- (c) The Worksite Protection Personnel must brief all personnel undertaking the Works on the Worksite Protection arrangements at the Site at the start of each shift or as is otherwise required (and agreed by the Principal's Representative).
- (d) Where TfNSW is to provide the Worksite Protection Personnel, the IDE must provide 10 Business Days' notice in writing to the Principal's Representative requesting the number of Worksite Protection Personnel required.

3.6 Use of Rolling Stock, Hi-Rail Vehicles and Work Trains

- (a) Rolling stock and rail traffic are not permitted to travel or operate on the Site without the approval of the Principal's Representative.
- (b) The Principal's Representative may also impose requirements, limitations and constraints on rail traffic travelling or operating on the Site.
- (c) To the extent that any part of the Works or IDE Activities require the use of hi-rail vehicles or work trains the IDE must:
- (i) ensure that such vehicles are only operated by persons with appropriate competencies and by an organisation which holds accreditation as a Rolling Stock Operator (as defined under the Rail Safety National Law);
 - (ii) ensure that hi-rail vehicles are duly checked and certified as being fit for their intended use at the start of each shift;
 - (iii) ensure the hi-rail vehicle has been certified as compliant and safe to use with the hi-rail modifications by the original equipment manufacturer (or an independent competent engineer, including from a WHS and rail safety perspective;
 - (iv) ensure that the utilisation of hi-rail vehicles or work trains is appropriately addressed in the IDE's procedures to ensure safe operations, to prevent injury and damage to infrastructure and to ensure that responsibilities are identified and documented;
 - (v) assess the past record of potential Subcontractors to ensure that they comply with the Rail Safety National Law and relevant rail accreditation requirements. The results of these assessments must be made available to the Principal's Representative upon request;
 - (vi) set out and carry out regular reviews of the performance of train and hi-rail operators engaged for the undertaking of the Works or the IDE Activities (including at least one review after each major Track Possession or incident, or in any event every three months). The results of these reviews must be made available to the Principal's Representative upon request; and
 - (vii) only use rolling stock, hi-rail vehicles and work trains authorised on the Vehicle Registration Database.



3.7 Swing Arm Plant – Rail Environment

- (a) The IDE must ensure the use of restrictors for swing arm plant.
- (b) The IDE's construction planning process must include the validation of the proposed method of work to be carried out on the day. This validation process must include the completion of a site-specific risk assessment and development of a plant working diagram by the IDE in conjunction with the project rail safeworking coordinator and any other required Project personnel.
- (c) The IDE's pre-work briefing must include the following items:
 - (i) description of swing arm plant and equipment being used, including the type of restrictor(s) being used;
 - (ii) details of the 'line in the sand' for the positioning of the chassis of the swing arm plant or equipment being used (including consideration of the size and reach of the swing arm plant or equipment);
 - (iii) arrangements for the provision of a spotter;
 - (iv) reference to the details included in the Worksite Protection Plan that includes swing arm plant considerations; and
 - (v) in the case of operations involving the use of a crane, details of the lifting plan.

3.8 Rail Safety Worker Assessments.

The IDE must assure the competence of their Rail Safety Workers by one of the following methods:

- (a) To the extent that the IDE has its own competence management system (regardless of whether or not it is a Rail Transport Operator in its own right), the IDE must demonstrate and provide evidence that the requirements and criteria of the '[TfNSW Rail Safety Competency Standard ST-153](#)' have been met. A component of the demonstration will necessitate an assessment by TfNSW of the IDE's competence management system to verify that its system meets the requirements of this Standard.
- (b) To the extent that the IDE does not have its own competence management system, they will be required to demonstrate that the IDE can meet the competencies required to undertake Rail Safety Work via assessment as part of the TfNSW competence management process.



Annexure G IDE's Monthly Report

The IDE must submit a monthly report to the Principal's Representative as referenced in the TSR (Collaborative Contracting).

Annexure H Reference Documents

Related documents and references

The following TfNSW authored documents, referenced in this TSR are not publicly available, and will be supplied as part of the Agreement:

- TfNSW Daily Site Diary FT-551;
- TfNSW Environmental Incident Classification and Reporting PR-105;
- Guide to Environmental Incident and Non-compliance Reporting using the INX System SD-005;
- TfNSW Environmental Incident/Non-Compliance Report FT-101;
- TfNSW Pre-Construction Minor Works Approval FT-202;
- TfNSW Guide to Environmental Control Map SD-015;
- TfNSW Construction Noise and Vibration Strategy ST-157;
- TfNSW Construction Noise Estimation Tool FT-150;
- TfNSW Social Procurement Workforce Guide SD-120;
- TfNSW Enterprise Risk Management Quick Reference Guide SD-445;
- TfNSW Working Near Utilities PR-159;
- TfNSW Fatigue Management Standard ST-011;
- TfNSW WCAG 2.0 Quick reference guide;
- TfNSW Editorial Style Guidelines;
- TfNSW Property Compliance Register ST-175;
- TfNSW Earned Value Management using Primavera P6 WI-005;
- TfNSW Project Specific Risk Register SD-001;
- TfNSW Digital Engineering Standard - Part 2 ST-207;
- TfNSW Digital Engineering Execution Plan (DEXP) template FT-532;
- TfNSW Scheduling Standard ST-123;
- TfNSW Work Activity Advice Form FT-105;
- TfNSW Rail Safety Competency Standard ST-153;
- Sydney Trains R.A.I.N. Operational Process Document (DSYD2019/267825);
- Project Safety Leadership Team Charter;
- TfNSW Climate Risk Assessment Guidelines SD-081;
- TfNSW Waste Data Collection Worksheet FT-436;
- TfNSW Non-road diesel plant data collection workbook FT-439;
- Air Quality Management Guideline SD-107;
- Chemical Storage and Spill Response Guidelines SD-066;
- Concrete Washout Guidelines SD-112;

**Related documents and references**

- Discharge or Reuse Water Approval FT-207;
- Fauna Management Guideline SD-113;
- Out-of-Hours Work Application Form (EPL Variation NOT Required) FT-079;
- Register of Out-of-Hours Work Applications FT-082;
- Removal or Trimming Vegetation Application FT-078;
- Unexpected Heritage Finds Guideline SD-115;
- Vegetation Management (Protection and Removal) Guideline SD-111;
- Water Discharge and Reuse Guideline SD-024;
- Water Sensitive Urban Design Guideline SD-106; and
- Weed Management and Disposal Guideline SD-110.



**Transport
for NSW**

TfNSW Standard Requirements (Works Contracts) Annexure A

5TP-FT-313/1.0

Template – Applicable to Infrastructure and Place

Divisional Management System

Status:	Approved
Version:	4.0
Section:	Commercial
Business unit:	Procurement
Date of issue:	29 April 2019
Review date:	29 April 2022
Audience:	Project Delivery/For use with the Contract templates only
Asset classes:	<input checked="" type="checkbox"/> Heavy Rail; <input checked="" type="checkbox"/> Light Rail; <input checked="" type="checkbox"/> Multi Sites; <input checked="" type="checkbox"/> Systems; <input checked="" type="checkbox"/> Fleets
Project delivery model:	I&S Project/Alliance/Novo Rail
Project type:	For all project types
Project lifecycle:	<input type="checkbox"/> Feasibility; <input type="checkbox"/> Scoping; <input checked="" type="checkbox"/> Definition; <input checked="" type="checkbox"/> Construction readiness; <input checked="" type="checkbox"/> Implementation; <input type="checkbox"/> Finalisation; <input type="checkbox"/> Not applicable
Process owner:	Director Commercial

Document History

Version	Date of approval	Doc. Control no.	Summary of change
1.0	19 August 2015	4542124_2	New consolidated Annex A TSR document replacing the suite of individual TSRs (TSR C, TSR E, TSR P, TSR S, TSR T) for use with the PSC Templates
2.0	18 February 2016	Exhibit A.4 to TfNSW Standard Requirements (Works Contract) Additional MF Works.docx	Modified to suit new TSR updates
3.0	31 October 2016	Exhibit A.4 to TfNSW Standard Requirements (Works Contract) Additional MF Works.docx	Modified to suit new TSR updates
4.0	12 April 2019	4551048_6	Updates made for sustainability, social procurement, digital engineering, daily site diary, safety, communications and other minor amendments.
5.0	10 September 2021	6622859_1	Updated specifically for use in Deed of Amendment 2 for the New Intercity Fleet Project as part of the Additional MF Works.

This document has been drafted to be used as an annexure to version 3.0 of TfNSW Standard Requirements (Works Contracts) FT-425, only and should not be used with other versions.

Additional Project Requirements

A1 Contract Management Plan

Clause	Requirement	Is one Required?	Initial Submission Timing	Frequency of Update
2.1	Contract Management Plan	Yes	T2	Six (6) months

Legend

T1 15 Business Days after the Commencement Date.

T2 30 Business Days after the Commencement Date.

T3 10 Business Days prior to the commencement of investigations.

T4 15 Business Days prior to the commencement of design activities.

T5 30 Business Days prior to the commencement of Site mobilisation.

T6 10 Business Days prior to the commencement of construction.

A2 IDE's Program

Clause	Item	Requirement	Add Insertion
2.2	IDE's Program	Date first program is required	Thirty (30) Business Days after the Commencement Date
		Monthly updates required?	On the 25 th day of each month
		Update submission timeframe	For previous thirty (30) Business Days
		Required status date for program update	Yes

A3 TfNSW's Document Management Tool

Clause	Requirement	Applies?
2.3	TfNSW will administer the Agreement document deliverables using TfNSW's electronic document management tool. The nominated electronic document management tool is Teambinder.	Yes

A4 Daily Site Diary

Clause	Requirement	Applies?
2.4	The IDE shall submit a daily site diary.	No

A5 Monthly Reporting

Clause	Requirement	Applies?
2.5	The IDE must prepare a progress report and submit it to the Principal's Representative. The report is due monthly.	Yes

A6 TfNSW Provided Training



Clause	Requirement	Applies?
2.7(c)	<p>The IDE must ensure that all personnel engaged in carrying out the IDE Activities attend the following training provided by TfNSW:</p> <ul style="list-style-type: none"> (i) INX – for reporting and investigating incidents; (ii) Scenario – for defect management; (iii) Teambinder – for document management; and (iv) Digital Engineering (DE) training (for relevant personnel only), this includes overview of DE at TfNSW, How to use DE Execution Plan and guidance on TfNSW DE Delivery requirements. 	Yes

A7 Compliance Monitoring

Clause	Requirement	Applies?
3.1(b)	Use INX system to undertake self-regulation to confirm that all the IDE Activities are compliant with all Approvals (including any Environment Protection Licence).	Yes
3.1(b)	Implement an INX system reporting structure (in addition to any other reporting requirements for the Agreement) and follow the applicable parts of ‘TfNSW Environmental Incident Procedure EMF-13-PR-0001’ and ‘Guide to Environmental Incident and Non-compliance Reporting using the INX System SD-005’	Yes

A8 Consistency Checklists

Clause	Requirement	Applies?
3.1(d)	<p>Unless otherwise agreed by TfNSW and the IDE in writing, consistency checklists and environmental reviews are to be completed by the IDE (in the format provided by TfNSW), and provided to the Principal’s Representative for review in circumstances where the IDE Activities are likely to deviate from the approved project.</p> <p>Where the IDE has initiated any deviation from the approved project initiated by the IDE is deemed by TfNSW (under Division 5.1 (in its capacity as the proponent and determining authority) or Division 5.2 (as the proponent) of the <i>Environmental Planning and Assessment Act 1979</i> (NSW)) to be (or as likely to be) inconsistent with the approved project, the IDE may request TfNSW seek a project modification under the <i>Environmental Planning and Assessment Act 1979</i> (NSW). Under such circumstances, it is the IDE’s responsibility to provide all necessary reports, studies and final submission to the Principal’s Representative to justify the modification.</p>	Yes

A9 IDE’s Environmental Management System

Clause	Requirement	Applies?
3.2(c)	The IDE requires an Environmental Management System.	Yes
	The IDE’s Environmental Management System must be certified under ISO 14001:2015.	Yes

A10 Sustainability Requirements



Clause	Requirement	Applies?
3.3 (a)	The IDE must comply with the ‘TfNSW Sustainable Design Guidelines version 4.0’ to meet a minimum design rating of Silver design rating.	Yes
3.3 (b)	The IDE must submit a completed ‘TfNSW Sustainable Design Guidelines version 4.0 Electronic Checklist’ at the following intervals: (i) SDR or equivalent design stage; (ii) CDR or equivalent design stage; (iii) every 6 months during the construction stage; and (iv) at Completion.	Yes
3.3 (c)	The IDE must prepare and submit the ‘Carbon Estimate Reporting Tool (CERT)’ at each of the following stages: (i) SDR (or equivalent) stage; (ii) CDR (or equivalent) stage; and (iii) during the construction phase until Completion, 5 Business Days after the end of the periods: A. commencing on 1 January and ending on 30 June; and B. commencing on 1 July and ending on 31 December; and (iv) at Completion.	Yes
3.3 (d)	The IDE must prepare and submit a climate risk assessment report at the SDR (or equivalent) stage, and include relevant adaptations during design.	Yes
3.3 (e)	The IDE must obtain the following IS ratings under the ISCA:	No
	The IDE Activities must meet as a minimum, an Excellent rating for ‘design’ with a minimum score of 65 under IS Technical Manual v1.2.	No
	The IDE Activities must meet as a minimum, an Excellent rating for ‘As Built’, with a minimum score of 65 under IS Technical Manual V 1.2.	No
	The IDE Activities must meet as a minimum, an Excellent rating for ‘Operations’, Design’, using IS Technical Manual V 1.2.	No
	The IDE Activities must meet as a minimum, a [Bronze/Silver/Gold] rating for ‘Planning’, using [IS Technical Manual V 2.0].	No
	The IDE Activities must meet as a minimum, a [Bronze/Silver/Gold] rating for ‘Design’, using [IS Technical Manual V 2.0].	No
	The IDE Activities must meet as a minimum, a [Bronze/Silver/Gold] rating for ‘As Built’, using [IS Technical Manual V 2.0].	No
	The IDE Activities must meet as a minimum, a [Bronze/Silver/Gold] rating for ‘Operations’, using [IS Technical Manual V 2.0].	No
	The IDE is required to extend any invitation to the ISCA monthly meeting to TfNSW’s sustainability representative TfNSW Associate Director Sustainability, Planning and Development.	No
	The IDE is required to submit a monthly ISCA-related sustainability report, including sustainability data as requested by the Principal’s Representative.	No



	Prior to submitting IS ratings to ISCA, the submissions are required to be submitted to the Principal's Representative for review.	No
3.3 (f)	The IDE must prepare and submit for review by the Principal's Representative in accordance with the Agreement, a whole of life costing report in accordance with 'T MU AM 01001 ST – Life Cycle Costing (version 3.0, issued 17 April 2018)', at SDR (or equivalent) stage and updated at CDR (or equivalent) stage.	No
3.3 (g)	The IDE must complete any photovoltaic solar installations approved as part of the Project Works in accordance with 'TN 031: 2016'.	No
3.3 (h)	The IDE must submit a sustainability deliverables summary to the Principal's Representative for review and approval.	No
3.3 (i)	The IDE must attend any meetings requested by TfNSW's sustainability representative and participate efficiently to ensure the successful implementation of sustainability initiatives in the Project.	Yes

A11 NSW Government Resource Efficiency Policy (GREP)

Clause	Requirement	Applies?
3.4 (a)	The IDE must make available documents and evidence to assure TfNSW that the Project Works and the IDE Activities are compliant with the requirements of the GREP policy.	Yes
3.4 (b)	The IDE must comply with GREP requirements E3, W3 and A2.	Yes
3.4 (c)	The IDE must prepare reporting tools ' TfNSW Air Emission Data Collection Workbook FT-439 '; and ' TfNSW Waste Data Collection Worksheet FT-436 '.	Yes

A12 Social Procurement Workforce General Requirements

Clause	Requirement	Applies?
4.1(a)	The IDE must comply with 'NSW Government Aboriginal Procurement Policy January 2021	Yes
4.1(b)	The IDE must comply with 'NSW Procurement Directive PBD-2020-02: Skills, training and diversity in construction	Yes
4.1(c)	The IDE must consider advice provided in the Infrastructure Skills Legacy Program Training Management Guidelines July 2020.	Yes
4.1(d)	The IDE must comply with ' TfNSW Social Procurement Workforce Guide SD-120 '.	No

A13 Priority Group Targets

Clause	Requirement	Applies?
4.2(a)	The IDE will ensure 1.5% of contract value includes Aboriginal Participation.	Yes



4.2(b)(i)	The IDE must ensure the number of apprentices in the workforce is equivalent to a minimum of 10% of the qualified Trades persons.	Yes
4.2(b)(ii)	The IDE must ensure 8% of the overall workforce were aged under 25 years old at the date of engagement on the project.	No
4.2(b)(iii)	The IDE must ensure 5% of the total labour force were made up of Learning Workers	Yes
4.2(b)(iv)	The IDE must ensure 2% of the workforce were Women in Non-Traditional Roles	No
4.2(b)(v)	The IDE must ensure 5% of the overall workforce were from disadvantaged, disabled and under-represented groups	No
4.2(b)(vi)	The IDE must ensure there is 1 work placement per annum (pro rata) for people over 16 years of age currently in school.	Yes
4.2(b)(vii)	The IDE must ensure there are 2 graduate placements per annum (pro rata) for university undergraduates or recent graduates, or is part of the company graduate program.	Yes

A14 Social Procurement and Industry Participation

Clause	Requirement	Applies?
4.4(a)	The IDE must allocate 1% of the Contract Sum (TOC) on indirect activities or social and disability enterprises that benefit disadvantaged, disabled and under-represented groups.	sNo
4.4(b)	The IDE must work with local community groups, training providers and employment support organisations to maximise employment opportunities for people and businesses in the local community.	Yes
4.4(c)	The IDE must maximise opportunities for small to medium enterprises and social enterprises in the supply chain to deliver works, services or supplies that are required for the IDE Activities and across the supply chain.	Yes
4.4(d)	The IDE must alert small to medium enterprises of potential tenders and supply opportunities.	Yes
4.4(e)	The IDE must develop and implement programs for engagement with local universities including scholarships, cadetships and graduate opportunities	No
4.4(f)	The IDE must identify and implement programs offering community benefits.	No
4.4(g)	The IDE must provide an education program to local schools and colleges through the delivery of regular ambassador programs.	No
4.4(h)	The IDE must ensure that 100% of workers responsible for the supervision of Aboriginal personnel have attended Cultural Awareness Training prior to work commencing on site	Yes

A15 Data Collection and Reporting

Clause	Requirement	Applies?
4.5(a)	The IDE must use a software application to track and report total workforce and labour hours performed by their direct and indirect workforce, including the target workforce groups.	Yes
4.5(b)	The IDE must submit a quarterly progress report demonstrating how the targets listed in section 4.2 and 4.4 are being progressively achieved.	Yes
4.5(c)	The IDE must provide an Aboriginal Participation Plan in accordance with the requirements on the NSW Government Aboriginal Procurement Policy January 2021 and report monthly on progress towards the requirements in the Aboriginal Participation Plan.	Yes

A16 Safety Management

Clause	Requirement	Applies?
5.1(c)	The IDE must use TfNSW's Rail Industry Workers electronic system	Yes

A17 Pre-Commencement Property Risk Assessment

Clause	Requirement	Applies?
7.2(a)	A pre-commencement property risk assessment is required.	Yes

A18 Post-construction Property Condition Surveys

Clause	Requirement	Applies?
7.6(a)	Pre-construction conditions surveys are required.	Yes
7.6(b)	Post-construction conditions surveys are required.	Yes

A19 Collaborative Contract Management Plan Sections & Sub Plans, Annexure C

The CCMP must include the following applicable sections and Sub plans.

Content	Include?
CCMP Sections	
Construction and site management	Yes
Design management	Yes
Digital engineering	No
Commuter and passenger management	Yes
Traffic management	Yes
Defect management	Yes
Audit management	Yes
Risk management	Yes
Commissioning and operational readiness management	Yes [refer to requirements in Program Brief]
CCMP Sub plans	
Construction environmental management plan	Yes

Content	Include?
CCMP Sections	
Sustainability management plan	Yes
Social procurement workforce plan	Yes
Community liaison management plan	Yes
Property management plan	Yes
Work health and safety management plan	Yes
Workplace relations management plan	Yes
Digital engineering execution plan	No

A20 Traffic management plan, Annexure C

Clause	Requirement	Applies?
2.6(l)	<p>Are traffic management plans (TMPs) required?</p> <p>Where noted as being required in this table A20, the IDE must prepare detailed TMPs for the Site generally, in accordance with the TfNSW (RMS) manual 'Traffic Control at Work Sites 4th Ed (June 2010)'. The TMPs must be submitted to and approved by the relevant Authority and submitted to the Principal's Representative for review prior to the commencement of any activity or work on the Site. The IDE must ensure that the approved TMPs are available for inspection by the Principal's Representative or any officer of WorkCover NSW, NSW Police, TfNSW (RMS) or any other Authority.</p>	Yes

A21 Defect Management Software, Annexure C

Clause	Requirement	Applies?
2.7(d)	The IDE must include the use of TfNSW's preferred software system.	No

A22 Construction Environmental Management Plan, Annexure C

Clause	Requirement	Applies?
3.1	The IDE must comply with the relevant requirements of the 'NSW Government Environmental Management System Guidelines'.	Yes

A23 Reporting Requirements, Annexure E

Clause	Requirement	Applies?
Part 1	Pre-commencement property compliance checklist	Yes
Part 2	Property records	Yes
Part 3	Environmental and sustainability records	Yes
Part 4	Social procurement workforce records using agreed templates	Yes
Part 5	<p>The IDE must submit a Social Procurement Workforce Plan within 60 days of contract award that includes the following:</p> <p>(a) The process, systems and proposed delivery methodology to achieve the social procurement workforce requirements,</p>	



	(b) Details of the social procurement workforce resource(s) to be employed by the IDE, their roles and responsibilities and organisational structure (c) An assessment of the current and future workforce skill needs and whether the IDE can meet higher targets than the requirements in section 4.2 (d) Detail of the local community groups, training providers and employment support organisations the IDE proposes to work with to maximise employment opportunities for people and businesses in the local community (e) Methods for social procurement workforce data collection; and Details of how apprentice roles will be monitored.	
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A24 Working in and Adjacent to the Rail Corridor, Annexure F

Requirement	Applies?
The IDE must comply with the requirements for working in and adjacent to the Rail Corridor.	Yes

A25 Design Management, Annexure C

Clause	Requirement	Applies?
2.3 (i)	<ul style="list-style-type: none"> The IDE must organise design presentation with stakeholders for each PDR and CDR package during TfNSW review time period. Where it is required or identified by Principal's Representative, IDE must organise comments close out workshop with relevant reviewers at various stages of design. SRS and RAATM must be continuously updated at various stages of design and each design package including identification of any new or additional requirements 	Yes



TfNSW Standard Requirements

Rail Project Safety Master Plan Extract



TSR Version Control from which this extract is produced:

Integrated Management System

Status:	Approved
Version:	4.0
Section:	Commercial
Business unit:	Procurement
Audience:	Project Delivery/For use with the Contract templates
Asset classes:	<input checked="" type="checkbox"/> Heavy Rail; <input checked="" type="checkbox"/> Light Rail; <input checked="" type="checkbox"/> Multi Sites; <input checked="" type="checkbox"/> Systems; <input checked="" type="checkbox"/> Fleets
Project delivery model:	I&P Rail Projects/D&C Contracts/Alliances/PPPs
Project type:	For all Rail project types
Project lifecycle:	<input type="checkbox"/> Feasibility; <input type="checkbox"/> Scoping; <input checked="" type="checkbox"/> Definition; <input checked="" type="checkbox"/> Construction readiness; <input checked="" type="checkbox"/> Implementation; <input type="checkbox"/> Finalisation; <input type="checkbox"/> Not applicable

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Context & Purpose:

- To delineate, for PSMP inclusion, the Contractor’s role in safe delivery of TfNSW Rail projects (i.e. what TfNSW does vs our Contractors in response to RSNL RTO obligations).
- To describe for inclusion within the PSMP, TfNSW Project Team responses to externally contracted safety functions (e.g. review, inspect, etc).

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1. Contract Management Plan (CMP)

- Is the project-specific **overarching Management Plan** that includes all other Management Plans as Sub plans.
- Describes the complete **management activities, systems and processes**, which the Contractor will employ during the Contractor's Activities.
- Defines responsibilities, **resources and processes** for planning and performing the Contractor's Activities and verifying that the Works meet the requirements of the Contract.
- Defines the **interface and associated responsibilities** of the Contractor, Subcontractors, Interface Contractors, Other Contractors and other relevant third parties as well as the Principal.
- Describes how the **AEO authorisation** covers the full scope of the Contract including all subcontracts.
- Describes how the Contractor will comply with all **relevant Laws, Codes and Standards and requirements**, applicable to the Contractor's Activities.
- Defines the **reporting mechanisms** in the case of Incidents and protocols for communicating with Authorities.

Construction and Site Management (C&SM) section

- Details how the Contractor will comply with its obligations in relation to the **control, establishment, security, use and rehabilitation** of the Site.
- Includes the arrangements to provide **access to, within and through the Site** for the Principal, Other Contractors and any other person nominated by the Principal.
- Describes how **security management** will reflect the National Counter Terrorism Alert Levels and develop procedures to communicate and respond to changes in the National Counter Terrorism Alert Levels.
- Documents how **notification of a terrorism Incident** will be made to the Principal's Representative and Law enforcement authorities, and the roles and responsibilities of the Contractor's employees and Subcontractors in such an event.
- Describes **procedures for the Contractor's mobilisation and demobilisation** to carry out the Contractor's Activities, including personnel, Construction Plant and equipment.
- Addresses the **Site related management of interfaces** with any Authority, stakeholders and Other Contractors.

Design Management section

Must include the measures the Contractor will utilise to ensure that:

- all design tasks are appropriately resourced by **competent personnel**;

-
- all design personnel are aware of the requirements of the Contract and any **obligations of designers** under the WHS Legislation;
 - the development of the design is effectively coordinated and the **interrelationships identified and managed** across all:
 - i. design interfaces, including with existing systems, operational systems, and maintenance systems;
 - ii. design stages;
 - iii. design packages, where the design work has been portioned into design packages; and
 - iv. design disciplines (e.g. electrical, civil, track, signalling and rolling stock);
 - the **process of CCB and CMAAC** control gate submissions are detailed;
 - how the works are designed and configured so as to achieve optimal **integration from a human, asset and systems perspective** in their operations and maintenance;
 - a system for the **management of design review** comments is incorporated;
 - all stakeholders in relation to the design have been appropriately identified, that appropriate **stakeholder consultation** is undertaken and includes workshops and presentations of the design to relevant parties;
 - all **design assumptions** are documented and verified;
 - all designs are checked, reviewed and verified by competent personnel and that **verification** or proof engineering is conducted;
 - **requirements management process** adopted in accordance with “ASA Systems Engineering Standard T MU AM 06006 ST” and the related requirements of the Works Brief;
 - all methodologies, **sequencing, staging of temporary or enabling works** taken into account and the associated risks are managed in the design;
 - an **asset maintenance strategy** and an **asset operations strategy** are delivered with the design;
 - **safety, sustainability, reliability, availability and maintainability** are demonstrated in the design;
 - **durability assessment** and durability statements are included with the design;
 - all completed designs or completed portions of the design are accompanied by a **design assurance certificate** from the AEO;
 - the process for **managing design changes**, and how this integrates with the configuration management activities in regards the CCB and CMAAC;
 - all **inspection and test criteria** are developed for the delivery of the works for incorporation in the inspection and test documentation that will verify and validate the Works and Temporary Works;
-

- risk arising from all hazards identified in the preliminary hazard analysis and systems hazard analysis are designed out or carried over, in the **project hazard log or project specific safety risk register**; and
- all designs comply with **relevant Codes and Standards and the ASA Requirements**.

Commuter and Passenger Management (C&PM) section

- Drawings showing the **layout of public areas, facilities provided** for operational staff and patrons and systems drawings at each stage of construction.
- A program clearly indicating when configuration will be changed and **proposed period of change**.
- Identification of **controlled Site access points**.
- Identification of **delineation lines and material** to be used for delineation.
- Identification of access points from public modes of transport and **general ingress and egress points**.

Traffic Management section

- Includes **traffic management procedures for the Site**, including those required to manage:
 - i. modifications to existing roads/paths and traffic patterns,
 - ii. changes to public transport routes and services,
 - iii. impacts on residents and/or commercial enterprises; and
 - iv. the impact of construction traffic within the Site and outside the Site on the adjacent public road system.
- Includes procedures to ensure the appropriate **notification of relevant emergency services** prior to implementing road and pedestrian traffic modifications such as street closures or changes to station access.
- Addresses the safety of **commuters, pedestrians, cyclists and contract personnel**.
- Considers **changes to traffic usage patterns** (average, low and peak flows as well as special events or traffic embargoes).
- Describes the **management of emergencies and Incidents** in the context of access/egress.
- Describes requirements in relation to occupation of, or access through, **private properties**.
- Describes coordination of traffic management with the Principal, **Other Contractors and other parties**.
- Includes procedures for obtaining **relevant certificates, licences, consents, permits and approvals**.
- Shows **expected number of vehicle movements** each hour, based on the predicted maximum monthly material generation amounts and hours of operation of worksites.

Risk Management section

- Addresses the **management of risks** applicable to the undertaking of the Contractor's Activities in delivery of the Works.
- Provides an outline of the framework and approach for developing, utilising, and **maintaining a risk register** capable of supporting effective risk management and reporting risk information.
- provides details of the Contractor's approach to risk management in accordance with "**ISO 31000 - Risk Management Guidelines and Principles**", and its risk framework, processes and internal controls to manage;
- includes **processes and procedures** for the systematic identification, assessment, treatment and management of hazards and risks;
- provides details on the timing and scope of The Contractor's internal and external **risk review processes, compliance, and audit** related activities, including methods used to ensure that risk control measures and tasks are on schedule and effective;
- describes **specific control measures**, including safe work methods to be implemented to eliminate or mitigate risks;
- includes **methods to be used to monitor effectiveness** of safe work methods and control measures;
- nominates the **persons responsible for monitoring implementation** of the control measures;
- includes **consultative processes** employed by the Contractor in relation to risk management and the persons involved;
- demonstrates the application of the **Hierarchy of Control Measures** undertaken to lessen the risks so far as is reasonably practicable; and
- includes and maintains a register of risks:
 - v. a description of the risk/hazard and likely impacts;
 - vi. the risk level assessed for each hazard; and
 - vii. the residual risks/hazards.

Commissioning & Operational Readiness Management (CORM) section

- documents systems and processes to ensure that the **programming and coordinating of all Commissioning activities**, including activities which may be carried out by or interface with third parties including Track Possessions are defined;
- defines the operational readiness tasks and **responsibilities of each organisation** involved in transitioning the project into operation'
- defines the **maintenance readiness tasks** and responsibilities of each organisation involved in transitioning the project into the operations and maintenance phase; and

- defines the **document submission requirements** relating to the Configuration Materials for Track Possessions, Asset Handover, the CCB gateway 4 and 5 process and Completion.

2. Work Health and Safety Management Plan (WHSMP)

The management of health and safety as well as the means of developing the required safety culture must be documented in the Work Health and Safety Management Plan and must:

- detail how the Contractor will continuously promote a **safer, healthier, more productive workplace**, by establishing and maintaining an effective safety management system that facilitates the flow of information both within the Contractor's organisation and between the Contractor's organisation, Subcontractors and the Principal;
- detail how the Contractor will provide strong **leadership** and promote safety as a core value, establishing and enforcing high standards of performance and ensuring relevant expertise is available;
- detail how the Contractor will ensure ongoing open and **effective consultation** and further, mutual trust with the Principal's Representative, providing timely response to safety issues and concerns within requested timeframes as advised by the Principal.
- describe the means of providing the Works in accordance with the **safety management requirements** stated in the Contract, Law and this TSR;
- demonstrate **compliance with the "NSW Government Work Health and Safety Management Systems and Auditing Guidelines"** September 2013;
- describe how the Contractor will **manage WHS risks in accordance with "AS/NZS ISO 31000:2009 - Risk Management"**;
- ensure that where the Contractor's Activities involve work in or adjacent to the Rail Corridor or the rail environment, provision for **rail safeworking arrangements**, based upon (without limitation) compliance with the Rail Safety National Law and RailSafe Network Rules and Safe Network Rules and Procedures are provided;
- contain within it, a **requirements matrix** to demonstrate compliance which will readily direct the Principal to the particular parts of the Contractor's Management Plans where WHS requirements of this TSR are addressed;
- describe how the Contractor's **safety management system and safety culture** supports:
 - i. the encouragement of teamwork and of worker involvement in promoting and maintaining a positive safety culture;
 - ii. a "One Team" approach to safety across all project participants including subcontractors;
 - iii. senior management's commitment to safety;
 - iv. a commitment to work with the Principal's Representative to develop project-specific lead and lag key performance indicators;
 - v. a shared care and concern for hazards;

- vi. workers adapting to their changing environment where required;
- vii. organisational learning through monitoring, analysis and feedback systems;
- viii. methods for providing feedback and setting timeframes for such provision;
- ix. methods to communicate and share learning from successes and failures;
- x. methods to demonstrate how site-safety rules will be reflected in practice and how such rules will be incorporated into the Contractor's Activities; and
- xi. methods to enable the ongoing development of safety improvements developed in consultation and communication with the Principal's Representative, as required.

3. Monthly Reporting

The Contractor must submit to the Principal's Representative on the 25th day of each month the following **information for the previous 30 days**:

- Planned works and Contractor's **Activities over the forthcoming 3 month period**
- The **status of any Document**, Design Documentation, other deliverables, major procurement order, subcontracts, manufacture and the overall delivery of works.
- Where applicable, the status of any activities against all the requirements of Authority Approvals, including planning consents
- **Safety statistics** in a format agreed with the Principal's Representative
- Details of any **reportable Incidents**;
- A **consolidated SWMS register** showing active and completed SWMS
- Any **non compliances or non conformances** of the Works, Temporary Works and Contractors Activities in relation to the Contract, Authority Approvals and other obligations in Law and the steps taken by the Contractor to address those non compliances or non conformances
- **Records of all corrective and preventative actions** taken by the Contractor and audits of such actions
- Details of the status, implementation, operation and effectiveness of **risk identification and mitigation measures** including:
 - i. a report on the **risks deemed 'extreme' or 'high'** within the risk register;
 - ii. an **overview of the full risk register** (e.g. number of risks by category and rating, number of new risks identified and risks closed out during the previous month);
 - iii. the **status of associated controls and tasks**; and any results of risk audits

4. Audit

- Should the Principal establish a Compliance Working Group (CWG), the Contractor must provide suitably competent attendees and resources until Final Completion.
- The Contractor must attend the CWG meetings and participate efficiently to ensure the success of the CWG as well as ensuring that all audits are coordinated, lead and managed through the CWG.
- The Principal may also utilise independent auditors to assist with its Inspections including audit and surveillance.
- When any audit or Inspection is to be undertaken by the Principal, the Contractor must:
 - i. make available, all records and Documents;
 - ii. make suitable facilities available to accommodate the audit and audit team; and
 - iii. provide all reasonable assistance during the audit including the participation of representatives from the Contractor and Subcontractors organisations.
- The Contractor must ensure that all recommendations arising from any audit are actioned in accordance with appropriate corrective and preventive systems in a timely and agreed manner.
- The Contractor must provide the Principal's Representative with a **program of audits and the audit results** when requested.

5. Training, Competence and Reference Checks

The Contractor must ensure that all persons engaged in carrying out the Contractors Activities:

- are inducted, appropriately trained and made aware of the requirements of the Contract with particular focus on incident management/reporting procedures, community enquiries or complaints and media enquiries, prior to commencing work on site prior to performing any function on Site;
- maintain **records of all training and inductions** carried out;
- attend any training provided by the Principal specified in Annexure A of the TSR;
- hold **certificates of competency for the operation of plant** and are assessed and deemed competent to operate the plant for its intended use to the satisfaction of the Contractor.

6. Incident Management

- The Contractor must provide immediate **verbal notification to the Principal's Representative** of any Incident or Issue.
- The Contractor must immediately report all Incidents **using the InControl Incident Management System (INX)**.

- Should INX not be accessible, the Contractor must report in a manner that enables effective and subsequent recording into INX.
- The Contractor must undertake and a **preliminary investigation of all minor incidents within 5 Business Days** of the Incident, unless otherwise agreed by the Principal's Representative.
- **Major investigations must be completed within 20 Business Days** of the Incident.
- Terms of reference for major investigations will be issued by the Principal.
- If the Principal's Representative requires the appointment of an external independent investigator, the Contractor will bear the cost of the appointment.
- The **Principal may participate in any investigation** being undertaken by the Contractor or initiate its own investigation.
- If the Principal instigates its own investigation the Contractor must provide the Principal with all **assistance reasonably required for the purposes of the investigation**, this includes the **waiver of legal professional privilege over any investigation report** prepared by, or on behalf of, the Contractor.
- The Parties may agree that any investigation report that is subject to legal professional privilege may, between the Contractor and the Principal, be subject to a **common interest privilege**.
- In the event of an Incident or Issue, the Contractor must **not contact or provide information to any person** (other than that which is required to directly manage the Incident or to comply with law), including any stakeholder, the media or the public, without the prior approval of the Principal.
- The Contractor must make available **senior personnel to respond to the community**, the media and other stakeholders when required by the Principal.
- All notifiable occurrences under WHS, Rail Safety National law, or Maritime law must be **reported immediately to the Principal's Representative and to the relevant Regulatory authority**.
- Where any type of **notice, infringement or fine by a Regulator** has been issued to the Contractor in relation to undertaking the Works, the Contractor must immediately notify the Principal's Representative and provide a copy of the notice, infringement or fine within 24hrs of receiving.
- The Contractor must provide the Principal with all necessary **Communications Materials that may need to be disseminated as a result of such incidents**, when required by the Principal.

7. Planning and Approvals

- Where the Contractor is responsible for a submission to an Authority for an Authority Approval, or **where an Authority requests a document submission, the Contractor must**

provide that submission to the Principal's Representative for review prior to issuing the submission to the relevant Authority.

- In the event of Pre-Construction Works, the Contractor must **submit the details of the Pre-Construction Works to the Principal's Representative** using the form "[TfNSW Pre-Construction Minor Works Approval – 9TP-FT-202](#)" for review.

8. Representative Implementing Safety Requirements

The Contractor must **advise the Principal's Representative at all times, the name of the senior management representative** responsible for implementing the safety requirements of this Contract and monitoring the effectiveness of the Contractor's safety management system in complying with all safety requirements.

9. Managing safety risks

The Contractor must **manage safety risks in accordance with "AS/NZS ISO 31000:2009 – Risk"**, and must eliminate all risks to health and safety; or where not possible, minimise those risks so far as is reasonably practicable **applying, maintaining and reviewing the prescribed Hierarchy of Control Measures**.

10. RIW System Requirements

- The Contractor must **implement the Principal's MTA RIW** systems unless otherwise specified in Annexure A.
- The Contractor must ensure that all **workers are provided with an access card** and log in and out each shift.
- The Contractor must effectively **manage, through the MTA system, fatigue, emergency response, alcohol and other drugs use, training, induction and competency records**.
- The Contractor must ensure adequate **numbers of sign on location points** (whereby workers can easily log on and off each shift) exist.
- Each location point is to be provisioned with an **Alcolizer/Breathalyser which is to be incorporated into the sign-on unit** and used as part of the daily sign-on for all workers and visitors accessing site.

11. Risk Registers & SWMS

- As part of the determination of whether risks have been eliminated or minimised so far as is reasonably practicable, the Contractor must review, and record the review of "**TfNSW's Generic Work Health and Safety Operational Risk Register - 30-SD-101**" and where the Contractor's Activities involve Rail Safety Work, the Contractor must also review "**TfNSW Generic Rail Safety Risk Register - 30-SD-038**".
- All **SWMS, must be approved and signed off by the Principal Contractor** prior to being submitted to the Principal's Representative for review.

- The Contractor acknowledges and agrees the **Principal's Representative is not assuming any management or Control of the Site or the Contactor's Activities** and is only receiving the SWMS information to monitor the Contractor's compliance with its obligations under this Contract and/or applicable Laws.

12. Quick Hitch Attachments

- The Contractor must ensure that **quick hitch attachments fitted to excavators and other earth moving machinery** are of the fully automatic type with a secondary locking attachment.
- The secondary attachment is to be capable of preventing the excavator attachment from releasing in the event of a partial or total failure of the power supply or when the operator stops operating the machine.
- All **half-hitch, mechanical-hitch, form-lock, semi-automatic types are prohibited.**

13. Mobile Plant

- Where mobile plant's operating envelope is capable of encroaching within 3 metres of the Rail Network Danger Zone or the safe approach distance to live electrical infrastructure, the Contractor must implement the **use of programmable zone limiting devices** that limit the hoisting and/or slewing and which are designed to be "fail safe" or which meet Category 4 reliability in accordance with "AS4024.1 Safeguarding of Machinery" or a SIL of 3 under "AS 61508 Functional safety of electrical / electronic / programmable electronic safety-related systems".
- The Contractor must ensure that **records for inspection, maintenance and repair** of each item of plant on site are kept and maintained up to date.
- The Contractor must **ensure that no modifications have been made to any item of plant** without approval and acceptance from the original equipment manufacturer for the relevant item of plant.

14. Utilities Management

- Prior to all penetration or excavation works being undertaken, the Contractor must develop a **Utilities Management Plan** to manage these works.
- As part of the management of utilities the Contractor must **positively identify all utilities within and adjacent to, the Site** and update all relevant drawings/maps to include the known locations of such utilities.
- The Utilities Management Plan must demonstrate how the Contractor will **manage all its activities around all overhead and underground service utilities.**
- The Contractor's Activities must be in compliance with the **relevant WHS legislation and TfNSW Working Near Utilities Standard 4TP-PR-159** and as a minimum must demonstrate how the contractor will manage:

- i. positive and effective isolation of energy sources;
 - ii. potholing to positively identify underground services;
 - iii. non-destructive digging methods and service locations (e.g. Ground Penetrating Radar);
 - iv. Dial Before You Dig and DSS service searches;
 - v. the potential for unidentified underground services; and
 - vi. Penetration/excavation permit process including the use of hold points to ensure controlled approval management of the process.
- **Live electrical work is not permitted** to be carried out on the Site and isolated circuits must be treated as live until they have been proven otherwise dead by testing.
 - The only exception to the above is for the purpose of **testing, as specified in the Safework NSW Code of Practice “Managing Electrical Risks in the Workplace”**.

15. Music Players, Fires or Burning Off

- The use of **portable earphone equipped music players on Site is prohibited**.
- **Fires or burning off are not permitted** anywhere on Site.

16. Defibrillator

- The Contractor must provide a **defibrillator (and suitable training in its use for its first aid personnel) at each major first aid location**.
- The Contractor must ensure **persons trained in the use of the defibrillator are on Site at all times**.

17. In Vehicle Monitoring Systems

- **In Vehicle Monitoring Systems (IVMS) are to be fitted in all Heavy Vehicles** used on Site.
- General exemptions to the above would be for non-project delivery drivers, and suppliers providing one off deliveries.
- All breaches in relation to IVMS must be managed in accordance with section 2.7 of the TSR.
- Incidents involving **speeding, fatigue and log book breaches must be monitored, reported** and acted upon by the Contractor.
- Management of Fatigue must be in accordance with the requirements set out in TfNSW Fatigue Management Standard ST-011.

18. Alcohol and Other Drugs

- The Principal's policy of zero tolerance of alcohol and illegal drug use applies to this Contract and all the Contractor's Activities.

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- Alcohol and illegal drugs are not permitted on any Site or on premises controlled or managed by the Principal.
 - The Contractor must develop **policies and procedures to ensure this policy of zero tolerance of alcohol and illegal drugs use is adhered to at all times.**
 - The Contractor must develop and implement effective **alcohol and drug testing procedures** inclusive of the number of tests to be performed annually and the periods throughout the year that testing will take place.
 - All Alcohol and Other Drug testing procedures must be in line with **relevant Laws and Australian Standards.**
 - The Contractor must ensure that all persons associated with the Contractor's Activities (including the **Contractor's personnel, visitors, Subcontractor workers and agents**) are **aware of their obligations** to comply with all alcohol and other drug requirements.
 - Any persons under the influence of alcohol or drugs are prohibited from working on any projects carried out for, controlled or managed by the Principal, regardless of their work location.
 - **Prescription and over-the-counter drugs** may also affect a person's ability to work safely and the Contractor, in consultation with the Principal's Representative, will determine its policy in relation to prescription and over-the-counter drugs on a case by case basis.
 - All of the Contractor's personnel and workers of Subcontractors may be subject to alcohol and drug testing by an authorised testing officer or agent of the Principal at any time whilst carrying out the Contractor's Activities (including within the Contractor's Site amenities or facilities).
 - Testing for the presence of alcohol and other drugs may be undertaken at any time that workers are present on Site, including:
 - i. before performing duties (pre-sign on, primarily alcohol test);
 - ii. during the performance of duties (random and reasonable cause); and
 - iii. following any Incident.
 - The Contractor must **immediately remove anyone from Site that tests positive** to alcohol or drug tests or who refuses an alcohol or drug test, and the Principal's Representative notified immediately.
 - The Contractor must take **disciplinary action against a person who breaches the Principal's policy of zero tolerance** of alcohol and illegal drug use.
 - The nature of the disciplinary action to be taken must be communicated to the Principal's Representative.
 - Each individual that signs on at the commencement of each shift declares themselves to be free of alcohol and drugs.

- If the Contractor's activities are in or adjacent to the Rail Corridor and the rail environment, the applicable alcohol and other drugs **procedures must comply with the Rail Safety National Law** and the **testing regime must include prestart testing prior to Track Possessions**.

19. Construction Site Access

- The Contractor must submit a written request to the Principal's Representative providing at least 48 hours notice, for any **requests by the community and stakeholders to access Site**.
- The Contractor **must not provide access unless the Principal has granted their prior approval**.
- The Contractor must install **way finding signage to direct pedestrians, commuters and vehicles** that identifies changes to traffic and access at least 7 calendar days before:
 - i. making changes to pedestrian routes;
 - ii. impacting on cycle ways;
 - iii. changing traffic conditions; and
 - iv. disrupting access to public transport modes.

20. Property Risks

- The Contractor must appoint a **site-based person to be the Contractor's property representative**.
- This representative **must be present during all inspections** undertaken by the Principal's Representative or delegate.
- Any findings by the Principal's Representative from inspections must be actioned within the timeframes reasonably required by the Principals Representative.
- Prior to the commencement of any Site based activity, the Contractor must undertake a comprehensive **property risk assessment** in consultation with the Principal's Representative unless otherwise specified in Annexure A.
- A staged risk assessment may be utilised, upon agreement with the Principal's Representative.
- With respect to the Site (and where the Site is at more than one location, for each part of the Site), this **risk assessment must include**:
 - i. permanent and temporary **worksite access requirements** and timing;
 - ii. access to or across adjoining properties and timing;
 - iii. **crane slew radius, air rights and impacts on neighbouring properties or the Rail Corridor**;
 - iv. **Site investigation and contamination**.

- The **Contractor must be responsible for managing the Site** and minimising the impact of the Contractor's Activities on adjoining owners until Final Completion.

21. Pre and Post Construction Land Surveys

- The Contractor must **verify survey control** for the Contractors' Activities.
- **Prior to commencing any activity which could affect existing infrastructure (including roads, railways, utility services and buildings)**, the Contractor must undertake above ground and underground property boundary survey, **recording the location of the relevant Site boundaries in relation to existing infrastructure** on every land parcel and provide them to the Principal's Representative.
- The Contractor must **verify survey control for the Works**, and must comply with the requirements of the Contract in relation to land surveys.
- If any part of the **Works or Temporary Works** is proposed to be, or have been built **outside the relevant boundaries** of the Site stipulated in Schedule 1, and no formal agreement has been reached with the adjoining property owner, the Contractor must **cease work in this area and immediately notify the Principal**.

22. Pre and Post Construction Condition Surveys

- At least 2 weeks prior to the commencement of the Works, the Contractor must carry out pre-construction condition surveys to record the existing condition of adjoining land and property prior to construction, and to **assess the susceptibility of critical services, structures, infrastructure or buildings, to damage or unacceptable changes or alterations** as a result of the Contractor's Activities.
- Post-construction condition survey reports must include a **determination of the cause of any monitored change or any damage** identified since pre-construction or previous construction surveys and the Contractor's proposed remedial works or activities.

23. Working in and Adjacent to the Rail Corridor

- The Contractor must **ensure that the railway system operations and infrastructure are not impeded or interfered with** by reason of the performance of the Contractor's Activities, except where this is approved in writing beforehand by the Principal's Representative;
- must **maintain and coordinate sufficient access to the railway system, for users and operators**, so as not to hinder main traffic routes, including access to and from operating railway station platforms, ticketing areas and the Rail Corridor, and the flow of traffic, including on or accessing the Site and the adjoining areas, except where this is approved in writing beforehand by the Principal's Representative;
- must do everything that could be reasonably expected of the Contractor to **avoid Sydney Trains or another Operator/Maintainer breaching any obligation** it may have arising out of or in connection with the continuing operation of the railway system on a commercial basis;

- ensure **access and egress for Sydney Trains or another Operator/Maintainer** and its Contractors to the Site to undertake regular inspections and to complete maintenance and repairs of the Operator/Maintainer's infrastructure where required;
- ensure access and egress to those parts of the Site required by Other Contractors are made available and coordinated so as to minimise any interference with or disruption;
- ensure **emergency egress routes** (including routes to the Rail Corridor and its support system) are maintained at all times and that emergency systems (including the Sydney Trains emergency warning intercommunication system and fire alarm panels) remain operational throughout the duration of the Contract;
- provide a **safe place for persons carrying out Rail Track inspections and/or maintenance** work, for example, refuges in any hoarding/fencing constructed adjacent to the Rail Track;
- comply with any **Sydney Trains or other Operator/Maintainer standards** applicable to the Contractor's Activities including for work that is adjacent to an operating rail line and to live overhead wires;
- ensure that whilst undertaking the Contractor's Activities, **no employees or Construction Plant (including, for example, by the slewing of cranes) of the Contractor, Subcontractors or consultants enter an operating Rail Corridor, except as permitted by Sydney Trains "RailSafe Network Rules";** and
- carry out the Contractor's Activities in a manner that will **ensure the safety of all property and persons**, including the general public, travelling public, station lessees, railway traffic, railway system personnel, road traffic and any person associated or engaged in connection with the Works.

24. Track possessions

- The Contractor must attend and incorporate the requirements from:
 - i. the **"Tier 6 Possession Coordination Meeting"** with Sydney Trains held approximately 12 weeks prior to the Track Possession. This meeting will decide the coordination of all activities in the Track Possession, working hours, movements of equipment and work trains in the Track Possession area;
 - ii. the **"Possession Coordination Meeting"** with Sydney Trains held approximately two weeks prior to the Track Possession to discuss train movements and safe working; and
 - iii. the **"Pre-Possession Meeting"** with Sydney Trains, usually held prior to the Track Possession to confirm the detailed arrangements for the Track Possession and coordinate the activities of each party working in the Track Possession.
- For each Track Possession to be utilised by the Contractor, the Contractor must **conform to the requirements of the relevant Rail Transport Operator.**

- If a Track Possession involves an asset or partial asset being handed over to the Asset Owner or Operator/Maintainer a **Commissioning event and formal Asset Handover** will be required.
- **documents appertaining to assets being handed over** are required to be submitted to the Principal's Representative for review at least six weeks prior to the Track Possession:
 - i. **Safe Work Method Statements;**
 - ii. **residual risk assessments;**
 - iii. relevant **Configuration Materials** including operations and maintenance manuals, drawings, as directed by the Principal's Representative;
 - iv. **Design Documentation;** and
 - v. any other Documents required, as directed by the Principal's Representative.
- Where power isolation is required, the Contractor must specify what power is required to be shut down and the **time and duration required for the power isolation** and submit this information to the Principal's Representative for review at least 16 weeks prior to each Track Possession.

25. Interface Arrangements During Track Possessions

- The Contractor **may not have exclusive access to any Rail Tracks** or areas within the vicinity of Rail Tracks during a Track Possession.
- The Contractor must **coordinate the Contractor's Activities with those sharing the Track Possession**, including parties involved in the operation or maintenance of the rail system and Other Contractors.
- This includes, where required, the Contractor **allowing for Operator/Maintainers' contractors and Other Contractors to pass through the worksites during the Track Possessions**.
- The extent of Operator/Maintainers Contractors and **Other Contractors activities on or within the vicinity of the Rail Track during Track Possessions** will be determined at the "Tier 6 Possession Coordination Meeting".
- The Contractor must ensure that all **persons invited or brought onto the Site by the Contractor or Other Contractors**, and those who enter an area within the Rail Corridor undertake all necessary Site inductions and obey all directions given by the Worksite Protection Personnel.
- Prior to the end of the Track Possession, an appropriately qualified inspector holding the appropriate competencies must approve adequate completion of the relevant Works and sign off on "Sydney Trains **Certificate of Practical Completion/Certification (W42F01)**".
- Any **Defects listed on W42F01 must be rectified by the Contractor to the satisfaction of the Principal's Representative within 5 Business Days** of the issue of the relevant W42F01.

26. Requesting Additional Track Possessions

- The Contractor must provide a **written request for additional Track Possessions or power isolation** of overhead and transmission lines with a notice period as specified in the Contract.
- Upon a written request by the Contractor, the **Principal will seek to facilitate obtaining additional Track Possessions, power isolations** and/or the Operator/Maintainer's resources for the Contractor by arranging a meeting between the Contractor and the Operator/Maintainer.
- At this meeting or subsequent meetings, **possible dates for Track Possessions, power isolations and/or additional Operator/Maintainer's resources may be identified.**

27. Planning and Managing Track Possessions

To ensure that Track Possessions are managed effectively and safely, the Contractor must:

- **prepare, maintain and update policies and procedures for planning and managing Track Possession work** in accordance with the "Sydney Trains Possession Manual".
- prepare and **submit to the Principal's Representative for review** for conformance with the "Sydney Trains Possession Manual", six weeks prior to each Track Possession:
- a consolidated **plan comprising all information required** in advance of the Track Possession including that detailed in the "Sydney Trains Possession Manual"; and
- a **program** including:
 - i. the elements of the **Works to be completed** prior to the Track Possession;
 - ii. an **hour by hour breakdown of the elements of the Works** to be carried out during the Track Possession;
 - iii. **milestones** and the time and date by which they must be achieved so as to ensure that the rail infrastructure can be reinstated within the allocated time and which, if not achieved by the nominated time, would result in the Contractor bringing work to an end and commencing reinstatement of the rail infrastructure and other works to avoid a delay in returning the Track Possession and/or delays to trains;
 - iv. **adequate allowance of time at the beginning and end of the Track Possession** to safely remove and reinstate the affected rail infrastructure to operational condition and for providing and removing safeworking protection and the Operator/Maintainer inspections and certifications;
 - v. the **specific risks to be managed during the Track Possession** and the procedures to be followed in managing these risks;
 - vi. any **potential interface issue in any way connected with work** carried out by an Other Contractor or involving the Operator/Maintainer's operational and maintenance activities; and

- vii. progress/program **review meetings scheduled during the Track Possession** as requested by the Principal's Representative and/or the Operator/Maintainer.

28. Certification of Work in Track Possessions

Before handover of an area **at the end of any Track Possession the Contractor must provide** to the Principal and, if required by the Principal's Representative, to the Operator/Maintainer as well, the following:

- for any form of **civil or structural works that will support operating Rail Track**, written **certification by the Contractor's designers** (including design Subcontractors) that the relevant **works are safely able to support the operating rail infrastructure**;
- for any adjustments to or interruptions of service to **signalling, track, overhead wiring or high voltage infrastructure**, written **certification from the Contractor's designers** (including design Subcontractors) that such infrastructure is suitable for operations and **complies with the approved design**;
- for any adjustments to or interruptions of service to **signalling, overhead wiring or high voltage infrastructure**, written **certification from a Sydney Trains** (or other relevant Operator/Maintainer's) representative that such infrastructure **is suitable for operations**; and
- all other infrastructure certification as required by Sydney Trains or the relevant Operator/Maintainer and/or Asset Owner.

29. Project Work Notification and Work Activity Advice

The Contractor must:

- complete and **submit the relevant Operator/Maintainer's Project Work Notification** or other applicable document to the Principal's Representative at least six weeks prior to the planned Works, including any works in a Track Possession.
- comply with the **requirements of the "TfNSW/Rail Transport Operator Safety Interface Contract"**.
- **produce a Work Activity Advice (WAA)** using the form "TfNSW Work Activity Advice Form – 4TP-FT-105." 4 weeks prior to commencing work.
- **Each WAA must cover a particular part of the Contractor's Activities and include the SWMS applicable to that part of the Works**; and
- **conduct a pre-work briefing with all personnel involved**, including the Protection Officer as defined in the RailSafe Network Rules and Procedures, prior to commencing.

30. Rail Safety Worker Competencies

- The Contractor must provide the Principal's Representative with a **list of position descriptions** which identifies whether each position is a Rail Safety Worker.

- The Principal may require alteration of the **designation of Rail Safety Workers** as nominated by the Contractor.
- Any **person supervising or setting up safe work arrangements** for the Works on or in the vicinity of the Rail Corridor must hold the qualifications required by the Rail Transport Operator and the Principal.
- The Contractor must ensure that no person undertakes Rail Safety Work unless they have been issued with a **certificate of competency under the Rail Safety National Law**.
- The Contractor must consult with the Principal's Representative to obtain a **determination as to when the RIW card is required**.
- The Contractor must ensure that any **visitors required to enter the Rail Corridor complete the relevant safety inductions**.

31. Rail Safety Worker Fatigue, Medical & Health

For workers carrying out Rail Safety Work the Contractor must apply the following fatigue, medical and health minimisation controls:

- **implement a fatigue management program** that:
 - i. addresses the **requirements of the Rail Safety National Law** and this Contract;
 - ii. restricts workers to **no more than 12 hours worked at a time** not including travel time to and from work, unless there is a declared Incident in which case work can be performed up to a maximum of 16 hours at a time, as long as workers are not required to drive a motor vehicle or operate heavy plant or equipment after the 12th hour;
 - iii. **restricts workers that have worked more than 12 hours from driving** after finishing work;
 - iv. includes **periods of 11 hours rest away from work**;
 - v. restricts the **maximum number of work days to 12 work days in 14 consecutive days**;
 - vi. minimises to **five consecutive occasions where eight hours are worked at night** (i.e. after normal office hours) or **four consecutive occasions where 10 hours are worked at night** or **three consecutive occasions where 12 hours are worked at night without a 48 hour rest break**;
 - vii. ensures employees receive a minimum of **48 consecutive hours free of work in a 14-day period**; and
 - viii. has the **capacity to replace or relieve workers** where unplanned or unavoidable extended hours have created a risk to employee health and safety;
- inform such persons that they are subject to **medicals and health assessments** in accordance with the "National Standard for Health Assessments of Rail Safety Workers";

- ensure that the “**National Standard for Health Assessments of Rail Safety Workers**” are undertaken and documented including re-examinations. The documented records must be maintained according to the State Records Act 1998 (NSW); and
- inform such persons that **additional medical and health assessments** may be required to be undertaken where they are involved in a safety accident or where there is reasonable cause for concern that person may be unable to perform work safely (such as upon return from a long illness).

32. Work on Track Methods for Working Safely

- Unless specified by the issue of a safeworking notice by the Principal’s Representative, the primary work on track methods for working safely are summarised as follows:
 - i. “**Construction Site**” - A worksite under construction without any rail traffic movements, or traction power systems being installed. Worksite Protection and RIW Identification are not required; and
 - ii. “**TfNSW Rail Site**” - A Principal’s Representative managed and controlled rail-site which has no interface access with other rail sites or rail systems.
- **Work within or potential to impact the Danger Zone requires** Local Possession Authority in accordance with **the RailSafe Network Rules and Procedures**.
- Should a TfNSW Rail Site encroach on the Danger Zone of any **other adjoining Rail Transport Operator rail-sites**, then:
 - i. adjacent line protection must be implemented and managed in accordance with the rules of the adjoining Rail Transport Operator; and
 - ii. an access interface is considered removed if points that allow entry and exit to the rail-site are secured and a physical barrier is established at the limits of the TfNSW Rail Site.
- Where the contracted **Works are undertaken within a rail-site managed and controlled by another accredited Rail Transport Operator**, the other Rail Transport Operator’s Network Rules and Procedures apply.

33. Worksite Protection Personnel

- Worksite Protection is required for carrying out the **Works within the Rail Corridor in accordance with the RailSafe Network Rules and Procedures** and/or the requirements of the Rail Transport Operator.
- The Worksite Protection Personnel are required to hold a **minimum of Worksite Protection Personnel level 2 accreditation (PO2)**.
- The Worksite Protection Personnel **must brief all personnel undertaking the Works** on the Worksite Protection arrangements at the Site at the start of each shift or as is otherwise required (and agreed by the Principal’s Representative).

- Where the Principal is to provide the Worksite Protection Personnel, the Contractor must provide **10 Business Days' notice in writing to the Principal's Representative requesting the number of Worksite Protection Personnel required.**

34. Use of Rolling Stock, Hi-Rail Vehicles & Work Trains

- **Rolling stock and rail traffic are not permitted to travel or operate on the Site without the approval of the Principal.**
- The Principal's Representative may also impose requirements, limitations and constraints on rail traffic travelling or operating on the Site.
- To the extent that any part of the Works requires the **use of hi-rail vehicles or work trains** the Contractor must:
 - ensure that such vehicles are only operated by persons with appropriate competencies and by an organisation which holds **accreditation as a "Rolling Stock Operator"** (as that term is defined under the Rail Safety National Law);
 - ensure that hi-rail vehicles are duly checked and **certified as being fit for their intended use at the start of each shift;**
 - ensure the hi-rail vehicle has been **certified as compliant and safe to use with the hi-rail modifications by the Original Equipment Manufacturer** (or an independent competent engineer, including from a WHS and rail safety perspective;
 - ensure that the utilisation of hi-rail vehicles or work trains is appropriately addressed in the Contractor's **procedures to ensure safe operations**, to prevent injury and damage to infrastructure and to ensure that responsibilities are identified and documented;
 - assess the past record of potential Subcontractors** to ensure that they comply with the *Rail Safety National Law* and relevant rail accreditation requirements. The results of these assessments must be made available to the Principal's Representative upon request;
 - set out and carry out **regular reviews of the performance of train and hi-rail operators** engaged for the undertaking of the Works (including at least one review after each major Track Possession or Incident, or in any event every three months). The results of these reviews must be made available to the Principal's Representative upon request; and
 - only use **rolling stock, hi-rail vehicles and work trains authorised on the Vehicle Registration Database.**

35. Swing Arm Plant – Rail Environment

- The Contractor must **ensure the use of restrictors for swing arm plant.**

- The Contractor's construction planning process must include the **validation of the proposed method of work to be carried out** on the day.
- The validation process must include the completion of a **site-specific risk assessment** and development of a plant working diagram by the Contractor in conjunction with the Project Rail Safeworking Coordinator and any other required project personnel.
- The Contractor's **pre-work briefing must include** the following items:
 - i. description of **swing arm plant and equipment being used**, including the type of restrictor(s) being used;
 - ii. details of the "**line in the sand**" for the **positioning of the chassis** of the swing arm plant or equipment being used (including consideration of the size and reach of the swing arm plant or equipment);
 - iii. **arrangements for the provision of a spotter**;
 - iv. reference to the details included in the **Worksite Protection Plan** prepared by the Protection Officer that includes swing arm plant considerations; and
 - v. in the case of operations involving the use of a crane, **details of the lifting plan**.

36. Rail Safety Worker Assessments

- To the extent that the Contractor has its own competence management system (regardless of whether or not it is an RTO in its own right), the Contractor must demonstrate and provide evidence that the **requirements and criteria of the TfNSW Rail Safety Competency Standard 60-ST-153** have been met.
- A component of the demonstration will necessitate an **assessment by the Principal of the Contractor's competence management system** to verify that its system meets the requirements of this Standard.
- To the extent that the Contractor does not have its own competence management system, they will be required to **demonstrate that the Contractor can meet the competencies required to undertake Rail Safety Work** via assessment as part of the TfNSW competence management process.

37. Addendum – Works conducted under TfNSW's RTO Accreditation

- In addition to standing TSR SMS requirements, where works are conducted under TfNSW's RTO Accreditation, the Delivery partner shall apply the following TfNSW RTO SMS obligations:
 - i. TfNSW SMS Safety Change Management Standard
 - ii. TfNSW SMS Enterprise Risk Management Standard (TERM)
 - iii. TfNSW SMS Training and Competency Standard

- iv. TfNSW SMS Safety Training and Competency Standard
- v. TfNSW SMS Rail Industry Worker (RIW) Administration Standard
- vi. TfNSW SMS Rail Safety Worker Competence Standard
- vii. TfNSW SMS Personal Protective Equipment Standard
- viii. TfNSW SMS Human Factors Standard
- ix. TfNSW SMS Records Management Standard
- x. TfNSW SMS Rail Safeworking Standard
- xi. TfNSW SMS Asset Management Life Cycle Standard
- xii. TfNSW SMS Safety Assurance Standard
- xiii. TfNSW SMS Rail Safety Accreditation Determination Procedure
- xiv. TfNSW SMS Security Standard
- xv. TfNSW SMS Safety Incident Reporting, Recording and Investigation Standard
- xvi. TfNSW SMS Transport Executive Major Incident Notification and Escalation Guide
- xvii. TfNSW SMS Transport Executive Major Incident Management Procedure
- xviii. TfNSW SMS Safety Action Management Standard
- xix. TfNSW SMS Alcohol and Other Drugs Standard
- xx. TfNSW SMS Fatigue Management Standard.

EXHIBIT B NOT USED

EXHIBIT C NOT USED

EXHIBIT D NOT USED

EXHIBIT E NOT USED

EXHIBIT F NOT USED

EXHIBIT G NOT USED



Deed of Amendment No. 2
Project Deed – New Intercity Fleet

Contract No. TPD-14-3841

Schedule 2 – Deed Polls



Guarantor deed poll

Guarantee and Indemnity – New Intercity Fleet

—

UGL Pty Limited (**Guarantor**)

—

Guarantor deed poll

Guarantee and Indemnity – New Intercity Fleet

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5. Limitation of Guarantor's liability	4
6. Assignment	5
7. Governing law, jurisdiction and arbitration	5
8. Miscellaneous	5
Signing page	6

Guarantor deed poll

Dated

Made by

Name **UGL Pty Limited** (ABN 85 009 180 287)
 Short form name **Guarantor**
 Notice details Level 9, 40 Miller Street, North Sydney NSW 2060
 Attention: Company Secretary

in favour of

Name **Transport for NSW** (ABN 18 804 239 602)
 Short form name **TfNSW**
 Notice details 7 Harvest Street
 Macquarie Park NSW 2113
 Attention: Project Director, New Intercity Fleet

Name **Transport Asset Holding Entity, formerly known as Rail Corporation New South Wales** (ABN 59 325 778 353)
 Short form name **TAHE**
 Notice details 470 Pitt Street
 Haymarket NSW 2000
 Attention: Project Director, New Intercity Fleet

Agreed terms

1. Definitions and Interpretation

1.1 Definitions

The following definitions and (unless defined below) definitions in the Guarantee and Indemnity apply in this document unless the context requires otherwise:

Deed of Amendment No.2 means the deed titled '*Deed of Amendment No.2 - Project Deed - New Intercity Fleet - Contract Number: TPD-14-3841*' between TfNSW, TAHE, UGL Rail Services Pty Limited, Mitsubishi Electric Australia Pty Ltd and Hyundai Rotem Company dated on or about the date of this document.

Guarantee and Indemnity means the deed titled '*Guarantee and Indemnity – New Intercity Fleet*' between the Guarantor and TfNSW dated 28 August 2016.

1.2 Interpretation and other provisions

Clauses 1.3 (*Interpretation*), 1.4 (*Business Day*), 1.5 (*Transfer of functions*) and 1.6 (*Nothing to affect rights*) of the Guarantee and Indemnity are incorporated in and apply to this Deed Poll as if references to 'this Deed' were to this document.

2. Deed poll

- (a) This document operates as a deed poll given by the Guarantor in favour of each Beneficiary from time to time.
- (b) Each Beneficiary has the benefit of and may enforce this document on a several basis, even though it is not a party to, or is not in existence at the time of execution and delivery of this document.

- (c) The Guarantor makes the representations and warranties contained in clause 8 of the Guarantee and Indemnity for each Beneficiary's benefit with reference to facts and circumstances subsisting as at the date of this document, and those representations and warranties are incorporated in and apply to this document as if references to 'this Deed' were to this document.

3. Consideration, benefit and TfNSW's role

Clauses 2.1 (*Consideration*), 2.5 (*TfNSW holds benefit*) and 12 (*TfNSW's role as trustee and agent*) of the Guarantee and Indemnity are incorporated in and apply to this Deed Poll as if:

- (a) references to 'this Deed' were to this document; and
- (b) reference in clause 2.5 of the Guarantee and Indemnity to 'clause 2' were to this document.

4. Consent and acknowledgement

The Guarantor consents to the Deed of Amendment No.2, and acknowledges and agrees for the benefit of each Beneficiary that:

- (a) the Guarantee and Indemnity continues in full force and effect to guarantee the due and punctual performance by the Supplier of all of the Obligations, and the payment of all the Guaranteed Money, under the Project Documents, in each case as varied by the Deed of Amendment No.2 (and any reference in the Guarantee and Indemnity to a Project Document, the Obligations and the Guaranteed Money is amended for the variations under the Deed of Amendment No.2);
- (b) nothing in this document prejudices or otherwise adversely affects any right or power of a Beneficiary or any obligation or liability of the Supplier under a Project Document, with respect to anything done or effected or otherwise arising before the date of this document;
- (c) each Beneficiary is relying on this document in order to enter into and agree the Deed of Amendment No.2;
- (d) the Guarantor has received a copy of, and approved, the Deed of Amendment No.2, together with all other documents and information it requires in connection with this document, before signing this document; and
- (e) its representations and warranties in clause 2(c) survive execution and delivery of this document.

5. Limitation of Guarantor's liability

Clause 4 (*Limitation of Guarantor's Liability*) of the Guarantee and Indemnity is incorporated in this document and applies to both this document and the Guarantee and Indemnity:

- (a) as if references to 'this Deed' were to both this document and the Guarantee and Indemnity; and
- (b) on the basis of the acknowledgements and agreements in clause 4.

6. Assignment

Clause 11 (*Assignment*) of the Guarantee and Indemnity is incorporated in and applies to this document as if references to 'this Deed' were to this document.

7. Governing law, jurisdiction and arbitration

Clause 13 (*Governing law, jurisdiction and arbitration*) of the Guarantee and Indemnity is incorporated in and applies to this document as if references to 'this Deed' were to this document.

8. Miscellaneous

Clause 16 (*Miscellaneous*) of the Guarantee and Indemnity is incorporated in and applies to this document as if references to 'this Deed' were to this document.

Signing page

EXECUTED and delivered as a deed poll.

Signed, sealed and delivered for UGL Pty Limited (ABN 85 009 180 287) in accordance with Section 127 of the *Corporations Act 2001*:

Signature of director

Signature of director/company secretary
(Please delete as applicable)

Name of director (print)

Name of director/company secretary (print)



Guarantor deed poll

Guarantee and Indemnity – New Intercity Fleet

—

Mitsubishi Electric Corporation (**Guarantor**)

—

Guarantor deed poll

Guarantee and Indemnity – New Intercity Fleet

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6. Assignment	5
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8. Miscellaneous	5
Signing page	6

Guarantor deed poll

Dated

Made by

Name **Mitsubishi Electric Corporation** (a company registered in Japan with registration number 0100-01-008772)
 Short form name **Guarantor**
 Notice details 2-7-3 Marunouchi Chiyoda-ku, Tokyo 100-8310, Japan
 Attention: **[insert]**

in favour of

Name **Transport for NSW** (ABN 18 804 239 602)
 Short form name **TfNSW**
 Notice details 7 Harvest Street
 Macquarie Park NSW 2113
 Attention: Project Director, New Intercity Fleet

Name **Transport Asset Holding Entity, formerly known as Rail Corporation New South Wales** (ABN 59 325 778 353)
 Short form name **TAHE**
 Notice details 470 Pitt Street
 Haymarket NSW 2000
 Attention: Project Director, New Intercity Fleet

Agreed terms

1. Definitions and Interpretation

1.1 Definitions

The following definitions and (unless defined below) definitions in the Guarantee and Indemnity apply in this document unless the context requires otherwise:

Deed of Amendment No.2 means the deed titled '*Deed of Amendment No.2 - Project Deed - New Intercity Fleet - Contract Number: TPD-14-3841*' between TfNSW, TAHE, UGL Rail Services Pty Limited, Mitsubishi Electric Australia Pty Ltd and Hyundai Rotem Company dated on or about the date of this document.

Guarantee and Indemnity means the deed titled '*Guarantee and Indemnity – New Intercity Fleet*' between the Guarantor and TfNSW dated 18 August 2016.

1.2 Interpretation and other provisions

Clauses 1.3 (*Interpretation*), 1.4 (*Business Day*), 1.5 (*Transfer of functions*) and 1.6 (*Nothing to affect rights*) of the Guarantee and Indemnity are incorporated in and apply to this Deed Poll as if references to 'this Deed' were to this document.

2. Deed poll

- (a) This document operates as a deed poll given by the Guarantor in favour of each Beneficiary from time to time.
- (b) Each Beneficiary has the benefit of and may enforce this document on a several basis, even though it is not a party to, or is not in existence at the time of execution and delivery of this document.
- (c) The Guarantor makes the representations and warranties contained in clause 8 of the Guarantee and Indemnity for each Beneficiary's benefit with reference to facts and

circumstances subsisting as at the date of this document, and those representations and warranties are incorporated in and apply to this document as if references to 'this Deed' were to this document.

3. Consideration, benefit and TfNSW's role

Clauses 2.1 (*Consideration*), 2.5 (*TfNSW holds benefit*) and 12 (*TfNSW's role as trustee and agent*) of the Guarantee and Indemnity are incorporated in and apply to this Deed Poll as if:

- (a) references to 'this Deed' were to this document; and
- (b) reference in clause 2.5 of the Guarantee and Indemnity to 'clause 2' were to this document.

4. Consent and acknowledgement

The Guarantor consents to the Deed of Amendment No.2, and acknowledges and agrees for the benefit of each Beneficiary that:

- (a) the Guarantee and Indemnity continues in full force and effect to guarantee the due and punctual performance by the Supplier of all of the Obligations, and the payment of all the Guaranteed Money, under the Project Documents, in each case as varied by the Deed of Amendment No.2 (and any reference in the Guarantee and Indemnity to a Project Document, the Obligations and the Guaranteed Money is amended for the variations under the Deed of Amendment No.2);
- (b) nothing in this document prejudices or otherwise adversely affects any right or power of a Beneficiary or any obligation or liability of the Supplier under a Project Document, with respect to anything done or effected or otherwise arising before the date of this document;
- (c) each Beneficiary is relying on this document in order to enter into and agree the Deed of Amendment No.2;
- (d) the Guarantor has received a copy of, and approved, the Deed of Amendment No.2, together with all other documents and information it requires in connection with this document, before signing this document; and
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8. Miscellaneous

Clause 16 (*Miscellaneous*) of the Guarantee and Indemnity is incorporated in and applies to this document as if references to 'this Deed' were to this document.

Signing page

EXECUTED and delivered as a deed poll.

Signed, sealed and delivered by
Mitsubishi Electric Corporation (a
company registered in Japan with
registration number 0100-01-008772) by its
attorney under power of attorney dated

in the presence of:

By executing this instrument the attorney
declares that the attorney has not received
notice of the revocation of the power of
attorney and is not aware of any act or
circumstances that might affect the attorney's
authority.

Witness (signature)

Attorney (signature)

Witness (print name)

Attorney (print name)

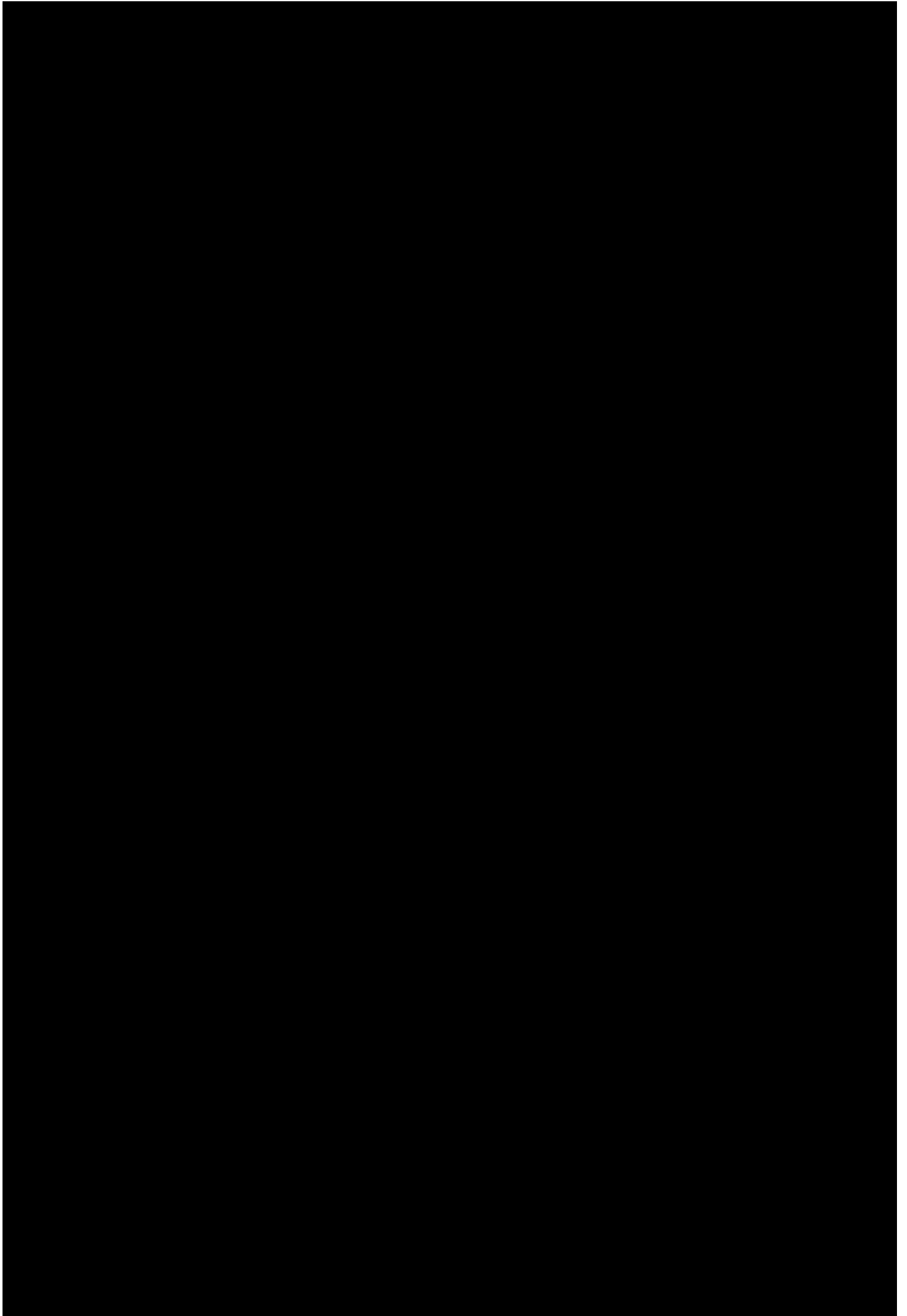
Position of Attorney (print position/office held)

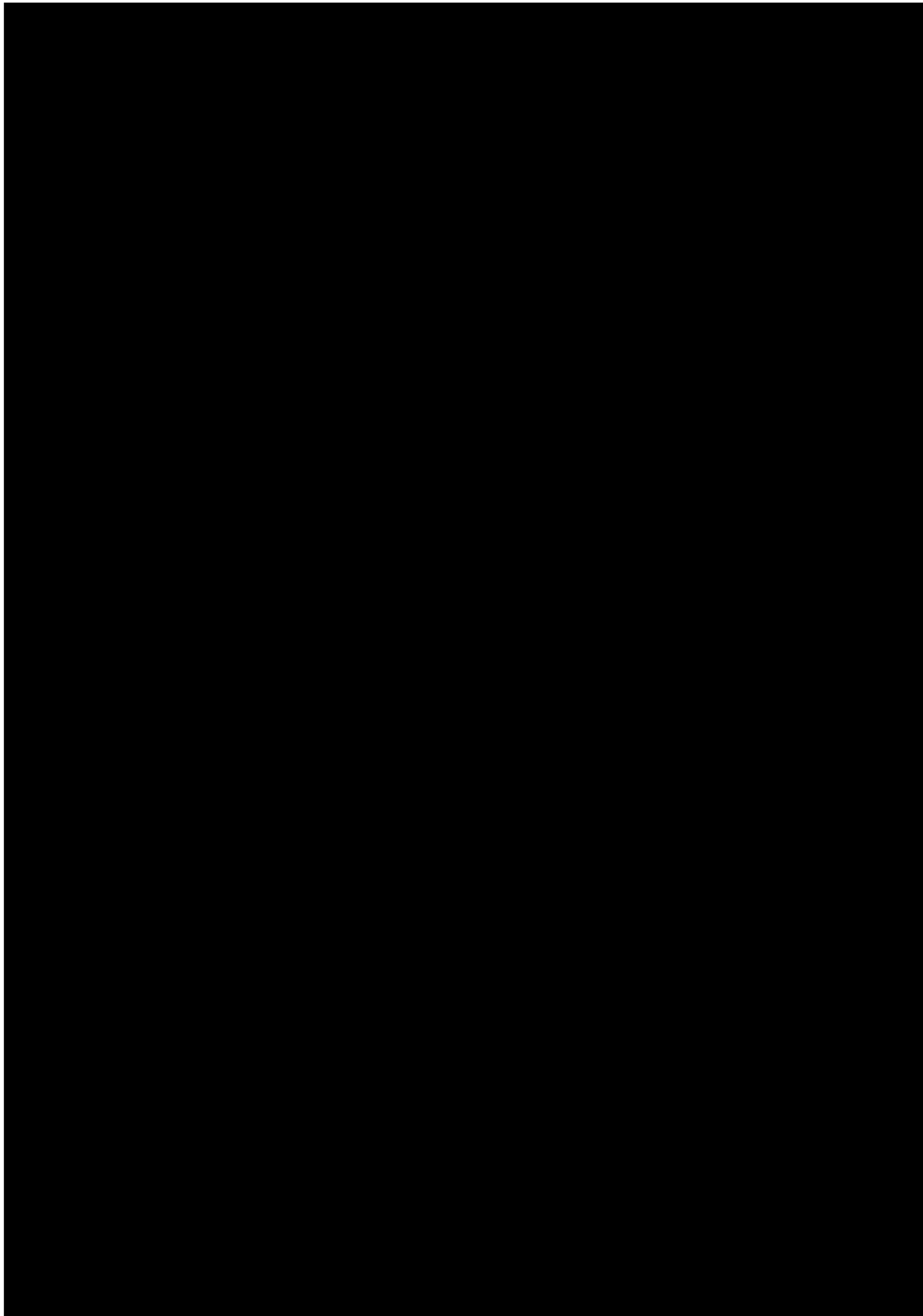


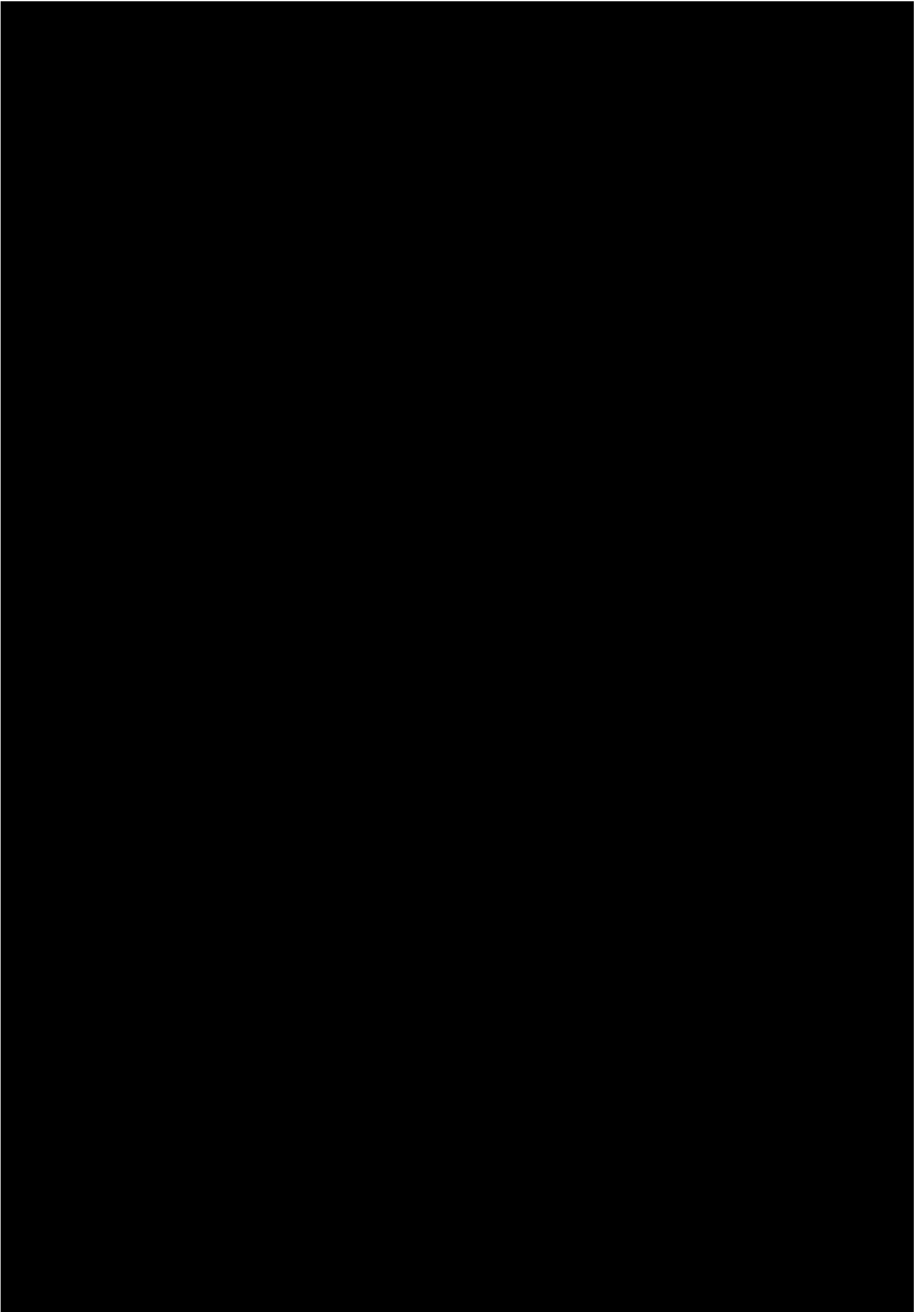
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Project Deed – New Intercity Fleet

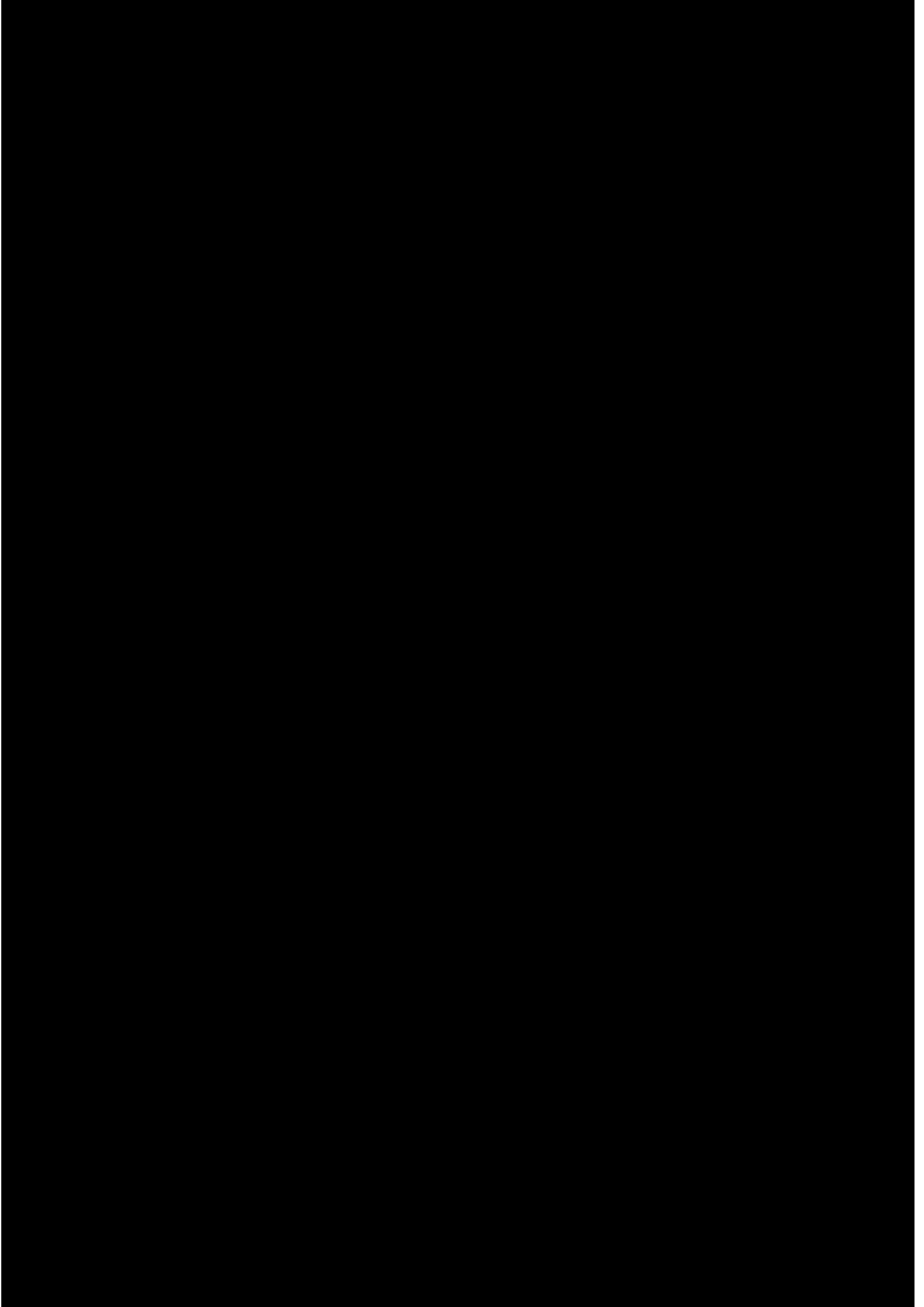
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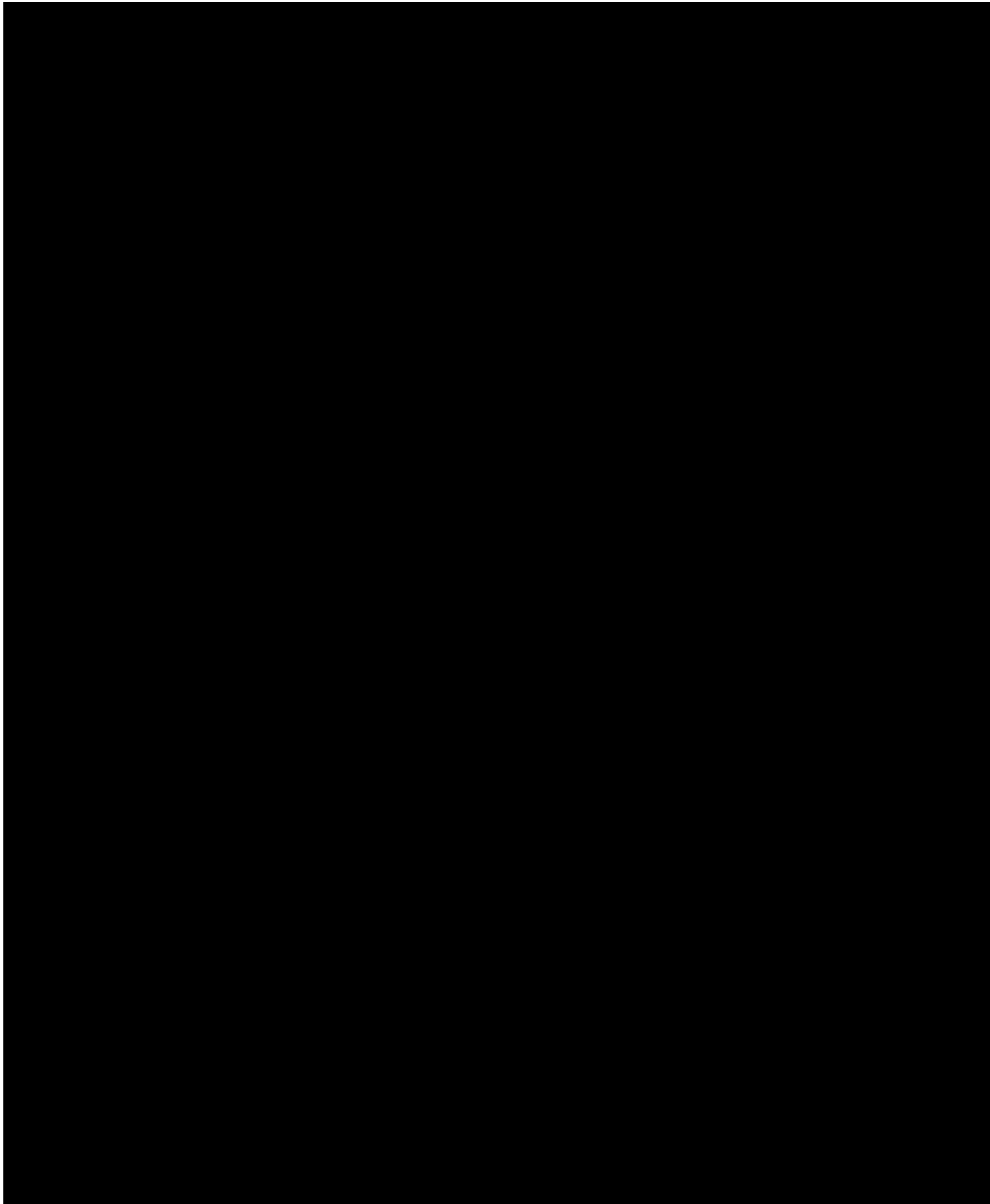
Schedule 3 – Certificate

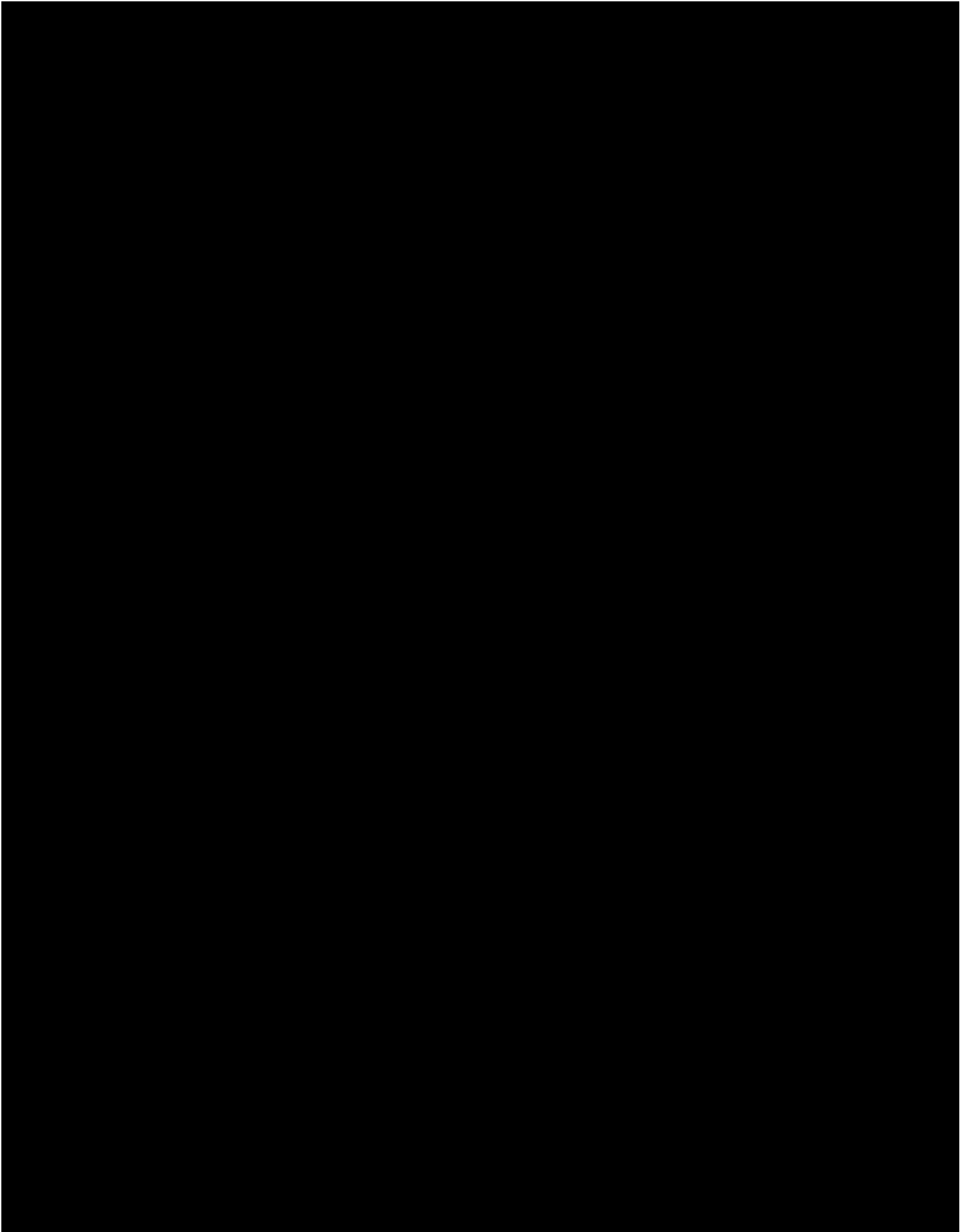


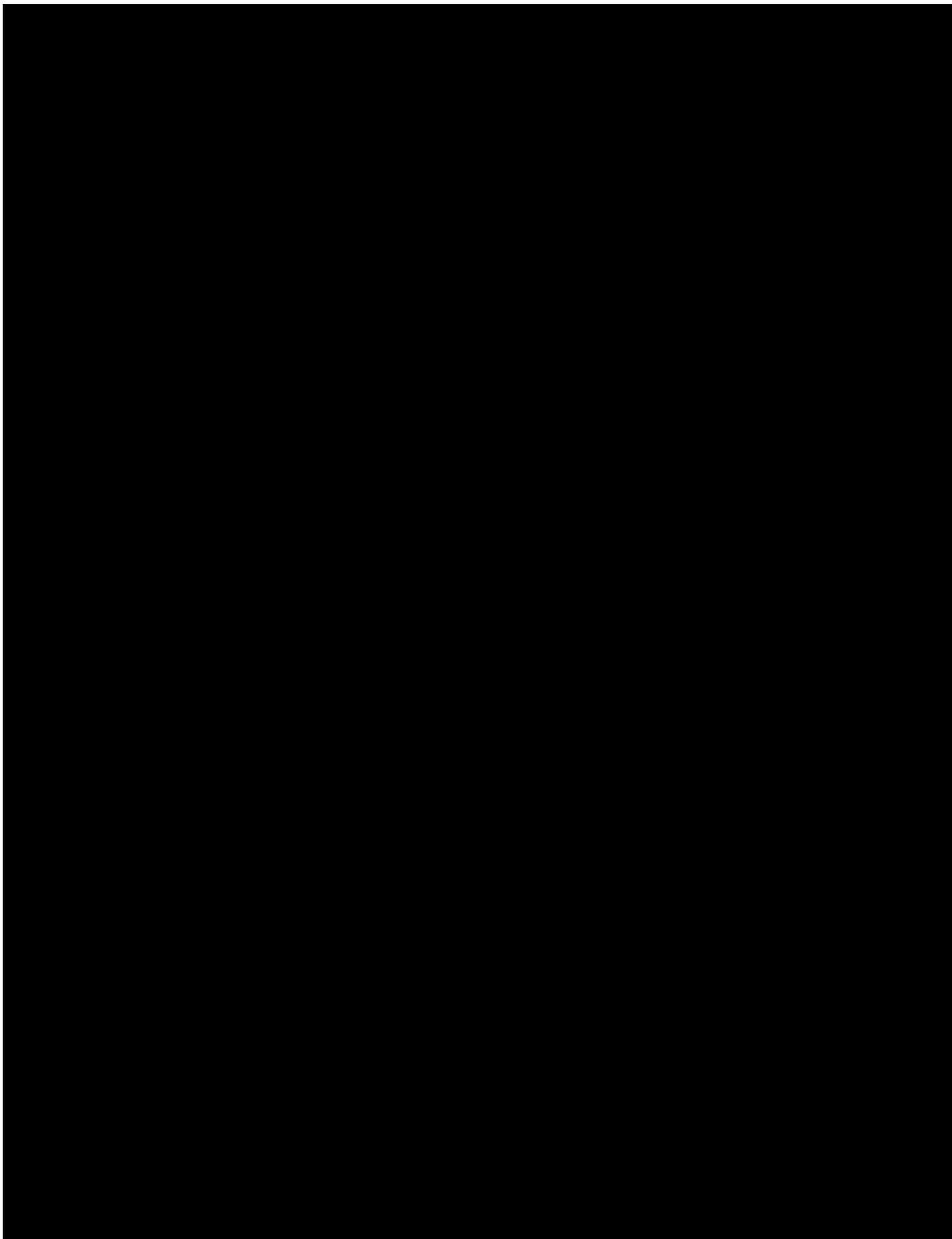














Schedule 4 – Appendix 15 (Maintenance Facility Scope) in Scope and Performance Requirements

Annexure to SPR – Additional MF Works

1.1 Purpose

The purpose of the Additional MF Works is to accommodate the Commissioning and Maintenance of the Fleet.

This Annexure details the scope, performance and technical requirements for the Additional MF Works.

1.2 General

The Supplier must design and complete all Additional MF Works, including the provision, installation, testing and commissioning of all plant, equipment and materials stated in this document.

The Supplier must relocate, as required, all services in order to conduct the Additional MF Works (unless they are Defective Prior MF Works).

On Completion, the Additional MF Works must be fully functional and fully integrated into all aspects of the existing Maintenance Facility including power, signaling and depot protection system.

The Supplier is responsible for all activities and works required to complete the Additional MF Works, unless otherwise stated in this deed.

The Additional MF Works must not affect the Suppliers requirements as defined in Schedule G, Appendix 09, Environment and Sustainability.

The Additional MF Works must not affect the Suppliers requirements to maintain site security including CCTV coverage and lighting.

The Supplier must obtain and maintain AEO authorisation from the ASA for all of the engineering services required to conduct the Supplier's Activities associated with this Appendix.

1.3 Scope Overview

The scope of works for the Supplier's activities include:

- a. Procure, Supply, Installation and Commissioning of Train Lifting System;
- b. Design and Construction of Warehouse;
- c. Design and Construction of Graffiti Shed;
- d. Supply and Install all aspects of Road 5 inside and outside the maintenance facility building.

1.4 Train Lifting System and ancillary works

The Supplier must;

- a. supply, install and commission a Train Lifting System capable of lifting a Short Unit located on Maintenance Road 1 on the Sydney end.
- b. provide a train lift system capable of supporting any or all carriages of a Short Unit when a bogie is removed, replaced or is passed beneath the Unit.
- c. enable an operator to control the lifting at either a fixed location (operator station) or from a wireless handheld device.
- d. provide interlocks that interface with the Depot Protection System and overhead crane.
- e. provide operator controls identical to those provided with the previously supplied Train Lifting System.
- f. provide a roof level platform both sides of the Train Lifting System that extends along the full length of the Short Unit.
- g. relocate or modify existing systems and services including the retractable overhead wire system (if required).
- h. relocate the carriage weighing system and all associated interfaces to a suitable location to enable carriage weighing.

1.5 Warehouse Building

The Supplier must;

- a. design a Warehouse Building of approximately 660 square meters and approximately 5m high for the storage of slow-moving materials.
- b. ensure the Warehouse Building size is maximised within the existing site constraints.
- c. ensure the Warehouse Building does not restrict on-site operations including access road and associated turning circles.
- d. construct the Warehouse Building adjacent to the Maintenance Facility building near the northern end of roads 6 and 7.
- e. provide for both light and heavy storage areas as required by the Supplier's operations within the Warehouse Building.
- f. allow for the use of forklifts to operate in the heavy equipment storage area.
- g. supply and install all required racking and shelving.
- h. provide for internal ventilation to allow for a safe atmosphere.
- i. Install external CCTV and integrate with existing CCTV system to monitor entry and exit to the warehouse.
- j. install a suitable fire protection system in accordance with relevant fire standards.
- k. install additional electrical services as required by the design.
- l. Provide a building with a similar external aesthetic appearance to the sites existing infrastructure.

1.6 Graffiti Shed

The Supplier must;

- a. design a Graffiti Shed of approximately 30 meters long, to accommodate a single

car length, and approximately 6 meters wide capable of accommodating a single car during graffiti removal operations.

- b. construct the Graffiti Shed on road 6.
- c. design and install sound proofing that allows for the removal of graffiti to be completed at night within the constraints of the noise compliance requirements of the site.
- d. provide a building with a similar external aesthetic appearance to the sites existing infrastructure.
- e. provide all relevant building services such as electrical, mechanical, hydraulic and fire protection as required by the design.

1.7 Road 5

The Supplier must;

- a. Design and construct all aspects of Standing Road 5 and Maintenance Road 5 including integration to all existing services and systems.
- b. Standing Road 5 and Maintenance Road 5 shall be of similar arrangement to Standing Road 2 and Maintenance Road 2, including but not limited to;
 - a. Signaling System;
 - b. Track system;
 - c. Overhead wire system including retractable overhead within the Maintenance Building;
 - d. HV/ LV systems;
 - e. Decanting and tanking points;
 - f. Earthing and Bonding and electrolysis considerations;
 - g. Door level and Roof level platforms;
 - h. Gantry crane;
 - i. Lighting and electrical services;
 - j. Depot Protection System;
 - k. Ground Based Warning System;
 - l. Hydraulic services and fire protection;
 - m. Ancillaries such as spill kits and emergency wash facilities.

Refer Attachment PP130669-POW-PRP-001 - Appendix A - Technical Requirements

Note - SPR Clause Numbers (NIF_AMF_NEW) to be added post-execution.

KANGY ANGY DEPOT – ROAD 5

TECHNICAL REQUIREMENTS

Purpose of this document

This document sets out the proposed Technical Requirements and Design Criteria for the new Road 5 works developed from the original Kangy Angy Maintenance Facility Works Brief as a basis. The requirements are subject to review, amendments and acceptance by WSP and stakeholders at project commencement.



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1 EARTHING AND BONDING

- a) Earthing, bonding and electrolysis protection infrastructure for operations of the Maintenance Facility in accordance with Australian Standards, Rail Transport Agency and ASA Standards, including:
 - i. Provision of earthing, bonding and electrolysis protection infrastructure and measures to ensure the risk due to effects of rail potential around the scope of work, especially at the Maintenance Road 5 and Stabling Road 5 and co-ordination with Track, signalling and OHW design;
 - ii. Provision of earthing, bonding and electrolysis protection infrastructure and measures to ensure sufficient sectioning and/or rail connection switches to allow Maintenance road 5 to be isolated at the Maintenance Facility and co-ordination with Track, signalling and OHW design;
 - iii. Coordination of E&B requirements with safety system to enable maintenance personnel, intending to work on the 1500V DC system or equipment on the train set, to lower and isolate all pantographs on the set, to apply a secure earthing connection to the 1500V DC wiring, and to lock the isolation and earthing arrangement to render the 1500V DC system or equipment safe against any application of power by any means whilst work is progressing in co-ordination with rollingstock, Track, signalling and OHW design;
 - iv. Coordination of E&B requirements with the electrical system to enable maintenance personnel, intending to work on the 415V AC system or equipment on a train, to lower and isolate all pantographs on the train, to apply a secure earthing connection to the 415V AC wiring (including shore supply), and to lock the isolation and earthing arrangement to render the 415V AC system or equipment safe against any application of power by any means whilst work is progressing in co-ordination with Track, signalling and OHW design;
- b) Electrolysis protection must be incorporated into the Works in accordance with the following ASA and RailCorp Standards:
 - i. ASA Guide T HR EL 12002 GU ‘Electrolysis from Stray DC Current’
 - ii. ASA Standard T HR EL 00004 ST ‘Buildings and Structures under Overhead Lines’
 - iii. ASA Specification EP 12 00 00 01 SP ‘High Voltage and 1500 System Earthing References and Definitions’
 - iv. RailCorp Standard EP 12 00 00 02 SP ‘Low Voltage Distribution and Installations Earthing References and Definitions’
 - v. RailCorp Standard EP 12 10 00 10 SP ‘System Substation Earthing’
 - vi. RailCorp Standard EP 12 10 00 11 SP ‘Distribution Substation Earthing’
 - vii. ASA Standard T HR EL 12005 ST ‘Bonding for 1500 V DC Traction Systems’
 - viii. ASA Standard T HR EL 12004 ST ‘Low Voltage Distribution and Installations Earthing’
- c) The earthing system must be modelled to confirm earthing satisfies ASA Standards. Earthing analysis and design must be carried out by a specialist earthing consultant who is an AEO. The earthing system design, depending on the type of installation, must include the following elements as a minimum:
 - i. A complete earthing system design for the whole Project in accordance to ASA Standards and associated Australian and recognised international Standards, with particular care taken with Australian Standard AS 2067 ‘Substations and high voltage installations exceeding 1kV AC.’
 - ii. Produce data from computer modelling of soil resistivity. Both calculated and measured magnitudes of soil resistivity must be used to generate a multilayer soil resistivity profile;
 - iii. An evaluation, based on a Site audit of the scope of works, of existing possible hazards associated with both transferred EPR must be undertaken;
 - iv. Take into consideration the exact location of the signalling and communications earth stakes and power supplies. They are to be assessed to ensure EPR transfer levels from new HV earthing system is within allowable limits;



Kangy Angy Depot – Road 5
Technical Requirements

- v. Produce computer simulated plots and grid profiles of step, touch and transfer potential at, and in the vicinity of the substation, detailing compliance to acceptable levels detailed in the guide Energy Networks Association EG1:2006 'Substation Earthing Guide' and RailCorp Technical Note ETN11/02 'Earthing Designs for RailCorp's High Voltage AC System'
- vi. Graph Earth Potential Rise (EPR) and maximum allowance potential rise in relation to the geographical distance from the substation earth grid, ensuring compliance to Australian and recognised International Standards;
- vii. Undertake earth fault analysis ensuring compliance to relevant Standards. This must include analysis of fault currents within the perimeter and vicinity of the 11kV substation, also calculation and analysis of the impact of a worst-case prospective fault at the 11kV substation earthing system. The earthing system design must ensure that the resulting earth grid rise measured at the 11kV Substation during this worst-case prospective fault remains within the permissible limits defined in the earthing system design;
- viii. Develop a final detailed computer simulated earthing system model showing all components;
- ix. Validate the earthing design and model by completing a final Site earthing test



2 PERMANENT WAY

- a) All permanent way must be designed, constructed, tested and commissioned by the Contractor in accordance with ASA, RailCorp and Sydney Trains Standards and specifications as well as comply with the Track geometry shown in the Drawings.
- b) The vertical Track alignment is to comply with the intent of the Drawings, except that the Contractor is to finalise the design and construction to satisfy the following requirements:
 - i. ASA RailCorp “normal” (as detailed in RailCorp Standard ESC 210 ‘Track Geometry and Stability’) design criteria must be adopted, except where shown on the Drawings alignment
 - ii. Tracks in the Maintenance Facility Building are coplanar
 - iii. The grade to maintenance road 5 must be 0% grade.
- c) The horizontal track alignment is to comply with the intent of the Drawings, except that the Contractor is to finalise the design and construction to satisfy the following requirements:
 - i. ASA RailCorp “normal” (as detailed in RailCorp Standard ESC 210 ‘Track Geometry and Stability’) design criteria must be adopted
- d) The Track alignment geometry is to be designed for the speeds shown in the SFS.
- e) Rolling Stock Clearances:
 - i. The Contractor must design and construct the Works so that Long NIF Trains can be accommodated, with rolling stock clearance tolerances applied in accordance with RailCorp Standard ESC 215 ‘Transit Space.’
- f) Trackwork:
 - i. All design and construction works must comply with ASA and RailCorp Standards and the specified ‘normal’ (as detailed in RailCorp Standard ESC 210 ‘Track Geometry and Stability’). Design Criteria is noted on the Drawings.
 - ii. The minimum horizontal clearance from the face of a new or existing structure to the centreline of the closest new or existing Track must be in accordance with RailCorp Standard ESC 215 ‘Transit Space.’
 - iii. Track centres in standing roads and maintenance roads shall be minimum 10m centres.
 - iv. The vertical clearance from the underside of new structures to design low rail level must be in accordance with RailCorp Standard ESC 215 ‘Transit Space.’
 - v. The ballasted trackform to be provided must comply with track structure classification 60SW/CM/SL in accordance with RailCorp Standard ESC 200 ‘Track System.’
 - vi. Track design shall consider axle loads up to 30T for construction and establishment works.
 - vii. The direct fixation trackform to be provided within the maintenance building must be designed for a minimum of 25 Tonne Axle Loads (TAL) and must be designed to RailCorp Standards ESC 200 ‘Track System’ and ESC 230 ‘Sleepers and Track Support.’ Tolerances are to be constructed in accordance with RailCorp Standard ESC 210 ‘Track Geometry and Stability.’
 - viii. Embedded direct fixation slab track is to be used in all areas where there is a road rail interface. This is to be in accordance with ASA Standard T HR CI 12072 ST ‘Track Slabs.’
 - ix. The Tracks inside the Maintenance Facility Building shall be a combination of direct fixation, embedded rail and Tracks mounted on pedestals.
 - x. The rail material and process must be in accordance with ASA and RailCorp Standards including RailCorp Standard ESC 220 ‘Rail and Rail Joints.’ All rails must be continuously welded by flash butt welding. Track fixings to be approved products in accordance with RailCorp Standard ESC 200 ‘Track System.’



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- xi. Whenever possible, rail must be delivered to Site in 110m lengths. Flash butt welds are to be used to produce the 110m rail string, and these welds are to be made in a fixed and quality assured flash butt welding depot.

If rail cannot be delivered to Site in 110m lengths due to Site constraints, rail must be delivered in the maximum possible length that can be accepted on the Site. These shorter lengths of rail must be welded into longer lengths using a flash butt welding machine established in a Site welding depot that can produce welds to the tolerances described in RailCorp Standard ESC 220 'Rail and Rail Joints.'

Prior to commencing production welding, the flash butt welding process and depot setup must be proven to be capable of consistently producing welds that meet the tolerances described in RailCorp Standard ESC 220 'Rail and Rail Joints' and RailCorp Manual TMC 222 'Rail Welding.'
 - xii. The tolerances on dimensional deviation from the design specified values for the running rails must be in accordance with RailCorp Standard ESC 210 'Track Geometry and Stability.'
 - xiii. In plain track construction, rails must be installed so that they are inclined towards the centreline of the track. The design rail inclination is 2.86° (1:20). The acceptable range of inclination for new track construction is 3.01° to 2.73° (1:19 to 1:21).
 - xiv. All rails must be profile ground following installation to achieve the appropriate profile shown in RailCorp Standard ESC 220 'Rail and Rail Joints.' The required rail profiles must be achieved over the entire length of track, not just at the profile checking locations described in RailCorp Manual TMC 225 'Rail Grinding.'
- g) Embedded steelwork in the slab track is to be bonded out in accordance with the Maintenance Facility earthing and bonding design in section 4.13.
- h) Buffer Stops:
- a. Buffer stops must be designed in accordance with the requirements of ASA Standard T HR TR 25000 ST 'Buffer Stops' for a speed of 15km/hr and based on Long NIF Train characteristics.
 - b. Buffer stops must be energy absorbing buffer stops which are friction, hydraulic or a combination of both.



3 OVERHEAD WIRING

- a) 1500V DC sectioning must be designed, constructed, tested and commissioned by the Contractor to comply with the Drawings.
- b) OHW must be designed and constructed in accordance with all relevant ASA and RailCorp standards, specifications and the Sydney Trains traction power model.
- c) The OHW system is to be incorporated into the Works and must provide smooth spark-less current collection throughout the full range of operating temperatures. This condition must be satisfied for all possible rail vehicles and pantograph combinations.
- d) The OHW must be insulated at least 3m before all buffer stops.
- e) RailCorp CCALC coding must be shown on all OHW layout drawings, and RailCorp CCALC software must be used to output cantilever component configurations.
- f) RailCorp dropper software must be used when evaluating dropper lengths.
- g) A bonding schedule is to be submitted to TfNSW as part of the design document, detailing required OHW 'Structure to Rail' spark-gap bonds. It will include OHW Structure names, identification of the traction rail to be bonded, reference to RailCorp bonding drawing to be followed, and the reason why bonding is required i.e. 'Switching Structure', in compliance with ASA Standard T HR EL 12005 ST 'Bonding for 1500V DC Traction Systems.'
- h) The isolation procedure shall be endorsed by the Rolling Stock Supplier, meet the requirements of Sydney Trains and be approved by Sydney Trains.
- i) OHW within the Maintenance Facility Building shall interface with the retractable OHW to provide seamless transition of traction power for train operation.
- j) The following details the specific requirements for the OHW Structures, footings, and civils
 - i. The OHW Structures must be based on the use of HP type structures using either single masts or portals spanning over the new Track work where required
 - ii. The OHW Structures must be incorporated into the Works in accordance with ASA Standard T HR CI 12040 ST 'Overhead Wiring Structures and Signal Gantries' and RailCorp Standard ESC 215 'Transit Space'
 - iii. The OHW Structures and footings must be designed in accordance with RailCorp standard drawings
 - iv. The design and layout of the OHW Structures must minimise incursion into adjacent Tracks, walkway and vehicular access areas and avoid clashes/clearance infringements with/to the drainage system and other buried Services, retaining walls, buildings, signalling locations and sighting, and catch points.
- k) The OHW Structures must be designed in accordance with ASA Standard T HR CI 12040 ST 'Overhead Wiring Structures and Signal Gantries.' The OHW Structures must provide independent registration of each of the wire runs supported by the structure. Structures must allow correct registration to be maintained regardless of the order that the wire runs are attached to or detached from the structure.
- l) The minimum OHW system type is System 9 for Road 5 electrification.
- m) Final section numbering for the OHW system shall be confirmed with Sydney Trains at concept design.
- n) The Contractor is responsible for the design of the OHW system to satisfy the requirements of emergency services for access and isolation.
- o) DC feeder and negative cable sizes are to be determined in accordance with ASA Standard T HR EL 20002 ST '1500 V DC Cables and Cable Ratings.' The feeders supplying the Roads 1 to 5 shall be in accordance with the Power Studies to be undertaken during Concept design stage.
- p) The retractable OHW system form part of the Depot Protection System.



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- q) The interface and connection of the retractable OHW system and OHW system within the Maintenance Facility Building shall be seamless.
- r) The retractable OHW system must be type approved by ASA. The retractable OHW system shall be type approved by ASA for installation by ASA prior to submission for CCB control stage gate 3 as an integrated subsystem with the Depot Protection System. An operational procedure for the isolation, switching and interlocking of the retractable OHW and the associated equipment must be developed to demonstrate the safety of the system.



4 COMBINED SERVICES ROUTE

- a) CSR and individual cable routes are required to provide all conduits (including spares as specified in all ASA and RailCorp Standards) cabling and terminations in a shared route along the rail alignment and to the Traction Substation Building, switch yards, signalling and communications locations within the Yard Area.
- b) The Works must, as a minimum, be designed, constructed, tested and commissioned to comply with the standards, regulations and codes required by the Deed.
- c) The cable route shall be installed by the most feasible and practical means to suit either the underground or GST being considered. Cable joints or terminations are to be Sydney Trains standard items. Requirements for protection of electrical equipment must generally be in accordance with the following ASA and RailCorp standards:
 - i. ASA Technical Information T HR EL 00001 TI 'RailCorp Electrical System General Description'
 - ii. ASA Standard T MU AM 01008 ST 'Technical Maintenance Plans and Coding System'
 - iii. ASA Standard T HR TE 01001 ST 'Communication Outdoor Cabling'
 - iv. ASA Procedure T HR EL 00002 PR 'Electrical Power Equipment - Integrated Support Requirements'
 - v. RailCorp Standard EP 00 00 00 07 SP 'Requirements for Handling and Disposal of Material containing PCB'
 - vi. RailCorp Standard EP 00 00 00 08 SP 'Safe Limits of DC Voltages'
 - vii. RailCorp Standard EP 00 00 00 13 SP 'Electrical Power Equipment-Design Ranges of Ambient Conditions'
 - viii. RailCorp Standard EP 00 00 00 15 SP 'Common Requirements for Electrical Power Equipment.'
- d) All new cable support systems must have spare capacity as required by ASA and RailCorp standards, whichever is greater but no less than 33%.
- e) All new communications cables (optical fibre and copper) shall be installed in one conduit so that at least one spare (empty) conduit is retained.
- f) Pits are not permitted between any Tracks including within the area of the future stabling yard and must be located outside the Danger Zone.
- g) The CSR and return service route must be installed such that no element requires relocation in the event that a future stabling yard is constructed.
- h) Separate pits must be provided for communications and signalling including low voltage and high voltage cables to ensure adequate separation.
- i) Pits are to be designed and constructed to remain dry taking into consideration the presence of an existing water table within the Site.
- j) Sumps are to be designed to allow a pump to be inserted and water to be pumped out as required.
- k) All pits must be accessible with walkway access as a minimum.
- l) Vehicle access must be provided to all HV pulling pits.
- m) All HV cabling must be installed in conduits.
- n) The CSR, including pits, must be designed and constructed to be trafficable where subject to vehicular loading.
- o) The CSR must be constructed in accordance with RailCorp Specification SPG 0705 'Construction of Cable Route and Associated Civil Works.'
- p) Provision must be made for maintenance and replacement of cables without affecting rail operations.
- q) Provision of all electrical forms, instructions and Electrical Advice(s) required to undertake the work on RailCorp Assets.



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Technical Requirements

- r) The Contractor, prior to any excavation, shall ensure that the location of all existing Services is known and are not damaged during construction. The Contractor is responsible for locating existing Services by using 'Dial-Before-You-Dig', DSS, exposing Services and potholing as detailed in Section 4.1.
- s) Signalling modifications to be undertaken as detailed in the Kangy Angy Maintenance Signalling Services Brief in Annexure D.
- t) All cabling is to be installed underground, in line with ASA Standards. However, should there be site constraints which explicitly prohibit the undergrounding of cables, only then are above ground cabling permitted.



5 HIGH VOLTAGE AND 1500V DC CABLING

- a) Supply of HV power to the Project is to be designed and constructed by the Contractor to comply with the POD, ASA and Sydney Trains standards.
- b) All new electrical equipment must be able to supply the maximum demand at their load under the minimum requirement, plus an additional 30% of spare capacity.
- c) All HV cabling is to be underground and in accordance with ASA and Sydney Trains standards.
- d) All new cable support systems including conduits must have spare capacity as nominated in ASA and Sydney Trains standards with a minimum of 33%.
- e) Requirements for protection of electrical equipment must be in accordance with the following ASA and RailCorp electrical standards:
 - i. ASA Technical Information T HR EL 00001 TI 'RailCorp Electrical System General Description'
 - ii. ASA Standard T MU AM 01008 ST 'Technical Maintenance Plans and Coding System'
 - iii. ASA Procedure T HR EL 00002 PR 'Electrical Power Equipment - Integrated Support Requirements'
 - iv. RailCorp Standard EP 00 00 00 07 SP 'Requirements for Handling and Disposal of Material containing PCB'
 - v. RailCorp Standard EP 00 00 00 08 SP 'Safe Limits of DC Voltages'
 - vi. RailCorp Standard EP 00 00 00 13 SP 'Electrical Power Equipment-Design Ranges of Ambient Conditions' and
 - vii. RailCorp Standard EP 00 00 00 15 SP 'Common Requirements for Electrical Power Equipment.'
- f) The design of the HV systems pit and duct route must be able to be secured and is in accordance with the following ASA and RailCorp electrical standards:
 - i. ASA Standard T HR EL 20001 ST 'High Voltage AC and 1500 V DC Traction Power Supply Cable Requirements'
 - ii. ASA Standard T HR EL 20002 ST '1500 V DC Cables and Cable Ratings'
 - iii. ASA Standard T HR EL 20003 ST 'Underground Installation Configurations for High Voltage and 1500V DC Cables'
 - iv. RailCorp Standard EP 20 00 00 03 SP 'Above Ground Cable Installation Systems - Selection Guide'
 - v. RailCorp Standard EP 20 00 00 20 SP 'Testing of High Voltage and 1500V DC Cables'
 - vi. RailCorp Standard EP 20 00 03 01 SP 'HV and 1500V DC Cables - Joints and Terminations'
 - vii. RailCorp Standard EP 20 00 04 01 SP 'Cable Route Selection Guide'
 - viii. RailCorp Standard EP 20 00 04 04 SP 'Ground Entry Arrangements'
 - ix. RailCorp Standard EP 20 00 04 05 SP 'Cable Pits'
 - x. RailCorp Standard EP 20 00 04 06 SP 'Underground Cable - Location Recording.'
- g) All ratings must take full account of derating factors for ducts, spacing and other installation conditions.
- h) Existing Feeder labels on existing RailCorp Assets are to be updated to reflect new Feeder numbers.
- i) The 11kV padmounts shall have the capacity to be monitored by Sydney Trains in the future.
- j) Contractor shall allow for spare communication conduits in new HV cable route for future SCADA connection of the padmounts by Sydney Trains.



6 DRAINAGE

- a) All drainage in the Asset Lands, including track drainage, must be designed and constructed in accordance with the requirements of ASA Standards and manuals including
 - (a) ASA Standard T HR CI 12130 ST ‘Track Drainage’
 - (b) ASA Standard T HR CI 12110 ST ‘Earthworks and Formation’
 - (c) ASA Standard T HR CI 12130 MA ‘Track Drainage Manual.’

These standards are subject to conditions below.

- b) Track drainage is required to prevent inundation of the Track formation in a 50-year ARI Flood Event and to prevent damage to the track formation caused by stormwater runoff. Drainage of roads must be designed in accordance with the relevant RMS and Central Coast Council and other relevant Authority Standards.
- c) The area determined as the siding area in accordance with the requirements of ASA Standard ESC210 shall comply with the requirements of ASA Standard T HR CI 12130 ST.
- d) Track subsurface drains and access chambers must be located a minimum clear distance of 3.0m from the nearest rail of the immediately adjacent Track. The distance of 3m is measured from the outer rail to the outside face of the drainage chamber.
- e) Drainage systems used in Temporary Works (i.e. for the period of construction) must be designed to the same criteria specified in this Works Brief for a minimum 2-year recurrence interval. The temporary drainage system must satisfy the requirements of all relevant Authorities.
- f) The Track and retaining wall drainage systems must collect subsurface water seepage and direct it away from the Track and retaining walls.
- g) The drainage system must include appropriate provisions to ensure that there are no adverse impacts on development upstream and/or downstream of the Project and all stormwater can only be discharged into existing creeks or stormwater systems.
- h) Stormwater should be captured for use on Site and to mitigate impacts of the Works.
- i) The Works must limit the effect on the groundwater regime such that there is no adverse effect on the natural Environment or built environment.
- j) The drainage systems must be designed for vehicular and/or imposed loading from rolling stock where appropriate.
- k) A CCTV inspection for all completed drainage system works must be undertaken.
- l) The drainage systems must be designed for ease of maintenance and be self-cleaning.



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Technical Requirements

7 PAVEMENT

- a) Standing Road 5 walkway composition, finish and detailing to be as per the previous works.



8 BUILDING STRUCTURES

Design of the structural components shall comply with all relevant Australian Standards, codes and other TfNSW documentation including but not limited to the following:

- a) National Construction Code
- b) Australian Standard and New Zealand Standard AS/NZS 1170.0 ‘Structural design actions - General principles’
- c) Australian Standard and New Zealand Standard AS/NZS 1170.1 ‘Structural design actions - Permanent, imposed and other actions’
- d) Australian Standard and New Zealand Standard AS/NZS 1170.2 ‘Structural design actions - Wind actions’
- e) Australian Standard and New Zealand Standard AS/NZS 1170.4 ‘Structural design actions - Earthquake actions in Australia’
- f) Australian Standard AS 2159 ‘Piling - Design and installation’
- g) Australian Standard AS 3600 ‘Concrete structures’
- h) Australian Standard AS 3735 ‘Concrete structures retaining liquids’
- i) Australian Standard AS 4100 ‘Steel structures’
- j) Australian and New Zealand Standard AS/NZS 4600 ‘Cold formed steel structures’
- k) Australian and New Zealand Standard AS/NZS 1657 ‘Fixed platforms, walkways, stairways and ladders: Design, construction and installation’
- l) Australian and New Zealand Standard AS/NZS 2312.1 ‘Guide to the protection of structural steel against atmospheric corrosion by the use of protective coatings - Paint coatings’
- m) Australian and New Zealand Standard AS/NZS 2312.2 ‘Guide to the protection of structural steel against atmospheric corrosion by the use of protective coatings – Hot dip galvanising’
- n) Australian Standard AS 1418.1 ‘Cranes, hoists and winches - General requirements’
- o) Australian Standard AS 1418.18 ‘Cranes, hoists and winches - Crane runways and monorails’
- p) Australian Standard AS 5100.1 ‘Bridge design– Scope and general principles’
- q) Australian Standard AS 5100.2 ‘Bridge design– Design loads’
- r) Australian Standard AS 5100.5 ‘Bridge design – Concrete.’

8.1 FIRE RESISTANCE LEVELS

Fire rating of the concrete and steel structural elements must comply with the National Construction Code and the requirements of the Fire Safety Reference Design Report in the Information documents and Materials. Specific reference to fire rated elements is noted for each building in this report.

In line with BCA2016 and AS2118.1-1999, sprinklers covered, and non-sprinklers covered areas are to be provided with Fire Resistance Level (FRL) of not less than 2 hours.

8.2 CONCRETE

All structural concrete design and detailing shall conform to Australian Standards AS 3600 ‘Concrete structures’ and AS 3610 ‘Formwork for concrete.’ The Contractor must give special consideration to:

- a) design and construction of floor slabs and beams with respect to deflections, stripping period and removal of forms and false work
- b) minimum ratios of reinforcement in slabs, beams and walls for shrinkage and temperature cracking control.



8.3 STRUCTURAL STEEL

All structural steelwork design and detailing shall conform to Australian Standard AS 4100 'Steel structures.' The surface preparation and priming of structural steel must be appropriate to the exposure of the surface.

8.4 TOLERANCES

The design must incorporate structural tolerances. Construction tolerances for structural components must be as nominated in relevant design codes and as required for the finishes applied over those structural components.

8.5 DEAD LOADS

Dead loads are calculated on the basis of the following material densities:

- a) Reinforced Concrete: 25.0 kN/m³
- b) Steel: 78.5 kN/m³

8.6 SUPER-IMPOSED DEAD LOADS

The super-imposed dead loads shall be based on the final materials and non-structural elements selected for the structure.

8.7 CLADDING LOADS

A minimum allowance of 1kPa on elevation should be made for the cladding typically, though cladding loads shall be based on the final materials and non-structural elements selected for the buildings.

8.8 LIVE LOADS

The structural design live loads shall be in accordance with the latest version of Australian and New Zealand Standards AS 1170.1 'Structural design actions - Permanent, imposed and other actions', AS5100.2 'Bridge design - Design loads', AS1418.18 'Cranes, hoists and winches - Crane runways and monorails', TfNSW BORD, ASA standard THR-CI-12072-CI Track Slabs.

8.9 IMPORTANCE LEVEL

All buildings shall be designed for the relevant importance level in accordance with the latest edition of the National Construction Code.

8.10 WIND LOADINGS

The design wind load shall be based on the parameters listed in Table 13 below and in accordance with Australian and New Zealand AS/NZS 1170.2 'Structural design actions - Wind actions.' The wind loads shall be determined for the appropriate class of region, terrain category and topographic, importance and shielding multipliers. In addition to any other loads, the internal walls shall be designed for differential internal pressure. Note that the more adverse dominant openings shall be considered for all buildings.

Additionally, the design of cladding elements must take into consideration the local pressure factors applied to the external wind pressures in conjunction with the most severe internal pressures as the buildings typical have a single skin façade.

8.11 EARTHQUAKE LOADING

The design seismic load shall in accordance with the Australian and New Zealand Standard AS 1170.4 'Structural design actions - Earthquake actions in Australia.'



8.12 BLAST LOADING

There is no requirement for the majority of the building structures to be designed for blast loading from explosive ordinances, fuel tanks or vehicular impact.

8.13 ACCIDENTAL HORIZONTAL LOADS

The structural design horizontal loads shall be in accordance with Australian and New Zealand Standards AS/NZS 1170.1 'Structural design actions - Permanent, imposed and other actions' and AS5100.2 'Bridge design - Design loads', though the design shall provide for the following design live loads as a minimum:

- a) Handrails:
 - i. Generally (edges of roof): 0.75kN/m in any direction (AS5100.2)
 - ii. For crowds: 3.0 kN/m in any direction (AS5100.2)
- b) Vehicle impact: the building structures are not required to be designed to resist vehicle impact loading, though the design should incorporate suitable protection and consideration
- c) Rail impact: the building structures are not required to be designed to resist rail impact loading, though the design should incorporate suitable protection and consideration.

8.14 STRUCTURAL ROBUSTNESS

In addition to the minimum loading requirements, all structures shall be designed for robustness in accordance with AS1170.0 Section 6 to ensure adequate load paths are provided to the foundation.

8.15 SERVICEABILITY REQUIREMENTS

The Maintenance Facility Building must incorporate adequate movement joints in the structure, façade and roof sheeting to accommodate volumetric changes in the structural elements due to temperature and moisture variations. All concrete flooring on grade is to be jointed appropriate to the operational intent in accordance with Australian Standard AS3600 'Concrete structures' and Cement Concrete & Aggregates Guide CCA T48 'Guide to Industrial Floors and Pavements' where suitable. In the event of the maintenance floor being required to be designed for hydrostatic pressure due to ground water, continuously reinforced concrete flooring is recommended and to be designed in accordance with the concrete structures for retaining liquids standard.

All internal partition walls, their fixings and supports must be designed in order to carry all loads to which they are subjected and not less than 0.25kPa of pressure as a working load.

The design shall address the serviceability and durability requirements of all relevant Australian Standards for a 100-year design life. In addition, the design shall contain deflections within the limits of the relevant Australian Standards.

The structural components must be designed and constructed to contain any deflections under service loads within limits for structural integrity, visual appearance, avoidance of excessive floor slopes, prevention of cracking in floors, walls and ceilings, proper installation and operation of machinery and equipment, traffic or the building occupants.

The Contractor shall nominate the anticipated floor and paved area movements over the design life of the structure and undertake all ground improvement during construction to ensure movements remain within acceptable limits. Movements shall not exceed the deflection limits nominated below.

8.16 DEFLECTION LIMITS

Generally, the following minimum deflection criteria are to be adopted for all structures:



Table 8.1 General Deflection Limits

STRUCTURAL ELEMENT	INCREMENTAL	LIVE	TOTAL
Steel beams	Span / 300	Span / 360	Span / 250
Formwork / metal decking	N/A	N/A	Span / 240
Concrete floors	Span / 300	N/A	Span / 250

For portal framed structures the following lateral deflection criteria are to be adopted:

Table 8.2 Portal Frame Lateral Deflection Limits

DESIGN ACTION	DEFLECTION LIMIT	COMMENTS
In-Service wind	$h/150$ (no cranes/no masonry walls)	h is the column height
In-Service wind	$h/250$ (no cranes/with masonry walls)	h is the column height
In-Service wind	$b/200$ (no cranes)	$b/200$ is the relative deflection between adjacent frames
In-Service wind	$h/250$ (with <10t gantry cranes)	h should be taken at crane rail level
In-Service wind	$h/300$ (with >10t gantry cranes)	h should be taken at crane rail level
In-Service wind	$b/250$ (with cranes/no masonry walls)	$b/200$ is the relative deflection between adjacent frames
Lateral oblique travel crane loads	$h/500$ 10mm (minimum)	h should be taken at crane rail level refer AS1418.18
Crane deflection limit	Nominated by crane manufacturer	Consultation with the nominated crane manufacturer is required to adhere to their specific deflection criteria

Note: Portal frame sizes and column sizes that support cranes are to be based on the stringent lateral deflection limits for gantry cranes in accordance with Australian Standard AS 1418.18 'Cranes, hoists and winches - Crane runways and monorails' and guidance from Australian Steel Institute Publication 'Design of portal frame buildings including crane runway beams and monorails.'

8.17 VIBRATIONS

All buildings must be designed to avoid perceptible vibrations with special consideration for the following:

- Plant and equipment
- Footfall induced vibrations
- Vibration in office areas

Vibrations due to plant must not be structurally critical or unacceptable to the occupants. All mechanical equipment must be isolated from the structure to minimise any transfer of vibrations.

Office floors must be designed to ensure that there are only perceptible vibrations under footfall effects, or from other internal sources. Vibration amplitudes must be kept below 2mm/sec and natural frequencies must not be less than 6 Hz.

8.18 MATERIALS

8.18.1 CONCRETE DURABILITY

The structural concrete elements shall be designed for the durability requirements of Australian Standard AS 3600 'Concrete Structures' and with a design life of 100 years.



8.18.2 MINIMUM DESIGN CONCRETE GRADES

Table 8.3 Concrete Grades

ELEMENT	MIN CONCRETE GRADE F'C (MPA)
Footings	32
Retaining walls	40
Ground slabs	40
Suspended slabs	40
Piles	32
Precast walls	40

8.19 STEEL DURABILITY

The structural steel elements shall be designed for the durability requirements of Australian Standard AS 4100 'Steel structures' and with a design life of 100 years.

Corrosion protection will be dependent on the location of the structural steel elements within the buildings. A high standard corrosion protection scheme is required for all exposed structural steelwork. The paint scheme for the corrosion protection must be compatible for the fire protection scheme adopted.

Hazardous chemicals such as applied 2539 foaming acid cleaner and Ardrex 6401M are proposed to be used in the Train Wash Building as part of the wash process and these are detrimental to the primary steel structure, so suitable protective coatings must be specified in the structural steel performance specification to protect the structural steelwork.

8.20 MINIMUM DESIGN STEELWORK GRADES

Table 8.4 Steelwork Grades

ELEMENT	GRADE
Open sections (UC, UB, PFC etc.)	300PLUS
Structural hollow sections	C450LO
Steel rod	300PLUS
Turnbuckles	S
Purlins	G450
Flats	300PLUS



9 BUILDING MECHANICAL

The following design criteria must be reviewed for the existing maintenance building's mechanical design:

- a) All relevant Australian Standard specifications or codes, except where such specifications or codes shall be varied by any Authority. Such compliance shall in all cases be with the current edition or issue of the specification or code concerned
- b) National Construction Code Volume 1 'Building Code of Australia Class 2 to Class 9 Buildings'
- c) National Construction Code Volume 3 'Plumbing Code of Australia'
- d) Australian and New Zealand Standard AS/NZS 1668.1 'The use of ventilation and air conditioning in buildings - Fire and smoke control in buildings'
- e) Australian Standard AS 1668.2 'The use of ventilation and air conditioning in buildings - Mechanical ventilation in buildings'
- f) Australian Standard AS 4254.1 'Ductwork for air-handling systems in buildings-Flexible duct'
- g) Australian Standard AS 4254.2 'Ductwork for air-handling systems in buildings - Rigid duct'
- h) Australian and New Zealand Standard AS/NZS 3666.1 'Air-handling and water systems of buildings - Microbial control - Design, installation and commissioning'
- i) Australian and New Zealand Standard AS/NZS 3000 'Electrical installations (known as the Australian/New Zealand Wiring Rules)'
- j) Australian and New Zealand Standard AS/NZS 2107 'Acoustics - Recommended design sound levels and reverberation times for building interiors'
- k) Australian and New Zealand Standard AS/NZS 4114.1 'Spray painting booths, designated spray painting areas and paint mixing rooms - Design, construction and testing'
- l) Australian and New Zealand Standard AS/NZS 4114.2 'Spray painting booths, designated spray painting areas and paint mixing rooms - Installation and maintenance'
- m) Australian Standard AS 2676.2 'Guide to the installation, maintenance, testing and replacement of secondary batteries in buildings – sealed cell'
- n) ASA Standard EP 00 00 0013SP
- o) CIBSE Application Manual AM10 (Natural Ventilation in Non-Domestic Buildings)
- p) NSW Services and installation rules
- q) State and Local Government Regulatory Authorities requirements
- r) Maintenance Facility – Fire Safety Reference Design Report provided in the Information Documents and Materials
- s) Sydney Trains engineering Standards and guidelines
- t) Project sustainability requirements

Table 9.1 Relevant External Conditions

ITEM	SPECIFICATION
Occupied naturally ventilated spaces	<p>Thermal comfort natural ventilation modelling study required for optimisation of the locations, sizes and numbers of inlets and wind driven roof ventilators to achieve an average temperature of 5 degrees C above the ambient temperature for 90% of the operational hours.</p> <p>Minimum requirements to comply with NCC Section F, Part F4 light and ventilation and fire engineering requirements for makeup air.</p>



Kangy Angy Depot – Road 5
Technical Requirements

ITEM	SPECIFICATION
Unoccupied naturally ventilated spaces	To comply with NCC

Table 9.2 Room Ventilation

ROOM NAME	AIR-CONDITIONING	VENTILATION	COMPRESSED AIR	COMMENTS
Maintenance Building – Maintenance Area		X	X	Natural ventilation - low levels and high level operable louvres & mechanical smoke extraction / compressed air



10 BUILDING FIRE PROTECTION

10.1 FIRE SPRINKLER SYSTEMS

The Contractor must provide a fire sprinkler system throughout the Maintenance Facility Building and within racking systems as noted in the fire engineering report in accordance with the Codes, Standards and NSWFB requirements including:

- a) National Construction Code Volume 1 'Building Code of Australia Class 2 to Class 9 Buildings'
- b) National Construction Code Volume 3 'Plumbing Code of Australia'
- c) Australian Standard AS 2118.1 'Automatic fire sprinkler systems - General systems'
- d) Australian Standard AS 2941 'Fixed fire protection installations - Pumpset systems'

Table 10.1 Fire Sprinkler System Criteria

ITEM	PERFORMANCE CRITERIA
Drenchers	Each head is required to provide a minimum of 0.2L/sec/m ² over the total area of the door.
In-rack sprinklers	3 heads operating at every level providing 114L/min per sprinkler head plus roof sprinklers operating at 7.5mm/m ² over an area of 260 m ² . Final sprinkler demand will be based on racking configuration and classification of goods stored.
Minimum operating pressure at the sprinkler	70 kPa

10.2 FIRE HYDRANTS AND HOSE REELS

The Contractor must provide fire hydrants throughout the maintenance facility building area, and standing roads, and hose reels throughout the buildings, to meet the requirements in accordance with the Codes and Standards:

- a) National Construction Code Volume 1 'Building Code of Australia Class 2 to Class 9 Buildings'
- b) National Construction Code Volume 3 'Plumbing Code of Australia'
- c) Australian Standard AS 2419.1 'Fire hydrant installations - System design, installation and commissioning'
- d) Australian Standard AS 2441 'Installation of fire hose reels'
- e) Australian Standard AS 2941 'Fire hydrant installations - System design, installation and commissioning'

Table 10.2 Fire Hydrants and Hose Reels

ITEM	PERFORMANCE CRITERIA
Fire hydrants (without fire brigade intervention)	Minimum of 5L/sec per hydrant and a minimum pressure of 700kPa
Fire hydrants (with fire brigade intervention)	Minimum of 10L/sec per hydrant and a minimum pressure of 700kPa
Fire hose reels	0.41L/sec 220±10 kPa

10.3 FIRE DETECTION AND OCCUPANT WARNING

The Contractor must provide a fire detection and Occupant Warning system throughout the Maintenance Facility Building in accordance with the Codes and Standards:

- a) National Construction Code Volume 1 'Building Code of Australia Class 2 to Class 9 Buildings'



- b) Australian Standard AS 1670.1 'Fire detection, warning, control and intercom systems - System design, installation and commissioning – Fire'
- c) Australian Standard AS 1670.3 'Fire detection, warning, control and intercom systems - System design, installation and commissioning - Fire alarm monitoring.'

Table 10.3 Fire Detection and Occupant Warning

ITEM	PERFORMANCE CRITERIA
MASD	8% Obs/m
Occupant Warning	Minimum 65dB(A) or 10dB(A) above ambient; No more than 105 dB(A)

10.4 FIRE EXTINGUISHERS

The Contractor must provide fire extinguishers throughout the Maintenance Facility Building in accordance with the Codes and Standards:

- a) National Construction Code Volume 1 'Building Code of Australia Class 2 to Class 9 Buildings'
- b) Australian Standard AS 2444 'Portable fire extinguishers and fire blankets - Selection and location'

10.5 FIRE AND RESCUE NSW PROVISIONS

Provisions for Fire and Rescue NSW firefighting operations are to be provided as required in the Fire Safety Reference Design Report including perimeter fire vehicle access plus a fire isolation facility (overhead wiring), fire hydrants (building and yard coverage), fire control centre, unless formally agreed with Fire and Rescue NSW and TfNSW.



11 COMMUNICATIONS

11.1 COMMUNICATIONS POWER

- a) Typical AC Power Supply Arrangements for Telecommunications Equipment Rooms Drawing MET SC 0476.
- b) RailCorp Standard SPM 0212 'Communications and Condition Monitoring Infrastructure.'

11.2 COMMUNICATIONS SYSTEMS EARTHING

- a) ASA Standard T HR TE 21002 ST 'Communications Earthing and Surge Suppression.'
- b) Australian and New Zealand Standard AS/NZS 3835.1 'Earth potential rise - Protection of telecommunications network users, personnel and plant- Code of practice.'
- c) Australian and New Zealand Standard AS/NZS 3835.2 'Earth potential rise—Protection of telecommunications network users, personnel and plant- Application guide.'
- d) Australian and New Zealand Standard AS/NZS 61558.1 'Safety of Power Transformers, Power Supplies, Reactors and Similar Products - General requirements and test (IEC 61558-1 Ed 2, MOD).'
- e) ASA Standard T HR EL 12004 ST 'Low Voltage Distribution and Installations Earthing'
- f) ASA Standard T HR TE 21003 ST 'Telecommunications for Traction Substations and Section Huts.'
- g) Australian Standard AS 2067 'Substations and high voltage installations exceeding kV AC'
- h) Australian and New Zealand Standard AS/NZS 1768 'Lightning protection.'
- i) Australian and New Zealand Standard AS/NZS 3000 'Electrical installations (known as the Australian/New Zealand Wiring Rules).'
- j) All earthing cables (green / yellow) shall have a minimum cross-sectional area (CSA) of 16 mm² unless otherwise specified.

11.3 COMMUNICATION BACKBONE NETWORK

- a) ASA Standard T HR TE 01001 ST 'Communication Outdoor Cabling.'
- b) ASA Specification T HR TE 01003 SP 'Optical Fibre Termination, Patching and Management.'
- c) ASA Specification T HR TE 01004 SP 'Pre-Terminated Fibre Tails and Link Cables.'
- d) ASA Standard T MU TE 21001 ST 'Equipment Rooms and Cubicles.'
- e) ASA Standard T HR TE 21002 ST 'Communications Earthing and Surge Suppression.'
- f) ASA Standard T HR TE 41001 ST v2 'Packet Switched Networks Wired - Local, Metropolitan, and Wide Area Networks.'
- g) ASA Standard T MU TE 41004 ST 'Packet Switched Networks - Wireless Local Area Networks.'
- h) Telecommunication Equipment – Physical Interfaces and Environmental Conditions T HR TE 81001 ST.
- i) ASA Standard T HR TE 81002 ST 'Telecommunication Equipment – Network Management.'
- j) ASA Standard T MU TE 81003 ST 'Test Processes and Documentation for Programmable Electronic Systems and Software.'
- k) RailCorp Standard SPM 0123 'Reinforced Pre-Cast Concrete Cable Pits.'
- l) RailCorp Standard SPM 0212 'Communications and Condition Monitoring Infrastructure.'
- m) RailCorp Standard SPM 0677 'Single-Mode Optical Fibre Cable.'



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- n) RailCorp Manual TMM P021 ‘Optic Fibre Cabling Joining, Termination and Management.’
- o) RailCorp Specification SPG 0705 ‘Construction of Cable Routes and Signalling Civil Works.’
- p) Australian Standard AS/CA S008 ‘Requirements for Customer Cabling Products.’
- q) Australian Standard AS/CA S009 ‘Installation requirements for customer cabling (Wiring Rules).’
- r) Australian and New Zealand Standard AS/NZS ISO/IEC 24702 ‘Telecommunications Installations-Generic Cabling-Industrial Premises.’
- s) Australian and New Zealand Standard AS/NZS 3084 ‘Telecommunications Installation – Telecommunications pathway and spaces for commercial buildings.’
- t) Australian and New Zealand Standard AS/NZS 3085.1 ‘Telecommunication Installations – Administration of communications cabling systems-basic requirements.’
- u) Communications backbone fibre cable must be such that 60% of the fibres in each optical fibre cable are unused upon project completion.
- v) Regular cable pits must be provided to access optical fibre cables. Typical pit spacing shall be between 220-260m for optical fibre cable
- w) Communications cables, conduits and pits must be segregated from HV and LV cables conduits and pits with the exception that signal phone cable may share Signals LV route for the final link from the signal building to the phone provided the communications cable is subducted and compliant with Australian Standard AS/CA S009 ‘Installation requirements for customer cabling (Wiring Rules).’
- x) Optical fibre cables must be manufactured to RailCorp Specification SPM 0677 ‘Single-Mode Optical Fibre Cable.’
- y) ICT LAN (i.e. Corporate LAN) cabling in NIF shall be Cat-6 grade RailCorp Manual ‘Copper Cable Termination.’

11.4 COMMUNICATIONS STRUCTURED CABLING SYSTEM

- a) All communications cabling will be segregated from the power cabling.
- b) Cabling must be installed to be compliant with Australian and New Zealand Standard AS/NZS 3080 ‘Information technology - Generic cabling for customer premises.’
- c) Australian and New Zealand Standard AS/NZS 3084 ‘Telecommunications Installations - Telecommunications pathways and spaces for commercial buildings.’
- d) Australian and New Zealand Standard AS/NZS 3085.1 ‘Telecommunications installations - Administration of communications cabling systems - basic requirements.’
- e) Australian Standard AS/CA S009 ‘Installation requirements for customer cabling (Wiring Rules).’
- f) ASA Standard T HR TE 01001 ST ‘Communication Outdoor Cabling.’
- g) ASA Specification T HR TE 01003 SP ‘Optical Fibre Termination, Patching and Management.’
- h) ASA Specification T HR TE 01004 SP ‘Pre-Terminated Fibre Tails and Link Cables.’
- i) ASA Standard T HR TE 81001 ST ‘Telecommunication Equipment – Physical Interfaces and Environmental Conditions.’
- j) ASA Standard T HR TE 81002 ST ‘Telecommunication Equipment – Network Management.’
- k) RailCorp Specification SPM 0212 ‘Communications and Condition Monitoring Infrastructure.’
- l) RailCorp Manual TMM P021 ‘Optic Fibre Cabling Joining, Termination and Management.’
- m) RailCorp Specification SPG 0705 ‘Construction of Cable Routes and Signalling Civil Works.’
- n) Equipment cabinets/racks.



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- i. All radio communication equipment and racks are installed within the communication room.
- ii. The Contractor must provide equipment racks for all radio communications equipment.
- iii. Equipment racks for radio communications equipment may be shared accommodation.
- o) The Contractor must install radio system base station and multi-coupling equipment in minimum 19-inch cabinets with a minimum 20% spare capacity for future expansion.
- p) LV power and communications cabling must be separated in accordance with Australian Standard AS/CA S009 'Installation requirements for customer cabling (Wiring Rules).'
- q) All equipment cabinets, enclosures, equipment, terminals and cabling must be identified using permanent labels.
- r) Permanent labels must be affixed at top front and rear door of the cabinet or enclosure.
- s) Radio systems equipment cabinets and other equipment cabinets in the same room must be coordinated in size, height, colour and maintenance access.
- t) All radio systems cabinets must be equipped with a vertical GPO power rail, surge suppression, an earth bar, cable trays for power and communications cabling and where required, cable management for data and fibre cables.
- u) Heavy items above 20kg must be located towards the bottom of the cabinet and supported by either support rails or telescopic arms.
- v) Space must be allowed between sub-racks to aid equipment cooling.
- w) Equipment layout within an equipment cabinet must permit ease of maintenance.
- x) Equipment layout must take into account convection cooling with a typical operational temperature not to exceed 30°C.
- y) An antistatic connection point and an antistatic strap must be included in each cabinet to permit static control.
- z) An A4 document holder must be securely affixed inside the cabinet for storage of drawings and service documentation.

11.5 PUBLIC ADDRESS (PA) SYSTEM

- a) Nuisance overspill must be minimised.
- b) The Contractor must assess the background noise that will be present during full train operations and ensure that the PA system will achieve the required performance with that level of background noise.
- c) A minimum intelligibility level of 0.5 Speech Transmission Index (STI) with background noise and 0.65 STI without background noise must be achieved by speaker placement, frequency of transmission and decibel of transmission for the nominated areas and zones.

11.6 COMMUNICATION INTERFACE FROM DEPOT PERSONNEL PROTECTION SYSTEM

- a) ASA T HR TE 01001 ST 'Standard Network Communication Outdoor Cabling.'
- b) ASA Specification T HR TE 01003 SP 'Optical Fibre Termination, Patching and Management.'
- c) ASA Specification T HR TE 01004 SP 'Pre-Terminated Fibre Tails and Link Cables'
- d) ASA Standard T HR TE 81001 ST 'Telecommunication Equipment – Physical Interfaces and Environmental Conditions.'
- e) ASA Standard T HR TE 81002 ST 'Telecommunication Equipment – Network Management.'
- f) RailCorp Specification SPM 0212 'Communications and Condition Monitoring Infrastructure.'
- g) RailCorp Manual TMM P021 'Optic Fibre Cabling Joining, Termination and Management.'
- h) RailCorp Specification SPG 0705 'Construction of Cable Routes and Signalling Civil Works.'



12 SECURITY

12.1 CLOSED CIRCUIT TELEVISION

- a) Australian Standard AS 4806.1 'Closed circuit television (CCTV) - Management and operation.'
- b) Australian Standard AS 4806.2 'Closed circuit television (CCTV) - Application guidelines.'
- c) Australian Standard AS 4806.3 'Closed circuit television (CCTV) - PAL signal timings and levels.'
- d) Australian Standard AS 4806.4 'Closed circuit television (CCTV) - Remote video.'
- e) RailCorp Standard RSS-RSS-002 – Stabling Location and Maintenance Centres.
- f) ASA Guide T HR SY 10000 GU 'Overview of Rail Security Standards and Interpretation Guide.'
- g) ASA Standard T MU SY 10001 ST 'Public Transport Closed Circuit Television (CCTV) Functional Requirements Standard.'
- h) Australian Government 'National Code of Practise for CCTV Systems for Mass Passenger Transport for Counter Terrorism.'
- i) NSW Government 'Policy Statement and Guidelines for the Establishment and Implementation of Closed-Circuit Television (CCTV) in Public Places.'
- j) Transport for NSW TCS200 'Customer Standards: Personal Safety and Security on Public Transport.'



13 LOW VOLTAGE ELECTRICAL

13.1 DISTRIBUTION

- a) Compliance with the following standards:
 - i. Building Code of Australia 'National Construction Code-Volume 1-Building Code of Australia Class 2 to Class 9 Buildings'
 - ii. Australian Government 'Disability Discrimination Act 1992'
 - iii. Australian and New Zealand Standard AS/NZS 3000 'Electrical installations (known as the Australian/New Zealand Wiring Rules)'
 - iv. Australian and New Zealand Standard AS/NZS 3008 'Electrical installations - Selection of cables - Cables for alternating voltages up to and including 0.6/1 kV - Typical Australian installation conditions'
 - v. Australian and New Zealand Standard AS/NZS 3013 Electrical installations - Classification of the fire and mechanical performance of wiring system elements
 - vi. Australian and New Zealand Standard AS/NZS 61000 series 'Electromagnetic compatibility (EMC)'
 - vii. ASA Standard T HR EL 12004 ST 'Low Voltage Distribution and Installations Earthing'
 - viii. RailCorp Standard EP 12 30 00 01 SP 'Electrolysis from Stray DC Current'
 - ix. RailCorp Standard EP 17 00 00 12 SP 'Demarcation of Sydney Trains LV Distribution Systems'
 - x. RailCorp Standard EP 00 00 00 01TI to 15SP 'General Electrical Standards'
 - xi. RailCorp Standard ESB E001 'Low Voltage Electrical Standards'
- b) The Sydney Trains standard distribution transformer padmount substation assembly assembly must comply with the following Standards:
 - i. RailCorp Standard EP17 00 00 11SP 'Low Voltage Isolation Transformers'
 - ii. RailCorp Standard EP 01 00 00 03 SP 'Ring Main Unit'
 - iii. RailCorp Standard EP16 00 00 02 SP 'Distribution Transformers'
 - iv. RailCorp Standard EP 12 10 00 11 SP 'Distribution Substation Earthing'
 - v. ASA Standard T HR EL 12004 ST 'Low Voltage Distribution and Installations Earthing'
 - vi. RailCorp Guide T HR EL 12002 GU 'Electrolysis from Stray DC Current'
- c) Detailed Design and installation must implement initiatives in accordance with the TfNSW Sustainability Design Guidelines.
- d) Electrical systems must be selected and installed to operate in a safe and reliable manner in the course of day-to-day operations, and not cause danger from electric shock, fire, high temperature or physical injury in the event of reasonably anticipated abnormal conditions (overload, fault etc.).
- e) The Contractor shall develop a safe system that allows the isolation of the shore power cable when it is disconnected from the train.
- f) The installation must achieve a minimum power factor of 0.95 lagging.
- g) Fire equipment and all other electrical equipment must comply with the requirements of this Works Brief. All new electrical equipment must be able to supply the maximum demand at their load under the minimum requirement, plus an additional 30% of spare capacity.
- h) All new transformers, switchboards and distribution boards and sub mains must have capacity to supply the maximum demand of their load as the minimum requirement, plus 30% spare capacity.



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- i) All new cable support systems must have 30% spare capacity. All ladders, trunking and trays must be of hot dipped galvanised steel.
- j) All BCA essential services cabling and cable support systems from the IMSB must be fire rated to the WS52 classification in accordance with Australian and New Zealand Standard AS/NZS 3013 'Electrical installations - Classification of the fire and mechanical performance of wiring system elements.' Segregation of switchgear by way of metal barriers must be provided at the switchboard.
- k) Essential cabling relating to BCA fire and life safety systems must not be contained in the same conduit enclosure as non-essential cabling (such as that supplying normal lighting and general-purpose outlets).
- l) Revenue metering shall meet Sydney Trains requirements. Sydney Trains Electricity Accounts Manager shall be consulted for requirements of revenue metering and establishment of electricity accounts.
- m) Environmentally Sustainable Development (ESD) initiatives must be provided including energy efficient lighting sources, lighting control incorporating movement sensors and time clock control. Movement sensors must be interfaced with mechanical air conditioning control to turn off plant when not in use.
- n) All power supplies and their associated connections shall be designed to comply with the overall earthing and bonding requirements.
- o) Earthing and bonding of structures must be incorporated in the Works in accordance with Sydney Trains Engineering Standard EP 12 00 00 22 SP 'Building and Structures under Overhead Wiring'.
- p) Electrolysis protection must be incorporated in the works in accordance with RailCorp Standards and Guides:
 - i. EP 12 00 00 01 SP 'High Voltage and 1500 System Earthing References and Definitions'
 - ii. EP 12 00 00 02 SP 'Low Voltage Distribution and Installations Earthing References and Definitions'
 - iii. EP 12 10 00 10 SP 'System Substation Earthing'
 - iv. EP 12 10 00 11 SP 'Distribution Substation Earthing'
 - v. ASA Standard T HR EL 12004 ST 'Low Voltage Distribution and Installations Earthing'
 - vi. T HR EL 00004 ST 'Buildings and Structures under Overhead Lines'
 - vii. T HR EL 12002 GU 'Electrolysis from Stray DC Current'
- q) All electrical equipment, including control equipment, must be designed to correctly operate with the levels of total harmonic voltage distortion normally found in the Sydney Trains supply network. For Tender purposes allow for total harmonic voltage distortion (THVD) as stated in Sydney Trains Electrical Standards + 5%. This value is to be measured and verified by the Contractor.
- r) Electrical fit out requirements for the Maintenance Facility shall include the following requirements as per the table:

Table 13.1 Electrical Requirements

LOCATION	POWER REQUIREMENTS
Shore Supply	3-phase 415V, 160kVA

- s) Shore supply outlets shall be provided at the locations noted in the table below (dimensions are taken from the front of train coupler plate when parked in its stabled position).

Table 13.2 Shore Supply Outlets

DIMENSION (M)	LOCATION	MAINTENANCE ROAD
15.24	Both sides of car	5
55.92	Both sides of car	5



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DIMENSION (M)	LOCATION	MAINTENANCE ROAD
66.31	Both sides of car	5
96.79	Both sides of car	5
106.99	Both sides of car	5
137.47	Both sides of car	5
147.86	Both sides of car	5
188.64	Both sides of car	5

13.2 LIGHTING

a) Compliance with the following standards:

- i. Building Code of Australia 'National Construction Code-Volume 1-Building Code of Australia Class 2 to Class 9 Buildings'
- ii. Australian Government 'Disability Discrimination Act 1992'
- iii. Australian and New Zealand Standard AS/NZS 3000 'Electrical installations (known as the Australian/New Zealand Wiring Rules)'
- iv. Australian Standard AS 2293.1 'Emergency escape lighting and exit signs for buildings - System design, installation and operation'
- v. Australian and New Zealand Standard AS/NZS 1680.0 'Interior lighting - Safe movement'
- vi. RailCorp Standard ESB-E001 'Low Voltage Electrical Standards'.

b) Automatic lighting control must be provided as nominated on the room data sheets in Annexure E, the Drawings and as noted below:

- i. Motion detectors: equipment room, switch room, plant room
- ii. Timeclock: remaining areas of the building

c) All luminaires must be LEDs.

d) Lighting levels for specific areas must be provided as per the table below:

Table 13.3 Lighting Level

LOCATION	LIGHTING LEVEL (LUMENS)
Pit area	400
Service road	300
Bogie exchange road	300
Stores area	250
Under floor wheel lathe	400
Electronic storage room	400
Bogie Maintenance Area	300



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Technical Requirements

- e) A maintained absolute minimum illuminance of 2.5 vertical lux at 1.2m above ground level is required for all areas to satisfy the minimum lighting levels for CCTV operation.
- f) Light fittings shall be capable of being safely changed using the overhead cranes.

Table 13.4 Lighting for Roads and External

LOCATION	AVERAGE HORIZONTAL ILLUMINANCE (LUX)	VERTICAL MINIMUM ILLUMINANCE (LUX)	UNIFORMITY
Pathways	50	15	0.25
Pedestrian entry	75	25	0.33
Building entries	50	15	0.33
Around and in-between stabled trains	50	15	0.25

- g) Emergency and exit lighting must consist of single point units with a 2 hour (maintained) self-contained battery. Emergency and exit luminaires must be energised upon either a loss of power signal or a signal from the fire indication panel.
- h) Emergency and exit lighting must be in accordance with Australian Standard AS 2293.1 'Emergency escape lighting and exit signs for buildings - System design, installation and operation'. Luminaires must consist of single point units with a 2 hour (maintained) self-contained battery. Emergency and exit luminaires must be energised upon either a loss of power signal or a signal from the fire indication panel.
- i) Emergency lighting control for Road 5 will be integrated to the existing centralised computer monitoring system headend/PC. Data cabling between luminaires and the headend must be Low VOC Category 5 UTP.
- j) High level luminaires to be accessible for maintenance by scissor lift.
- k) Final lighting design must incorporate final CCTV layout and design.



14 HYDRAULIC SERVICES

- a) Hydraulic services must be designed and constructed in accordance with the room data sheets and the Drawings.
- b) All hydraulic services works must primarily fall under the rules and regulations published and administered via Wyong Water, ASA and Sydney Trains design standards and guidelines, Environmental Protection Authority, Building Code of Australia, NSW Code of Practice and the relevant Australian Standards, including but not limited to
 - i. Australian and New Zealand Standard AS/NZS 3500.1 'Plumbing and drainage - Water services'
 - ii. Australian and New Zealand Standard AS/NZS 3500.2 'Plumbing and drainage - Sanitary plumbing and drainage'
 - iii. Australian and New Zealand Standard AS/NZS 3500.3 'Plumbing and drainage - Stormwater drainage'
 - iv. Australian and New Zealand Standard AS/NZS 3500.4 'Plumbing and drainage - Heated water services'
 - v. Australian and New Zealand Standard AS/NZS 2845.1 'Water supply - Backflow prevention devices - Materials, design and performance requirements'
 - vi. Australian and New Zealand Standard AS/NZS 4020 'Testing of products for use in contact with drinking water'
 - vii. Australian Standard AS 4799 'Installation of underground utility Services and pipelines within railway boundaries.'
- c) Hydraulic services must comply with RailCorp/ASA Standards including:
 - i. RailCorp's 'Design Guidelines for the Upgrade and Construction of New and Existing Train Stabling Yards and Turnback Sidings'
 - ii. ASA Standard T HR CI 12190 ST 'Service Installations within the Rail Corridor'
 - iii. EP 12 00 00 01 SP 'High Voltage and 1500 System Earthing References and Definitions'
 - iv. EP 12 00 00 02 SP 'Low Voltage Distribution and Installations Earthing References and Definitions'
 - v. EP 12 10 00 10 SP 'System Substation Earthing'
 - vi. EP 12 10 00 11 SP 'Distribution Substation Earthing'
 - vii. ASA Standard T HR EL 12005 ST 'Bonding for 1500 V DC Traction Systems'
 - viii. ASA Standard T HR EL 12004 ST 'Low Voltage Distribution and Installation Earthing'
 - ix. T HR EL 00004 ST 'Buildings and Structures under Overhead Lines'
 - x. T HR EL 12002 GU 'Electrolysis from Stray DC Current'
 - xi. RailCorp Standard EP 99 00 00 08 SP 'Substations Fire Protection and Detection Standard.'
- d) Sanitary plumbing and drainage:
 - i. All sanitary plumbing and drainage from soil and waste fixtures to the authority's sewer connection. Provide all necessary pipes, junctions, bends, pits, floor wastes, overflow gullies, vents, excavation, backfilling, testing and sundry equipment required for the installation
 - ii. Pipeline positions must be determined on Site in conjunction with all other disciplines to ensure adequate coordination of all services and elements. Co-ordination must be carried out prior to any setting out, excavation and pipe installation taking place
 - iii. Execute the works, using only materials and structures as approved by the local authority
 - iv. All required drainage mechanical and fire services such as but not limited to condensate drainage and fire test drains



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Technical Requirements

- v. Coordinate all work with Wyong Water, pay all fees for the application for approval to connect and new connection to the sewer infrastructure
 - vi. Sanitary plumbing and drainage to connect to Site sewerage system in accordance with Section 4.40 of this Works Brief.
- e) Cold Water:
- i. Domestic cold-water pipes from the cold-water connection to all fixtures and fittings requiring domestic cold water. Include for all pipe work, bends offsets, brackets, pumps, taps and sundry equipment required for the installation. Carry out all shoring and backfilling as required
 - ii. Negotiate with the relevant Authorities for the application to connect to the water mains and supply of all meters, pay all required application and connection fees, take delivery from Authority's store and install on Site, complete with all valves backflow prevention valves and fittings required
 - iii. From the supply connection reticulate to all sanitary fittings and fixtures other than those served by the stormwater harvesting system via mains pressure
 - iv. All taps faucets and fixtures must deliver a minimum outlet pressure of 150kPa or as required for the fixture being served. If mains pressure exceeds 500kPa, provide 350kPa pressure limiting valves to each bathroom group
 - v. Provide a RPZD device immediately downstream of the water meter assembly and elsewhere to satisfy Australian and New Zealand Standard AS/NZS 2845.1 'Water supply - Backflow prevention devices - Materials, design and performance requirements'
 - vi. In addition to base building cold water requirements, provide 25mm water point with water meter to each tenancy
- f) Sanitary fixtures, associated equipment & tapware:
- i. The Contractor is responsible for the complete design, supply and installation of sanitary fixtures, sanitary equipment and tapware specified as shown on the room data sheets and in accordance with the schedules to complete the installation. Allow for the supply and fixing of all fixtures, bolts, brackets, putty, silicone, cemented sundry material necessary for installation and connection of sanitary fixtures in accordance with the manufacturer's instructions.
- g) All pipeline positions must be determined on Site in conjunction with all other disciplines to ensure adequate coordination of all services and elements. Coordination must be carried out prior to any setting out, excavation and pipe installation taking place.
- h) All water services reticulation and sanitary sewer drainage are to be concealed.



15 MECHANICAL SERVICES

- a) All systems shall be designed to comply with Australian and New Zealand Standards:
 - a. AS/NZS 1668.1 'The use of ventilation and air conditioning in buildings - Fire and smoke control in buildings'
 - b. AS 1668.2 'The use of ventilation and air conditioning in buildings - Mechanical ventilation in buildings'
- b) Smoke hazard management for the large isolated buildings as defined under the NCC shall form part of a fire engineered solution.
- c) Compliance with all relevant Australian standard specifications or codes, except where such specifications or codes shall be varied by any Authority. Such compliance shall in all cases be with the current edition or issue of the specification or code concerned, including:
 - i. Building Code of Australia 'National Construction Code-Volume 1-Building Code of Australia Class 2 to Class 9 Buildings' including Section J Energy Efficiency
 - ii. Australian Standard AS 4254.1 'Ductwork for air-handling systems in buildings-Flexible duct'
 - iii. Australian Standard AS 4254.2 'Ductwork for air-handling systems in buildings - Rigid duct'
 - iv. Australian and New Zealand Standard AS/NZS 3666.1 Air-handling and Water Systems of Buildings - Microbial Control - Design, Installation and Commissioning
 - v. Australian and New Zealand Standard AS/NZS 3000 'Electrical installations (known as the Australian/New Zealand Wiring Rules)'
 - vi. Australian and New Zealand Standard AS/NZS 4114.2 'Spray Painting Booths, Designated Spray Painting Areas and Paint Mixing Rooms - Installation and Maintenance'
 - vii. Australian Standard AS 2676.1 'Guide to the Installation, Maintenance, Testing and Replacement of Secondary Batteries in Buildings - Vented Cells'
 - viii. Australian Standard AS 2676.2 'Guide to the Installation, Maintenance, Testing and Replacement of Secondary Batteries in Buildings - Sealed Cells'
 - ix. NSW Government 'Service and Installation Rules of New South Wales'
 - x. NSW Government 'Work Health and Safety Act 2011'
 - xi. NSW Government 'Work Health and Safety Regulation 2011'
 - xii. SafeWork Australia 'Managing the Work Environment and Facilities - Codes of Practice'
 - xiii. New Intercity Fleet Maintenance Facility – Fire Safety Concept Design Report
 - xiv. Sydney Trains engineering standards and guidelines
 - xv. Project Sustainability Requirements
 - xvi. Australian Standard AS 1940 'The Storage and Handling of Flammable and Combustible Liquids'
 - xvii. Australian Standard AS 2714 'The Storage and Handling of Organic Peroxides'
 - xviii. Australian Standard AS3780 'The Storage and Handling of Corrosive Substances'

15.1 COMPRESSED AIR

The principal codes and standards which apply to the compressed air system are:

- a) ISO 8573.1 'Compressed air - Part 1: Contaminants and purity classes'
- b) ISO 12500.1 'Filters for compressed air - Test methods - Part 1: Oil aerosols'
- c) ISO 12500.2 'Filters for compressed air - Test methods - Part 2: Oil vapours'



- d) ISO 12500.3 'Filters for compressed air - Test methods - Part 3: Particulates'
- e) ISO 7183: 2007 'Compressed-air dryers - Specifications and testing'
- f) required air quality at point of use assumed to comply with ISO 8573.1 Class 2.4.2

15.1.1 PIPING

- a) Pipe reticulation within buildings and where located underground will be HDPE or Copper.
- b) Where metallic underground piping is used it will be provided with corrosion protection.

15.1.2 COMPRESSED AIR OUTLETS

Compressed air outlets within the Maintenance Facility and the Wheel Lathe Building will generally be as follows:

- a) Nitto or claw couplings
- b) A local compressed air filter and moisture separator will be provided at each compressed air take-off
- c) Performance at each outlet will be a minimum of 26 L/s at 689 kPa

15.1.3 COMPRESSED AIR HOSE REELS

Compressed air hose reels will be provided and nominated in the schedule below.

- a) Hose reels will be retractable steel case fitted with 30 m x 10mm hose.
- b) A local compressed air filter and moisture separator at each compressed air hose reel will be provided.
- c) Reels will have pivot mounting to allow 180-degree movement and be complete with a Nitto or other coupling type to hose ends.

15.1.4 COMPRESSED AIR LOCATIONS FOR MAINTENANCE BUILDING - MAINTENANCE ROADS

The systems shall provide compressed air connection points for use in the Maintenance Facility in accordance with the following table (dimensions are taken from the front of train coupler plate when parked in its stabled position):

Table 15.1 Compressed Air Connection Points

DIMENSION (M)	LOCATIONS
15.24	Saloon Door, Pit and Pantograph Level
40.38	Saloon Door, Pit and Pantograph Level
41.18	Saloon Door, Pit and Pantograph Level
55.92	Saloon Door, Pit and Pantograph Level
66.31	Saloon Door, Pit and Pantograph Level
81.86	Saloon Door, Pit and Pantograph Level
96.79	Saloon Door, Pit and Pantograph Level
106.99	Saloon Door, Pit and Pantograph Level
121.93	Saloon Door, Pit and Pantograph Level
122.73	Saloon Door, Pit and Pantograph Level



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DIMENSION (M)	LOCATIONS
137.47	Saloon Door, Pit and Pantograph Level
147.86	Saloon Door, Pit and Pantograph Level
162.61	Saloon Door, Pit and Pantograph Level
163.41	Saloon Door, Pit and Pantograph Level
188.64	Saloon Door, Pit and Pantograph Level

Note: Maintenance Road 5 - Provide connection to capped connection to supply compressed air at saloon door level, pit level and pantograph level via compressed air hose reels.ASA Standard T HR EL 12004 ST 'Low Voltage Distribution and Installations Earthing'

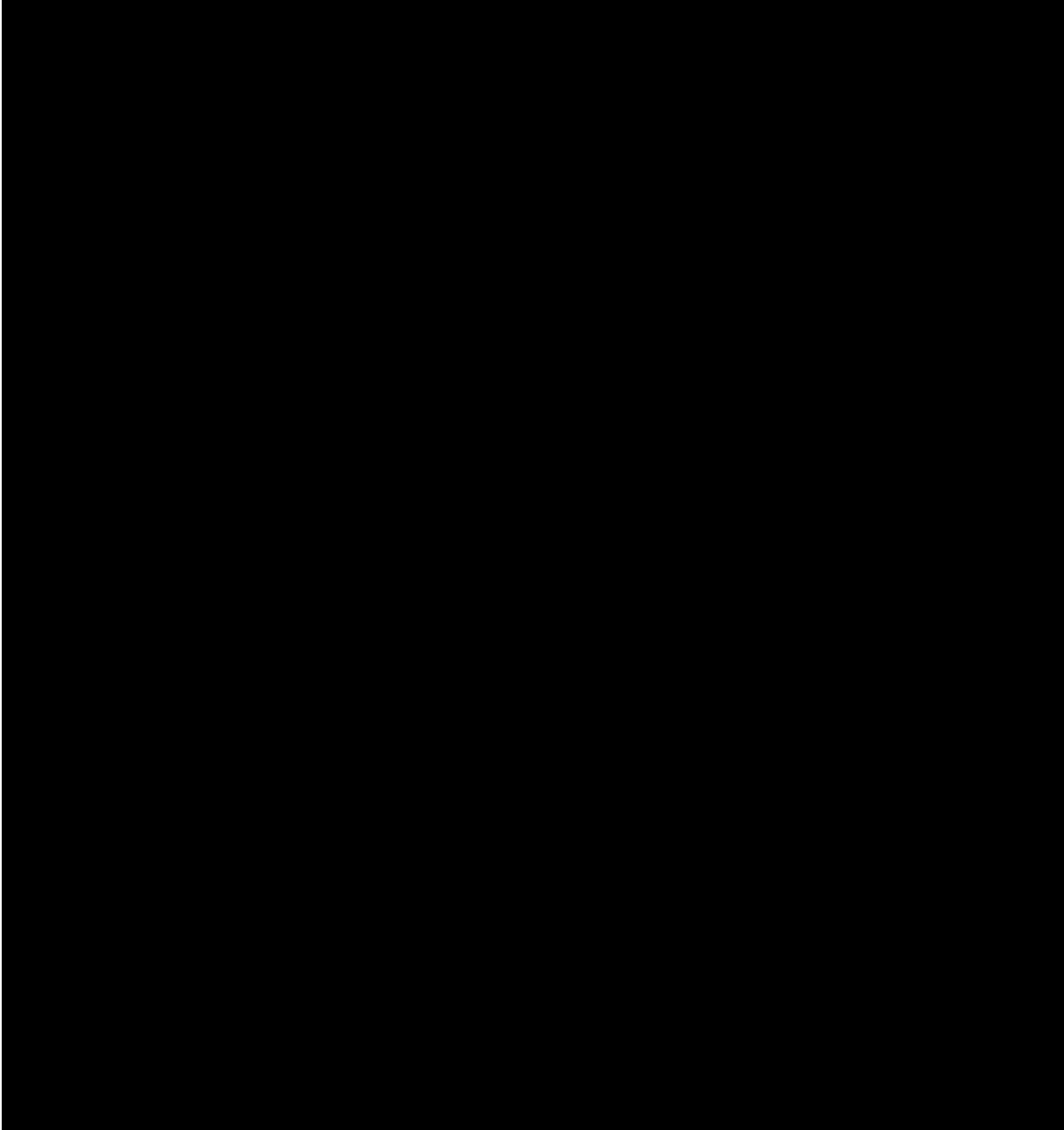


Schedule 5 – Variations Register

Final

Deed of Amendment No. 2
Project Deed – New Intercity Fleet
Contract No. TPD-14-3841

Schedule 5 – Variations Register





Signing page

EXECUTED as a deed.



Signed sealed and delivered for and on behalf of
Transport for NSW (ABN 18 804 239 602) by its
authorised delegate in the presence of:

[Redacted signature]

Signature of witness

[Redacted signature]

Signature of authorised delegate

Rodney Tippett

Name of witness (print)

Charlotte Camilla Drover

Name of authorised delegate (print)

Executive Director Rolling Stock Delivery

Position held

The execution of this document by Transport for NSW was
witnessed over audio visual link and signed in counterpart in
accordance with section 14G of the *Electronic Transactions Act*
2000 (NSW).

Deputy Secretary, Infrastructure & Place

Position held

Signed sealed and delivered for and on behalf of
Transport Asset Holding Entity, formerly known
as **Rail Corporation New South Wales (ABN 59**
325 778 353) by its authorised officer in the
presence of:

[Redacted signature]

Signature of witness

[Redacted signature]

Signature of authorised officer

Victoria La Fontaine

Name of witness (print)

Benedicte Colin

Name of authorised officer (print)

Senior Legal Counsel

Position held

The execution of this document by Transport Asset Holding
Entity was witnessed over audio visual link and signed in
counterpart in accordance with section 14G of the *Electronic*
Transactions Act 2000 (NSW).

CEO - TAHE

Position held



Signed sealed and delivered by Mitsubishi Electric Australia Pty Ltd (ABN 58 001 215 792)
in accordance with Section 127 of the *Corporations Act 2001*

Signature of director

Signature of director/company secretary
(Please delete as applicable)

Jeremy Paul Needham

Name of director (print)

Desmond Patrick Butler

Name of director/company secretary (print)

By signing above, each director or secretary (as applicable) consents to electronic execution of this document (in whole or in part), represents that they hold the position or are the person named with respect to their execution and authorises any other director or secretary (as applicable) to produce a copy of this document bearing his or her signature for the purpose of signing the copy to complete its execution under Section 127 of the *Corporations Act 2001*. The copy of the signature appearing on the copy so executed is to be treated as his or her original signature.

Signed sealed and delivered by UGL Rail Services Pty Limited (ABN 58 000 003 136) in accordance with Section 127 of the *Corporations Act 2001*

Signature of director

Signature of director/company secretary
(Please delete as applicable)

Douglas William Moss

Name of director (print)

Stephen Barrett-White

Name of director/company secretary (print)

By signing above, each director or secretary (as applicable) consents to electronic execution of this document (in whole or in part), represents that they hold the position or are the person named with respect to their execution and authorises any other director or secretary (as applicable) to produce a copy of this document bearing his or her signature for the purpose of signing the copy to complete its execution under Section 127 of the *Corporations Act 2001*. The copy of the signature appearing on the copy so executed is to be treated as his or her original signature.



Signed sealed and delivered for Hyundai Rotem Company (a company registered in the Republic of Korea with registration number 194211-0036336) by its attorney under power of attorney dated 17 August 2018 in the presence of:

By executing this instrument the attorney declares that the attorney has not received notice of the revocation of the power of attorney and is not aware of any act or circumstances that might affect the attorney's authority.

A black rectangular box redacting the signature of the witness.

Signature of witness

A black rectangular box redacting the signature of the attorney.

Signature of attorney

Pawan Vij

Name of witness (print)

Il Yeon Cho

Name of attorney (print)