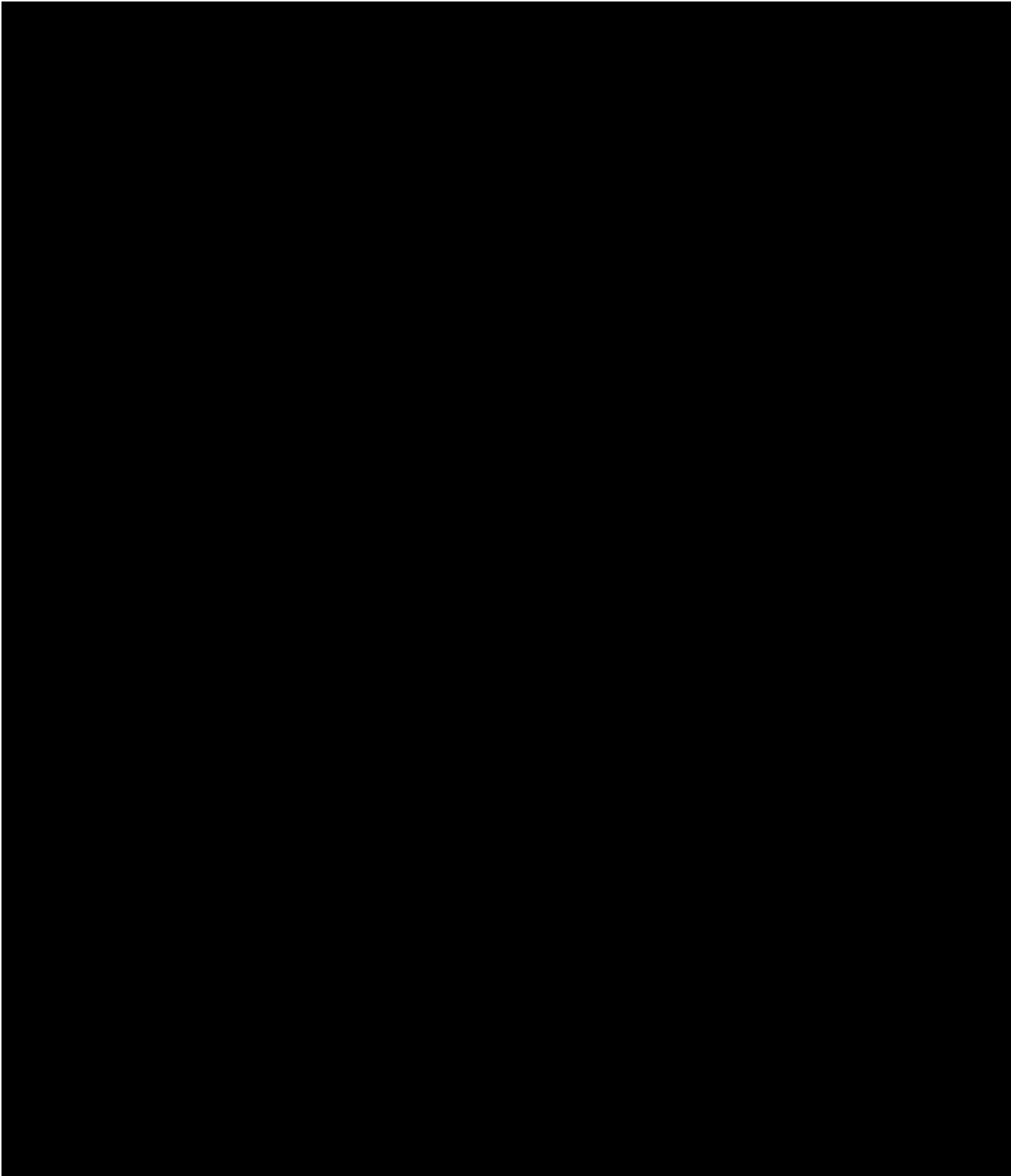
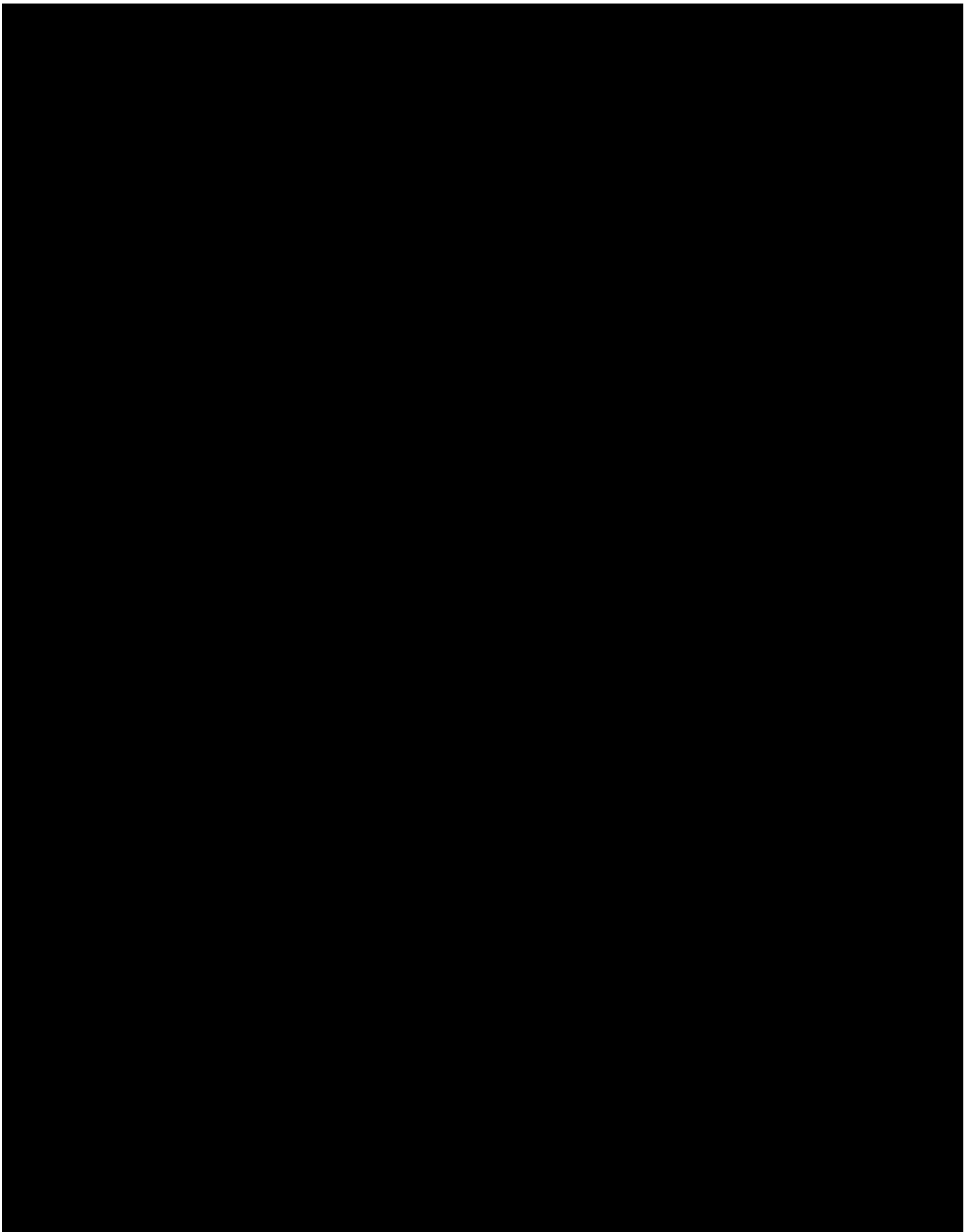


SCHEDULE 34

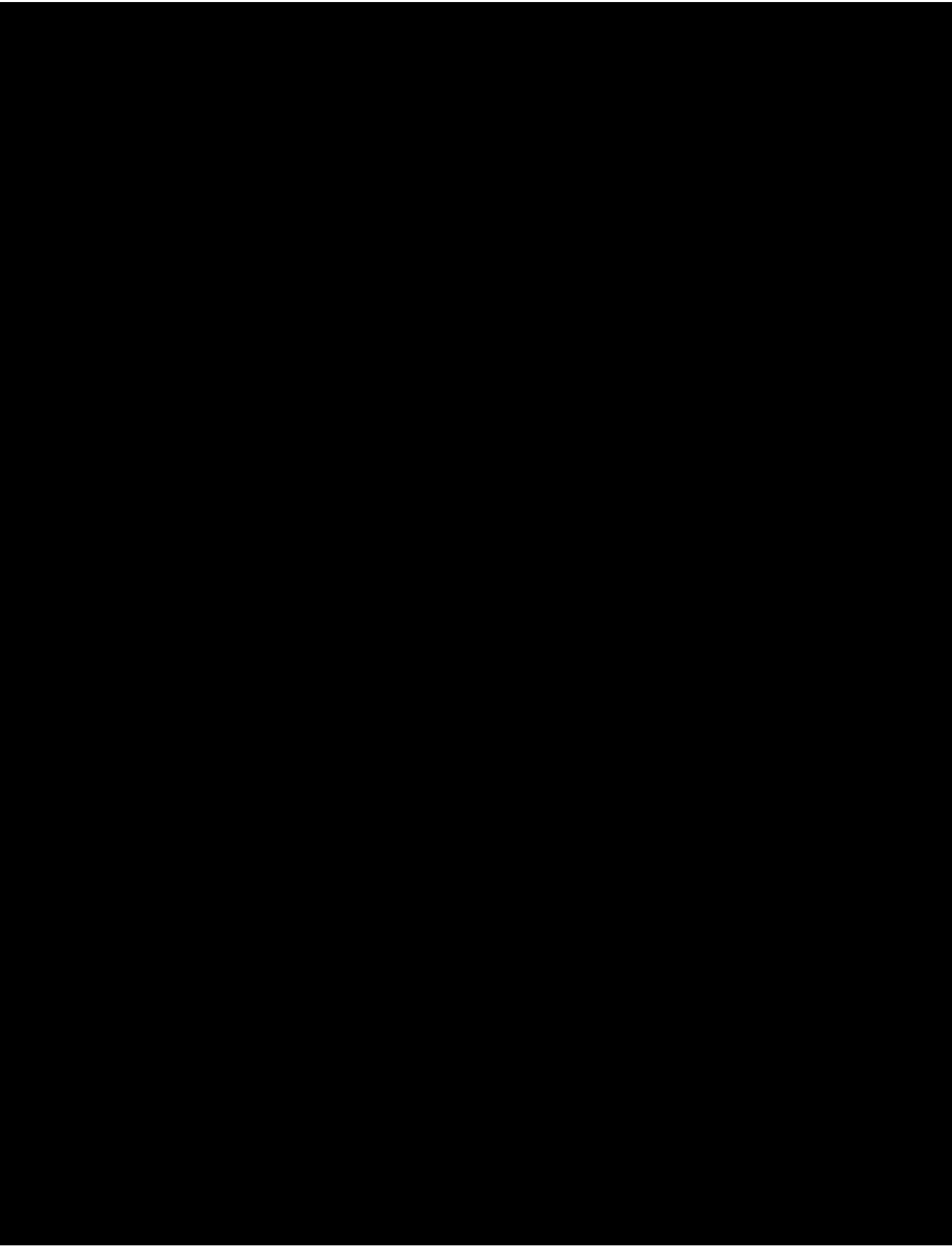
Delay Cost Caps

(Clause 16.9)





ii. Rozelle Interface Works Completion



PART E
TECHNICAL

SCHEDULE 35

Spares List

(Clause 15.8)

Spare Parts Item	Qty	Unit	Rate	Amount
ARCHITECTURAL TUNNEL WALL PANELLING				
Standard panel - 2480mm {h} x 1200mm (w) - Colour A	50			
Standard panel- 2480mm (h) x 1200mm (w) - Colour B	25			
Supply of XP valance panel - 1400mm (h) x 1200mm (w) - Colour A	5			
FIRE DETECTION & SUPPRESSION SYSTEMS				
Linear Heat Detector Cable	200			
Splice Kit	5			
Photo-optical Smoke Detector (inc. cabling)	50			
Fire Hydrant Assembly	10			
Fire Extinguisher	4			
FIRE & SMOKE ISOLATION DAMPERS				
Actuator.Val. VCON,LVW	5			
Actuator Fire Protection Jacket	10			
Limit Switch	10			
Linkage Arm	10			
Linkage Bearings	10			
Damper Blade Tip Seal (per m)	50			
DELUGE SYSTEMS				
HEAD,SPRINKLER,20MM,OPEN,K11.5,BRONZE	100			
VALVE,DELUGE,DN100,250-600KPA,83L/S	20			
VALVE,DELUGE,DN150,250-600KPA,83L/S	10			
DN150 Isolation (Butterfly'.) Valve	5			
COUPLING,FLEXJBLE ,DN50,RG,HDG,EPDM	10			
COUPLING,RIGJD,DN250,RG,HDG,EPDM	10			
COUPLING,FLEXJBLE DN250,RG HDG,EPDM	10			
COUPLING ,FLEXIBLE, DN100. RG,HDG,EPDM	10			

COUPLJNG,FLEXIBLE,DN150,RG,HDG,EPDM	10	
COUPLING,RIGID,DN150,RG,HDG,EPDM	10	
COUPLING,RIGID,DN80,RG,HDG,EPDM	10	
COUPLING.FLEXIBLE DN25,RG,HDG ,EPDM	10	
COUPLJNG,FLEXIBLE,DN80 ,RG,HDG,EPDM	10	
DN250 Check Valve RG	10	
Deluge Valve Solenoid	20	
FIRE PANELS		
Main Fire Indicator Panel Critical Componentry (CPU / Power supply / comm	2	
Sub-Fire Indicator Panel	2	
XP Data gathering Unit	10	
Strobe	6	
Combined Strobe Sounder Fire	6	
Radox Cable	200	
HIGH VOLTAGE SUPPLY & DISTRIBUTION SYSTEMS		
33kV/690V Transformer	1	
33kV/690V/415V Transformer	1	
LOW VOLTAGE SUPPLY & DISTRIBUTION SYSTEMS		
Isolator for equipment room aircons	5	
Isolator for substation aircons	5	
Field Emergency Stop Pushbutton	5	
E3+ Electronic Overload Relay, ext.CBCT C20mA-5A), 9-45A, C60-C85	8	
E3+ Electronic Overload Relay. ext.CBCT (20mA-5AI, 18-90A C60-C85	8	
E3+ Electronic Overload Relay, ext.CBCT C 20mA-5A), 3-15A C09-C23	2	
E3+ Electronic Overload Relay, ext.CBCT 120mA-5AI, 28-140A	2	
E3/E3+ DIN Rail I Panel Adapter for use with 193-ECxx E	2	
Core balance CT 0/5-10A ; for E3+ and SMM	2	
Modular Motor Protection Base Unit	2	
external around fault {Core Balance} CT for 193-EC3xx E3+· 19.1mm window	2	
external ground fault (Core Balance) CT for 193-EC3xx E3+; 39.6mm windo	2	
external around fault (Core Balance) CT for 193-EC3xx E3+· 63.5mm window	2	

external ground fault (Core Balance) CT for 193-EC3xx E3+; 82.3mm window	2	
Current Converter Module (160A - 630A)	2	
RCD's (Various)	15	
Resistive Temperature Device, Pt100 (room)	5	
Resistive Temperature Device, Pt100 (cabinet)	5	
LV ACB,	5	
LV ACB, LV MCCB, LV minature MCBs	10	
UNINTERRUPTABLE POWER SUPPLIES (UPS)		
Complete UPS (up to 132kw)	4	
UPS Batteries	4	
Fuse 35 Amp	10	
Fuse 100 Amp	10	
Fuse 125 Amp	10	
Fuse 200 Amp	10	
VENTILATION SYSTEMS		
Jet Fan Complete	3	
Jet Fan Motor	3	
Jet Fan Silencer	4	
Jet Fan Vibration Sensor	10	
Axial Fan Motor 630kW	2	
Axial Fan Vibration Sensor	10	
Complete VSD	3	
AUTOMATIC VEHICLE INCIDENT DETECTION SYSTEM (AVID)		
TVI External Housing	5	
TVI Lens Type 1	5	
TVIE Enclosure	5	
Video Incident Detection Rack	2	
Video Incident Processor	2	
BOARD, POWER SUPPLY, 19" RACK,230/ 115 VAC	4	
CCTV SYSTEM		
External PTZ CCTV Camera	10	

PTZ Security	10		
Camera, Fixed, CCTV	10		
CCTV Matrix Switcher 16 ch. Ribbon Coax cable - 3m/10'	5		
Optical Fibre Video Receiver Modem 3 Channel Card	5		
Optical Fibre Video Receiver Modem Card	5		
Optical Fibre Video Transmitter Modem	5		
Optical Fibre Video Receiver Modem Card for PTZ Camera	5		
Fibre Video 4Ch Multiplexer for Tunnel Cameras	3		
Fibre Video 8Ch Multiplexer for Tunnel Cameras	3		
Fibre Video 16Ch Multiplexer for Tunnel Cameras	3		
Fibre Video 8Ch Demultiplexer for Tunnel Cameras	3		
Fibre Video 16Ch Demultiplexer for Tunnel Cameras	3		
Optical Fibre Video and Ethernet Transmitter Modem for PTZ Camera	5		
Signal Isolator for Camera Alarm	5		
Joystick Controller	2		
VARIABLE MESSAGE SIGNS (VMS)			
Power Supply 24V DC Suit VMS	5		
Card Control Suit VMS	10		
Card Control Power Supply Suit VMS	10		
Display Panel 8x5 150mm Suit VMSA	3		
Display Panel 4x5 150mm Suit VMSA	3		
Beacon 100mm Suit VMSA	12		
Display Panel 8x5 320mm Suit VMSB	3		
Display Panel 4x5 320mm Suit VMSB	3		
Beacon 250mm Suit VMSB	12		
Integrated Speed and Lane Usage Sign Type A	6		
Integrated Speed and Lane Usage Sign Type C	2		
Tunnel Message Sign	3		
CHANGEABLE MESSAGE SIGNS (CMS)			
Changeable Message Sign 2801x968mm	1		
BOX.CONTROL FOR CMS	2		

BEACON 100MM,SUIT CMS	12
BEACON,250MM,SUIT CMS	12
MOTOR,DISPLAY,SUIT CMS	3
UNIT,CONTROL,SUIT CMS	3
SUPPLY,POWER CONTROL BOX.SUIT CMS	3
OVER HEIGHT VEHICLE DETECTION SYSTEM (OHD)	
Overheight Detector Dust Shield	2
BEACON,LED,200MM SINGLE AMBER	8
Over Height Detector	4
MOVABLE BARRIER SYSTEM	
Movable Barrier Arms	4
BEACON,LED,300MM DUAL,RED/RED	2
Red, Amber, Green Aspect Lights - Tunnel Closure	2
Drive Module	1
Slave Module	1
End Module	1
Pivot Module	1
Controller	1
In Pavement Lighting (IPL) Spares	1
TUNNEL LIGHTING	
Interior Zone LED Tunnel Luminaire	10
Transition Zone Luminaire	10
Threshold Zone Luminaire	10
Photometer	2
100W Feature light for tunnel dive areas	5
2x28W T5 surface mounted 1165 Vandal resistant	10
EXTERNAL STREET LIGHTING & POLES	
Light Pole - 10.5m pole	1
EMERGENCY & EXIT LIGHTING	
LED Strobe Light / Emergency	2
12 to 20W Multiple LED Strip White IP68 Recessed SS Light (1200mm above	6

12 to 20W Multiple LED Strip Green IP68 Recessed SS Light (1200mm above	6	
Exit Sign (above XP door - tunnel side)	6	
Exit Sign (above XP door - inside XP)	6	
2x28W T5 surface mounted IP65 Vandal resistant self contained emergency	6	
100W Feature light for tunnel dive areas	6	
Directional Signage	5	
PUBLIC ADDRESS SYSTEM (PA)		
Horn Loudspeaker Community PC242, 75W RMS	5	
DRIVER COMPRESSION,MIDRANGE,COMMUNITY ,M20	2	
AUTOFORMER.200WATT, 70/100-VOLT,MULTI-TAP	2	
BOX,JUNCTION,PA LOUDSPEAKER,EOL,2-WAY	2	
PABX SYSTEM		
Hirschmann Spider SM Ethernet Switch, 1x 100bFX, 4 x 10/100bT	2	
Digital Standard Telephone	4	
Digital Executive Telephone	4	
MOTORIST HELP EMERGENCY TELEPHONE SYSTEM (MHET		
MET Phone External	3	
MET Desk Phone	2	
MET Phone Egress	2	
MET & Fire Phone Combined	5	
MET Phone - Flush Wall	5	
Fireman's Phone - Desk	3	
Fireman's Phone - Rugged	3	
FIBRE OPTIC DISTRIBUTION SYSTEM		
4 Port Serial Server	2	
Fibre Optic Data Modem Transmitter	2	
ControlLogix ControlNet High Capacity Bridge module	2	
Control Logix 1DOMbes Ethernet High Capacity!}' Bridge module	2	
ControlNet Repeater Adapter	2	
ControlNet Copper/Coax Repeater Media Module (1km}	2	
ControlNet Trunk Cable Terminator	2	

ControlNet to Device Net Converter	2
Point I/O 4x channel Analogue 4-20ma Input Module	2
Hirschmann RS30 Ethernet Switch 2xGBE SPF, 16x 10/ 100bT	2
Anybus Communicator/Control Net to Modbus gateway	2
Hirshmann RS20 Ethernet Switch 2x100bFX, 6x 10/100bT	2
Hirshmann RS20 Ethernet Switch 3x100bFX, 6x 10/100bT	2
Hirschmann Ethernet XP Switch - rack mount, B port (BxRJ45) base unit, redu	2
Hirschmann SFP - Gigabit, SMOF, LC connector FI	2
Fibre Optic Cable - Single Mode (12C)	200
Fibre Optic Cable - Single Mode (24C)	200
Fibre Optic Cable - Single Mode (48c)	200
OMCS NETWORK	
Main Surge Protector (20A)	20
Line Surge Protector (10A)	20
Line Surge Protector (6A)	20
Video and Power Surge Protector (6A)	20
Serial Comms Surge Protector	20
Photometer Surge Protector	5
PROTECTOR SURGE 10PR	10
Surge Arrester ED0052-Comms SA 6 Wire 12V	10
Point I/O ControlNet Adaptor - FI	5
Point I/O 24V DC Expansion Power Supply	5
Point I/O 8x channel 24V DC Input Module FI	5
Point I/O 2x channel Analogue 4-20ma Input Module	5
Point I/O 2x channel RTD Input Analogue Module	5
Point I/O 8x channel 24V DC Output Module	5
Point I/O 4x channel Form A (NO) Relay Output Module	5
Point I/O 2x channel Form C (NO/NC) Relay Output Module	5
I/O Wiring Base Assembly (incl. Screw Clamp Terminal Block) FI	5
Control Logix 10 Slot Subrack	5
Control Logix 5574 Controller w/ 16MB RAM	5

PanelView Plus ControlNet Communications module	5	
PanelView Plus Logic Module w/ 256MB Flash+256MB RAM DC input	5	
Point 1/0 8x channel Analogue 4-20ma Input Module	5	
SLC500 Power Supply (PSU·B5-264VAC/1BOVAI	5	
ControlLogix Redundant 75W AC PS module (B5-264VAC/120VAJ	5	
Control Logix High Capacity Redundancy module	5	
Micrologix 1/0 16 Channel 24V DC Source/Sink Input Module	5	
Ethernet to Serial Interface FI	5	
Micro PLC (Micrologix 1100I, 1001, 2R0.4DO, 2AI, 24VDC power	5	
Auctioneering Diode Assembly (2x Diodes), 2x5A	5	
Modbus Comms module for MMPR	5	
Device Net interface with 16x 24DC inputs	5	
Micrologix I/0 8 Channel 24V DC Digital Output Module	5	
24V DC 5A Power Supply'. Redundant FI	5	
Passive infrared motion sensor for long passage, ceiling mounted	5	
Passive infrared motion sensor for normal open area, ceiling mounted	5	
UNIPECC (ISLUS, VMS, TMS, CMS) Controller	20	
WORK STATIONS / SERVERS		
Keyboard	2	
Hard Disk (RAID)	4	
Power Supply	4	
Monitor	2	
CCTV Manual control station (Camera select & PTZ control)	2	
PA Annunciation desk top unit / controller	2	
Spare server computer (OMCS / PMCS / TMCS)	1	
Spare server computer (DCCTV)	1	
Spare server computer (VIDS)	1	
Spare server computer (PA & RRB)	1	
ROAD SIDE CABINETS (RSC)		
Intelligent Vehicle Loop Detector - Loop Detector Card	3	
Loop Field Termination Unit	3	

Intelligent Vehicle Loop Detection System	3	
12v Battery Cell for Roadside Cabinet UPS	5	
Roadside cabinet (Shell) c/w 230VAC internal mains distribution board	1	
DRAINAGE		
Pumps - Groundwater	2	
Pumps - Stormwater	2	
Hydrocarbon sensors	2	
pH Sensors	4	
Level Sensor	4	
AIR MONITORING SYSTEM		
In-tunnel CO, NO, NO2 Sensors	2	
In-tunnel NO2 Sensors	2	
In-tunnel Air Velocity Sensors	6	
Air Quality Evaluator Units	2	
Air Velocity Evaluator Units	6	
Ambient Air Quality CO Sensors	2	
Ambient Air Quality NO Sensors	2	
Ambient Air Quality NO2 Sensors	2	
Ambient Air Quality PM10/PM2.5 Sensors	2	
Crash Cushions	5	
MECHANICAL SERVICES		
Tunnel Equipment Room A/C Fan Coil Units	2	
Tunnel Equipment Room A/C Compressor Units	2	
Tunnel Substation A/C Fan Coil Units	2	
Tunnel Substation A/C Compressor Units	2	
Cross Passage Way Dampers / Actuators	2	
Egress Passage Way Dampers / Actuators	2	
Egress Door limit switches	5	
Cross Passage Way & Egress Pressure Fans	3	

SCHEDULE 36

Key Other WestConnex Assets or Systems

(Clause 1.1)

M5 Motorway Assets or Systems		
System Component	Sub-system Component	Reference Documents
WestConnex Motorway Control Centre / WestConnex Disaster Recovery Site		
Control Room		
Workstations		
	Workstations (Desk)	M5N-HSL-DPK-125-600-AR-1470 M5N-SCE-DPK-800-700-OM-8461
	OMCS workstation computers (incl. monitors, keyboard, mouse)	M5N-SCE-DPK-800-700-OM-8460
	OMCS client SW	M5N-SCE-DPK-800-700-OM-8469 M5N-SCE-DPK-800-700-OM-8470 M5N-SCE-DPK-800-700-OM-8471 M5N-SCE-DPK-800-700-OM-8475
	CCTV Controller (Joy Stick and Keyboard)	M5N-SCE-DPK-800-700-IT-8500
	Desktop Communications (METS, FETS, IOC, PA, RRB, O&M)	M5N-SCE-DPK-800-700-IT-8520 M5N-AJV-DPK-800-700-CM-8130
	Tunnel Closure buttons	M5N-SCE-DPK-800-700-OM-8460
Video wall		
	Video wall controller (HW)	M5N-SCE-DPK-800-700-OM-8461
	Video wall controller (SW)	M5N-SCE-DPK-800-700-OM-8461
	Video wall	M5N-SCE-DPK-800-700-OM-8461
Network		M5N-SCE-DPK-800-700-CM-8480
Fire Panels & ASE		M5N-AJV-DPK-800-700-FS-8055
Training Room		
Workstations		
	Workstations (Desk)	M5N-HSL-DPK-125-600-AR-1470 M5N-SCE-DPK-800-700-OM-8461
	OMCS workstation computers (incl. monitors, keyboard, mouse)	M5N-SCE-DPK-800-700-OM-8460
	OMCS client SW	M5N-SCE-DPK-800-700-OM-8469 M5N-SCE-DPK-800-700-OM-8470 M5N-SCE-DPK-800-700-OM-8471 M5N-SCE-DPK-800-700-OM-8475
	CCTV Controller (Joy Stick and Keyboard)	M5N-SCE-DPK-800-700-IT-8500
	Desktop Communications (METS, FETS, IOC, PA, RRB, O&M)	M5N-SCE-DPK-800-700-IT-8520 M5N-AJV-DPK-800-700-CM-8130

M5 Motorway Assets or Systems		
System Component	Sub-system Component	Reference Documents
Network		M5N-SCE-DPK-800-700-CM-8480
Incident Room		
Workstations		
	Desks and Benches	M5N-HSL-DPK-125-600-AR-1470 M5N-SCE-DPK-800-700-OM-8461
	OMCS workstation computers (incl. monitors, keyboard, mouse)	M5N-SCE-DPK-800-700-OM-8460
	OMCS client SW	M5N-SCE-DPK-800-700-OM-8469 M5N-SCE-DPK-800-700-OM-8470 M5N-SCE-DPK-800-700-OM-8471 M5N-SCE-DPK-800-700-OM-8475
	CCTV Controller (Joy Stick and Keyboard)	M5N-SCE-DPK-800-700-IT-8500
	Desktop Communications (METS, FETS, IOC, PA, RRB, O&M)	M5N-SCE-DPK-800-700-IT-8520 M5N-AJV-DPK-800-700-CM-8130
Network		
Equipment Room(s)		
OMCS server cluster		
	OMCS SW (server)	M5N-SCE-DPK-800-700-OM-8469 M5N-SCE-DPK-800-700-OM-8470 M5N-SCE-DPK-800-700-OM-8471 M5N-SCE-DPK-800-700-OM-8474 M5N-SCE-DPK-800-700-OM-8475 M5N-SCE-DPK-800-700-OM-8570
	Servers	M5N-SCE-DPK-800-700-OM-8460
	Racks	M5N-SCE-DPK-800-700-OM-8462
Training server		
	Training sever (HW)	M5N-SCE-DPK-800-700-OM-8460 M5N-SCE-DPK-800-700-OM-8571
	IOMCS training SW (server)	M5N-SCE-DPK-800-700-OM-8469 M5N-SCE-DPK-800-700-OM-8470 M5N-SCE-DPK-800-700-OM-8471 M5N-SCE-DPK-800-700-OM-8474 M5N-SCE-DPK-800-700-OM-8475 M5N-SCE-DPK-800-700-OM-8570 M5N-SCE-DPK-800-700-OM-8571
Subsystems (Virtualised - SW)		
	Servers	M5N-SCE-DPK-800-700-OM-8460
	Racks	M5N-SCE-DPK-800-700-OM-8462
	Voice Communications (SW) (METS, FETS, PABX) (virtualised)	M5N-SCE-DPK-800-700-IT-8520

M5 Motorway Assets or Systems		
System Component	Sub-system Component	Reference Documents
	AVID (virtualised)	M5N-SCE-DPK-800-700-IT-8515
	CCTV (DVMS and DVR) (virtualised)	M5N-SCE-DPK-800-700-IT-8500
RRB/PA		M5N-AJV-DPK-800-700-CM-8130
O&M Radio		
MNCS & other Networks		
	Switches	M5N-SCE-DPK-800-700-CM-8480
	Firewalls	M5N-SCE-DPK-800-700-CM-8480
	NMS Server	M5N-SCE-DPK-800-700-CM-8480
	NMS SW	M5N-SCE-DPK-800-700-CM-8480
DRS		
Control Room / Equipment Room		
Workstations		
	Workstations (Desk)	M5N-SCE-DPK-800-700-OM-8461
	OMCS workstation computers (incl. monitors, keyboard, mouse)	M5N-SCE-DPK-800-700-OM-8460
	IOMCS client SW	M5N-SCE-DPK-800-700-OM-8469 M5N-SCE-DPK-800-700-OM-8470 M5N-SCE-DPK-800-700-OM-8471 M5N-SCE-DPK-800-700-OM-8475
	CCTV Controller (Joy Stick and Keyboard)	M5N-SCE-DPK-800-700-IT-8500
	Telephone (METS, FETS, IOC, PA, RRB, O&M)	M5N-SCE-DPK-800-700-IT-8520 M5N-AJV-DPK-800-700-CM-8130
	Tunnel Closure buttons	M5N-SCE-DPK-800-700-OM-8460
Fire Panels & ASE		M5N-AJV-DPK-800-700-FS-8055
OMCS server cluster		
	OMCS SW (server)	M5N-SCE-DPK-800-700-OM-8469 M5N-SCE-DPK-800-700-OM-8470 M5N-SCE-DPK-800-700-OM-8471 M5N-SCE-DPK-800-700-OM-8474 M5N-SCE-DPK-800-700-OM-8475 M5N-SCE-DPK-800-700-OM-8570
	Servers	M5N-SCE-DPK-800-700-OM-8460
	Racks	M5N-SCE-DPK-800-700-OM-8462
Subsystems (Virtualised - SW)		
	Voice Communications (SW) (METS, FETS, PABX)	M5N-SCE-DPK-800-700-IT-8520
	AVID	M5N-SCE-DPK-800-700-IT-8515
	CCTV	M5N-SCE-DPK-800-700-IT-8500

M5 Motorway Assets or Systems		
System Component	Sub-system Component	Reference Documents
RRB/PA		
	RRB / PA Audio Break-in / Controllers / Recorded Messages	M5N-AJV-DPK-800-700-CM-8130
O&M Radio		
MNCS & other Networks		
	Switches	M5N-SCE-DPK-800-700-CM-8480
	Firewalls	M5N-SCE-DPK-800-700-CM-8480
	NMS Server	M5N-SCE-DPK-800-700-CM-8480
	NMS SW	M5N-SCE-DPK-800-700-CM-8480
Field Equipment		
MNCS & other Networks		
	I-MNCS reserved connections	
	I-MNCS reserved Fibre Optic cabling	
Programmable Logic Controllers (PLCs)		M5N-SCE-DPK-800-700-OM-8490 M5N-SCE-DPK-800-700-OM-8572 M5N-SCE-DPK-800-700-OM-8574 M5N-SCE-DPK-800-700-OM-8575 M5N-SCE-DPK-800-700-OM-8576 M5N-SCE-DPK-800-700-OM-8577 M5N-SCE-DPK-800-700-OM-8578
Fire Detection Systems		
	Fire Panels	M5N-AJV-DPK-800-700-FS-8055

M4 Motorway Assets or Systems		
System Component	Sub-system Component	Reference Documents
WestConnex Motorway Control Centre / WestConnex Disaster Recovery Site		
Control Room		
Workstations		
	Workstations (Desk)	20_60 HBD Architecture - MCC & MF 20_41 HBD Buildings MF & MCC - Civil
	OMCS workstation computers (incl. monitors, keyboard, mouse)	60_20 OMCS Hardware 60_25 Traffic Management & Control System (TMCS) Hardware
	OMCS client SW	60_38 OMCS Software
	CCTV Controller (Joy Stick and Keyboard)	60_29 CCTV
	Desktop Communications (METS, FETS, IOC, PA, RRB, O&M)	60_34 Telephone Systems (METS, FETS, & IOCS) 60_36 Public Address System 60_37 Radio Re-broadcast System
	Tunnel Closure buttons	60_20 OMCS Hardware
Video wall		
	Video wall controller (HW)	60_32 Video Wall Systems (MCC & DRS)
	Video wall controller (SW)	60_32 Video Wall Systems (MCC & DRS)
	Video wall	20_60 HBD Architecture - MCC & MF 20_41 HBD Buildings MF & MCC - Civil 60_32 Video Wall Systems (MCC & DRS)
Network		60_22 Motorway Network Communications System (MNCS)
Fire Panels & ASE		60_11 Fire Engineering Design - Fire Monitoring & Control 60_04 Fire Engineering Design - Fire Protection
Training Room		
Workstations		
	Workstations (Desk)	20_60 HBD Architecture - MCC & MF 20_41 HBD Buildings MF & MCC - Civil
	OMCS workstation computers (incl. monitors, keyboard, mouse)	60_20 OMCS Hardware 60_25 Traffic Management & Control System (TMCS) Hardware
	OMCS client SW	60_38 OMCS Software
	CCTV Controller (Joy Stick and Keyboard)	60_29 CCTV
	Desktop Communications (METS, FETS, IOC, PA, RRB, O&M)	60_34 Telephone Systems (METS, FETS, & IOCS)

M4 Motorway Assets or Systems		
System Component	Sub-system Component	Reference Documents
		60_36 Public Address System 60_37 Radio Re-broadcast System
Network		60_22 Motorway Network Communications System (MNCS)
Incident Room		
Workstations		
	Desks and Benches	20_60 HBD Architecture - MCC & MF 20_41 HBD Buildings MF & MCC - Civil
	OMCS workstation computers (incl. monitors, keyboard, mouse)	60_20 OMCS Hardware 60_25 Traffic Management & Control System (TMCS) Hardware
	OMCS client SW	60_21 OMCS Software 60_38 OMCS Software
	CCTV Controller (Joy Stick and Keyboard)	60_29 CCTV
	Desktop Communications (METS, FETS, IOC, PA, RRB, O&M)	60_34 Telephone Systems (METS, FETS, & IOCS) 60_36 Public Address System 60_37 Radio Re-broadcast System
Network		
Equipment Room(s)		
OMCS server cluster		
	OMCS SW (server)	60_21 OMCS Software 60_38 OMCS Software 60_26 Integrated OMCS Interface 60_24 C2C Interface
	Servers	60_20 OMCS Hardware 60_25 Traffic Management & Control System (TMCS) Hardware
	Racks	60_33 OMCS Cabinets
Training server		
	Training sever (HW)	60_20 OMCS Hardware 60_25 Traffic Management & Control System (TMCS) Hardware
	IOMCS training SW (server)	60_20 OMCS Hardware 60_25 Traffic Management & Control System (TMCS) Hardware 60_26 Integrated OMCS Interface 60_24 C2C Interface
Subsystems (Virtualised - SW)		
	Servers	60_20 OMCS Hardware 60_25 Traffic Management & Control System (TMCS) Hardware

M4 Motorway Assets or Systems		
System Component	Sub-system Component	Reference Documents
	Racks	60_33 OMCS Cabinets
	Voice Communications (SW) (METS, FETS, PABX) (virtualised)	60_34 Telephone Systems (METS, FETS, & IOCS)
	AVID (virtualised)	60_30 AVIDS
	CCTV (DVMS and DVR) (virtualised)	60_29 CCTV
RRB/PA		60_36 Public Address System 60_37 Radio Re-broadcast System
O&M Radio		
MNCS & other Networks		
	Switches	60_22 Motorway Network Communications System (MNCS)
	Firewalls	60_22 Motorway Network Communications System (MNCS)
	NMS Server	60_22 Motorway Network Communications System (MNCS)
	NMS SW	60_22 Motorway Network Communications System (MNCS)
DRS		
Control Room / Equipment Room		
Workstations		
	Workstations (Desk)	20_60 HBD Architecture - MCC & MF 20_41 HBD Buildings MF & MCC - Civil
	OMCS workstation computers (incl. monitors, keyboard, mouse)	60_20 OMCS Hardware 60_25 Traffic Management & Control System (TMCS) Hardware
	IOMCS client SW	60_21 OMCS Software 60_38 OMCS Software
	CCTV Controller (Joy Stick and Keyboard)	60_29 CCTV
	Telephone (METS, FETS, IOC, PA, RRB, O&M)	60_34 Telephone Systems (METS, FETS, & IOCS) 60_36 Public Address System 60_37 Radio Re-broadcast System
	Tunnel Closure buttons	60_20 OMCS Hardware
Fire Panels & ASE		60_11 Fire Engineering Design - Fire Monitoring & Control 60_04 Fire Engineering Design - Fire Protection
OMCS server cluster		
	OMCS SW (server)	60_21 OMCS Software 60_38 OMCS Software

M4 Motorway Assets or Systems		
System Component	Sub-system Component	Reference Documents
		60_26 Integrated OMCS Interface 60_24 C2C Interface
	Servers	60_20 OMCS Hardware 60_25 Traffic Management & Control System (TMCS) Hardware
	Racks	60_33 OMCS Cabinets
Subsystems (Virtualised - SW)		
	Voice Communications (SW) (METS, FETS, PABX)	60_34 Telephone Systems (METS, FETS, & IOCS)
	AVID	60_30 AVIDS
	CCTV	60_29 CCTV
RRB/PA		
	RRB / PA Audio Break-in / Controllers / Recorded Messages	60_36 Public Address System 60_37 Radio Re-broadcast System
O&M Radio		
MNCS & other Networks		
	Switches	60_22 Motorway Network Communications System (MNCS)
	Firewalls	60_22 Motorway Network Communications System (MNCS)
	NMS Server	60_22 Motorway Network Communications System (MNCS)
	NMS SW	60_22 Motorway Network Communications System (MNCS)
Field Equipment		
MNCS & other Networks		60_22 Motorway Network Communications System (MNCS)
	I-MNCS reserved connections	
	I-MNCS reserved Fibre Optic cabling	
Programmable Logic Controllers (PLCs)		60_23 PMCS Hardware
Fire Detection Systems		
	Fire Panels	60_11 Fire Engineering Design - Fire Monitoring & Control 60_04 Fire Engineering Design - Fire Protection

M4 – M5 Link Main Tunnel Motorway Assets or Systems

System Component	Sub-system Component	Reference Documents
WestConnex Motorway Control Centre / WestConnex Disaster Recovery Site		
Control Room		
Workstations		Main Tunnel Works SWTC Appendices B.12 and B.32 (as contained in INFO DOC – 333).
	Workstations (Desk)	
	OMCS workstation computers (incl. monitors, keyboard, mouse)	
	OMCS client SW	
	CCTV Controller (Joy Stick and Keyboard)	
	Desktop Communications (METS, FETS, IOC, PA, RRB, O&M)	
	Tunnel Closure buttons	
Video wall		Main Tunnel Works SWTC Appendices B.12 and B.32 (as contained in INFO DOC – 333).
	Video wall controller (HW)	
	Video wall controller (SW)	
	Video wall	
Network		Main Tunnel Works SWTC Appendices B.12 and B.32 (as contained in INFO DOC – 333).
Fire Panels & ASE		Main Tunnel Works SWTC Appendices B.12 and B.32 (as contained in INFO DOC – 333).
Training Room		
Workstations		Main Tunnel Works SWTC Appendices B.12 and B.32 (as contained in INFO DOC – 333).
	Workstations (Desk)	
	OMCS workstation computers (incl. monitors, keyboard, mouse)	
	OMCS client SW	
	CCTV Controller (Joy Stick and Keyboard)	
	Desktop Communications (METS, FETS, IOC, PA, RRB, O&M)	
Network		Main Tunnel Works SWTC Appendices B.12 and B.32 (as contained in INFO DOC – 333).
Incident Room		

M4 – M5 Link Main Tunnel Motorway Assets or Systems

System Component	Sub-system Component	Reference Documents
Workstations		Main Tunnel Works SWTC Appendices B.12 and B.32 (as contained in INFO DOC – 333).
	Desks and Benches	
	OMCS workstation computers (incl. monitors, keyboard, mouse)	
	OMCS client SW	
	CCTV Controller (Joy Stick and Keyboard)	
	Desktop Communications (METS, FETS, IOC, PA, RRB, O&M)	
Network		Main Tunnel Works SWTC Appendices B.12 and B.32 (as contained in INFO DOC – 333).
Equipment Room(s)		
OMCS server cluster		Main Tunnel Works SWTC Appendices B.12 and B.32 (as contained in INFO DOC – 333).
	OMCS SW (server)	
	Servers	
	Racks	
Training server		Main Tunnel Works SWTC Appendices B.12 and B.32 (as contained in INFO DOC – 333).
	Training sever (HW)	
	IOMCS training SW (server)	
Subsystems (Virtualised - SW)		Main Tunnel Works SWTC Appendices B.12 and B.32 (as contained in INFO DOC – 333).
	Servers	
	Racks	
	Voice Communications (SW) (METS, FETS, PABX) (virtualised)	
	AVID (virtualised)	
	CCTV (DVMS and DVR) (virtualised)	
RRB/PA		Main Tunnel Works SWTC Appendices B.12 and B.32 (as contained in INFO DOC – 333).
O&M Radio		Main Tunnel Works SWTC Appendices B.12 and B.32 (as contained in INFO DOC – 333).
MNCS & other Networks		Main Tunnel Works SWTC Appendices B.12 and B.32 (as contained in INFO DOC – 333).

M4 – M5 Link Main Tunnel Motorway Assets or Systems

System Component	Sub-system Component	Reference Documents
	Switches	
	Firewalls	
	NMS Server	
	NMS SW	
DRS		
Control Room / Equipment Room		
Workstations		Main Tunnel Works SWTC Appendices B.12 and B.32 (as contained in INFO DOC - 333).
	Workstations (Desk)	
	OMCS workstation computers (incl. monitors, keyboard, mouse)	
	IOMCS client SW	
	CCTV Controller (Joy Stick and Keyboard)	
	Telephone (METS, FETS, IOC, PA, RRB, O&M)	
	Tunnel Closure buttons	
Fire Panels & ASE		Main Tunnel Works SWTC Appendices B.12 and B.32 (as contained in INFO DOC - 333).
OMCS server cluster		Main Tunnel Works SWTC Appendices B.12 and B.32 (as contained in INFO DOC - 333).
	OMCS SW (server)	
	Servers	
	Racks	
Subsystems (Virtualised - SW)		Main Tunnel Works SWTC Appendices B.12 and B.32 (as contained in INFO DOC - 333).
	Voice Communications (SW) (METS, FETS, PABX)	
	AVID	
	CCTV	
RRB/PA		Main Tunnel Works SWTC Appendices B.12 and B.32 (as contained in INFO DOC - 333).
	RRB / PA Audio Break-in / Controllers / Recorded Messages	
O&M Radio		Main Tunnel Works SWTC Appendices B.12 and B.32 (as contained in INFO DOC - 333).

M4 – M5 Link Main Tunnel Motorway Assets or Systems

System Component	Sub-system Component	Reference Documents
MNCS & other Networks		Main Tunnel Works SWTC Appendices B.12 and B.32 (as contained in INFO DOC – 333).
	Switches	
	Firewalls	
	NMS Server	
	NMS SW	
Field Equipment		
MNCS & other Networks		Main Tunnel Works SWTC Appendices B.12 and B.32 (as contained in INFO DOC – 333).
	I-MNCS reserved connections	
	I-MNCS reserved Fibre Optic cabling	
Programmable Logic Controllers (PLCs)		Main Tunnel Works SWTC Appendices B.12 and B.32 (as contained in INFO DOC – 333).
Fire Detection Systems		Main Tunnel Works SWTC Appendices B.12 and B.32 (as contained in INFO DOC – 333).
	Fire Panels	

SCHEDULE 37

Rozelle Interface Milestones

(Clause 1.1 definition of "Rozelle Interface Milestone" and "Rozelle Interface Milestone Date")

Milestone	Ventilation Systems including PLC / IOMCS algorithms / control scheme	IOMCS including integrated subsystems DVMS, PABX, O&M Radio, AID	I-MNCS Including associated fibre optic cable and connections	M&E including ITS field equipment	Milestone Date	
1	Developed Concept Design - Including Stakeholder Comments	X Delivery of the Developed Concept Design for ventilation stations, jet fans and ventilation control strategies.	X Delivery of the Developed Concept Design for the IOMCS and integrated subsystems including architecture, line diagrams, functional allocation.	X Delivery of the Developed Concept Design for the I-MNCS including physical and logical architecture, line diagrams and initial IP addressing scheme.	X Delivery of Developed Concept Design including preliminary location, numbers and type of M&E items monitored and controlled through the OMCS and IOMCS.	26 December 2019
2	Design Documentation is verified by the Independent Certifier as being appropriate for construction	X Delivery of the Design Documentation for ventilation stations, jet fans and ventilation control strategies / algorithms which has been verified by the Independent Certifier as being appropriate for construction. Delivery of ventilation model.	X Delivery of the Design Documentation for the IOMCS and integrated subsystems which has been verified by the Independent Certifier as being appropriate for construction.	X Delivery of the Design Documentation for the I-MNCS which has been verified by the Independent Certifier as being appropriate for construction.	X Delivery of the Design Documentation for M&E items monitored and controlled through the OMCS and IOMCS and Engineering Database which has been verified by the Independent Certifier as being appropriate for construction.	26 October 2020
3	Hardware in the loop' ventilation test results and verified ventilation model	X Delivery of Hardware in the Loop ventilation test procedures and results. Delivery of verified ventilation model.				31 March 2022
4	Integrated FAT Software & Configuration Release		X Delivery of IOMCS, OMCS and subsystem software, configuration files and release notes, current at the time of Integrated FAT completion. Delivery of Integrated FAT test procedures and test results	X Delivery of I-MNCS configuration files, IP addresses and network configuration, current at the time of Integrated FAT completion. Delivery of test procedures and test results.		31 March 2022

Milestone	Ventilation Systems including PLC / IOMCS algorithms / control scheme	IOMCS including integrated subsystems DVMS, PABX, O&M Radio, AID	I-MNCS Including associated fibre optic cable and connections	M&E including ITS field equipment	Milestone Date
5	WMCC Completion Software & Configuration Release		X Delivery of IOMCS, OMCS and subsystem software, configuration files and release notes, current at the Date of Opening Completion, necessary to support Rozelle Interchange IOMCS and Subsystem modification and testing.	X Delivery of I-MNCS configuration files, IP addresses and network configuration, current at the Date of Opening Completion, necessary to support Rozelle Interchange integration to the I- MNCS.	31 March 2023
6	As Built Drawings / Documentation	X Delivery of As Built Drawings and Documentation.	X Delivery of As Built Drawings and Documentation.	X Delivery of As Built Drawings for Traffic Management Systems necessary to support the development of Traffic Management Plans. Final Engineering Database.	30 June 2023
7	Measured and validated ventilation system performance (post opening)	X Delivery of measured and validated post opening ventilation system performance and updated ventilation model.			30 June 2023
8	Final Completion Software & Configuration Release		X Delivery of IOMCS, OMCS and subsystem software, configuration files and release notes, current at the Date of Completion, necessary to support Rozelle Interchange IOMCS and Subsystem modification and testing.	X Delivery of I-MNCS configuration files, IP addresses and network configuration, current at the Date of Completion, necessary to support Rozelle Interchange integration to the I- MNCS.	30 June 2023

SCHEDULE 37A

WHT Interface Milestones

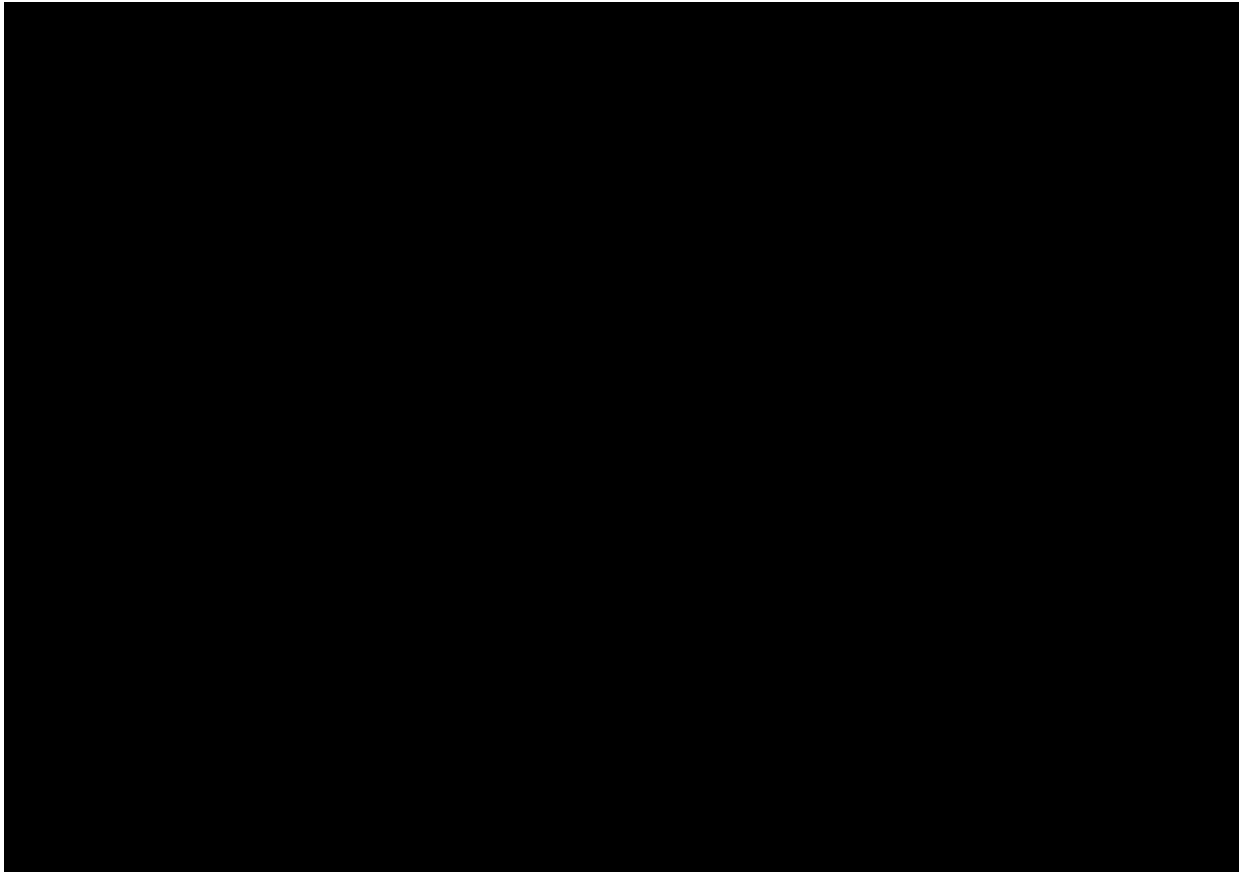
(Clause 1.1 definition of “WHT Interface Milestone”)

WHT Interface Milestone	WHT Interface Works Reference	Date for WHT Interface Milestone Completion	WHT Incentive Payment
WHT Stubs	SWTC Appendix B30 clause 2.3	31 January 2023	\$ [REDACTED]
City West Link Cut and Cover Structure	SWTC Appendix B30 clause 2.4	31 January 2023	
WHT Fire Water Storage and Pumping Station	SWTC Appendix B30 clause 3.3.8	31 July 2023	\$ [REDACTED]
WHT Water Treatment Facility	SWTC Appendix B30 clauses 3.2 and 3.3	31 July 2023	\$ [REDACTED]
WHT Ventilation Facility (including Substations and Switchrooms)	SWTC Appendix B30 clauses 3.3.3(c)(v) and 3.3.4(e)	31 July 2023	\$ [REDACTED]
WHT supply and exhaust ventilation tunnel stubs at the WHT Ventilation Facility	SWTC Appendix B30 clause 3.2.2(e)	31 July 2023	\$ [REDACTED]

SCHEDULE 37AA

WHT Southern Tunnel Design Milestones

(Clause 1.1)



SCHEDULE 37B

Main Tunnel Contractor Systems Design Information

(Clause 1.1 definition of “Main Tunnel Contractor Systems Design Information” and “Main Tunnel Contractor Systems Design Information Milestone” and clause 11B.3(ad))

Milestone		Ventilation Systems including PLC / IOMCS algorithms / control scheme	IOMCS including integrated subsystems DVMS, PABX, O&M Radio, AID	I-MNCS Including associated fibre optic cable and connections	M&E including ITS field equipment
2.1	Substantial Developed Design – Including Stakeholder comments	X Delivery of the Design Documentation for ventilation stations, jet fans and ventilation control strategies / algorithms which has been verified by the Independent Certifier as being appropriate for construction. Delivery of ventilation model.	X Delivery of the Design Documentation for the IOMCS and integrated subsystems which has been verified by the Independent Certifier as being appropriate for construction.	X Delivery of the Design Documentation for the I-MNCS which has been verified by the Independent Certifier as being appropriate for construction.	X Delivery of the Design Documentation for M&E items monitored and controlled through the OMCS and IOMCS and Engineering Database which has been verified by the Independent Certifier as being appropriate for construction. Delivery of the design documentation for physical interface points at MTW Stubs, including:- - Deluge system Connection details - Hydrant System Connection details - RMS Fibre Connection Details - Tolling Fibre Connection Details - RMS Conduit Connection Details - HV Conduit Connection Details - IMNCS Connection Details - Fibre allocation and connection details for Vent

Milestone	Ventilation Systems including PLC / IOMCS algorithms / control scheme	IOMCS including integrated subsystems DVMS, PABX, O&M Radio, AID	I-MNCS Including associated fibre optic cable and connections	M&E including ITS field equipment
				System PLC-PLC connection
2.2	Final Detailed Design – Including Stakeholder comments	X Delivery of the Design Documentation for ventilation stations, jet fans and ventilation control strategies / algorithms which has been verified by the Independent Certifier as being appropriate for construction. Delivery of ventilation model.	X Delivery of the Design Documentation for the IOMCS and integrated subsystems which has been verified by the Independent Certifier as being appropriate for construction.	X Delivery of the Design Documentation for the I-MNCS which has been verified by the Independent Certifier as being appropriate for construction. - Deluge system Connection details - Hydrant System Connection details - RMS Fibre Connection Details - Tolling Fibre Connection Details - RMS Conduit Connection Details - HV Conduit Connection Details - IMNCS Connection Details - Fibre allocation and connection details for Vent System PLC-PLC connection
2.3	Design Documentation is verified by the			X Delivery of the design documentation

Milestone	Ventilation Systems including PLC / IOMCS algorithms / control scheme	IOMCS including integrated subsystems DVMS, PABX, O&M Radio, AID	I-MNCS Including associated fibre optic cable and connections	M&E including ITS field equipment
Independent Certifier as being appropriate for construction				for physical interface points at MTW Stubs, including:- - Deluge system Connection details - Hydrant System Connection details - RMS Fibre Connection Details - Tolling Fibre Connection Details - RMS Conduit Connection Details - HV Conduit Connection Details - IMNCS Connection Details - Fibre allocation and connection details for Vent System PLC-PLC connection
3	Hardware in the loop' ventilation test results and verified ventilation model	X Ventilation System PLC Software current at the time of Integrated FAT completion.		
3a	Pre-FAT Software & Configuration Release		X Delivery of IOMCS, OMCS and subsystem software, configuration files as developed for MTW FAT	

Milestone		Ventilation Systems including PLC / IOMCS algorithms / control scheme	IOMCS including integrated subsystems DVMS, PABX, O&M Radio, AID	I-MNCS Including associated fibre optic cable and connections	M&E including ITS field equipment
3b	FAT Software & Configuration Release		X Delivery of IOMCS, OMCS and subsystem software, configuration files current at time of FAT completion		
4a	SAT Software & Configuration Release		X Delivery of IOMCS, OMCS and subsystem software, configuration files and release notes, current at the time of SAT completion. Delivery of SAT test procedures and test results. Delivery of Ventilation System PLC Software current at the time of SAT completion.	X Delivery of I-MNCS configuration field, IP addresses and network configuration, current at the time of SAT completion. Delivery of test procedures and test results	
4b	Integrated SAT Software & Configuration Release		X Delivery of IOMCS, OMCS and subsystem software, configuration files current at completion of MTW ISAT		

SCHEDULE 38

Main Tunnel Assets or Systems Design Specification

(Clause 11B.3)

Main Tunnel Works SWTC (excluding Main Tunnel Works SWTC Appendix E.3 and Main Tunnel Works SWTC Appendix E.4), as contained in INFO DOC – 333.

SCHEDULE 39

Critical Operational Equipment and Systems

Critical Operational Equipment and Systems	M4 Motorway	M5 Motorway	Motorway
IOMCS Software and Hardware	N/A	N/A	✓
WMCC/WDRS/MCC/DRS housed IOMCS equipment & UPS	N/A	N/A	✓
Video Wall	N/A	N/A	✓
Integrated Digital Video Management Systems	N/A	N/A	✓
Integrated Automatic Video Incident Detection Systems	N/A	N/A	✓
Integrated Internal Operations Communication Systems	N/A	N/A	✓
Integrated Motorway Network Communications Systems	N/A	N/A	✓
WMCC / WDRS housed Fire Detection and Suppression Systems	N/A	N/A	✓
WMCC / WDRS housed RRB/PA interface equipment	N/A	N/A	✓
OMCS Software and Hardware	✓	✓	✓
WMCC/WDRS/MCC/DRS housed OMCS equipment & UPS	✓	✓	✓
Motorway Network Communications Systems	✓	✓	✓
Digital Video Management System & CCTV Systems	✓	✓	✓
Fire Detection and Suppression Systems	✓	✓	✓
Radio Rebroadcast System	✓	✓	✓
Public Address System	✓	✓	✓
Fire Emergency Telephone System	✓	✓	✓
Motorist Emergency Telephone System	✓	✓	✓
Automatic Video Detection System	✓	✓	✓
Internal Operations Communication System	✓	✓	✓
Electronic Signage and Changeable Message Signs	✓	✓	✓
Tunnel Closure and Tunnel Barrier Systems	✓	✓	✓
Air Quality and Ventilation Systems (including PLCs)	✓	✓	✓
Lighting Control Systems (including PLCs)	✓	✓	✓
HV and LV Control Systems (including PLCs)	✓	✓	✓
Hydraulic Treatment, Stormwater & Drainage Control Systems (including PLCs)	✓	✓	✓
			Note 1

Note 1:

M4-M5 Link Motorway equipment and systems become COES at the Date of Opening Completion of the M4-M5 Link MTW
IOMCS equipment and systems become COES at the date they are used to operate the M4 Motorway or M5 Motorway from the WestConnex Motorway Control Centre

SCHEDULE 40

Heavy Vehicle National Legislation Requirements

(Clause 9.15A)

1. CHAIN OF RESPONSIBILITY – HEAVY VEHICLES

1.2 Definitions

- (a) Capitalised terms in this Schedule 40 that are not defined in this deed have the meaning given to them under Heavy Vehicle National Law.
- (b) The term "**Chain of Responsibility**" is as described in Heavy Vehicle National Law.

1.3 Chain of Responsibility obligations

- (a) The Contractor must comply with:
 - (i) the Heavy Vehicle National Law generally and the requirements of the Chain of Responsibility Provisions specifically;
 - (ii) the Principal's requirements (as the road authority) relevant to planning and use of heavy vehicles; and
 - (iii) the Chain of Responsibility Guideline attached at Attachment 1.
- (b) The Contractor must prepare the Chain of Responsibility Management Plan for the Contractor's Activities in accordance with the deed, including this Schedule 40.
- (c) The Contractor must ensure that:
 - (i) all Heavy Vehicles used as part of carrying out the Contractor's Activities; and
 - (ii) the Chain of Responsibility Management Plan prepared by the Contractor in accordance with this Schedule 40,comply with the Chain of Responsibility Guideline.

2. CHAIN OF RESPONSIBILITY MANAGEMENT PLAN REQUIREMENTS

2.1 Core obligations

- (a) The Contractor must not commence any work on or adjacent to the Construction Site or Local Area until the Contractor has submitted a revised Chain of Responsibility Management Plan to the Principal in accordance with this Schedule 40.
- (b) The Chain of Responsibility Management Plan prepared by the Contractor must address the core Chain of Responsibility elements, namely:
 - (i) fatigue;
 - (ii) speeding;
 - (iii) compliance;
 - (iv) loading requirements;
 - (v) mass limits;

- (vi) dimension requirements; and
 - (vii) roadworthiness.
- (c) Without limiting clause 9.15A(e) and Schedule 18 of this deed, the Contractor must:
- (i) submit the Chain of Responsibility Management Plan to the Principal within 40 Business Days after the date of this deed; and
 - (ii) update and re-submit the Chain of Responsibility Management Plan to the Principal within the time period specified in section 2.3 of the Technical Requirements.
- (d) The Chain of Responsibility Management Plan prepared by the Contractor must:
- (i) comply with the requirements of this deed, including the SWTC;
 - (ii) identify how the Contractor will comply with the requirements of the Chain of Responsibility Provisions of the Heavy Vehicle National Law and this deed; and
 - (iii) to the reasonable satisfaction of the Principal, address each of the matters and meet or exceed each of the compliance measures set out in the Chain of Responsibility Guideline.
- (e) The Chain of Responsibility Management Plan must contain as a minimum, the requirements specified in this Schedule 40 and address the following issues:
- (i) the Contractor's hazard identification and risk analysis of Chain of Responsibility issues, including the determinations of the formal Chain of Responsibility risk workshops in accordance with section 3.2 of this Schedule 40;
 - (ii) reporting requirements for:
 - (A) near misses;
 - (B) accidents;
 - (C) incidents (being a breach of the Road Rules or Chain of Responsibility Provisions); and
 - (D) infringements arising from Chain of Responsibility Provisions issues, which must be reported:
 - (E) in accordance with the Chain of Responsibility Guideline; and
 - (F) in monthly progress reports with any corrective actions;
 - (iii) the orderly management of Chain of Responsibility issues throughout the Contractor's Activities and the provision of evidence that the Contractor has met its legal Chain of Responsibility obligations;
 - (iv) the Contractor's methods of managing interfaces with other stakeholders, suppliers, Subcontractors and other organisations related to Chain of Responsibility;

- (v) the Contractor's methods of dealing with relevant regulators and Authorities related to Chain of Responsibility;
 - (vi) the Contractor's strategy and processes for obtaining all necessary Approvals which have Chain of Responsibility implications;
 - (vii) the Contractor's methods of developing, implementing and reporting on safety metrics for Chain of Responsibility;
 - (viii) the Contractor's organisation chart showing team structure and defining Chain of Responsibility responsibilities, including for the project handover stage;
 - (ix) the Contractor's Chain of Responsibility related consultation and communication protocols, including for the project handover stage;
 - (x) the Contractor's key personnel, including:
 - (A) a description of their positions;
 - (B) a description of their qualifications; and
 - (C) reporting lines,
 as related to Chain of Responsibility responsibilities;
 - (xi) the Contractor's resources management, including addressing shortage of skilled resources that are critical to management of Chain of Responsibility issues;
 - (xii) a statement of commitment to the aims and objectives of the Chain of Responsibility Guideline;
 - (xiii) all legislative requirements and the provision of evidence that the Contractor has met their legal obligations;
 - (xiv) hazard identification and risk analysis;
 - (xv) production of a risk register including hazards, subsequent risks and controls;
 - (xvi) Chain of Responsibility training, instruction and supervision;
 - (xvii) Chain of Responsibility emergency processes and processes; and
 - (xviii) Chain of Responsibility Management Plan review and continuous improvement.
- (f) The Contractor must review, develop and update the Chain of Responsibility Management Plan to take into account:
- (i) changes in Site Conditions;
 - (ii) changes in the Contractor's Activities;
 - (iii) changes in Law; and
 - (iv) requests or requirements of any Authority.
- (g) The requirements set out in the initial Chain of Responsibility Management Plan attached at Attachment 2 of this Schedule 40 are minimum requirements for the

Chain of Responsibility Management Plan and the Contractor must not decrease or otherwise reduce these requirements, including those relating to the scope, processes, procedures, effort, resources, experience or expertise, in the developed and any subsequently amended versions of the Chain of Responsibility Management Plan.

3. CHAIN OF RESPONSIBILITY REQUIREMENTS

3.1 Incorporation of Chain of Responsibility requirements

The Contractor must:

- (a) take account of, and incorporate all applicable, relevant or necessary requirements in relation to the Chain of Responsibility Provisions (particularly provisions that govern the supply chain for the Projects Works and Temporary Works and for the bringing onto and removal from the Construction Site items requiring transport services) in all aspects of the Contractor's Activities, including:
 - (i) the Project Plans;
 - (ii) the design of the Project Works and Temporary Works; and
 - (iii) the Design Documentation; and
- (b) at key stages of the Contractor's Activities, conduct Chain of Responsibility risk workshops which will include the designer, the Principal, Contractor, Subcontractors, the WHT Independent Certifier and the D&C Independent Certifier. The Chain of Responsibility risk workshops can be combined with the WHS risk workshops.

3.2 Chain of Responsibility risk assessment workshop

- (a) Prior to the development of the Chain of Responsibility Management Plan, and any subsequent reviews or revisions of the Chain of Responsibility Management Plan, the Contractor must undertake and document the outcomes of a formal Chain of Responsibility risk assessment workshop.
- (b) The Contractor's Chain of Responsibility risk assessment workshop must identify and document a register of Chain of Responsibility risks and hazards and control measures associated with the Contractor's Activities.
- (c) The Contractor's Chain of Responsibility Management Plan must reflect the outcomes reached in the Chain of Responsibility risk assessment workshop.
- (d) The Contractor must hold further separate workshops at different stages of the Contractor's Activities to address different trades, phases, work areas or processes not covered during the earlier risk assessment workshops and must be held prior to the commencement of the relevant activity, phase or section of work.
- (e) The Contractor may combine the Chain of Responsibility risk assessment workshops with the work health and safety risk workshops conducted by the Contractor.

4. DRIVING AND VEHICLE SAFETY

4.1 Reduction of risks to workers and public

The Contractor must comply with the requirements of the:

- (a) WHS Legislation;

- (b) Road Transport Legislation; and
- (c) Heavy Vehicle National Law,

and any subordinate legislation to ensure the risks to workers and the public are reduced so far as is reasonably practical when driving on the Construction Site and driving to and from the Construction Site on the public road network.

4.2 **Minimum Vehicle Safety Equipment**

- (a) The Contractor must ensure that all light and heavy vehicles used to transport equipment, plant, materials and people to and from the Construction Site and working areas are equipped with the equipment as specified in the Chain of Responsibility Guideline, including the following:
 - (i) three-point seat belts (for the driver and all passengers);
 - (ii) rear view mirrors;
 - (iii) reversing cameras, quacker type alarms and collision/proximity sensors;
 - (iv) lights (head and tail, stop, turn signal and emergency warning);
 - (v) light and high visibility colours for vehicles;
 - (vi) daytime running lights;
 - (vii) no additional window tinting;
 - (viii) flashing lights (unless determined otherwise by risk assessment); and
 - (ix) fire safety equipment capable of suppressing or extinguishing potential vehicular fires.
- (b) Without limiting section 4.2(a), the Contractor must ensure all vehicles in carrying out the Contractor's Activities display signs approved by the Principal in a prominent position on the vehicle when driven on public roads which associate the vehicle with carrying out the Contractor's Activities.

4.3 **Vehicle Registration, Maintenance and Inspection**

The Contractor must:

- (a) ensure all work vehicles are registered, roadworthy and pre-start checked before being driven;
- (b) ensure that all vehicles are inspected, serviced and maintained in accordance with the manufacturer's recommendations;
- (c) maintain a register of company vehicles showing registration expiry dates and licence requirements; and
- (d) comply with the Chain of Responsibility Guideline requirements for ensuring the roadworthiness of all heavy vehicles used in connection with the Contractor's Activities.

4.4 **Vehicle Drivers**

- (a) The Contractor must ensure that all workers who drive a vehicle as part of their work in the Contractor's business or undertaking, including those persons employed by Subcontractors (including owner drivers), are licensed, fit and verified as competent to drive the vehicle they are driving.
- (b) The Contractor must develop a "Driver Code of Conduct" which outlines minimum driver behaviour requirements to ensure compliance with:
 - (i) WHS Legislation;
 - (ii) Road Transport Legislation;
 - (iii) Heavy Vehicle National Law; and
 - (iv) the Chain of Responsibility Guideline.
- (c) The Contractor must ensure that all drivers, including those employed by Subcontractors (including owner drivers) are made aware of and sign the "Driver Code of Conduct" developed by the Contractor in accordance with section 4.4(b).

4.5 **Heavy Vehicle Requirements**

- (a) The Contractor must have systems and processes in place to ensure compliance with the Heavy Vehicles National Law, and regulations and, the Contractor will meet or exceed the Chain of Responsibility Guideline.
- (b) The Contractor must ensure that the on-road transport of dangerous goods is managed in accordance with Law, including the *Dangerous Goods (Road and Rail Transport) Act 2008* (NSW) and the *Dangerous Goods (Road and Rail Transport) Regulation 2014* (NSW).

5. **CONSTRUCTION TRAFFIC AND VULNERABLE ROAD USERS**

5.1 **Introduction**

The Contractor acknowledges that:

- (a) during the Contractor's Activities, the introduction of construction Heavy Vehicle traffic to densely populated and highly used pedestrian areas in and around Sydney has the potential to generate road safety risks to the public, in particular vulnerable road users; and
- (b) where required under Heavy Vehicle National Law and the Chain of Responsibility Guideline, the Contractor must ensure that the specific measures in this section 5 are implemented to minimise any impacts of construction Heavy Vehicles traffic on other road users.

5.2 **Heavy Vehicle Operators**

- (a) The Contractor must ensure that all Heavy Vehicle operators engaged in the Contractor's Activities, including owner drivers, are assessed and selected to ensure that they meet the minimum requirements set out in this Schedule 40 and the Chain of Responsibility Guideline.
- (b) A Heavy Vehicle operator includes the Contractor and its Subcontractors engaged in the following activities:

- (i) removing excavated material or waste; or
- (ii) delivering concrete, equipment (including Temporary Works), plant or materials.

5.3 **Haulage Route Compliance**

- (a) The Contractor must ensure that all Heavy Vehicles haulage routes comply with any planning approval requirements and are endorsed by the Traffic and Transport Liaison Group and / or similar.
- (b) The Contractor must ensure that approved Heavy Vehicle haulage routes are adhered to at all times by the haulage contractor and that systems are in place to monitor the location of the vehicles at all times.

5.4 **Heavy Vehicle Safety Equipment**

- (a) The Contractor must ensure that all Heavy Vehicles over 4.5 tonnes gross vehicle mass (GVM) are fitted with the safety equipment required in the Chain of Responsibility Guideline, as a minimum.
- (b) The Contractor must ensure that all Heavy Vehicle drivers are provided with sufficient training, instruction and supervision to ensure the competent use of the safety equipment specified in this Schedule 40 and the Chain of Responsibility Guideline.
- (c) The Contractor must conduct regular inspections to ensure that all Heavy Vehicles entering all Construction Site locations are compliant with the above requirements in accordance with the Chain of Responsibility Guideline. Where vehicles do not meet the minimum requirements set out in this section 5 or the Chain of Responsibility Guideline, the Contractor must ensure the vehicle is not used as part of the Contractor's Activities.

5.5 **Heavy Vehicle Driver Training**

- (a) The Contractor must ensure that all Heavy Vehicle drivers engaged by the Contractor in carrying out the Contractor's Activities, including those employed by its Subcontractors (including owner drivers), attend an approved Vulnerable Road User Awareness Training before they are engaged as part of the Contractor's Activities and otherwise comply with the Chain of Responsibility Guideline.
- (b) The Contractor must prepare a WestConnex Safety Information Pack in respect of the Contractor's Activities which outlines minimum expectations when driving on the Construction Site and to and from the Construction Site.
- (c) The Contractor must ensure that all other drivers (e.g. Light Vehicle Drivers) engaged as part of the Contractor's Activities, are provided with the WestConnex Safety Information Pack prepared by the Contractor in accordance with section 5.5(b).

Attachment 1

Chain of Responsibility Guideline



Work health and safety procedure

Document number PN066P32

Version 1.0

Objective reference A17823135

20 November 2017

Heavy vehicle operations – chain of responsibility

Managing the risks of working with heavy vehicles, including chain of responsibility.

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Overview

Under the [Heavy Vehicle National Law](#) (HVNL) chain of responsibility (CoR) provisions, every person in the transport supply chain (supply chain) has a responsibility to ensure the safe and legal transport of goods. This places legal obligations on all parties who operate in the supply chain.

Under CoR, all [parties who influence, direct or control transport operations in the supply chain](#) share responsibility for compliance with the law and for the safety of heavy vehicle operations, even if they have no direct role in driving or operating a heavy vehicle.

Roads and Maritime Services has processes in place to facilitate compliance with its obligations under the HVNL and state laws, including the [Work Health and Safety Act 2011](#) (WHS Act), [Work Health and Safety Regulation 2017](#) (WHS Regulation) and relevant codes of practice.



Figure 1 shows the key aspects of this procedure and summarises the associated legislative requirements.

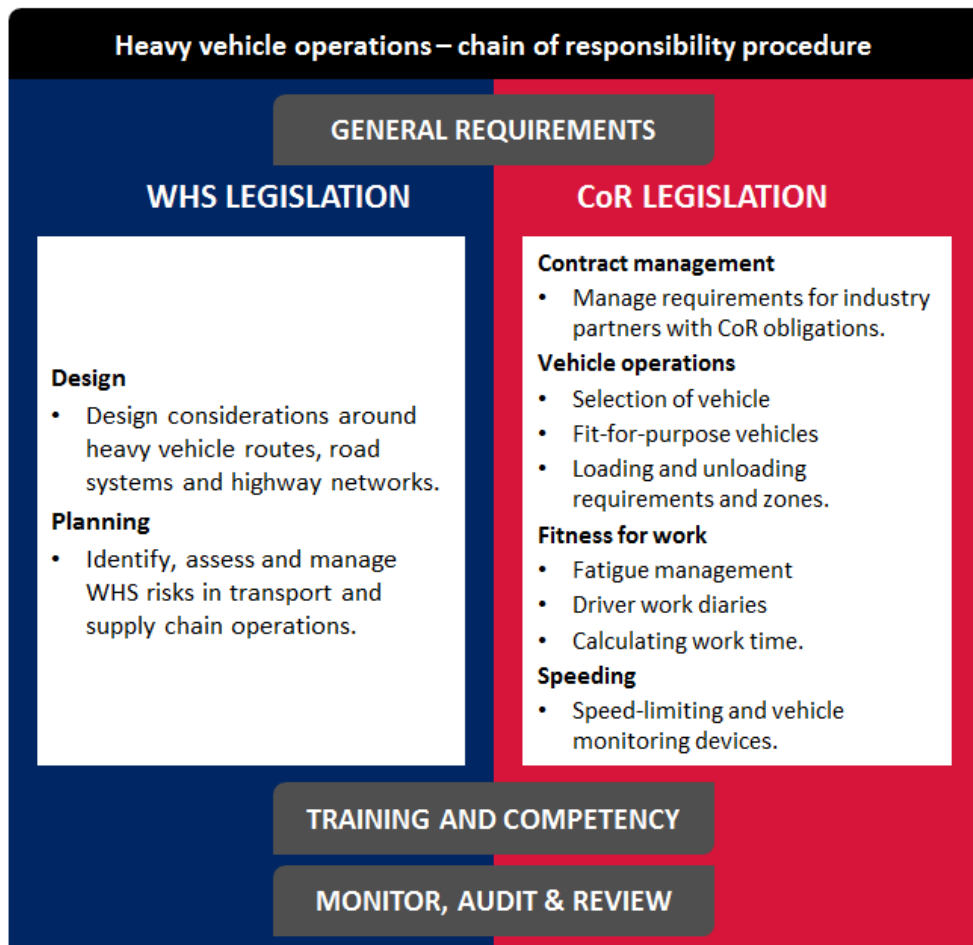


Figure 1: Key aspects of this procedure

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Introduction

Purpose

Roads and Maritime provides a systematic process for managing risks associated with the operation of heavy vehicles.

This procedure:

- Describes minimum expectations for ensuring CoR requirements are identified, applied and systematically managed across Roads and Maritime's operations
- Details the key responsibilities for parties in the supply chain relevant to Roads and Maritime's operations
- Provides guidance to Roads and Maritime staff in managing WHS risks and preventing breaches during heavy vehicle operations.



This procedure does not apply to non-heavy vehicles (eg light vehicles or powered mobile plant).

Scope

This procedure applies to all:

- Roads and Maritime transport and supply chain activities associated with heavy vehicles owned or hired by Roads and Maritime
- Roads and Maritime workers and industry partners undertaking work for Roads and Maritime.

The CoR requirements apply to heavy vehicles. Heavy vehicles might be:

- Owned or hired by Roads and Maritime
- Used by industry partners (eg contractors and their subcontractors) to:
 - undertake work for Roads and Maritime
 - supply goods and materials to Roads and Maritime.

Under the HVNL, a road-going vehicle that has a gross vehicle mass (GVM) of more than 4.5 tonnes must meet a number of requirements in relation to mass, dimension, loading and speed. Vehicles that have a GVM or gross combination mass (GCM) of more than 12 tonnes, or a bus with a GVM of more than 4.5 tonnes designed to carry more than 12 people including the driver, are fatigue-regulated heavy vehicles and are subject to requirements in relation to fatigue management.

A heavy vehicle is determined by its GVM rating, not the load it is carrying at the time. When a heavy vehicle is returning to its depot without a load, there are still legislative obligations regarding speed and fatigue which must be complied with.

Managing the risk of heavy vehicle transport

1 General requirements

Roads and Maritime must ensure that:

- All processes, including procurement, meet the legislative and CoR requirements outlined in this procedure, eg heavy vehicles contracted or hired for Roads and Maritime work must comply with the HVNL and CoR requirements
- The actions, inactions or demands of workers do not place unreasonable demands on drivers and other parties within the supply chain.

1.1 CoR risks and risk controls

The CoR provisions are concerned with managing the risks and implementing risk controls for heavy vehicle operations in relation to:

- Load restraint
- Mass
- Dimensions
- Fatigue
- Speeding
- Vehicle standards (including maintenance).

1.2 CoR activities

Under the CoR, all parties who influence, direct or control transport operations in the supply chain share responsibility for compliance with the law and for the safety of heavy vehicle operations – even if they have no direct role in driving or operating a heavy vehicle.

Roads and Maritime carries out activities such as:

- Transporting bulk materials (eg from quarry to worksite)
- Purchasing bulk (loose or packaged) materials
- Operating and driving heavy vehicles (Roads and Maritime owned, lease, dry hire)
- Engaging industry partners to operate heavy vehicles (wet hire)
- Engaging industry partners to undertake projects on which heavy vehicles are used.

Consequently, Roads and Maritime has CoR requirements for heavy vehicle safety as part of the various roles it has in the supply chain.

1.3 Responsible parties in the supply chain

All participants in the supply chain (see Table 1) must ensure that:

- All reasonably practicable steps are taken to prevent a breach under the CoR provisions of the legislation for any heavy vehicle movements they direct, control or influence
- They adhere to safe practices with respect to heavy vehicle operations

- Risks to health and safety (of workers, road users and the public) arising from heavy vehicle operations are eliminated or minimised so far as is reasonably practicable.

All parties in the supply chain hold a shared responsibility and can be held liable for offences.

The [Chain of responsibility checklist](#) helps to identify what role or roles an organisation or individual may play in the heavy vehicle transport operation.

CoR obligations apply regardless of functions, titles and responsibility defined by the organisation. The obligations arise from the activities described in Table 1 (and see definitions in section 5 of the [HVNL](#)).

Table 1: Overview of CoR roles and their responsibilities

CoR role description	Summary of CoR responsibilities
<p>Prime contractor: A person who engages a driver to drive a heavy vehicle under a contract for services.</p> <p>Note: <i>Roads and Maritime is a prime contractor when it directly engages or contracts with drivers of heavy vehicles.</i></p> <p><i>Roads and Maritime is not considered the prime contractor in circumstances where it has no direct contractual relationship with the subcontractors who drive the heavy vehicles.</i></p> <p>See information sheet Prime contractors</p>	<p>Mass: Heavy vehicles do not exceed mass limits.</p> <p>Dimension: Loads do not extend beyond the legislated safe envelope of the vehicle.</p> <p>Loading: Loads are secure.</p> <p>Speed: Drivers do not exceed the maximum speed limit or a lower posted speed limit.</p> <p>Fatigue: Drivers do not exceed permissible driving hours or drive while fatigued.</p>
<p>Employer: A person who employs the driver of a heavy vehicle.</p> <p>Note: <i>Roads and Maritime employs a number of drivers and therefore has CoR obligations.</i></p> <p>See information sheet Employers</p>	
<p>Operator of a heavy vehicle: A person who is responsible for controlling or directing the use of a heavy vehicle.</p> <p>Note: <i>Roads and Maritime is the operator of the heavy vehicles it owns and of any heavy vehicles it leases or otherwise directly controls.</i></p> <p>See information sheet Operators</p>	
<p>Consignor: A person who engages, directly or indirectly (including through an agent or other party), a heavy vehicle operator to transport goods to a consignee using the heavy vehicle.</p> <p>Note: <i>Roads and Maritime is a consignor for the transport of loads (including materials or plant) which are provided to Roads and Maritime for its projects and activities.</i></p> <p>See information sheet Consignors</p>	

CoR role description	Summary of CoR responsibilities
<p>Loader: A person who loads the vehicle, a freight container (whether or not it contains goods) or any container that is in or part of the vehicle, with the goods for road transport. See information sheet Loaders/Unloaders</p>	
<p>Loading manager: A person who manages or controls premises where goods are regularly loaded onto or unloaded from a heavy vehicle or a person who is responsible for supervising, managing or controlling (directly or indirectly) activities carried out by a loader or unloader of goods at the premises. See information sheet Loading managers</p>	
<p>Unloader: A person who removes goods from a heavy vehicle that have been transported by road (including freight containers or any container that is in or part of the vehicle heavy vehicle). Note: <i>Roads and Maritime must ensure unloading activities do not cause a driver to commit a fatigue breach or exceed a speed limit (eg due to insufficient unload allocation time or delays in unloading).</i> See information sheet Loaders/Unloaders</p>	<p>Speed: Drivers do not exceed the maximum speed limit or a lower posted speed limit. Fatigue: Drivers do not exceed permissible driving hours or drive while fatigued.</p>
<p>Packer: A person who packs or assembles packaged goods on a vehicle or supervises or manages or controls such an activity. See information sheet Packers</p>	<p>Mass: Heavy vehicles do not exceed mass limits. Dimension: Loads do not extend beyond the legislated safe envelope of the vehicle. Loading: Loads are secure.</p>
<p>Scheduler: A person who schedules the transport of any goods or passengers by the vehicle or schedules the work times and rest times of the vehicle's driver. Note: <i>Roads and Maritime staff, such as work supervisors who set rosters or team leaders who amend rosters for drivers, are considered schedulers under CoR.</i> See information sheet Schedulers</p>	<p>Speed: Drivers do not exceed the maximum speed limit or a lower posted speed limit. Fatigue: Drivers do not exceed permissible driving hours or drive while fatigued.</p>
<p>Consignee: A person who is named or identified as the intended recipient of goods or has actually received the goods after they have been transported by heavy vehicle (but does not include a person who merely unloads the goods). Note: <i>A consignee must not make a demand that causes a driver to breach, or contributes to them breaching, a CoR provision – such as requesting an unreasonable delivery time that causes the driver to overload the vehicle, commit a fatigue breach or exceed a speed limit.</i> See information sheet Consignees</p>	<p>Loading: Loads are secure. Speed: Drivers do not exceed the maximum speed limit or a lower posted speed limit. Fatigue: Drivers do not exceed permissible driving hours or drive while fatigued.</p>

Parties in the supply chain must ensure their activities or requirements are reasonable in the circumstances and do not require or encourage a driver to:

- Exceed the speed limits
- Exceed regulated driving hours
- Fail to meet the minimum rest requirements
- Drive while impaired by fatigue.

All parties must regularly consult with other parties in the supply chain to identify risks or issues that may contribute to HVNL breaches.

The [Heavy vehicle driver handbook](#) helps drivers understand their responsibilities and the rules and regulations that apply to drivers and their heavy vehicles.

See [Chain of responsibility – Your role](#) for more information.

2 Design

Roads and Maritime must ensure that the planning and design of heavy vehicle routes, road systems and highway networks take into consideration heavy vehicle operations and ensure risks are eliminated or minimised, so far as is reasonably practicable.¹

Designers should consider (but not be limited to):

- During network design:
 - Provision and/or maintenance of appropriate rest areas that accommodate fatigue management and rest provisions for heavy vehicle operators
 - Human factors relating to heavy vehicle operations or other motorists interacting with heavy vehicles.
- During network construction or maintenance:
 - Opportunities to reduce the requirement for heavy vehicle use through effective earthworks balance and minimising double-handling of materials
 - Specification of materials or designs that could introduce supply chain risks, heavy loads, dimension restrictions and increased heavy vehicle movements
 - Provision of manufactured, pre-cast or modular systems that are designed and/or specified for safe loading and unloading.

3 Planning activities

Roads and Maritime – in consultation with key stakeholders and industry partners – must identify, assess and manage WHS risks in supply chain operations and ensure compliance with CoR requirements during the planning stage. This includes:

- Reviewing activities to identify supply chain activities or involvement of heavy vehicles to move goods or supplies or to complete works
- Reviewing work procedures or plans to ensure that work practices requiring heavy vehicle use comply with CoR requirements

¹ While design and planning requirements arise from the application of WHS principles to the management of risks in regard to heavy vehicles operations – these are not stated as part of the HVNL.

- Planning routes to ensure that routes are suitable, safe and approved by Roads and Maritime. The approved routes in NSW are published on [Roads and Maritime interactive maps](#).
- Identifying supply chain arrangements and related WHS risks in risk registers or other risk assessment outputs
- Managing risks of heavy vehicles used for, or to support, work with Roads and Maritime
- Seeking assurance in the planning and tender stages that there are processes in place to ensure heavy vehicle operations comply with the HVNL
- Ensuring loading, unloading and operational activities have an accepted safe work method statement (SWMS) or risk-assessed procedure established; and methods align with any other applicable Roads and Maritime procedures.

4 CoR and contract management

Industry partners who work with Roads and Maritime must have appropriate systems in place to meet their obligations under the HVNL legislation and to ensure compliance with CoR requirements. In managing CoR hazards and risks, industry partners must consider the full extent of their obligation to others in the supply chain.

Line managers (including project managers) must ensure that Roads and Maritime's requirements relating to CoR compliance are included in contracts that may involve heavy vehicle use. When contracting services, line managers must consider, in collaboration with key stakeholders, whether the service has CoR obligations. If there are CoR obligations:

- The selection process and criteria should consider whether the industry partner has demonstrated they have safety management systems in place that enable compliance with legislated CoR requirements
- The contract must include requirements regarding compliance with CoR obligations
- Line managers must monitor and manage the industry partner's compliance with CoR requirements (and this should be reflected in the relevant contract).

4.1 CoR contract requirements

Roads and Maritime requires industry partners with CoR obligations to:

- Comply with the HVNL and regulations governing the supply chain for the work
- Develop a CoR management plan – see section 4.2
- Not commence any work on a site until the CoR management plan has been submitted to and approved by Roads and Maritime
- Update the CoR management plan (as required) throughout the duration of the work
- Report on CoR performance in monthly progress reports.

4.2 CoR management plans

A CoR management plan must be submitted to and approved by Roads and Maritime. As a minimum, it must contain the following:

- Descriptions of CoR functions
- Hazard identification and risk analysis
- Occurrence reporting processes (eg near misses, incidents, infringements)
- Evidence that legal obligations under the HVNL and state laws are being met
- Safety metrics
- Organisation chart showing team structure and defining CoR responsibilities
- Key personnel, with descriptions of their positions, qualifications and reporting lines
- Communication protocols
- Resource management.

In addition to these requirements, it is recommended that the CoR management plan also refers to other standard quality system requirements such as training, assurance plan, records management, non-conformance, audit and change management.

The CoR management plan must also demonstrate how the industry partner will:

- Manage interfaces with stakeholders, suppliers and subcontractors
- Deal with relevant regulators and authorities.

A CoR management plan can be a stand-alone document or form part of a safety management plan.

5 Vehicle operations – vehicle standards, mass, dimension and loading

Appendix A identifies the length, width and height dimension limits for heavy vehicles as set out in the [Heavy Vehicle \(Mass, Dimension and Loading\) National Regulation \(NSW\)](#).

See the fact sheets [Dimension Requirements and the Chain of Responsibility, Mass Limits and the Chain of Responsibility](#) and [Loading Requirements and the Chain of Responsibility](#).

5.1 Selection of vehicle

Vehicle standards must comply with requirements under the [Heavy Vehicle \(Vehicle Standards\) National Regulation \(NSW\)](#) (the Vehicle Standards Regulation).

Vehicles must be selected for the actual load to be transported, taking into account the:

- Design and construction (eg timber or steel deck; open-sided or side-gated; high or low bed; twist locks fitted; open or closed body; restraint and tie-down points)
- Maximum carrying capacity and distribution of loads

- Route and location for delivery, including consideration of safe loading and unloading (eg side loaders or side tippers where environmental hazards such as unstable ground, zone of influence, exist)
- Length, height and width of the loading deck in order that a load can be contained within the vehicle if possible and to avoid the need for an escort.

If a vehicle appears to be in poor repair, or inappropriate for the task, do not load the vehicle.

5.2 Fit-for-purpose vehicle requirements

Vehicle standards must comply with requirements under the Vehicle Standards Regulation. All heavy vehicles must be regularly serviced, well maintained, roadworthy and safe to operate.

Line managers must ensure processes are in place and heavy vehicles owned, leased or operated by Roads and Maritime:

- Are fit for purpose
- Comply with [Australian Design Rules](#) (including speed-limiting devices)
- Conform with contractual specification [G22/J – Truck and Plant Requirements](#)
- Have documented vehicle inspection and checking instructions, including processes for recording checks
- Are marked appropriately with warning signs such as ‘long vehicle’ or ‘road train’ or any associated hazards signs required for dangerous goods.

All heavy vehicles must be fitted with an emission control system. These must not be tampered with.

See the fact sheet [Heavy Vehicle Roadworthiness, Vehicle Registration and Driver Licensing](#).

5.2.1 Roads and Maritime heavy vehicles (owned or leased)

Roads and Maritime must maintain a register of Roads and Maritime owned, leased or operated heavy vehicles. The register must contain:

- A unique identifier
- Vehicle description (including make, model and year)
- Registration details
- Registered GVM or GCM
- Vehicle manufacturer’s GVM or GCM
- Maintenance and servicing details.

Heavy vehicles owned, operated or leased by Roads and Maritime must carry:

- Work instructions issued to drivers and maintenance workers, including load limits
- A vehicle running sheet, kept in the vehicle
- Vehicle inspection and check forms
- Defect report forms.

5.2.2 Roads and Maritime heavy vehicles (dry hire, wet hire and subcontracted)

Line managers must ensure, or have processes in place to ensure that:

- Roads and Maritime CoR requirements are included in heavy vehicle service supply contracts
- Industry partners provide assurance that compliance with the HVNL is monitored and managed.

Where CoR duties are applicable to a contract, industry partner selection and procurement must ensure that the industry partner can demonstrate formal and systematic processes for managing WHS risks, including CoR requirements.

Managers contracting heavy vehicles for Roads and Maritime work must ensure industry partners:

- Maintain a register of the vehicles to be used, including subcontractor vehicles
- Have formal processes that:
 - Demonstrate compliance with vehicle loading requirements
 - Record vehicle journeys in accordance with the requirements of the HVNL
 - Provide evidence of their process to manage vehicle non-conformances
 - Provide evidence that subcontractors comply with the industry partner’s CoR requirements.

Industry partners using heavy vehicles for Roads and Maritime work must demonstrate an effective vehicle maintenance system, including:

- Vehicle logbooks
- Processes for reporting vehicle faults and managing defects and repairs
- Vehicle maintenance schedules and records.

5.2.3 Meeting CoR obligations

Responsible parties must take all reasonably practicable steps to meet CoR obligations. A summary of responsibilities is provided in Table 2.

Table 2: Key supply chain responsibilities – vehicle requirements

Party	Key responsibilities – vehicle requirements
Consignor	Ensure other parties in the supply chain are aware of any known constraints or hazards that may affect vehicle selection.
Prime contractor, operator, scheduler, manager	<ul style="list-style-type: none"> ▪ Ensure vehicles: <ul style="list-style-type: none"> – Selected and scheduled are fit for purpose and appropriate to the load – Are not loaded to exceed mass or dimension limits and are appropriately restrained – Are maintained in accordance with Original Equipment Manufacturer instructions and other applicable standards – Comply with Australian Design Rules (including speed-limiting devices) ▪ Maintain a process for reporting vehicle faults and managing defects and repairs.

Party	Key responsibilities – vehicle requirements
Loading manager, packer/loader	<p>Ensure vehicles are loaded:</p> <ul style="list-style-type: none"> ▪ In a way that is suitable for the load or journey required ▪ Such that restraints and other equipment are used only in accordance with Original Equipment Manufacturer instructions.
Driver	<ul style="list-style-type: none"> ▪ Ensure the: <ul style="list-style-type: none"> – Vehicle is suitable for the intended load and journey – Vehicle is inspected before use and regularly throughout the journey – Running sheet is maintained – Load restraint devices, dunnage, other equipment or supports are fit for purpose and regularly inspected ▪ Respond to any identified malfunction or defect and report these to base.
Unloader	<p>Ensure:</p> <ul style="list-style-type: none"> ▪ Other parties in the supply chain are aware of any known constraints or hazards that may affect safe unloading ▪ Unloading or handling plant or devices (eg vehicle-mounted loading crane, outrigger) are functioning correctly and are fit for purpose before use.
Consignee	<p>Ensure other parties in the supply chain are aware of any known constraints or hazards that may affect vehicle selection.</p>

5.3 Loading and unloading requirements

Heavy vehicles must comply with the requirements under the [Heavy Vehicle \(Mass, Dimension and Loading\) National Regulation \(NSW\)](#) (the Mass, Dimension and Loading Regulation).

Line managers must ensure heavy vehicles operate and comply with the dimension limits and ground clearance requirements set out in clause 37 and Schedule 6 of the Mass, Dimension and Loading Regulation.

Loading managers must ensure that vehicle loading complies with the requirements of clause 38 and Schedule 7 of the Mass, Dimension and Loading Regulation, and that:

- Vehicles are loaded so they are stable and safe and remain fit for purpose for the route and environmental conditions (including weather)
- Loads do not exceed legal mass and dimension limits, and total load weights are recorded
- An appropriate method is used to restrain the load on a heavy vehicle so it is unlikely to fall or be dislodged from the vehicle
- If a driver appears fatigued, the loading manager stops the loading and contacts their line manager
- Relevant supply chain parties are given accurate information about:
 - The load's dimensions and weight
 - The load's contents, including container manifests where required
 - Special requirements, eg dangerous goods or placarded load.

A container weight declaration (CWD) is required when transporting a freight container on a road using a heavy vehicle, regardless of whether the container is loaded or empty. A CWD is a written declaration of the weight of a container and its contents. It

may be either in hard copy or electronic form, or a placard attached to the container, and must include the following information:

- Weight of the container, including its contents
- Container number and other details necessary to identify the container
- Name and residential address, or business name and address, in Australia of the responsible entity for the freight container
- Date of declaration.

Loads must always be packed, located and restrained in a way that allows safe loading and unloading, including consideration of multiple deliveries and sequences.

Line managers must ensure loading and unloading methods for deliveries are considered when accepting orders and determining load method and load configuration.

Loading managers and drivers must ensure the load on the vehicle is safe, balanced and appropriately restrained in accordance with the [NTC Load Restraint Guide](#). The driver, while not a party in the supply chain, still has responsibility to check loads are secure and restrained.

Generic load plans may include the calculated (and verified) restraint requirement for the load carried on a particular vehicle. Engineer-designed load and restraint systems may be required for non-typical loads.

Appendix B lists questions to consider when addressing load restraint obligations.

5.3.1 Meeting CoR obligations

Responsible parties must take all reasonably practicable steps to meet CoR obligations. A summary of responsibilities is provided in Table 3.

Table 3: Key supply chain responsibilities – loading and unloading requirements

Party	Key responsibilities – loading and unloading requirements
Consignor	<ul style="list-style-type: none"> ▪ Ensure: <ul style="list-style-type: none"> – Loads do not exceed mass or dimension limits and are appropriately restrained – Other parties in the supply chain are aware of any known constraints or hazards that may affect safe transport ▪ Prepare a complying CWD and ensure operators or drivers carrying freight containers have a valid CWD.
Prime contractor, operator, scheduler, manager	<ul style="list-style-type: none"> Ensure: <ul style="list-style-type: none"> ▪ Vehicles selected and scheduled are fit for purpose and appropriate to the load ▪ Vehicles are not loaded to exceed mass or dimension limits and are appropriately restrained ▪ Operators carrying freight containers have a valid CWD before commencement of journey.

Party	Key responsibilities – loading and unloading requirements
Loading manager, packer/loader	<p>Ensure:</p> <ul style="list-style-type: none"> ▪ Vehicles are loaded such that they can be unloaded safely and that risk is minimised so far as is reasonably practicable ▪ Vehicles are not loaded if not fit for purpose ▪ Vehicles are not loaded without their mass and dimension information being known ▪ Loads do not exceed vehicle mass or dimension limits, do not cause the vehicle to exceed mass limits, and are placed and secured in a way that will not allow them to become unstable, move or fall from a vehicle ▪ Goods packed in a freight container do not cause the container's gross weight or safety approval rating to be exceeded ▪ Drivers are provided with reliable weight information before commencing a journey.
Driver	<p>Ensure:</p> <ul style="list-style-type: none"> ▪ Vehicles are not loaded to exceed mass or dimension limits of the vehicle ▪ Loads are secured and restrained, and remain so for the duration of the journey ▪ Load restraint devices, dunnage and other equipment and supports are fit for purpose and regularly inspected ▪ They carry a valid CWD before commencing a journey and produce it for an authorised officer when requested to do so.
Unloader	<p>Ensure:</p> <ul style="list-style-type: none"> ▪ Other parties in the supply chain are aware of any known constraints or hazards that may affect safe unloading ▪ Vehicles are unloaded safely and risk is minimised so far as is reasonably practicable ▪ Unloading zones are established and separated from people and plant.
Consignee	<p>Ensure:</p> <ul style="list-style-type: none"> ▪ Loads do not exceed mass or dimension limits and are appropriately restrained ▪ Operators or drivers carrying freight containers have a valid CWD.

See the fact sheets [Dimension Requirements and the Chain of Responsibility](#), [Mass Limits and the Chain of Responsibility](#) and [Loading Requirements and the Chain of Responsibility](#).

5.4 Loading and unloading zones²

Roads and Maritime workplaces requiring loading and unloading in normal operations (eg construction sites, or warehouse or logistics activities) must ensure the workplace layout is designed so far as is reasonably practicable to separate people (eg drivers and other workers) from mobile plant and other vehicles.

Access to loading and unloading zones must be controlled at all times, including an exclusion zone (see Figure 2). Line managers must ensure an approved traffic management plan is established in accordance with the procedure *Working with mobile plant*.³

² Workplace access requirements for loading arise from the application of WHS principles – these are not stated as part of the HVNL.

³ To be developed in 2018

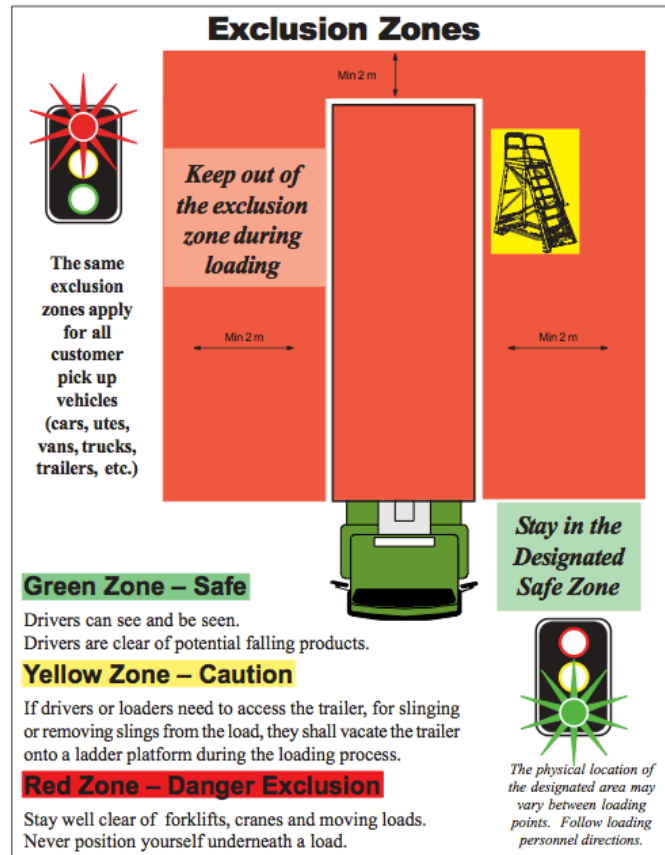


Figure 2: Example – Standard exclusion zone

Loading managers must:

- Ensure risk-based loading and unloading operational procedures are in place
- Authorise and control loading and unloading work
- Ensure the physical separation of loading and unloading equipment from drivers and other pedestrians, including (but not limited to):
 - Designated pedestrian exclusion zones for the sole purpose of loading equipment, demarcated as appropriate for that working environment
 - Designated driver safety zones located to keep the driver away from the loading or unloading work
 - Defined methods for communicating between the driver and the person loading or unloading
 - Effective methods to warn other drivers and pedestrians about the loading or unloading work in progress.
- Specify goods and materials that eliminate or minimise the need to access heights (eg pre-slung materials, ground-accessible rated lifting points, designed access platforms, palletised goods)
- Ensure materials and goods are handled with fit-for-purpose plant and lifting equipment
- Consider risk factors in the loading or unloading work eg environmental conditions (including weather and adequate lighting)
- Ensure vehicles are unloaded on a smooth surface so that the load is less likely to become unstable during the process.

6 Driver fitness for work

Drivers must be medically fit to operate a heavy vehicle, must not be affected by drugs and/or alcohol (see the procedure [Drugs and alcohol](#)) and must not be impaired by fatigue.

Line managers must:

- Ensure drivers remain fit to operate a heavy vehicle
- Intervene if they believe the driver of a heavy vehicle is not fit to drive
- Ensure that driver medical requirements are managed in accordance with Roads and Maritime's fitness for work procedures and contractor management processes – see Austroads' [Assessing fitness to drive](#).

It is recommended that drivers of heavy vehicles performing work for Roads and Maritime undergo a medical assessment before being allowed to drive.

Medical reviews are required for drivers with a class MC licence:

- At age 21, and then every 10 years
- At age 40, and then every five years
- At age 60, and then every two years
- At age 70, and then every year.

6.1 Fatigue management

Fatigue management of heavy vehicle operators must be managed as set out in the procedure [Fatigue](#) and in accordance with the [Heavy Vehicle \(Fatigue Management\) National Regulation \(NSW\)](#) (the Fatigue Management Regulation).

Line managers must ensure or have processes in place to ensure that:

- Impractical timeframes are not placed on transport services, such as suppliers, operators and drivers
- Drivers adhere to their work and rest requirements (see Appendix C)
Note: *Good practice is to have a continuous 15-minute break after each two hours of driving and a limit of 10 hours driving time per day.*
- Contracted heavy vehicle suppliers provide assurance of processes for monitoring their drivers' maximum work and minimum work rest hours or an accredited fatigue management system
- Contracted heavy vehicle suppliers provide assurance of processes that comply with the Fatigue Management Regulation and National Heavy Vehicle Regulator (NHVR) defined standards, including:
 - Planning schedules and rosters within legal limits
 - Ensuring drivers are provided with sufficient time off to recover from or to prepare for the effects of fatigue at work
 - Maintaining up-to-date drivers' work records, including of individual driving hours.

When contracting services, line managers must seek assurance that:

- Consignment and commercial contracts do not cause, encourage, reward or provide an incentive for a driver or any other party in the supply chain (eg scheduler) to break any road transport law
- Contracted heavy vehicle suppliers can demonstrate compliance with NHVR fatigue management requirements, including mandating that the driver of a fatigue-regulated heavy vehicle complete a driver work diary, as part of their fatigue management process – see section 6.2.

Refer to the National Heavy Vehicle Accreditation Scheme (NHVAS), which allows heavy vehicle operators to apply for an accredited fatigue management system.

6.2 Driver work diaries

Under the Fatigue Management Regulation, driver work diaries are required when a journey exceeds 100 kilometres from base. Driver work diaries are used to record driver details, which at a minimum must include:

- The vehicle driven
- Whether the driver is operating under standard hours (if the contracted organisation does not have an accredited fatigue management system), basic fatigue management (BFM) or advanced fatigue management (AFM) hours
- The total time of work and the total time of rest in the driver's day.

Appendix C sets out the work and rest requirements for drivers.

Works supervisors must ensure:

- Records are kept for Roads and Maritime employed heavy vehicle drivers
- Roads and Maritime drivers use a driver work diary or electronic work diary (unless an exemption applies – see section 6.2.2)
- Contracted heavy vehicle suppliers use driver work diaries.

Line managers must monitor Roads and Maritime heavy vehicle drivers' compliance by conducting regular audits of drivers' timesheets and driver work diaries.

6.2.1 Recordkeeping

For Roads and Maritime employed heavy vehicle drivers, a system of recordkeeping must be in place. Under the HVNL the recordkeeper for an employed driver is the driver's employer, while for a self-employed driver (which includes industry partners and owner-drivers) the driver is their own recordkeeper.

The recordkeeper must keep a copy of the driver work diary information for a period of three years. Appendix D provides a complete list of records to be generated for this procedure.

Under the HVNL, when requested by an authorised officer, drivers must be able to produce their driving record for the last 28 days. Driving records (including rest times) must be maintained irrespective of prescribed driver work diary requirements.

6.2.2 Exemptions from driver work diary requirements

There are exemptions from the requirement to have a driver work diary, including:

- A driver who is an employee of a local government authority (council) is not required to carry or fill in a work diary if they only drive within the boundaries of the council for which they work, even if they drive more than 100 kilometres from the driver's base
- A driver who is a person engaged in primary production is not required to carry and fill in a work diary if they drive within a 160-kilometre radius of their base
- The [NHVR](#) may also exempt an individual driver or a class of driver from work diary requirements provided specific conditions are met.

Drivers should check whether an exemption applies to them and, if required by Roads and Maritime, provide evidence of their exemption.

6.3 Calculating working time

When calculating working time, drivers of heavy vehicles must consider all tasks before and during a work shift, including driving to work. Persons responsible for scheduling transport services or heavy vehicle operators must ensure:

- Workers have been briefed about protocols for calculating working time
- Contracted drivers are aware of and comply with the Fatigue Management Regulation.

6.4 Meeting CoR obligations

Responsible parties must take all reasonably practicable steps to meet CoR obligations. A summary of responsibilities is provided in Table 4.

Table 4: Key supply chain responsibilities – Fatigue

Party	Key responsibilities – fatigue
Consignor	<ul style="list-style-type: none">▪ Ensure:<ul style="list-style-type: none">– They do not encourage a driver to breach, or place demands that contribute to a driver breaching, CoR provisions– Other parties in the supply chain are aware of any known constraints or hazards that may affect safe transport.▪ Seek assurance that delivery requirements will not require drivers to exceed regulated driving hours, fail the minimum rest requirements, or drive while fatigued.
Prime contractor, operator, scheduler, manager	<ul style="list-style-type: none">▪ Ensure:<ul style="list-style-type: none">– They do not encourage or reward a driver to breach, or provide an incentive or place demands that contribute to a driver breaching, CoR provisions– Rosters and schedules do not cause drivers to breach driving hours or speed limits– Scheduling takes into consideration route delays, rest stop locations and conditions– Drivers do not work in breach of their work or rest hours or while impaired by fatigue.▪ Assess that a driver is fit for duty▪ Record driver activities, work times and rest times.

Party	Key responsibilities – fatigue
Loading manager, packer/loader	<ul style="list-style-type: none"> ▪ Ensure: <ul style="list-style-type: none"> – They do not load a vehicle if the driver does not appear fit for duty – Loading a heavy vehicle will not contribute to the driver driving while fatigued – Vehicle loading or unloading does not cause delays, and drivers are advised of any delays of more than 30 minutes. ▪ Work with other off-road parties to make reasonable arrangements to manage loading and unloading times.
Driver	<ul style="list-style-type: none"> ▪ Comply with fatigue management work and rest requirements ▪ Keep an accurate work diary and records as required by law ▪ Respond to changes in circumstances (eg delays) and report these to base ▪ Report any issue that may affect fitness to operate a heavy vehicle.
Unloader	<p>Ensure:</p> <ul style="list-style-type: none"> ▪ Other parties in the supply chain are aware of any known constraints or hazards that may affect safe unloading ▪ Vehicles are unloaded promptly.
Consignee	<ul style="list-style-type: none"> ▪ Ensure: <ul style="list-style-type: none"> – They do not encourage a driver to breach, or place demands that contribute to a driver breaching, CoR provisions – Other parties in the supply chain are aware of any known constraints or hazards that may affect safe transport. ▪ Seek assurance that delivery requirements will not require drivers to exceed regulated driving hours, fail the minimum rest requirements, or drive while fatigued.

See the fact sheet [Fatigue Management and the Chain of Responsibility](#).

7 Speeding

Drivers of heavy vehicles must not exceed applicable speed limits and must observe cautionary speeds as signposted and applicable to heavy vehicles (eg steep descents). Travel times must cater for contingencies, loading, unloading and load-checking, as well as rest opportunities.

Appendix E lists questions to consider when scheduling and how to comply with speed requirements.

7.1 Speed-limiting and vehicle monitoring devices

Except where a lower speed limit applies, heavy vehicles are limited to a maximum speed of 100 kilometres per hour, and specified heavy vehicles must be fitted with speed-limiting devices in accordance with the [Australian Design Rule 65](#). Heavy vehicles that are required to comply with this requirement include trucks exceeding 12 tonnes GVM and buses exceeding five tonnes GVM.

Line managers must ensure that vehicles over 12 tonnes GVM (or over 15 tonnes GVM for pre-1991 vehicles) owned, operated or contracted for work with Roads and Maritime are fitted with speed-limiting devices in accordance with the [Australian Design Rule 65](#). These devices must be set to limit the maximum speed to 100 kilometres per hour and to function correctly.

In-vehicle monitoring systems (IVMS) should be fitted to Roads and Maritime owned or operated heavy vehicles using a risk-based approach.

Line managers must verify that organisations supplying contracted heavy vehicles provide:

- Evidence that a compliant speed limiter is fitted and working correctly (eg specification of limiter, independent confirmation, test records)
- Where requested, reports about their vehicle and driver compliance, including speeding events and actions taken to address non-compliance.

7.2 Meeting CoR obligations

Responsible parties must take all reasonable steps to meet CoR obligations. A summary of responsibilities is provided in Table 5.

Table 5: Key supply chain responsibilities – speed

Party	Key responsibilities – speed
Consignor	<ul style="list-style-type: none"> ▪ Ensure: <ul style="list-style-type: none"> – They do not encourage a driver to breach, or place demands that contribute to a driver breaching, CoR provisions – Other parties in the supply chain are aware of any known constraints or hazards that may affect safe transport. ▪ Seek assurance that delivery requirements will not require drivers to exceed speed limits, including for temporary or construction zones.
Prime contractor, operator, scheduler, manager	<ul style="list-style-type: none"> ▪ Ensure: <ul style="list-style-type: none"> – They do not encourage or reward a driver to breach, or provide an incentive or place demands that contribute to a driver breaching, speed limits – Rosters and schedules do not encourage drivers to breach speed limits – Scheduling takes into consideration route delays, rest stop locations and conditions, loading, unloading and load-checking – Vehicles are maintained and proper functioning speed-limiting devices are fitted. ▪ Record driver activities, work times and rest times.
Loading manager, packer/loader	<ul style="list-style-type: none"> ▪ Work with other off-road parties to make reasonable arrangements to manage loading and unloading times ▪ Ensure vehicle loading or unloading does not cause delays, and advise drivers of any delays of more than 30 minutes.
Driver	<ul style="list-style-type: none"> ▪ Obey speed limits and road rules ▪ Respond to changes in circumstances (eg delays) and report these to base ▪ Ensure the vehicle’s speed-limiting device is operational, and report and rectify any defects with the device.
Unloader	<ul style="list-style-type: none"> Ensure: <ul style="list-style-type: none"> ▪ Other parties in the supply chain are aware of any known constraints or hazards that may affect safe unloading ▪ Vehicles are unloaded promptly.

Party	Key responsibilities – speed
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- | | |
|------------------|---|
| Consignee | <ul style="list-style-type: none">▪ Ensure:<ul style="list-style-type: none">– They do not encourage a driver to breach, or place demands that contribute to a driver breaching, CoR provisions– Other parties in the supply chain are aware of any known constraints or hazards that may affect safe transport.▪ Seek assurance that delivery requirements will not require drivers to exceed speed limits, including for temporary or construction zones. |
|------------------|---|

See the fact sheet [Speeding Compliance and the Chain of Responsibility](#).

8 Training and competency

Line managers must ensure CoR training requirements are identified for workers who have (or potentially have) responsibilities in the supply chain.

Foundation CoR training must address:

- The worker's CoR responsibilities
- Legislative requirements, offences and penalties
- What workers must do to mitigate breaches of CoR requirements
- Roads and Maritime's requirements to treat a potential breach as a safety occurrence.

8.1 Driver competence

Before being allowed to drive a heavy vehicle, a driver must:

- Be verified as competent as per the procedure [Plant operator training and assessment](#), where it applies
- Have an appropriate current licence (licensing classes: light rigid, medium rigid or heavy rigid, heavy combination or multi-combination).

Contracted parties should be verified in accordance with Roads and Maritime procurement and contract management processes.

Drivers must report any changes to licence status or fitness to drive to their line manager who will determine if authorisation to drive will be revoked.

The [Heavy vehicle driver handbook](#) describes driver responsibilities and the rules and regulations that apply to drivers and their heavy vehicles.

9 Monitoring, auditing and reviewing

Line managers must ensure heavy vehicle risks and CoR compliance are monitored, audited and reviewed. This should be based on an assessment of risk but as a minimum on a yearly basis. CoR conformance should be included as part of a manager's scheduled WHS governance and assurance activities.

Roles and responsibilities

Role	Responsibilities
Roads and Maritime (through its managers from the Executive to the front line) must:	<ul style="list-style-type: none"> ▪ Comply with the HVNL and ensure that systems are in place to manage potential WHS risks in relation to heavy vehicle operations ▪ Identify, assess and manage WHS risks in supply chain operations and ensure compliance with CoR requirements ▪ Consult regularly with other parties in the supply chain to identify risks or issues that may contribute to HVNL breaches.
Designers must:	<ul style="list-style-type: none"> ▪ Ensure that when planning and designing heavy vehicle routes, road systems and highway networks, risks are eliminated so far as is reasonably practicable, and if it is not reasonably practicable to eliminate risks to health and safety, to minimise those risks so far as is reasonably practicable ▪ Share information, eg through health and safety in design reports and documents.
Line managers (including project managers) must:	<ul style="list-style-type: none"> ▪ Identify CoR activities that relate to the supply chain ▪ Identify and implement the CoR training requirements for personnel who undertake CoR responsibilities as part of their work. ▪ Identify, assess and manage risks associated with heavy vehicle operations ▪ Ensure or have processes in place to ensure that: <ul style="list-style-type: none"> – Heavy vehicle drivers are fit for work, trained and competent – Industry partners have formal processes in place to manage CoR responsibilities, and CoR compliance is reviewed in contracts – CoR risks are identified, assessed and controlled. ▪ Ensure processes are in place: <ul style="list-style-type: none"> – To confirm that Roads and Maritime and contracted heavy vehicles comply with CoR requirements and this procedure – For monitoring, auditing and reviewing CoR compliance. ▪ Seek assurance that activities that are part of the supply chain have risk controls in place to comply with CoR requirements
Works supervisors must:	<p>Ensure:</p> <ul style="list-style-type: none"> ▪ Driver work diaries are carried and completed ▪ Heavy vehicle checks and inspections are undertaken.
Operators, managers/schedulers of a road transport business must:	<p>Ensure:</p> <ul style="list-style-type: none"> ▪ Rosters and schedules do not cause drivers to exceed work or rest requirements or speed limits ▪ Speed limiters are compliant ▪ Vehicles do not exceed mass or dimension limits ▪ Appropriate restraint equipment is provided and loads are appropriately restrained ▪ Records of drivers' activities, including work times and rest times are kept ▪ Reasonably practicable steps are taken to ensure a driver does not work while fatigued.

Role	Responsibilities
Loading managers, packers/loaders must:	<ul style="list-style-type: none"> ▪ Ensure: <ul style="list-style-type: none"> – Loading and unloading operational procedures are in place – The load does not cause the vehicle mass and dimension limits to be exceeded – The load is placed in such a way that it does not become unstable or unsafe, move, or fall off the vehicle – Documentation about the vehicle's load is true and accurate – Goods packed in a freight container do not cause the container's gross weight or safety approval rating to be exceeded – Load information is provided to freight services providers. ▪ Not load if the driver appears fatigued, and seek instruction from the responsible manager if this occurs.
Consignors/senders, consignees/receivers must:	<p>Ensure that a driver:</p> <ul style="list-style-type: none"> ▪ Does not exceed permitted work and rest hours ▪ Has minimum rest periods ▪ Complies with speed limits ▪ Does not carry goods that exceed vehicle dimension limits or mass limits ▪ Refuses to carry any goods that are not appropriately secured ▪ Does not drive while fatigued.
Drivers must:	<ul style="list-style-type: none"> ▪ Have a current licence ▪ Be fit to work and operate a heavy vehicle ▪ Report any changes to their licence status or fitness to drive a heavy vehicle ▪ Respond to changes in circumstances (eg delays) and report these to base ▪ Check and report on issues requiring maintenance ▪ Comply with: <ul style="list-style-type: none"> – Regulated work and rest hours – Applicable speed limits and observe cautionary speeds as signposted and applicable to heavy vehicles. ▪ Carry and complete their work diary, and produce it when requested by an authorised officer ▪ Ensure: <ul style="list-style-type: none"> – Loads are secured and restrained – The vehicle does not exceed mass or dimension limits – Required equipment fitted to the vehicle (eg emission control systems) is not tampered with.

Definitions

Term	Definition
Chain of responsibility (CoR)	CoR means that every person in the supply chain has a responsibility to ensure the safe and legal transport of goods. This places legal obligations on all parties who operate in the transport supply chain.
Container Weight Declaration (CWD)	A CWD is a written declaration of the weight of a container and its contents.
Driver	Driver refers to the person driving a regulated heavy vehicle, and includes: <ul style="list-style-type: none"> ▪ An employed driver – who is employed by someone else to drive a regulated heavy vehicle ▪ A self-employed driver – who is not an employed driver.
Driver work diary	A written document that contains a record of the driver's work and rest history as required under the HVNL. An electronic work diary is an alternative to the written work diary.
Executive	Roads and Maritime's Chief Executive and executive directors.
Gross combination mass (GCM)	The greatest possible sum of the maximum loaded mass of a motor vehicle and any vehicles that it may lawfully tow at one time, as specified by the vehicle manufacturer on a plate affixed to the vehicle.
Gross vehicle mass (GVM)	The maximum loaded mass of a vehicle as specified by the vehicle manufacturer on a plate affixed to the vehicle.
Heavy Vehicle National Law (HVNL)	The national law that regulates the use of heavy vehicles throughout Australia (in NSW the <i>Heavy Vehicle National Law</i> (NSW)).
NHVR	National Heavy Vehicle Regulator.
Parties in the supply chain	A party may include any person who can influence or control the heavy vehicle transport chain, such as: <ul style="list-style-type: none"> ▪ Corporations, partnerships, unincorporated associations or other bodies corporate ▪ Employers of heavy vehicles and their directors ▪ Consignors/senders and consignees/receivers of goods for transport ▪ Exporters and importers ▪ Primary producers ▪ Drivers of heavy vehicles (including a bus driver or an owner-driver) ▪ Prime contractors ▪ Operators of a heavy vehicle ▪ Schedulers of goods or passengers for transport, and the schedulers or allocators of heavy vehicle drivers ▪ Loaders and unloaders of goods ▪ Loading managers (loading/unloading supervisors) or managers of premises where loading or unloading occurs.
Supply chain	The activities supporting transport, including driving, packing, loading, scheduling, transportation and receiving of goods.
Worker	Any person who carries out work in any capacity for Roads and Maritime – that is, Roads and Maritime employees (including labour hire workers, apprentices and trainees); professional services contractors and consultants; contractors, subcontractors and their employees; outworkers; students gaining work experience; and volunteers.

References

Roads and Maritime references

Doc no	Name
RMS 17.510	Heavy vehicle operations – Chain of Responsibility framework
TBA	Procedure Working with mobile plant
PN066P31	Procedure Drugs and alcohol
PN066P04	Procedure Fatigue
RMS 15.208	Fact sheet Dimension Requirements and the Chain of Responsibility
RMS 15.353	Fact sheet Fatigue Management and the Chain of Responsibility
RMS 15.210	Fact sheet Heavy Vehicle Roadworthiness, Vehicle Registration and Driver Licensing
RMS 15.206	Fact sheet Loading Requirements and the Chain of Responsibility
RMS 15.207	Fact sheet Mass Limits and the Chain of Responsibility
RMS 15.209	Fact sheet Speeding Compliance and the Chain of Responsibility
RMS 07.353	Heavy vehicle driver handbook

External references

Title	Source	Type
Heavy Vehicle National Law (NSW)	NSW legislation www.legislation.nsw.gov.au	Legislation
Heavy Vehicle (Fatigue Management) National Regulation (NSW)		
Heavy Vehicle (Mass, Dimension and Loading) National Regulation (NSW)		
Heavy Vehicle (Vehicle Standards) National Regulation (NSW)		
Load Restraint Guide: Guidelines and performance standards for the safe carriage of loads on road vehicles	National Transport Commission www.ntc.gov.au	Guide
Vehicle Standard (Australian Design Rule 65/00 – Maximum road speed limiting for heavy goods vehicles and heavy omnibuses) 2006	Office of Parliamentary Counsel www.legislation.gov.au	Legislation
Assessing fitness to drive for commercial and private vehicle drivers	Austrroads www.onlinepublications.austrroads.com.au	Guide
Chain of responsibility checklist	National Heavy Vehicle Regulator www.nhvr.gov.au	Checklist
Chain of responsibility – Your role	National Heavy Vehicle Regulator www.nhvr.gov.au	Guide

Title	Source	Type
<i>Prime contractors</i>	National Heavy Vehicle Regulator	Information sheets
<i>Employers</i>	www.nhvr.gov.au	
<i>Operators</i>		
<i>Consignors</i>		
<i>Loaders/Unloaders</i>		
<i>Loading managers</i>		
<i>Packers</i>		
<i>Schedulers</i>		
<i>Consignees</i>		

Appendices

A Dimension limits for heavy vehicles

The dimension limits for heavy vehicles are set out in the *Heavy Vehicle (Mass, Dimension and Loading) National Regulation (NSW)*.

The load is part of a vehicle's dimensions. For the purposes of the HVNL and the *Heavy Vehicle (Vehicle Standards) National Regulation (NSW)*, the permissible length, width or height of a vehicle includes its load.

Dimension	General requirements
Length	<ul style="list-style-type: none">▪ A single heavy vehicle (which includes trucks and trailers) must not be longer than 12.5 metres▪ A heavy vehicle combination must not be longer than 19 metres, except for a:<ul style="list-style-type: none">– B-double where the maximum length is 25 metres (a B-double may be up to 26 metres if the prime mover is fitted with a front under-run protection system (FUPS) and meets specified cabin strength requirements, and the prime mover is not designed to carry goods)– Road train, which may be up to 53.5 metres▪ A vehicle carrier with two or more partly or completely overlapping decks may be up to 25 metres▪ An articulated bus may be up to 18 metres▪ A bus other than an articulated bus may be up to 14.5 metres. <hr/> <p>Restricted access for long vehicles</p> <p>B-doubles longer than 19 metres, road trains, vehicle carriers exceeding 19 metres, and buses (including articulated buses) exceeding 12.5 metres must travel only on approved routes in NSW or under a specific permit issued by the NHVR. Approved routes in NSW are published on Roads and Maritime interactive maps.</p>
Width	<ul style="list-style-type: none">▪ A heavy vehicle must not be wider than 2.5 metres.▪ When measuring the width of a vehicle the following items fitted to the vehicle are to be disregarded:<ul style="list-style-type: none">– Rear-vision mirrors, signalling devices and side-mounted lamps and reflectors– Anti-skid devices mounted on wheels, central tyre inflation systems, and tyre pressure gauges– Permanently fixed webbing assembly-type devices, including, for example, curtain-side devices, if the maximum distance across the body (including any part of the devices) does not exceed 2.55 metres.
Height	<ul style="list-style-type: none">▪ A heavy vehicle must not be higher than 4.3 metres▪ A vehicle built to carry cattle, horses, pigs or sheep and other livestock may be up to 4.6 metres in height▪ A vehicle with at least two decks for carrying vehicles may be up to 4.6 metres in height▪ A double-decker bus may be up to 4.4 metres in height. <hr/> <p>Restricted access for over-height vehicles</p> <p>Vehicles exceeding 4.3 metres but not exceeding 4.6 metres in height must travel only on approved routes in NSW.</p> <p>Where an operator wishes to operate a vehicle over 4.6 metres in height or wishes to operate a vehicle over 4.3 metres in height on a route which is not an approved over-height vehicle route, a specific permit issued by the NHVR must be obtained. Approved routes in NSW are published on Roads and Maritime interactive maps.</p>

B Assessing the adequacy of loading and load restraint arrangements

When assessing whether load restraint obligations have been appropriately addressed, consider the following:

- Have all relevant loading and load restraint requirements been identified?
- Are the restraint methods outlined in the [Load Restraint Guide](#) being used? If not, why not?
- If the load restraint methods being used are different to those set out in *the Load Restraint Guide*, have they been assessed and certified by an appropriately qualified person?
- Have we communicated our needs with respect to the use of appropriate methods of load restraint to the people providing transport services? How has this been done?
- Has a system for regular inspection of vehicles and restraint equipment (such as straps, chains, anchor points, tensioners, chocks, curtains and gates) been established?
- Do drivers, maintenance staff and supervisors have a clear and simple process for checking equipment and raising a defect (or request for work) where restraint equipment may be unsafe or unserviceable?
- Has consultation been held with drivers about loading obligations? Do drivers know what to do if they attend a pick-up point and the load is not appropriately restrained?
- Are drivers supported if they refuse to carry a non-compliant load?
- Do supervisors understand and promote a 'safety and compliance' approach?
- How much training and support is provided to drivers (and to packers, loaders and supervisors) about load restraint obligations?
- In respect of consultation, training and support, and vehicle monitoring:
 - How do we respond to what we are hearing from drivers and staff?
 - Is the training and support effective?
 - If we have monitoring systems, what happens when poor load restraint practices and other non-compliance is detected?
- What form of recordkeeping is maintained in respect of each of these matters? Are the records retained for at least three years?
- Who has responsibility for the ongoing review of the measures used to ensure compliance?

See the fact sheet [Loading Requirements and the Chain of Responsibility](#).

C Work and rest requirements

These requirements are set out in Schedule 1 of the *Heavy Vehicle (Fatigue Management) National Regulation (NSW)* and are based on:

Standard hours – work and rest hours requirements for SOLO DRIVERS

Time	Work	Rest
In any period of ...	A driver must not work for more than a maximum of ...	And must have the rest of that period off work with a minimum rest break of at least ...
5½ hours	5¼ hours work time	15 continuous minutes rest time
8 hours	7½ hours work time	30 minutes rest time in blocks of 15 continuous minutes
11 hours	10 hours work time	60 minutes rest time in blocks of 15 continuous minutes
24 hours	12 hours work time	7 continuous hours stationary rest time ⁴
7 days	72 hours work time	24 continuous hours stationary rest time
14 days	144 hours work time	2 x night rest breaks ⁵ and 2 x night rest breaks taken on consecutive days

Standard hours – work and rest hours requirements for TWO-UP DRIVERS

Time	Work	Rest
In any period of ...	A driver must not work for more than a maximum of ...	And must have the rest of that period off work with a minimum rest break of at least ...
5½ hours	5¼ hours work time	15 continuous minutes rest time
8 hours	7½ hours work time	30 minutes rest time in blocks of 15 continuous minutes
11 hours	10 hours work time	60 minutes rest time in blocks of 15 continuous minutes
24 hours	12 hours work time	5 continuous hours stationary rest time ⁴ or 5 hours continuous rest time in an approved sleeper berth while the vehicle is moving
52 hours	⁶	10 continuous hours stationary rest time
7 days	60 hours work time	24 continuous hours stationary rest time and 24 hours stationary rest time in blocks of at least 7 continuous hours of stationary rest time
14 days	120 hours work time	2 x night rest breaks ⁵ and 2 x night rest breaks taken on consecutive days

⁴ Stationary rest time is the time a driver spends out of a heavy vehicle or in an approved sleeper berth of a stationary heavy vehicle

⁵ Night rest breaks are 7 continuous hours stationary rest time taken between the hours of 10 pm on a day and 8 am on the next day (using the time zone of the base of the driver) or a 24 continuous hours stationary rest break

⁶ Not specified in the regulation

Basic fatigue management (BFM) provides options for when drivers can work and rest provided the risk of working long hours and night hours is properly managed.

Basic fatigue management (BFM) work and rest times for SOLO DRIVERS

Time	Work	Rest
In any period of ...	A driver must not work for more than a maximum of ...	And must have the rest of that period off work with a minimum rest break of at least ...
6¼ hours	Six hours work time	15 continuous minutes rest time
9 hours	Eight and a half hours work time	30 minutes rest time in blocks of 15 continuous minutes
12 hours	11 hours work time	60 minutes rest time in blocks of 15 continuous minutes
24 hours	14 hours work time	Seven continuous hours stationary rest time ⁷
7 days	36 hours long/night work time ⁸	⁹
14 days	144 hours work time	24 continuous hours stationary rest time taken after no more than 84 hours work time and 24 continuous hours stationary rest time and two times night rest breaks ¹⁰ and two times night rest breaks taken on consecutive days

Basic fatigue management (BFM) work and rest times for TWO-UP DRIVERS

Time	Work	Rest
In any period of ...	A driver must not work for more than a maximum of ...	And must have the rest of that period off work with a minimum rest break of at least ...
24 hours	14 hours work time	No limit has been set
82 hours	No limit has been set	10 continuous hours stationary rest time ⁷
7 days	70 hours work time	24 continuous hours stationary rest time and 24 hours stationary rest time in blocks of at least seven continuous hours of stationary rest time
14 days	140 hours work time	Four nights rest breaks ¹⁰

Advanced fatigue management (AFM) accreditation brings a risk management approach to managing driver fatigue. Rather than setting work and rest times, AFM offers flexible hours as long as the fatigue risks of those hours are offset by sleep, rest and other management practices in a compliant fatigue management system. A driver operating under an AFM accreditation must comply with the maximum work time and minimum rest time requirements set out in the AFM accreditation certificate. The AFM accreditation cannot permit a driver to drive for more than 15 and a half hours in a 24-hour period.

⁷ Stationary rest time is the time a driver spends out of a regulated heavy vehicle or in an approved sleeper berth of a stationary regulated heavy vehicle.

⁸ Long/night work time is any work time in excess of 12 hours in a 24-hour period or any work time between midnight and 6 am (or the equivalent hours in the time zone of the base of a driver).

⁹ Not specified in the regulation

¹⁰ Night rest breaks are 7 continuous hours stationary rest time taken between the hours of 10 pm on a day and 8 am on the next day (using the time zone of the base of the driver) or a 24 continuous hours stationary rest break.

D Records

The following records are generated from the processes described in this procedure:

- Driver work diaries
- Heavy vehicle register
- Medical assessment
- Driver licences
- Contract exhibits relating to CoR compliance
- Heavy vehicle maintenance register
- Safe work method statements (SWMS)
- CoR audits
- Vehicle compliance reports
- Traffic Management Plan
- WHS Management Plan or CoR Management Plan.

E Assessing the adequacy of speeding compliance arrangements

When assessing whether speeding compliance obligations have been appropriately addressed, consider the following:

- Do activities affect the time available to drivers to:
 - conduct an appropriate pre-trip check of the vehicle
 - travel to a pick-up or delivery point
 - ensure correct loading
 - adhere to all applicable speed limits
 - cope with likely traffic contingencies
 - meet deadlines while travelling at a speed that is within the appropriate speed limit and is safe for the conditions?
- How have appropriate travel times from depot to pick-up to delivery and return been determined?
- What contingency plans are in place to respond to a driver being delayed (by traffic or breakdown or queuing or loading time or other foreseeable cause)? Are arrangements in place for pick-up or delivery times to be renegotiated where the driver is delayed?
- How likely is it that drivers will be held up in queues or will be subject to delays caused by the loading or unloading process?
- What consultation has been held with drivers about driving times, causes of delay and contingency planning?
- How much training and support has been provided to drivers (and to schedulers, packers, loaders and supervisors) about speeding compliance and driving at a speed safe for the conditions?
- Has the use of vehicle monitoring devices to check speed been considered? What technology is available for this purpose? How much would it cost to implement?
- In respect of consultation, training and support, and vehicle monitoring:
 - How do we respond to what we are hearing from drivers and staff?
 - Is the training and support effective?
 - If we have monitoring systems, what do we do when we detect over-speeds and other non-compliance?
- What form of recordkeeping is maintained in respect of each of these matters? Are the records retained for at least three years?
- Who has responsibility for the ongoing review of the measures used to ensure compliance?
- Are there any applicable industry codes of practice registered with the NHVR that may assist in complying with speeding compliance obligations?

See the fact sheet [Speeding Compliance and the Chain of Responsibility](#).

Document control

Owner	Manager WHS Partnerships, Regional and Freight
Approval	Director, Safety
File name	procedure-pn066p32.pdf
Online location	Home (www.rms.nsw.gov.au) → Safety → Work Health & Safety → OneRMS safety management system → Procedures, tools and guidance
Objective ID	A17823135
Publication no.	RMS 17.515
Template	Objective ID: A10508605 Objective label: WHS procedure template

Change history

Issue	Date	Description of change
1.0	20/11/17	First issue

Feedback

Provide feedback on this document at onermsms@rms.nsw.gov.au

Attachment 2 – Initial Chain of Responsibility Management Plan

VOLUME 3:
DELIVERY STRATEGY

30

Initial Chain of Responsibility
Management Plan

JCL

3O: Initial Chain of Responsibility Management Plan

Volume 3: Delivery Strategy

Compliance

Compliance with RFP requirements

Requirement (RFP Appendix 2)	Reference in this Plan
As a minimum, the initial Chain of Responsibility Management Plan must generally be in outline format in response to the requirements of Schedules 18 and 40 of the D&C Deed, except that it must provide full detail of how the Contractor will comply with the requirements of the Chain of Responsibility Provisions of the Heavy Vehicle National Law and the Chain of Responsibility Standard contained in Attachment 1 to Schedule 40 of the D&C Deed.	This Plan

Compliance with the D&C Deed

JCL will comply with the D&C Deed requirements of

- Clause 9.15A and Schedule 40 with respect to the Heavy Vehicle National Law
- Schedule 18 of the D&C Deed, with respect to the development, review, update and implementation of Project Plans.
- RMS: Heavy Vehicle Operations – Chain of Responsibility (Ref: PN066P32)

Revisions and distribution

Revisions

Draft issues of this document are identified as Revision A, B, C etc. Upon initial issue (generally Contract Award) this will be changed to a sequential number commencing at Revision 0. Revision numbers will continue at Rev. 1, 2 etc.

Table 2: Revisions

Rev	Date	Prepared By	Reviewed By	Approved By	Remarks
A	21 Sep 2018				Issued with RFP
0					
1					
2					

Distribution list

RMS' Representative	
Project Director	
Surface Works Director	
Tunnel Director	
Plant Manager	
Safety Director	
Commercial Director	
Traffic Manager	
Superintendent	

The controlled master version of this document is available for distribution as appropriate and maintained on the document management system being used on the project. All circulated hard copies of this document are deemed to be uncontrolled.

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Annexures

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Plan Profile – Chain of Responsibility Management Plan	
Project	
Name	Design and Construction of Rozelle Interchange
Vision	JCL will deliver the Rozelle Interchange in collaboration with RMS. We will provide affordable connectivity for the people of Sydney through smart engineering and construction. We will leave a lasting legacy through contiguous and integrated travel, fully optimised network performance, tangible benefits for the community and efficient whole-of-life operations. Our solution supports Sydney’s future economic growth and urban revitalisation.
Scope	Refer to Project Management Plan Section 1.6
Objectives	Refer to Project Management Plan Section 1.3
Client	Roads and Maritime Services (RMS)
Delivery organisation	The Project will be delivered by the John Holland CPB Contractors Joint Venture (JCL) as the Contractor to RMS. Under Clause 2.2 of the D&C Deed, the Contractor assumes the responsibilities of ‘Project Company’ unless otherwise noted in Schedule 1A of the Deed. Any references to Project Company in this plan should be read as references to the Contractor.
Plan	
Management system	JCL will use John Holland’s Integrated Management System (IMS) and core project plans to support project delivery, additional functional plans have been developed for the Project
Name	Chain of Responsibility Management Plan (CoRMP), Schedule 40 of the D&C Deed
Status	Initial (Issued with Collaborative Contractor Client Interactive Phase submission)
Authorisation	This plan is authorised by the Project Director
Submission	This initial CoRMP will be further developed and submitted to the RMS Representative within 60 Business Days after the date of the Deed.
Review and update	The Project Director will review the CoRMP with the assistance of senior project staff at regular intervals. It will be updated to address newly identified risks, changes in legislation or any other change in project requirements that may affect the plan.
Schematics, drawings and other design and construction documentation	Drawings and schematics provided in, or referenced from, this plan, and any quantities, dimensions, or other details of the design and construction given or implied in this management plan are indicative only. To the extent that there is any inconsistency between this plan and the current issue of schematics, drawings or other design or construction documentation, the design and construction documentation takes precedence.

Executive Summary

The Chain of Responsibility (CoR) is a concept used in the Heavy Vehicle National Law (NSW) No. 42a (HVNL) to place legal obligations on any party who has control in the transport supply chain or across transport industries. The principle behind the CoR concept is that any party which has control in the transport chain can be held responsible and may be made legally liable.

It was developed out of recognition that unlawful behaviour by heavy vehicle drivers is influenced and often controlled by the actions or inactions of other off-road parties. It is often the case that the driver's conduct is a symptom of wider compliance failures by the operator, employer, prime contractor or others in the supply chain such as schedulers, loaders and loading managers, packers, consignors and consignees.

The Rozelle Interchange Project will require thousands of heavy vehicle movements each year at its site during delivery of the Rozelle Interchange Project (Project). This Plan describes how the John Holland CPB Contractors JV (JCL) will manage Chain of Responsibility (CoR) during the delivery of the Project. JCL, its subcontractors and suppliers will, as far as reasonably practicable, comply with this Plan. This Plan has also been developed addressing the 2018 reforms to Chain of Responsibility law.

Objective	Features of this Plan	Benefit for RMS
 Optimised network capacity, connectivity, performance and safety	Describes how JCL will apply CoR requirements which are part of the National Heavy Vehicle National Law (NSW) No. 42a (HVNL) and NSW Dangerous Goods (Road and Rail Transport) legislation	Improves safety of all road users and workers
		Ensures that all transport tasks are carried out in a consistent, documented manner across all areas of the Project
	Major emphasis of this Plan is on the leadership team positively influencing safety culture	Improves safety of all road users and workers
		Encourages employees and subcontractors to be active participants in safe behaviour
	Sets out requirements for compliance with CoR obligations and effective management systems practice for the Project	Improves safety of all road users and workers
	Provides direction on how JCL will develop, implement, comply, review, amend and update this plan as changes occur on site, in Workplace Health and Safety (WHS) and CoR practices, WHS and HVNL law, or otherwise required by an Authority	Holds the leadership team accountable for CoR
	Heavily relies on a positive safety culture being set by the leadership team	Protects workers, the community and RMS from unsafe practices
 Optimised budget, program and risk	Plan has been developed using past experience gained from similarly complex civil projects with heavy fleet movement	Mitigates risks for the community, stakeholders and RMS

1. Introduction

1.1. Scope of Works for the Project

The Design and Construction of Rozelle Interchange as detailed in the D&C Deed, encompasses the following activities:

- Connections to the M4, M5 Motorways, Iron Cove and future Western Harbour Tunnel
- Associated ancillary facilities to support these connections
- Significant utility relocation works
- Surface works and local road adjustments
- High quality active transport links.

1.2. Key Elements of Rozelle Interchange

The Rozelle Interchange is part of the wider WestConnex Project. The key features of Rozelle Interchange are shown in Table 1 (Key Features of Rozelle Interchange) and include:

Table 1: Key elements of Rozelle Interchange

Element	Scope
M4 Connections	Connecting the M4 Motorway (via the stubs constructed as part of the Main Tunnel Works package), predominately via tunnels, with the: <ul style="list-style-type: none"> ▪ Anzac Bridge ▪ Future Western Harbour Tunnel (to be delivered by others)
M5 Connections	Connecting the M5 Motorway (via the stubs constructed as part of the Main Tunnel Works package) predominately via tunnels with the: <ul style="list-style-type: none"> ▪ City West Link ▪ Iron Cove Link and ▪ Future Western Harbour Tunnel
Iron Cove Link	Connecting Victoria Road via tunnels with the Anzac Bridge and the M5 Motorway
Surface works	<ul style="list-style-type: none"> ▪ Widening and intersection works to City West Link, The Crescent and Victoria Road ▪ New City West Link culvert (including outlet works at Rozelle Bay) ▪ Significant works to Victoria Road underpass ▪ New public open space located at the Rozelle Rail Yards site
Active transport links	<ul style="list-style-type: none"> ▪ Lilyfield and Annandale at the western end of the Rozelle Rail Yards ▪ Easton Park and Bicentennial Park in the central area of the Rozelle Rail Yards ▪ Lilyfield Road near Lamb Street to the existing Anzac Bridge pedestrian and cyclist link at the western abutment of Anzac Bridge via a new east-west link ▪ Victoria Road (both the eastern and western footpaths) to the new east-west link
Segregated footpath and cycleway	Connecting the Bay Run to Victoria Road at the Iron Cove portals
Ancillary facilities within the former Rozelle Rail Yards	<ul style="list-style-type: none"> ▪ Motorway operation complex ▪ Ventilation supply building ▪ Ventilation exhaust building (including outlets) ▪ Fire suppression tanks and pump facilities ▪ Electrical substation(s) ▪ Water treatment plant ▪ Residual utility adjustment works ▪ Wetland
Ancillary facilities at the Iron Cove Link portals	<ul style="list-style-type: none"> ▪ Motorway operation complex, including a ventilation facility, ventilation outlet and substations ▪ Bio-retention basin
Significant utility relocation works	<ul style="list-style-type: none"> ▪ Power ▪ Gas ▪ Water ▪ Telecommunications

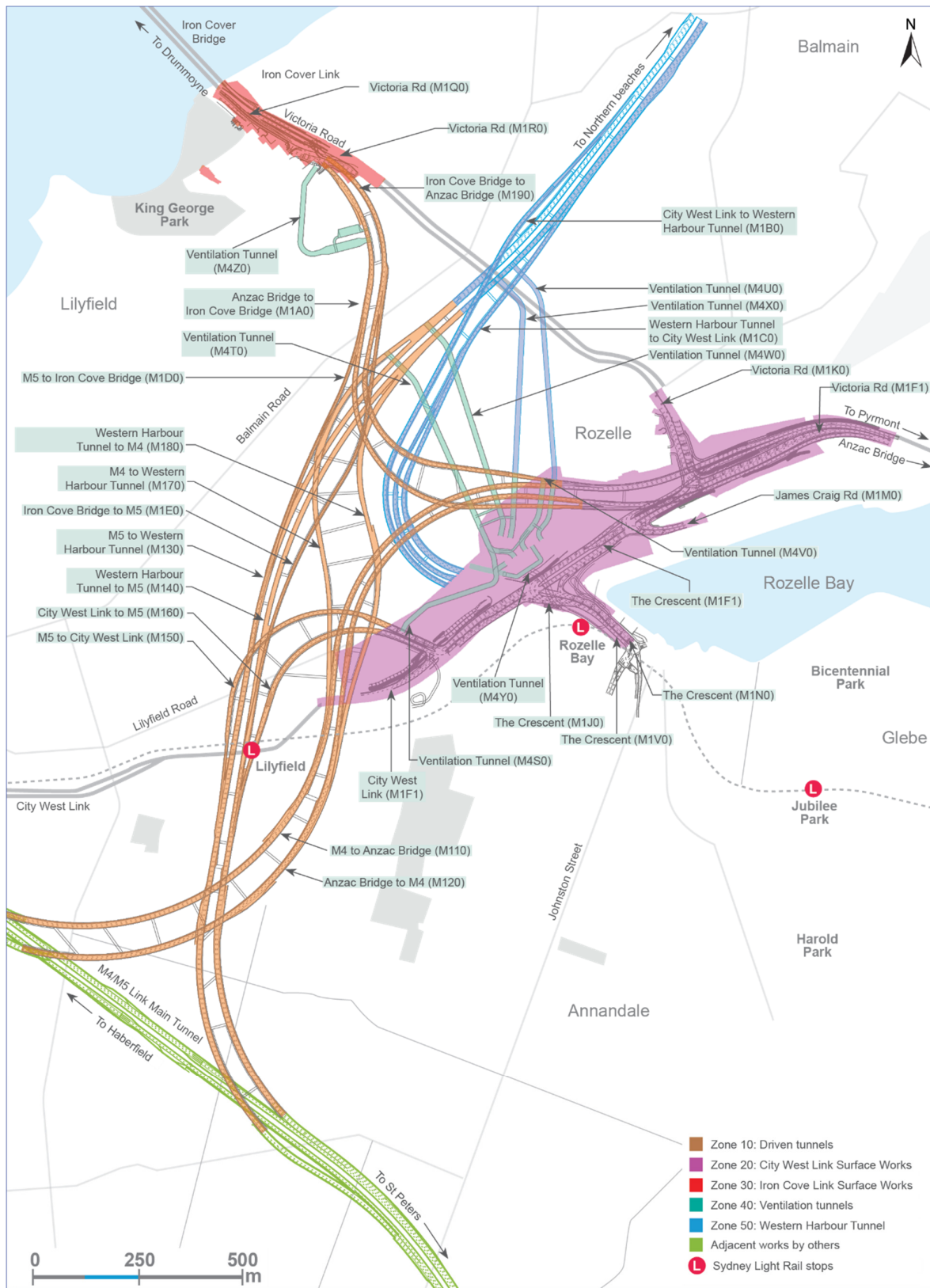


Figure 1: Work area plan

2. Plan Requirements

2.1. Purpose

This Plan describes how the John Holland CPB Contractors JV (JCL) will manage Chain of Responsibility (CoR) during the delivery of the Rozelle Interchange Project (Project). JCL, its subcontractors and suppliers will, as far as reasonably practicable, comply with this Plan.

The purpose of the Chain of Responsibility (CoR) Management Plan (this Plan) is to:

- Describe how JCL will apply CoR requirements which are part of the National Heavy Vehicle National Law (NSW) No. 42a (HVNL) and NSW Dangerous Goods (Road and Rail Transport) legislation
- Set out requirements for compliance with CoR obligations and effective management systems practice for the Project
- Provide direction on how JCL will develop, implement, comply, review, amend and update this plan as changes occur on site, in Workplace Health and Safety (WHS) and CoR practices, WHS and HVNL law, or otherwise required by an Authority
- Ensure that the Project is undertaken to protect persons and property from adverse impact from heavy vehicle operations (HVO) and in accordance with the Drivers Code of Conduct.

This Plan is a sub-plan to the Project Management Plan, which is also being submitted as part of this Collaborative Contractor Client Interactive Phase submission. Figure 1 shows the management plan hierarchy for this Project.

JCL will undertake to deliver the Project safely to protect persons and property from any adverse impact from heavy vehicle operations (HVO) in accordance with this Plan.

Table 6: CoR references

Reference	Document
Law	National Heavy Vehicle National Law (NSW) No. 42a (HVNL)
Law	NSW Dangerous Goods (Road and Rail Transport) Legislation
JH-MPR-WHS-001	WHS Planning
JH-GUI-HSE-101	HSE Objectives and Targets
RMS Doc Ref: PN066P32	Heavy Vehicle Chain of Responsibility

2.2. Scope

This Plan applies to the management of CoR responsibilities as part of HVO during the Project throughout the delivery phase. Typical heavy vehicle related activities to which CoR obligations could apply during the different stages of the Project include, but are not limited to:

- Site establishment involving removal and import of materials, delivery of portable buildings
- Tunnel excavation and spoil removal
- Pre-mixed concrete deliveries
- Reinforcement and structural steel deliveries
- Earthmoving plant deliveries, transfer and removal
- Tunnelling plant deliveries and removal
- Precast batch plant consumable deliveries including cement, sand aggregates and admixtures
- Segment deliveries from precast plant to road header sites
- Bulk cement deliveries to road header sites
- Grout plant consumable deliveries such as sodium silicate, bentonite and retarder
- Water treatment chemical deliveries such as sulphuric acid and sodium hydroxide
- Subcontractor plant servicing JCL sites such as watercarts, vacuum trucks, street sweepers, concrete pumps, cranes and waste bins
- Deliveries of construction materials to sites by miscellaneous suppliers
- Buses contracted to transport workers to and from site or to undertake site tours.

2.3. Plan Development and Review

This is an initial plan only. The final CoR Management Plan will be submitted by JCL within 40 business days after the date of the D&C Deed, in accordance with the SWTC. JCL will not commence any activities at the Rozelle construction site until this Plan has been approved by RMS' Representative.

The CoR Management Plan is part of a suite of management plans and sub-plans that form a detailed, cohesive and consistent framework for managing all aspects of the Project Package. This hierarchy and the interface and relationships between the management plans and supporting documents is shown in Figure 1.

2.4. Legislative Requirements

This Plan addresses the relevant requirements of NSW Heavy Vehicle legislation and other regulatory instruments which include:

- Work Health and Safety Act 2011
- Work Health and Safety Regulation 2011
- Heavy Vehicle National Law (NSW) No. 42a (HVNL)
- Heavy Vehicle (Adoption of National Law) Act 2013
- Heavy Vehicle (Fatigue Management) National Regulation (NSW)
- Heavy Vehicle (General) National Regulation (NSW)
- Heavy Vehicle (Mass, Dimension and Loading) National Regulation (NSW)
- Heavy Vehicle (Vehicle Standards) National Regulation (NSW)
- Dangerous Goods (Road and Rail Transport) Act 2008 No 95
- Dangerous Goods (Road and Rail Transport) Regulation 2014
- SafeWork Codes of Practice
- Relevant Australian Standards
- The NSW Government WHS Management Systems Guidelines Edition 5, September 2013 (which applies to all NSW Government Construction Agency construction projects)
- The Implementation Guidelines to the New South Wales Code of Practice for Procurement: Building and Construction, July 2013.

Throughout this Plan, there is reference to both WHS and CoR (or HVO) requirements as both the Work Health and Safety Act 2011 and Heavy Vehicle National Law (NSW) No. 42a are directly connected through Section 18 of the HVNL. This specifies the relationship with the NSW Work Health and Safety legislation. The following is considered:

- The HVNL does not limit the application of the WHS Act 2011 or Regulation 2011 made under that Act
- An offence under the WHS Act 2011 can use evidence of a relevant contravention of the HVNL in any proceeding
- Compliance with the HVNL is not evidence that a person has complied with the WHS Act 2011 or Regulation 2011 or with a common law duty of care.

2.5. Systems

JCL will utilise John Holland Group's Integrated Management System (IMS) as the core management system for all systemic health and safety processes and procedures on this Project. All procedures will be referenced in accordance with John Holland's IMS and will have the prefix "JH" initially assigned.

GOVERNING PLANS

(apply to all disciplines and both D&C and Operations Phases)

Project Management Plan*

- Project Controls Management Plan

Quality Management Plan*

- Document Management Plan**
- Records Management Plan

Sustainability Plan*

- Sustainability Assurance Management Plan
- Energy Efficiency and GHG Emissions Strategy and Management Plan

D&C PHASE PLANS

Design Plan*

- Digital Engineering Management Plan
 - BIM Execution Plan

Durability Plans

Security Management Plan

Systems Engineering Management Plan*

- Systems Integration Test Plan
- Acquisition Strategy Plan
- System Safety Program Plan
- Transition and Acceptance Management Plan
- Technical Review and Audit Plan
- Systems Integration Management Plan
- Implementation Management Plan
- Configuration Management Plan
- System Security Plan
- Software Development Plan

WHS Management Plan*

Workplace Relations Management Plan*

Aboriginal Participation Plan

Training Management Plan

Integration Plan*

Risk Management Plan*

- Geotechnical Risk Management Plan*

Traffic Safety and Management Plan

- Traffic and Transport Management Plan

Stakeholder Management Plan

- Communication Strategy*

Crisis Communications Sub-Plan

Community Involvement Plan

Key Interface Management Plan (one per Key Interface)

- Survey, Instrumentation, Monitoring, Design Validation and Rectification Plan (one per Key Interface)

Contractor's Approvals Staging Strategy

Site Establishment Management Plan*

- Construction Erosion and Sediment Control Plan*

Construction Plan*

WHT Works Plan

Chain of Responsibility Management Plan*

Construction Environmental Management Plan*

- Construction Traffic and Access Management Plan*
 - Construction Parking and Access Strategy*
- Construction Noise and Vibration Management Plan*
- Construction Soil and Water Management Plan*
- Contaminated Land Management Plan*

IOMCS Delivery Management Plan

Fire Safety Engineering Plan

Incident Response Plans

Testing and Commissioning Plan*

- IOMCS & OMCS Testing and Commissioning Plan
- Toll Collection Systems Testing and Commissioning Plan
- Toll Collection Systems Acceptance Test Plan
- IOMCS Testing and Commissioning Plan
- C2C Interface Test Plans
- Inspection and Test Plans
- Ventilation System Testing and Commissioning Plan

OPERATIONS PHASE PLANS

WHS Management Plan

Risk Management Plan

Integration Plan

Operational Readiness Evaluation Plan

O&M Plan

- Training Management Plan
- Community Communication Strategy

Incident Management Plan

Business Continuity Plan (OMCS)

Disaster Recovery Plan (OMCS and IOMCS)

O&M Manuals

- Traffic Control Plans
- Incident Traffic Control Plans
- Environmental Management Plans
- Incident Response Plans
- Maintenance and Support Plans (ETC)

Maintenance Standards

- Inspection Plan

Through-Life Support Management Plan

Traffic Safety and Management Plan

- Road Opening Plan

* Provided with RFP

THIS PLAN

Related Plan

Figure 2: Project Plan hierarchy

3. Chain of Responsibility

3.1. Application

The HVNL and WHS Law deems all “parties” who assert control or influence of the transport task to have legal responsibility (Duty post 2018 reforms) for complying with the CoR legislation which applies to their scope of work and /or the role they hold within that “chain” and all management arrangements that have been established by the Principle Contractor to support compliance with such.

JCL will refer to Section 1.3 of PN066P32 RMS Heavy Vehicle – Chain of Responsibility as the baseline for all subcontractors to determine their CoR Role and respective responsibilities.

All breaches of the CoR will be investigated by NHVR authorised officers and/or the police who will interrogate how each “CoR Party” managed their respective legal obligations.

JCL will undertake an active monitoring and audit regime which will aim to provide a level of compliance oversight commensurate to that of the HVNR. The monitoring regime will include:

- Safe practices (speeding, load restraint, mass and dimensions)
- Vehicle standards
- Load safety
- Driver fatigue

Subcontractors to JCL will be required to submit a CoR management plan which is reflective of their scope of work and demonstrates how they will uphold their legal duty of care as per the HVNL. JCL subcontractor procurement processes will contain explicit requirements placed on all “parties”.

Table 2: CoR references

Reference	Document
Law	National Heavy Vehicle National Law (NSW) No. 42a (HVNL)
Act	Dangerous Goods (Road and Rail Transport) Act 2008 (NSW)

3.2. Penalties

Penalties and sanctions under the HVNL range from formal warnings to court-imposed fines and penalties relating to the commercial benefit derived from offences. Supervisory intervention orders and prohibition orders banning individuals from the industry can be applied to ‘persistent or systematic’ offenders.

3.3. Application

CoR applies to any person or off-road party (supply chain participant) who exercises any control or influence over the transport task in the supply chain who can be held legally liable for actions, inactions or demands if they have caused or contributed to a breach. The law requires a party or parties, within the supply chain, to take all ‘reasonable steps’ to prevent conduct from causing or contributing to a breach. In addition, the law also prohibits a supply chain participant from:

- Making demands, instructions or requiring actions that they know or ought to know would cause or contributes to a breach
- Coercing, inducing or encouraging breaches of:
 - › fatigue management requirements or speed limits
 - › mass, dimension, or loading requirements
- Passing on false or misleading information that could cause a breach
- Conducting any fraudulent, dishonest or deceptive behaviour that is likely to lead others into error or deceive such other persons

- Entering into terms of consignment or work and/or employment contracts that will result in, encourage, reward or provide an incentive for the driver or any other party in the supply chain (e.g. a scheduler) to break the HVNL. Such contracts are illegal.

3.4. Supply Chain Participants

With reference to Section 214 of the HVNL, the following persons are identified to be supply chain participants and are a party in the CoR for a heavy vehicle:

- An employer of a driver
- A prime contractor of a driver (if the driver is self-employed)
- An operator of a vehicle
- A scheduler for the vehicle
- A consignor of any goods for transport by the vehicle that are in the vehicle
- A consignee of any goods in the vehicle
- A loading manager for any goods in the vehicle
- A loader of any goods in the vehicle
- An unloader of goods in the vehicle

There are many other participants, all with varying roles and responsibility, who can be captured under CoR legislation.

3.5. CoR Compliance Statement

JCL will conduct its operations in compliance with National and State WHS and Heavy Vehicle laws, regulations and codes of practice. JCL will inform workers and subcontractors ('personnel') of their CoR obligations as they relate to their duties at all levels of inductions.

JCL will incorporate the ideals of safer work environments for workers, subcontractors and the public by our commitment and compliance to CoR obligations. JCL recognises the various roles in the CoR and will develop procedures and systems to facilitate compliance, including ensuring the compliance of subcontractors carrying out work on behalf of JCL.

To achieve compliance, JCL is committed to ensuring the following actions and practices are in place:

- **Driver fatigue:** JCL will ensure scheduling and rest breaks, monitoring of work and driving hours, training and awareness sessions for relevant personnel
- **Speeding:** JCL will ensure on-board tracking devices, scheduling, policies, procedures and ongoing education are in place
- **Load restraining:** JCL will ensure equipment design, policy, procedures and training for JCL staff and subcontractors are appropriate
- **Mass management:** JCL will ensure vehicle specification, vehicle-specific load patterns, load sheets, verification of axle load distribution and containerisation are appropriate
- **Over-dimension:** JCL will ensure equipment design, policy, procedures, permits, route surveys and training for staff and subcontractors are appropriate
- **Ongoing vehicle maintenance:** JCL will ensure all heavy vehicles are inspected, serviced and maintained in-line with manufacturer's requirements by competent organisations by conducting random and targeted verification checks of heavy vehicles operating on the Project.

3.5.a. Additional requirements:

- **Training:** JCL will ensure CoR is incorporated within the Project induction and refresher training is provided for all relevant staff, workforce and subcontractors on an ongoing basis
- **Audit and compliance:** JCL will conduct internal audits, inspections, monitoring and checks to achieve the goal of CoR compliance and a safer work environment for staff, subcontractors, public and other stakeholders
- **Accreditation:** JCL will ensure subcontractors and suppliers have current National Heavy Vehicle Accreditation Scheme (NHVAS) compliance, or are in the process of gaining NHVAS accreditation

- **Continuous improvement:** JCL will conduct systematic reviews and audits to ensure JCL staff, subcontractors and suppliers are meeting CoR compliance requirements
- **Health and wellbeing:** JCL will conduct awareness training, surveillance and fitness for duty monitoring
- **CoR breaches:** JCL will investigate any breach of the CoR obligations and appropriate disciplinary action will be taken.

4. CoR Obligations and Duties

The aim of the HVNL is to ensure that all responsible people can demonstrate that “reasonable steps” have been taken to prevent a breach occurring.

If control or influence is exercised over a transport task, then ‘responsible persons’ can be held legally liable for their actions, inactions or demands, if they cause or contribute to a breach. The HVNL requires that all reasonable steps be taken to prevent causing, or contributing to, a breach.

There is a wide-ranging chain of ‘responsible persons’ involved in the transport network and to make those parties aware of and accountable for their responsibilities, acts and omissions.

4.1. General CoR Obligations

The movement of plant and equipment, the removal of excavated materials, the transport of precast concrete and the delivery of other construction materials will be fundamental to delivering the Rozelle Interchange. These operations all use heavy vehicles subject to HVNL requirements and will involve JCL personnel who are parties in the CoR. They will have obligations to ensure safe and compliant operation.

Drivers must be medically fit to operate a heavy vehicle, must not be affected by drugs and/or alcohol and must not be impaired by fatigue.

Line managers must:

- Ensure drivers remain fit to operate a heavy vehicle
- Intervene if they believe the driver of a heavy vehicle is not fit to drive
- Ensure that driver medical requirements are managed in accordance with their employers’ fitness for work procedures

Ref: PN066P32 RMS Heavy Vehicle – Chain of Responsibility

Heavy vehicle haulage routes must comply with any planning approval requirements. JCL must ensure that approved Heavy Vehicle haulage routes are adhered to by HVO and that systems are implemented to monitor the location of the vehicle.

The HVNL focuses on compliance with obligations relating to the following specific matters (4.1a - 4.1f):

4.1.a. Speed compliance

Excessive speed is a significant contributing factor in many heavy vehicle collisions that involve other road users. To reduce accidents, the following measures should be observed:

- All transportation is scheduled adequately that due consideration is given to travel distance/time, traffic congestion/delays, etc to avoid placing unnecessary pressure on the driver to drive his/her vehicle faster than any legally permitted speed limit.
- “Just-in-time delivery arrangements are to be avoided where reasonably practicable. Where this cannot be avoided then consideration for the above must be applied.
- All relevant heavy vehicles are fitted with speed limiters that are functioning correctly
- Delivery and operational requirements do not require or encourage drivers to exceed the speed limits
- Rosters and schedules do not require drivers to exceed speed limits
- All heavy vehicle drivers obey applicable speed limits while driving at a speed that is safe for the prevailing conditions
- Off-road parties meet their obligation to take all reasonable steps, including provision of information, instruction, training and supervision, to ensure that the driver does not commit a speeding offence

- Systems are in place and used to manage drivers if speeding is detected.

4.1.b. Fatigue management

Drivers must not be impaired by fatigue

To reduce accidents, the following measures should be observed:

- Rosters and schedules do not place unrealistic timeframes on drivers causing them to exceed driving hour regulations (including work rest options)
- Delivery requirements do not require or encourage fatigue-regulated heavy vehicles drivers to drive while impaired by fatigue
- All drivers of fatigue-regulated heavy vehicles understand and manage the effects of fatigue in a manner that is consistent with prescribed work and rest times
- Records of heavy vehicle drivers' activities, including work and rest times, are recorded and kept for three years
- Operators provide drivers with a sleep environment which allows for quality sleep if their work requires them to sleep away from home (including sleeper cab, access to rest stops)
- Drivers, operators and other off-road parties take all reasonable steps to ensure drivers do not work while impaired by fatigue or drive in breach of their work or rest options
- Drivers, operators and other off-road parties develop flexible and effective work arrangements that accommodate changes in circumstances (such as delays) to mitigate the effects of fatigue on heavy vehicle drivers
- Loading managers, loaders and packers must ensure that loading a fatigue-regulated heavy vehicle will not cause or contribute to the driver driving while impaired by fatigue or in contravention of road transport laws
- Operators have detailed procedures and processes in place to proactively manage the fatigue of all drivers, including processes to schedule driving tasks, monitor fatigue levels and driver health
- Operator regularly review the work completed by drivers to ensure that drivers are complying with the appropriate limits and accurately and truthfully recording all work completed in their Work Diary for 100+km work or timesheet when working < 100km from base.
- Work and rest requirements must be managed in accordance with the Schedule 1 of Heavy Vehicle (Fatigue Management) National Regulation (NSW)

4.1.c. Dimension requirements

Oversized vehicles have a disproportionate impact on public infrastructure and may pose an increased road safety risk if the vehicle travels on roads or routes that are not suitable for the size of vehicle. To reduce accidents, the following measures should be observed:

- As an operator, manager, scheduler or consignor ensure heavy vehicles are not loaded in a way which exceeds dimension limits
- As an operator, manager, scheduler or consignor when loads are over prescribed dimension limits, approval must be sought from local council authorities and by RMS. A Transport Management Plan (TMP) must be included
- Operators are required to undertake a route survey before travel to determine the vehicle and vehicle combination including any load when travelling under a permit can do so safely without damaging road infrastructure or impacting on essential services
- Drivers and operators understand their dimension compliance obligations and operate within dimension limits on the roads and access only routes approved for those vehicles
- Operators of heavy vehicles are to ensure any requirements, safeguards or conditions, including travel restrictions and travel limitations, in any notice or permit are complied with
- For CoR parties to meet their obligation, to take all reasonable steps to ensure that the driver does not commit a dimension offence.¹

4.1.d. Mass limits

When over-mass vehicles crash, the consequences for the persons involved are more serious. High loads, coupled with low density loads such as chemicals or other fluids, can alter the centre of gravity of the heavy vehicle, decrease the stability of the vehicle load combination and increase the probability of roll-overs. To reduce accidents, the following measures should be observed:

- Drivers and operators are to understand their mass compliance obligations and use the most appropriate vehicle for the size, mass and type of load
- Operators are to provide some basic instructions and introduction into what is required including the requirement to monitor and record axle group weights
- Operators, managers, schedulers, consignors and drivers are to ensure their heavy vehicle does not exceed mass limits and copies of any permits are approved by local council authorities, issued by RMS and carried in the vehicle
- Loading managers are to ensure that systems are in place to measure and record the GVM of each heavy vehicle leaving a worksite
- Packers of any goods packed in a freight container do not cause the container's gross weight or safety approval rating to be exceeded
- Operators carrying freight containers have a valid Container Weight Declaration
- Consignors comply with safety standards by providing accurate weights and dimensions of freight to be transported
- Operators, consignors and drivers to assess loads to be transported on the road network for stability, load distribution, load movement (solutions) and obtain any required over-mass permits
- Operators are to implement a system that could include instructions, checks and processes, to ensure loading is within legal limits
- Operators are required to undertake a route survey before travel when travelling under a permit and do so safely without exceeding load limits or damaging road infrastructure
- Drivers and operators to stay within mass limits on the roads and use only routes approved for those vehicles
- Off-road parties to meet their obligation to take all reasonable steps to ensure that the driver does not commit a mass offence
- NHVAS Mass Management Accreditation label affixed and must have manufacturer's ratings sufficient for the increased weights permitted
- The operator is required to have a procedure in place outlining what to do if weights are found to be more than the limits permitted and a corrective process to minimise overloading instances
- The operator is to notify and report all overloads to JCL, so the overall compliance of the operations is recorded and monitored
- The operator must have a process for inspection recording any suspension faults for all vehicles and trailers to prevent road pavement damage.

4.1.e. Loading requirements

Loads that affect vehicle stability or are not properly secured present an increased road safety risk of heavy vehicle combination rollover and dislodging of the load. To reduce accidents, the following measures should be observed:

- Drivers and operators to understand their loading and load restraint compliance obligations
- Drivers, loading managers and operators to ensure that loads are restrained with appropriate restraint equipment in accordance with the load restraint guide and lashing anchor points have adequate design strength for every move
- Consignors and consignees to ensure that goods carried on your behalf can be appropriately secured
- Consignors are to ensure all packaging will withstand stacking and restraint forces without crushing the cargo and lose tension in the load restraints
- Loaders to ensure a vehicle's load is placed in a way so it does not become unstable, move or fall off the vehicle

- CoR parties meet their obligation to take all reasonable steps to ensure that the driver does not commit a loading or load restraint offence¹.

4.1.f. Roadworthiness

Even though this is not a core CoR provision, having safe and roadworthy vehicles on roads meets community expectations and helps to overcome opposition to the expansion of heavy vehicle access. Unroadworthy and/or unsafe heavy vehicles pose an increased risk to the safety of other road users and are potentially more harmful to infrastructure and the environment. To reduce accidents, the following measures should be observed:

- Operators, owners, drivers and modifiers of heavy vehicles to comply with the requirements of the Heavy Vehicle (Vehicle Standards) National Regulation
- An operator, owner or driver not to use, or permit to be used, on a road a heavy vehicle that contravenes a heavy vehicle standard applying to the vehicle
- An operator, owner or driver not use, or permit to be used, on a road a heavy vehicle that is unsafe. (Note: A heavy vehicle is unsafe only if the condition of the vehicle, or any of its components or equipment makes the use of the vehicle unsafe, or endangers public safety)
- Prime contractors and operators must ensure that safety equipment is fitted, operational and maintained
- An operator or owner must not modify a heavy vehicle unless the modification has been approved by an approved vehicle examiner or the National Heavy Vehicle Regulator (NHVR)
- An operator or owner not use or permit to be used a heavy vehicle that has been modified unless the modification has been approved by an approved vehicle examiner or the NHVR
- An operator or owner to ensure that J-type (body mounting) and P-type (tow coupling, fifth wheel and king pin installation) code modifications carried out on heavy vehicles are certified and plated by an approved vehicle examiner
- The registered owner of the heavy vehicle to ensure that current registration is maintained and that all requirements for registration are met.

4.2. Responsible Persons

CoR or supply chain participants or ‘responsible persons’ who participate in or can influence the safe operation or behaviour of those directly involved the supply chain can be held liable for a legislative breach. They are accountable for their responsibilities, acts and omissions.

4.2.a. Definition

The Heavy Vehicle National Law description of the duties of a ‘responsible person’ are reproduced below:

- A ‘responsible person’ also has specific duties to ensure that other parties in the transport supply chain are not misled by false information about any aspect of a consignment or journey*
- A ‘responsible person’ must provide information about the load and about the identity of other parties in the chain when requested by authorities. The premises of the ‘responsible person’ may be inspected and searched*

This can also be shown in the in the broad categories or groups that are involved and have a direct impact on the supply chain.

4.2.b. Supply chain participants

Supply chain participants are:

- An employer of a driver
- A prime contractor of a driver (if the driver is self-employed)
- An operator of a vehicle (including owner-drivers)
- A scheduler for the vehicle and drivers
- A consignor of any goods for transport by the vehicle that are in the vehicle

¹From RMS fact sheet “Loading Requirements and the Chain of Responsibility”

- A consignee or receiver of any goods in the vehicle
- A loading manager (the person who supervises loading/unloading or manages the premises where this occurs).
- A loader or packer of any goods in the vehicle
- An unloader of goods in the vehicle
- Drivers and owner-drivers.

4.2.c. Entities

This includes:

- Entity responsible for a freight container on the vehicle
- Individuals or entities that schedule goods for transport by road vehicle
- The person who is in charge of the vehicle, the garage address or the driver’s operating base
- An owner or operator of a weighbridge or weighing facility used to weigh the vehicle
- Primary producers.

4.2.d. Organisation

This includes:

- Corporations, partnerships, unincorporated associations or other bodies corporate
- Employers including company directors or executive officers
- Managers, supervisors and staff
- An employer, agent or subcontractor of a person mentioned in supply chain participants or Entities above
- Contracted heavy vehicle service providers including trainers, assessors, maintainers and technicians.

4.2.e. Industry

This includes:

- A person who provides to an owner or registered operator of the vehicle, an intelligent transport system for the vehicle
- A person appointed under a heavy vehicle accreditation to certify, monitor or approve the use of heavy vehicles under the accreditation
- Manufacturers, retailers, wholesalers and suppliers of raw materials
- Importers and exporters of goods to be transported by road.

4.3. Supply Chain Participants

Supply chain participants, as identified in Section 4.2.b of this Plan, will have varying CoR obligations that apply to each classification depending on the industry and the function in the chain.

Table 3: Typical responsibilities for Supply Chain participants is a general representation to which supply chain participants typically have responsibilities and accountabilities under each of the five risk categories.

Table 3: Typical responsibilities for Supply Chain participants

Supply Chain Participants	Mass	Dimension	Loading	Speed	Fatigue
Employer	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Prime contractor	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Operator	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Scheduler	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Consignor	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Consignee	Conduct that may cause or contribute to a breach.				
Loading Manager	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Supply Chain Participants	Mass	Dimension	Loading	Speed	Fatigue
Loader	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Packer	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Unloader	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Drivers	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

4.3.a. Reasonable steps

Each supply chain participant in discharging assigned CoR responsibilities (obligations) under each of the five risk categories is to take ‘reasonable steps’ to prevent a contravention of the Heavy Vehicle National Law (HVNL).

4.3.b. Reasonable steps defence

Reasonable steps are the actions people can take to ensure that heavy vehicle drivers do not drive in contravention of the Heavy Vehicle National Law (HVNL).

A person in the supply chain with CoR responsibilities can claim a ‘reasonable steps’ defence if they can show they did not know or could not reasonably have been expected to know that a breach had occurred.

In making a ‘reasonable steps’ claim a person also has to prove:

- They took all reasonable steps to prevent the breach
- There were no reasonable steps they could have taken to prevent the breach.

For the defence to be successful, all reasonable steps must have been taken – not just some.

An operator of a vehicle used in the commission of an offence against the HVNL may also raise a defence that at the time of the offence the vehicle was being used by:

- An employee who was acting outside the scope of his or her employment
- An agent (in any capacity) who acted outside the scope of the agency, or
- Another person who was not entitled to use the vehicle.

4.3.c. Demonstration of reasonable steps

There are no restrictions on the ways in which a person can demonstrate that they took reasonable steps as these will vary depending on circumstances.

4.4. Requiring Safety Accreditation for HVO

JCL will select, as far as is reasonably practicable, accredited HVO that can provide assurance that their subcontractors and suppliers have relevant business systems in place and are managing risks. This will be part of the stringent supplier selection process which JCL will adopt for this Project. Current recognised heavy vehicle accreditation schemes include:

- National Heavy Vehicles Accreditation Scheme (NHVAS)
- Trucksafe - an accreditation based on a set of minimum standards a trucking business should meet for it to be a safe, responsible operation. It is run by the Australian Trucking Association
- Truckcare - an independently-audited quality assurance program for the Australian Livestock Transport Industry
- RMS Safety, Productivity and Environment Transport Scheme (SPECTS) for eligible heavy vehicles.

4.5. Reviewing Business Practices

JCL will regularly review business practices to ensure that the steps taken are reasonable and linked to duties under CoR.

JCL will ensure all workers are trained in documented practices. The practices adopted will be comprehensive, yet flexible enough to allow for changes when identified through the review process. This may be in response to accidents, incidents or breaches.

4.6. Changing Commercial Arrangements

When establishing commercial relationships, JCL will ensure they do not cause the Project to breach CoR laws by:

- Including compliance assurance conditions, for example, independent third party WHS accreditation, in relevant commercial arrangements with other responsible persons
- Requiring information about what systems and controls are in place to ensure compliance. These include policies on drugs and alcohol, fatigue management regimes, notification and reporting arrangements for incidents, infringements and breaches
- Avoiding arrangements which encourage or reward non-compliance
- By undertaking spot audits on HVO.

4.7. Construction Industry CoR Code of Practice

JCL may work with industry groups such as Master Builders Association, Civil Contractors Federation and the Australian Industry Group, to develop a CoR Code of Practice for the Construction Industry. This will suit the specific needs of this sector that demonstrate reasonable steps and compliance with HVNL. Such a code could cover the following topics:

- Legal compliance and CoR
- WHS risk assessment and compliance
- Fatigue management
- Scheduling, queuing and time slotting
- Safe loads including mass, dimension and loading requirements
- Speed management
- Equipment
- Driver health/drug and alcohol-free workplace
- Subcontractor assessment
- Safety accreditation
- Operational infrastructure
- Adopting a risk management approach.

4.8. Integrated Risk Management

JCL will integrate risk management into business practices to minimise the risk of non-compliance and to help meet duties under the CoR. Work processes and procedures will identify, assess, control, monitor and review situations that put driver safety at risk. This will be achieved by using the risk assessment process as detailed in AS/NZS 31000: 2009 Risk Management – Principles and Guidelines.

Examples of typical ‘reasonable steps’ that can be implemented are included in Table 4: Reasonable Steps below.

Table 4: Reasonable Steps

Supply Chain Participants	Role	What are my duties under NHVL and Chain of Responsibility (CoR)?	What are some ‘reasonable steps’ to meet duties?	When could this apply to the Project?
Employer	A person who employs someone else to drive a regulated heavy vehicle	<ul style="list-style-type: none"> Take all reasonable steps to ensure their business practices do not cause a driver of a heavy vehicle to: 	<ul style="list-style-type: none"> Ensure systems/procedures in place for scheduling HV operations and for managing driver fatigue (i.e. roster, training, diaries, IVMS, Accreditation) while ‘at work’ and if driving home. Ensure required safety equipment is fitted, operational and maintained. Ensure HVs fitted with properly functioning speed limiters. Monitor work diaries and driving related offences. Check that delivery schedules are realistic. Check all required permits have been obtained commencing transport. Also refer to ‘Operator’ reasonable steps below. 	JCL could be ‘employer’ where the HV Driver/Operator is directly employed by project.
Prime Contractor	Engages the driver under a contract for services, e.g. logistics business that engages a subcontractor to transport goods.	<ul style="list-style-type: none"> Drive while fatigued or in breach of a work/rest requirements. Drive in breach of a speed requirement. Operate a vehicle when not in a roadworthy condition. Drive a vehicle that exceeds mass or dimension limits. Transport over mass or dimension loads without required permit. 		<ul style="list-style-type: none"> Spoil removal contractor. Segment transfer. Deliver cement for grouting. Provide premixed concrete. Providing consumables to batch plants.

Supply Chain Participants	Role	What are my duties under NHVL and Chain of Responsibility (CoR)?	What are some 'reasonable steps' to meet duties?	When could this apply to the Project?
Owner/Operator/Manager	Operates and/or manages the business dispatching the goods by vehicle	<p>Be responsible for ensuring:</p> <ul style="list-style-type: none"> ▪ Rosters do not require truck drivers to exceed the permitted number of driving hours. ▪ Accurate records are kept of drivers' activities - including driving, work / rest times & work diaries for at least three years. ▪ Vehicle speed limiters are compliant. ▪ Loads do not exceed dimension or mass limits and are properly restrained while on the public road networks. ▪ Drivers moving freight or materials have accurate transport documentation including a valid Container Weight Declaration. ▪ Flexible and effective work arrangements are developed to accommodate changes in circumstances (such as delays) that mitigate the effects of driver fatigue. 	<ul style="list-style-type: none"> ▪ Systems and procedures implemented to ensure: ▪ Vehicles/equipment is kept in good condition and all loads are properly restrained (i.e. Maintenance Management Accreditation). ▪ Roadworthiness checks are completed before each use and inspections are conducted at prescribed intervals. ▪ HV with defects or faults are withdrawn from service until repaired and re-certified where necessary. ▪ Implement policies, procedures and systems to ensure that the mass of each vehicle is assessed and recorded for each trip (i.e. Mass Management Accreditation). ▪ Implement accredited Fatigue Management system (Basic or Advanced according to operational requirements). ▪ Routinely check drivers' diaries (including work and rest times) to ensure they are complying with all regulations and instructions. ▪ Foster commercial arrangements with other responsible persons which include operating conditions that comply with the law. 	<ul style="list-style-type: none"> ▪ Dispatching of goods or plant from one Project location to another e.g. concrete segments. ▪ Dispatching solid or liquid waste, contaminated or hazardous materials and demolition products.
Scheduler	Schedules the transport of passengers or goods by road and the work times and rest times of the vehicle's driver	<p>Ensure that:</p> <ul style="list-style-type: none"> ▪ Vehicles do not exceed maximum mass limits or individual axle limits on the public road network. ▪ Drivers have accurate tare weight documents. ▪ Ensure schedule doesn't require a truck driver to: <ul style="list-style-type: none"> ▪ Exceed the speed limit. ▪ Exceed the permitted number of driving hours. ▪ Fail to have minimum rest periods. 	<ul style="list-style-type: none"> ▪ Provide employees with easy and unrestricted access to all necessary information, instruction, training and supervision to allow them to comply with relevant laws. ▪ Develop a loading / packaging plan that provides for the safe of loading and packing goods. ▪ Develop appropriate work/delivery schedule (i.e. allows for sufficient rest and sleep and factors in non-driving activity), plus ensure scheduling system can be audited. 	<ul style="list-style-type: none"> ▪ JCL engages a bus company for site tours or movement of staff. ▪ JCL work roster impacts HV operators work/rest breaks.

Supply Chain Participants	Role	What are my duties under NHVL and Chain of Responsibility (CoR)?	What are some 'reasonable steps' to meet duties?	When could this apply to the Project?
		<ul style="list-style-type: none"> Drive while fatigued. 	<ul style="list-style-type: none"> Vehicles are not loaded in a way which exceeds mass or dimension limits. Audits of HV management practices are conducted to verify compliance with the law and operating systems and practices. Records and documents relating to heavy vehicle operations are kept for not less than three years. 	
Consignor/Dispatcher	Dispatches goods for delivery	<p>Delivery request doesn't require a truck driver to:</p> <ul style="list-style-type: none"> Transport goods that are not secured or exceed vehicle dimension or mass limits. Exceed the permitted number of driving hours. Fail to have required minimum rest breaks. Exceed the speed limits. Carry freight containers without a valid Container Weight Declaration (CWD). Drive while impaired by fatigue. 	<ul style="list-style-type: none"> Assess HV activities occurring on the Project (i.e. these may be covered under supply or works contracts). Request information from transport operators and/or drivers about the systems and accreditations they have in place to prevent breaches when transporting your goods. Only select appropriate operators / drivers. Ensure there is no award/contractual arrangements or instructions that encourage or reward non-compliance. Adopt systems that minimise loading/unloading times and communicate loading information to carriers. 	<ul style="list-style-type: none"> Personnel transporting spoil or rubbish from site. Floating plant to and from site. Driving heavy plant between sites. Precast Yard transporting precast segments to site. JCL transporting goods/plant between areas that use public roads.
Consignee/Receiver	Orders and/or Accepts goods being delivered	<ul style="list-style-type: none"> Assume the same responsibilities as the Consignor/Dispatcher (see above) Must not knowingly encourage or reward a breach of the mass, dimension, load restraint, speeding or driving hour's laws. 	<ul style="list-style-type: none"> Systems/processes in place to accurately weigh and measure all goods to be transported by road. Set realistic delivery timelines which make allowances for unexpected delays such as traffic or road works. Implement compliance conditions in relevant commercial arrangements. Provide all necessary work information, instruction, training and supervision to drivers to enable them to carry out their work safely. 	<ul style="list-style-type: none"> Receiving goods or plant from haulers or suppliers. Plant Department receiving new item of plant from supplier or delivered by float subcontractor. Piling contractor accepting piling rig floated to site.
Loading Manager Loader Unloader	Person responsible for the loading or unloading of goods (i.e. in/on or off	<p>Ensure the vehicle's load or loading:</p> <ul style="list-style-type: none"> Doesn't exceed vehicle dimension or mass limits. 	<ul style="list-style-type: none"> Monitor load details (i.e. mass, dimensions, dangerous goods). 	<ul style="list-style-type: none"> Unloading of precast elements on site.

Supply Chain Participants	Role	What are my duties under NHVL and Chain of Responsibility (CoR)?	What are some 'reasonable steps' to meet duties?	When could this apply to the Project?
	the vehicle) or manages the premise.	<ul style="list-style-type: none"> Cannot become unstable, unsafe, move or fall off the vehicle. Contributes to the driver fatigue or in contravention of road transport laws. 	<ul style="list-style-type: none"> Use a pre-printed form which requires the person in control of packing or loading the goods to verify the accuracy of any records. For containers - Provide Container Weight Declaration (CWD). If the vehicle's weight cannot be accurately assessed at the time of loading, under-load the first trip and verify the weight at some stage of the journey. Subsequent loads can be adjusted accordingly. 	<ul style="list-style-type: none"> Filling truck/dog trailer for transportation of spoil or rubbish from site. Loading items on HV to be transported between
Packer	Packs and loads the goods to be dispatched and includes persons supervising or managing packing goods.	<p>Will not cause the driver to exceed speed limits. Ensure that when goods are packed:</p> <ul style="list-style-type: none"> They do not become unstable or move in transit. Reliable mass and dimension information is provided including Container Weight Declarations. Load documentation is accurate, not false or misleading. Any goods packed in freight containers don't exceed the container's gross weight or safety approval rating. 	<ul style="list-style-type: none"> Fit scales to loading equipment and keeping a 'running' total of the weight of the load for each trip or set up a fixed or transportable weighbridge. Use a loading diagram for different types of loads to ensure axle weight limits are not exceeded. Notify drivers if loading/unloading times will be 30 minutes or more either late or early so they can manage their work/rest times. Provide rest facilities to allow drivers to take rest while waiting if the loading /unloading schedule has long queues. 	<ul style="list-style-type: none"> Project areas using public roads. Project personnel packing items into a container or onto a pallet for transportation.

Supply Chain Participants	Role	What are my duties under NHVL and Chain of Responsibility (CoR)?	What are some 'reasonable steps' to meet duties?	When could this apply to the Project?
Heavy Vehicle Driver	Transports the load to its destination or otherwise operates the Heavy Vehicle (HV)	<ul style="list-style-type: none"> ▪ Maintain current obligations to ensure: ▪ The vehicle does not exceed dimension or mass limits. ▪ The load is appropriately restrained. ▪ All required equipment is properly fitted to the vehicle. ▪ Vehicles are roadworthy and well maintained. ▪ They remain fit-for-work, take required minimum rest breaks and observe speed limits. ▪ They do not drive a heavy vehicle while impaired by fatigue. ▪ They respond to changes in circumstances (such as delays) and report these to your base (if possible) to implement short-term fatigue management measures. ▪ Safe and responsible driving behaviour is demonstrated always. ▪ Keep and carry full and accurate records as required by law including work and rest hours. 	<ul style="list-style-type: none"> ▪ Conduct roadworthiness checks, and complete pre-use checklists, before each use, report any defects or faults to the Owner, Operator or Manager and ensure prescribed inspections are conducted at the required intervals. ▪ Conduct does not compromise road safety or involve breaking the law. ▪ Know your vehicle's mass (e.g. keep weighbridge docket, use on-board scales to check weights, and keep any loading documentation that shows the weight of your load). ▪ Know how much weight is allowed on the vehicle when fully loaded. ▪ Ensure that your vehicle does not exceed legal dimensions. ▪ Check load is properly restrained ▪ (Even if you are not the person who loaded the vehicle). ▪ Check the condition of restraining equipment (chains, ropes, straps etc) for wear. ▪ Provide the owner or operator of the HV with full and correct records required by law and company procedures in a legible and complete condition. 	<ul style="list-style-type: none"> ▪ When the HV Driver/Operator is directly employed on the Project. ▪ When the HV Driver/Operator is contracted to perform Project.

5. Key Project Personnel

For this Project, the key personnel, position titles and reporting hierarchy are documented in the organisational charts. These charts are shown in Annexure B to this Plan.

Table 5: Key responsibilities

Position	Role Statement	CoR Responsibilities	Manager
Project Director	Management of the Project	TBA	JV Steering Committee
Commercial Director	Engages heavy vehicle subcontractors and suppliers	TBA	Project Director
Surface Works Director Tunnel Director M&E Director	Manages construction works	TBA	Project Director
Safety Director	Implements, reviews and updates CoR Management Plan. Coordinates training and undertakes investigations and audits	Undertakes investigations and audits	Project Director
Plant Manager	Manages the movement of plant and equipment to and from site. Inspects plant and equipment to ensure compliance	Scheduler Loading Manager Consignor/Packer Consignee/Unpacker	Surface Works Director

5.1. Resources Management

The Project Director will identify and make available appropriate resources to comply with all relevant WHS and CoR legislative requirements. These resources will include appropriate budget, staff, equipment, and systems necessary to meet CoR and compliance with heavy vehicle legislation.

The Project Director may delegate CoR responsibility at a worksite level to the Construction Director and the delegation will be documented in the Schedule of Delegated Authority.

Relevant CoR awareness training, and coaching, will be identified and provided to staff to enable the discharge of the compliance responsibilities.

The Project Director will regularly review resources to ensure the requirements of the WHS Management Plan, CoR Plan and sub-plans are effectively met. This review will occur at least every six-months.

Table 6: CoR references for resource management

Reference Doc No.	Reference Title
JH-MPR-HRT-001	Recruitment & Selection of Workforce
JH-MPR-BUA-006	Organisation and Resources
JH-MPR-HRT-003	Resource Planning
Annexure B	Workplace Organisation Structure
JH-MAN-WHS-001	WHS Management Manual
JH-GUI-HSE-001	Responsibility and Authority

6. Hazard Identification and Risk Analysis

Table 7: Key risks and controls below shows the major hazards and their controls.

Table 7: Key risks and controls

CoR compliance categories	Hazards	Risks	CoR obligations	Risk control measures
Vehicle Operations - Vehicle Standards	Heavy vehicle standards not being met and maintained	<ul style="list-style-type: none"> ▪ Increase in heavy vehicle incidents and breakdowns. ▪ Road traffic accidents/incidents. ▪ Traffic congestion ▪ Fatality or serious personal injury ▪ Vehicle and property damage 	<ul style="list-style-type: none"> ▪ Apply and maintain the prescribed heavy vehicle standards. ▪ No person must use, or permit to be used, on a road a heavy vehicle that is unsafe. ▪ All operators and drivers to ensure that their vehicle is safe for use on a road. ▪ Unroadworthy and/or unsafe on-road heavy vehicles to be removed from service. 	<ul style="list-style-type: none"> ▪ NHVAS (National Heavy Vehicle Accreditation Scheme) Maintenance Management Accreditation ▪ Current RMS roadworthy Certification ▪ All requirements of vehicle registration are maintained. ▪ Comply with Heavy Vehicle (Vehicle Standards) National Regulation ▪ Selection of experienced and competent subcontractor
Vehicle Operations - Load Restraint and Stability	Unsecured loads affecting the stability of vehicles and loads	<ul style="list-style-type: none"> ▪ Unplanned movement of load during transport including Loose materials falling from heavy vehicles ▪ Rocks ejected from dual wheels ▪ Fatality or serious personal injury ▪ Vehicle rollover because of a load or part of a load moving or dislodging 	<ul style="list-style-type: none"> ▪ Drivers and operators understand their loading and load restraint compliance obligations and apply ▪ Suitable methods of restraint are employed every time for every move. ▪ CoR parties meet their obligation to take all reasonable steps to ensure that the driver does not commit a loading or load restraint offence 	<ul style="list-style-type: none"> ▪ NTC (National Transport Commission) Load Restraint Guide applied. ▪ Apply the Freight and Packaging Guideline to all deliveries to site. ▪ Electric tarping system used to fully cover load. ▪ Inspections for loose or wedged materials before leaving site & tailgate closed ▪ Load restraints including binder chains and loading straps to be certified, checked and correctly tensioned.
Driver - Fatigue Management	Road Registered Truck Drivers succumbing to fatigue and health issues that affect the state of alertness and well-being of workers crashes and serious injury on our road networks.	<ul style="list-style-type: none"> ▪ Unable to perform work safely ▪ Lack of ability to understand or comprehend instructions or road rules ▪ Erratic driver behaviour ▪ Risk of serious injury and illness to the public, themselves and others ▪ Property damage 	<ul style="list-style-type: none"> ▪ All heavy vehicle drivers of fatigue-regulated heavy vehicles have been trained in fatigue management. ▪ Prescribed rest breaks are taken at the required intervals and records are made. ▪ Drivers, operators and other off-road parties develop work arrangements that consider the effects of fatigue and implement flexible and effective procedures to manage fatigue. 	<ul style="list-style-type: none"> ▪ NHVAS (National Heavy Vehicle Accreditation Scheme) Fatigue Management Accreditation – BFM, AFM ▪ Fatigue Management ▪ Heavy Vehicle Drive Code of Conduct ▪ Heavy vehicle drivers trained in fatigue management. ▪ Verify drivers are taking rest breaks through C-Track or equivalent. ▪ Investigate demographics of drivers to ensure no

CoR compliance categories	Hazards	Risks	CoR obligations	Risk control measures
		<ul style="list-style-type: none"> Poor worker morale Vehicle collision 	<ul style="list-style-type: none"> Take all reasonable steps to ensure that the driver does not drive while impaired by fatigue or commit any other fatigue offence. 	<ul style="list-style-type: none"> excessive travel time to and from work.
Vehicle operations - Speeding	<ul style="list-style-type: none"> Excessive speed contributes to in road fatalities involving heavy vehicles 	<ul style="list-style-type: none"> Road traffic accidents/incidents Fatality or serious personal injury Vehicle and property damage 	<ul style="list-style-type: none"> Speed limiters fitted to heavy vehicles are operational All heavy vehicle drivers to obey posted speed limits Drive at a safe speed for the prevailing conditions. CoR parties are to ensure that the driver does not commit a speeding offence. Poor business practices often result in either speeding and/or or fatigue breaches. Speeding and driving for longer periods are unacceptable ways of catching up on a schedule or not following a schedule 	<ul style="list-style-type: none"> Heavy Vehicle Drive Code of Conduct Speed limiters installed, set and inspected Heavy vehicle and driver management system fitted to provide over speed alerts and back to base warnings for excessive over speed. Heavy vehicle electronic tracking system in place and monitored daily. Heavy Vehicle PCBU disciplinary procedures Selection of experienced and competent subcontractor
Vehicle Operations – Mass Requirements	<ul style="list-style-type: none"> Mechanical failure of heavy vehicles Overloading wheels/axles Damage to plant, and roads 	<ul style="list-style-type: none"> Impact on public infrastructure. Increased severity of vehicle incidents. Mass can also be an issue in vehicle stability leading to rollover. Poorly restrained and distributed load can result in pavement impacts. 	<ul style="list-style-type: none"> Drivers and operators to understand their mass compliance obligations and operate to mass limits on the roads. Use the right vehicle for the size and type of load Drivers and operators stay within mass limits on the roads and routes approved for those vehicles and masses to protect the asset Take all reasonable steps to ensure that the driver does not commit a mass offence. 	<ul style="list-style-type: none"> NHVAS (National Heavy Vehicle Accreditation Scheme) Mass Management Accreditation Load dimensions in accordance with approved RMS Over mass/Oversize permits and RMS Access Conditions including Travel Restrictions. Apply appropriately General Mass Limits (GML), and Concessional Mass Limits (CML) to all heavy vehicles Access permits for higher mass limits and route authorisation. Implement Container Weight Declarations(CWD)
Vehicle Operations – Dimension Requirements	<ul style="list-style-type: none"> Mechanical failure of heavy vehicles Overloading wheels/axles 	<ul style="list-style-type: none"> Oversize vehicles have an impact on public infrastructure and may pose an increased 	<ul style="list-style-type: none"> For drivers and operators to understand their dimension compliance obligations and operate within dimension limits on the roads and routes 	<ul style="list-style-type: none"> People Plant Interface Plan Loading and transport planning (including verification of load parameters, route determination and liaison

CoR compliance categories	Hazards	Risks	CoR obligations	Risk control measures
	<ul style="list-style-type: none"> Vehicle rollover Damage to plant, overhead services and structures 	<ul style="list-style-type: none"> road safety risk. Oversize vehicle travels on roads or routes that are not suitable for the size of vehicle 	<ul style="list-style-type: none"> approved for those vehicles Appropriate safeguards under a Notice or Permit and use the right route are observed Take all reasonable steps to ensure that the driver does not commit a dimension offence 	<ul style="list-style-type: none"> with utility supply entities for OHW) Load dimensions in accordance with approved RMS Over mass / Oversize permits and RMS Access Conditions including Travel Restrictions. When operating at HML, ensure that the route is authorised for their vehicle and access permits are in place.

6.1. Chain of Responsibility Risk Assessment

JCL acknowledges that potential obligations under the road transport CoR laws become part of an overall risk management framework.

6.1.a. Risk categories

There are four main categories of risk in breaching CoR obligations. These are:

1. Harm or damage to people, plant, property, assets or the environment
2. Additional cost or lack of productivity
3. Loss of reputation or other public opinion
4. Legal liability (fines, penalties or prosecutions).

6.1.b. Risk assessment

The CoR risk assessment consists of four steps:

- Step 1: Hazard identification – Identify the activities or areas of the PROJECT giving rise to potential CoR breaches
- Step 2: Risk assessment – Assess the likelihood of a breach occurring and the likely severity (consequence) of its impact on road infrastructure and public safety
- Step 3: Control implementation – Develop and implement control measures to eliminate or reduce the likelihood or consequences of a breach
- Step 4: Review/response – Periodically review the process (at least annually for fatigue and speed) and/or execute additional control measures in response to any actual breach.

For conducting a risk assessment, an effective assessment needs to consider both the likelihood and severity of any breach occurring. The HVNL categorises the severity of offences and examples are as follows:

- Minor risk:
 - › A risk of a party gaining a minor unfair commercial advantage over those who operate legally
 - › Mass offences - A minor risk breach occurs if the breach is less than the substantial risk breach lower limit (i.e. ≤5% above the GVM capacity or rated axle loading limit) and
 - › No risk to safety or infrastructure.
- Substantial risk:
 - › A risk of damage to infrastructure, increasing traffic congestion and unfair competition
 - › Mass offences - A substantial risk breach occurs if the breach is less than the severe risk breach lower limit (i.e. ≤20% above the GVM capacity or rated axle loading limit and ≥ 5% overload) and/or
 - › Some risk to safety, although not an appreciable risk.

- Severe risk:
 - An appreciable risk to safety
 - Mass offences - A severe risk breach occurs if the breach is $\geq 20\%$ above the GVM capacity or rated axle loading and/or
 - A more severe risk to infrastructure, greater risk of traffic congestion or a greater level of unfair competition.
- Critical risk:
 - A contravention of fatigue regulated work/rest times adversely affecting a driver's ability to drive safely.

6.1.c. Risk control

JCL will ensure that the CoR risk assessment process leverages off the workplace health and safety risk assessment processes, which is in place.

The different categories of risk control measures typically include:

- Elimination – Removing a hazardous activity or process altogether;
- Substitution – Replacing a hazardous activity or process with a less hazardous one;
- Isolation and Engineering – Modifying the environment or equipment physically to reduce risk; and
- Administrative – Providing additional training, permits, instructions and supervision to workers (including subcontractors), site visitors and those persons handling road cargo.

It may be appropriate to implement a combination of control measures across the different areas of risk.

JCL will document the CoR risk assessment process and all steps taken under it (including work practice modifications and training) and these records will be kept for a minimum of five years.

JCL's structured safety and risk management performance in the six core CoR element areas is to be assessed monthly.

6.1.d. Risk register

JCL will develop and maintain a risk register to capture and track all project WHS, CoR and HVO risks for all phases of the Project as is required and documented in the Risk Management Plan.

6.1.e. WHS inspections

The process for implementing JCL's health and safety inspection and compliance program is described above.

JCL will ensure the approaches detailed in Workplace Hazard Inspections and Observations and WHS audits, reviews and improvement are used when conducting compliance monitoring and review.

6.1.f. Workplace Risk Assessment (WRA) of Rozelle Project site

A comprehensive CoR workshop was conducted during the Collaborative Contractor Client Interactive Phase to discuss and examine work place risks at the Rozelle Project site. The risks and mitigation strategies relating to CoR for Rozelle are included in Annexure C to this Plan. These will be further examined and refined before commencement of the Project.

Table 8: WRA references

Reference Doc No.	Reference Title
JH-MPR-WHS-006	Workplace Hazard Identification and Inspection
JH-MPR-SQE-006	Managing Safety, Quality and Environment Risks
JHG-STD-WHS-001	Traffic, Plant and People

7. Managing Interfaces with Stakeholders, Suppliers and Subcontractors

7.1. Managing Stakeholder Expectations

JCL will meet with all stakeholders before the commencement of the Project to discuss the impact of heavy haulage on this Project on the neighbouring community. These meetings will continue during the life of the Project. It will enable efficient mechanisms to be put in place to resolve any WHS and HVO issues and to meet stakeholder expectations.

This forum is where evolving WHS and CoR information will be shared amongst the participants to foster continuous improvement in standards and compliance. Risk and mitigation strategies will be explained. Clear, open communication will be used to put the stakeholders at ease. Minutes of interface meetings will be recorded and all actions will be followed up before the next meeting.

7.2. HVO Suppliers and Subcontractors

Subcontractor relationships are addressed in the WHS Management Plan and described below. In this Plan, a reference to a subcontractor refers to any responsible entity that is engaged to perform work on the Project under a contract for services whether it is for the conduct of construction or associated works, providing services to JCL, and/or supplying, delivering and removing goods that involves the use of heavy vehicles in those work.

The procurement of plant, goods, works or services by JCL to fulfil project and/or business requirements has the potential to introduce WHS and heavy vehicle operational risks. The Procurement Manager must develop general safety specifications for each category of heavy vehicle that is proposed to be used on the Project that addresses:

- Health and Safety Management System requirements
- Relevant WHS and heavy vehicle legal requirements (including relevant Codes of Practice and other applicable standards)
- Any additional safety requirements identified during category safety assessments
- Any prescribed safety equipment requirements that form part of the Project

Requisitioning goods or services under a purchase order will also contain specific supply conditions including compliance with HVNL requirements. These conditions are detailed in the Freight and Packaging Guideline which will be made available electronically with each purchase order.

7.3. Scope of Works

For future contracts, JCL will include in the scope of works, a section detailing explicit HVNL requirements and obligations. These will apply to any subcontractor, any of its employees or secondary subcontractors.

7.4. Invitation to Tender

Subcontractors or suppliers who are invited to submit tenders will be provided with project information to ensure WHS and heavy vehicle operation expectations and compliance obligations are clearly understood.

The following package of information, in addition to WHS requirements, will be provided:

- Copy of this Plan
- Site and route maps
- Site safety rules
- Non-negotiables
- Heavy vehicle driver code of conduct
- Delivery and cartage drivers' induction and rules
- Freight and packaging guideline

- Subcontractor Requirements Pack - Overview
- Subcontractor Requirements Pack - Safety
- Subcontractor and supplier WHS and HVNL responsibility assessment checklist
- Relevant sections of the Project-wide risk register.

7.4.a. Meeting legislative requirements

A key requirement is to ensure that each HVO is meeting both WHS and HVNL obligations as part of conducting business. If hauling dangerous goods to work sites, the HVO will be required to comply with Dangerous Goods (Road and Rail Transport) legislation in addition.

JCL will conduct the following to assess legislative compliance:

- Require all subcontractors and suppliers submitting tenders to complete and return to JCL with the tender a subcontractor and supplier WHS and HVNL Responsibility Assessment checklist. Attention is to be paid to providing evidence to how the tendering Company can demonstrate compliance with each assigned responsibility
- Conduct subcontractor and supplier WHS and HVNL Compliance Audits as required by the Audit Schedule
- Undertake Chain of Responsibility (CoR) Audits
- Selection process.

The JCL approach for selection of HVO subcontractors and suppliers will focus on ensuring that they can demonstrate:

- They have an operating and developed WHSMS
- They have systems and processes in place to manage and control the general CoR obligations
- They are actively managing CoR within their scope of works while they are working on or for the Project

7.5. Evaluation Process

Subcontractor and supplier submissions will be evaluated against a common Subcontractor Evaluation Checklist. This will determine the degree to which they are implementing their WHS and heavy vehicle system obligations and requirements.

Criteria that will be assessed includes:

- CoR management and implementation
- WHS management plan implementation
- Demonstrated compliance with WHS and HVNL legislation obligations
- WHS and HVO specifications are incorporated into safe work procedures
- Risk management integration into WHS and HVO system requirements
- NHVAS accreditation
- HVO controls implemented to prevent breaches of HVNL requirements
- Resources proposed to manage WHS and HVO compliance
- Competency, qualifications and training programs
- Plant and equipment certification
- Subcontractor WHS work systems
- Procedures to address core elements of HVNL
- PPE provision including training, monitoring and storage
- Demonstration of a good safety culture
- WHS incident management including notification, reporting, investigation, corrective action and return to work
- Details of breaches, infringements and prosecutions of HVNL and CoR obligations.

Only subcontractors and suppliers who are willing and able to comply with these Project WHS and CoR expectations will be considered for work at Rozelle.

7.6. HVO Suppliers and Subcontractor Management

7.6.a. Tender interview meeting

Once a subcontractor or supplier has been selected, the subcontractor or supplier must provide information and evidence as required by the Safety Manager. This is to demonstrate their capability to manage WHS and heavy vehicle operation requirements.

This will be achieved by submitting to JCL, before or at the Tender Interview Meeting, practical examples of how the subcontractor or supplier is implementing key aspects of WHS and heavy vehicle operation requirements during their business.

Tender interview meetings will be conducted before works are scheduled to start. This will be to review and validate that the successful subcontractor or supplier have operating systems that meet JCL's WHS and CoR expectations, specifications and legislation. Subcontractors or suppliers will be required to demonstrate how they intend to:

- Use a participative and consultative approach to achieve WHS and CoR expectations and obligations
- Confirm CoR duties have been assigned to responsible persons who control each part of the supply chain and these are documented in an organisation chart forming part of the subcontractor/supplier site-specific WHS Management Plan
- Ensure that nominated responsible persons undertaking CoR roles have been trained and assessed as competent in understanding the HVNL, responsibilities of a CoR duty holder and what is required to meet HVNL compliance obligations
- Ensure that WHS and HVO processes and procedures to be used on the Project meet WHS and HVNL legal requirements. This will be achieved by submitting a completed subcontractor and supplier WHS and HVNL responsibility assessment checklist
- Detailed resources, qualifications and competencies of key personnel to be used on the Project
- Ensure plant and equipment proposed to be used on the Project meets project requirements, is safe to use and appropriate for the task.

7.6.b. Subcontractor/supplier site-specific safety management plan (SSSMP)

All subcontractors or suppliers, before undertaking any construction work that involves HVO, must prepare and submit a SSSMP and Workplace Risk Assessments (WRAs) to JCL for the proposed work activities. This SSSMP is to specifically address:

- WHS issues (as listed in the first section of Clause 5.2, Construction Work Code of Practice, and in the second section of this Clause, those categories relevant to the subcontractors or suppliers work on the Project)
- The heavy vehicle core element specification
- How risks associated with the works have been determined and are proposed to be managed
- How the CoR obligations are to be managed and controlled during their scope of works.

7.6.c. WHS and CoR participation

Subcontractors and suppliers will be encouraged to actively participate in WHS and CoR on the Project. Subcontractors and suppliers must participate in consultative forums and monitoring activities, including:

- Daily pre-start meetings, weekly toolbox talks, scheduled management meetings and HSE committees
- Job observations, inspections, hazard reporting and audits
- Incident, breach and near miss reporting, and investigations as required
- Development or review of safe work systems, covering WHS and heavy vehicle operations and WRAs
- Subcontractor meetings

- Acceptance testing against technical specifications to determine that delivered goods meet the required standard and what was ordered or sign off on the contracted works or services.

7.6.d. JCL and subcontractor management of site safety and CoR Issues

To the extent the WHS and HVNL legislation permits, JCL will retain the following duties in relation to the management and control of health and safety issues for the Project:

- Overall management and control of the Project
- Provision of the WHS management system that applies to all project activities including site safety rules that apply to all Project activities
- Provision of emergency response, first aid capability and induction training
- Coordinating incident, near miss, hazard and legislative breach reporting and management processes
- Risk management as it relates to the Project
- Assurance that all plant, equipment and attachments are fit for purpose
- Ensuring consultation and participation requirements are met
- Change management as it affects health and safety and heavy vehicle operations
- Managing any off-road interfaces between the community, worksites, traffic, infrastructure owners, emergency services, government agencies, deliveries, suppliers, and trades
- Monitoring and reviewing Safe Work Method Statements and Safe Work Instructions
- Conducting WHS and CoR verification inspections, observations and audits

Subcontractors and suppliers also have overlapping responsibilities in the WHS and heavy vehicle legislation in relation to some of the matters listed above as they relate to the person conducting the business or undertaking (PCBU). It is expected that subcontractors and suppliers will cooperate and collaborate with JCL in all WHS and CoR matters including those listed above.

JCL will ensure that subcontractors and suppliers are complying with their health and safety management system, WHS and heavy vehicle legislation, codes of practice and relevant Australian Standards.

Third party suppliers will be obliged also to comply with JCL's guidelines and procedures.

7.6.e. Subcontractor and supplier reporting

Suppliers and subcontractors will provide JCL with the following reports:

- Reports detailing WHS and CoR performance including details of any breaches or infringements identified by internal surveillance or regulators on a monthly basis
- RMS truck inspection or heavy haulage breach and corrective action records on a monthly basis
- Quarterly written assurances that they, as a PCBU and supply chain participant, are meeting the WHS and HVNL legislative and due diligence obligations using subcontractor WHS and HVNL responsibility assessments.

Table 9: Subcontractor management references

Reference Doc No.	Reference Title
JH-MPR-WHS-003	Managing Subcontractor Safety
JH-MPR-PRM-004	Tender Phase
JH-MPR-PRM-007	Minor Works Pre-Contracts Requirements
JH-MPR-PMA-005	Letting of Consultant/Subcontracts/Supply Packages
JH-MPR-QUA-004	Performance Rating of Subcontractors
JH-MPR-PMA-017	Standard Contract Agreements
JH-MPR-HRT-003	Resource Planning
JH-GUI-HSE-022	Contractors' Management

8. Interaction with Regulators and Government Authorities

The principal regulators and government agencies that interact with the Project in relation to WHS and CoR matters are shown in Table 10: Interaction with regulators below with responsibilities and deliverables.

Table 10: Interaction with regulators

Agency	Responsibilities and Deliverables
SafeWork NSW or Comcare	<ul style="list-style-type: none"> ▪ Principal Contractor ▪ High risk licenses ▪ NSW dangerous goods transport ▪ Registration of plant and plant designs ▪ Classification, packaging and labelling requirements for hazardous materials
Environment Protection Authority (EPA)	<ul style="list-style-type: none"> ▪ NSW dangerous goods transport
National Heavy Vehicle Regulator (NHVR)	<ul style="list-style-type: none"> ▪ Access CONNECT ▪ National Heavy Vehicle Accreditation Scheme (NHVAS) ▪ PBS Certification ▪ Vehicle Access permits ▪ Heavy Vehicle Modifications Approvals ▪ Fatigue management ▪ National Work Diary
Commonwealth Department of Infrastructure & Transport's Vehicle Safety Standards (VSS) Branch	<ul style="list-style-type: none"> ▪ Australian Design Rules
NSW Roads & Maritime Services (RMS)	<ul style="list-style-type: none"> ▪ Over Mass & Dimension Permits ▪ Load restraint ▪ Roadworthiness Inspection ▪ Restricted Access Vehicle (RAV) Maps ▪ Intelligent Access Program (IAP) Maps ▪ Vehicle Registration ▪ HML Declaration ▪ Licensing ▪ Approved Vehicle Examiner
Transport for NSW (SMC/RMS)	<ul style="list-style-type: none"> ▪ Sydney Metro delivery ▪ Freight, Strategy and planning ▪ Infrastructure and Services
National Transport Commission (NTC)	<ul style="list-style-type: none"> ▪ Load Restraint Guide ▪ Transport of Dangerous Goods ▪ Assessing Fitness to Drive
Transport Certification Australia (TCA)	<ul style="list-style-type: none"> ▪ Intelligent Access Program (IAP) ▪ Certified Telematics Service (CTS) ▪ Intelligent Speed Compliance (ISC)

8.1. Emergency Preparedness

The Project Director will ensure that an Emergency Response Plan, resources, materials and equipment are developed, obtained and in place to prevent or mitigate damage, illness and injury.

JH-MPR-PMA-008 Emergency Evacuation and Response provides guidance on how to best to prevent or mitigate damage, illness and an injury arising from an emergency. JH-MPR-RCC-006 Crisis Management provides guidance for individual responses to crisis.

Table 11: Emergency Preparedness References

Reference Doc No.	Reference Title
JH-MPR-PMA-008	Emergency Evacuation and Response
JH-MPR-RCC-006	Crisis Management

8.2. Incident Management

8.2.a. Emergency notification

In the event of a serious incident or rescue, the following personnel must be immediately notified so that assistance may be rendered to affected people:

- First Aider
- Emergency Evacuation Coordinator
- Emergency Services - fire, police and ambulance
- Project Director
- RMS
- Other statutory authorities

8.2.b. Response

Upon notification of a serious incident, the following response protocol will apply:

- First Aider responds immediately to the incident scene and provides any necessary treatment
- Emergency Evacuation Coordinator will assume control of the emergency and implement measures as per site evacuation procedure
- Members of the emergency team will carry out allocated duties (directing traffic and emergency services to the incident scene)
- The incident area will be secured to prevent further injuries to personnel, unauthorised access and to allow investigation to be performed
- The Project Director will notify RMS and the JV Steering Committee
- The incident scene remains secured until permission is given to re-open the area by emergency services personnel

8.2.c. First aid

First aid facilities will be established on site to provide workers with access to immediate first aid treatment when required. JH-FRM-WHS-005-10_Project/Workplace First Aid Risk Assessment Checklist provides the means to identify and document project or workplace first aid requirements.

Portable trauma kits will be available for the treatment of workers who are unable to be moved to a first aid facility. A primary First Aider will be nominated for the workplace and will be responsible for the management of the facility. First aid facilities will be in accordance with WHS requirements.

8.2.d. Medical services provider

A suitable independent medical services provider will be nominated by the Safety Manager to provide medical treatment for all work injuries requiring treatment beyond first aid. The medical provider will be briefed on:

- The project safety objectives and the absolute commitment to pro-active injury management and rehabilitation principles
- Work location, the tasks being completed
- Alternative duties that may be utilised in the event a worker may sustain an injury.

8.3. Reporting Incidents, Near Misses or Infringements

JCL's overall approach to managing incidents, accidents, near misses and infringements on the Project is described in the WHS Management Plan and is described in detail below.

For this Plan, a reference to an incident includes WHS and HVO incidents, accidents, near misses, or HVNL breaches and/or infringement notices.

8.3.a. Incident notification and reporting

Heavy vehicle operators contracted to JCL, must notify JCL immediately after becoming aware that an incident arising out of their conduct has occurred. Initial notification can be by phone, either verbal or SMS, but must be followed up by an initial incident report email that provides the following information:

- Date and time
- Heavy vehicle operator name
- Make, Model and Registration details
- Driver's name
- The site from which the heavy vehicle was operating
- Nature of incident – speeding, over-mass, over-dimension, roadworthiness, driver fatigue, load restraint
- Incident details
- Immediate actions taken to prevent a recurrence

Table 12: Incident reporting references

Reference Doc No.	Reference Title
JH-MPR-SQE-010	Incident Management
JH-MPR-WHS-005	First Aid & Rehabilitation Management
Code of Practice	First Aid in the Workplace
JH-GUI-HSE-006	Incident Investigation & Reporting

8.3.b. Contractual and statutory notification

The Project Director will advise RMS' Representative and the JV Steering Committee of incidents, including serious near miss incidents, within 24-hours. RMS, SafeWork NSW and Comcare (as appropriate) notification requirements will be met in accordance with the D&C Deed and Part 3 of the WHS Act. The notification to SafeWork NSW, Comcare and RMS will occur using the process contained in JH-MPR-SQE-010 Incident Management.

8.3.c. Investigation

Heavy vehicle operators contracted to JCL must complete an Incident Investigation Report or equivalent containing the facts and photographs of the incident site for any 'on-road' incidents involving their vehicles.

All HVO incidents will be investigated to:

- Identify root causes,
- Identify corrective actions or improvements to prevent recurrences
- Detail methods to be used to validate agreed corrective actions have been implemented and remain effective.

This Incident Investigation Report is to be given to the Safety Manager within two-working days, even if the incident investigation is not fully completed and resolved. For all incidents, including serious near miss incidents, the Safety Manager will be responsible for the full investigation in accordance with JH-GUI-HSE-006 Incident Investigation & Reporting.

If a SafeWork or RMS notice or fine is served, the RMS' Representative is to be immediately provided with a copy and advised of the proposed corrective action(s), action completion date and notice rectification.

8.3.d. Corrective and preventative actions

Any corrective and preventative actions that flow from an incident or breach investigation will be recorded in the Incident Investigation Report. The agreed actions will:

- Apply the hierarchy of control in determining the most appropriate risk control measure
- Implement risk controls that are sustainable
- Assign responsibilities and timeframes for implementation which are agreed and met
- Detail methods to be used to validate effectiveness of risk controls.

Corrective and preventative actions are to be logged and managed on the Synergy Actions Database. The Safety Manager will liaise with functional managers for the implementation of corrective and preventative actions.

All corrective actions will be closed out within four-weeks of the incident date and this will be communicated to RMS' Representative in the monthly Project report. Lessons learnt will be communicated site wide, to prevent re-occurrence.

8.3.e. Monthly incident reporting

Heavy vehicle operators are to provide to the Safety Manager, on the last working day of each calendar month, a completed incident summary report that lists all incidents and associated corrective actions for the period. This report will be prepared using a template provided by JCL.

The Safety Manager will aggregate and analyse incident data from HVO to identify incident trends and use that information to direct WHS and HVNL prevention and intervention activities.

The JCL Monthly Report on the CoR section will include:

- Details and sources of HVO incidents
- Provide information on remedial actions taken following breaches
- Measures or further information, supervision and training put in place to prevent future breaches.

Table 13: Incident reporting references

Reference Doc No.	Reference Title
JH-MPR-SQE-010	Incident Management
JH-MPR-WHS-005	First Aid & Rehabilitation Management
Code of Practice	First Aid in the Workplace
JH-GUI-HSE-006	Incident Investigation & Reporting

9. CoR Awareness and Training Requirements

9.1. Heavy Vehicle Driver Awareness Training

All heavy vehicle drivers to be engaged on the Project, including employees, subcontractors, suppliers and owner drivers, should attend the RMS approved Vulnerable Road User Awareness Training before they commence work.

9.2. Chain of Responsibility (CoR) Training

This section provides the minimum standard regarding competencies and recommended training to manage chain of responsibility risks. It is to demonstrate 'reasonable steps' with regards to managing load restraint, mass and dimension, fatigue and speed within the supply chain.

The relevant training addressing the Project's 'Heavy Vehicle and Freight Operations' is the TLI10 - Transport and Logistics Training Package (Release 4.2) that is recorded on the Nationally Recognised Training (NRT) register and can be viewed at <http://training.gov.au/Home/Tga>.

Recommended CoR training is detailed below in Table 16 and the Training Matrix that links proposed training course details versus supply chain participant involvement is shown in Table 17.

Suppliers and subcontractors must be able to demonstrate a system of training that meets these requirements. Evidence of completion of this training is to be presented to JCL before any agreements or contracts are executed.

All JCL training will be conducted in accordance with:

- Training Management Plan and Industry Participation Plan
- TLI10 - Transport and Logistics Training Package (Release 4.2) requirements
- Induction Training Plan
- Plant Operator Competency Training and Assessment
- RMS Vulnerable Road User Awareness requirements

9.3. Safety Committee

JCL will develop a site-based Safety Committee which will meet every week to discuss site-based WHS issues as they affect the workplace. Chain of Responsibility will be discussed at these meetings. The Safety Manager will also attend these weekly meetings. The Safety Committee will conform to the requirements listed in JH-MPR-WHS-004 Health & Safety Management & Consultation Arrangements (HSMAs).

Table 14: Safety committee references

Reference Doc No.	Reference Title
JH-MPR-HRT-020	People Capability
JH-MPR-HRT-009	Employee Movements
JH-MPR-SQE-001	Site Induction
JH-GUI-HSE-119	HSE Induction
JH-GUI-HSE-003	HSE Training

Table 15: CoR Recommended Training

Course	Description	Accredited	Audience	Duration	Mode	Assessment
Basic Awareness of Chain of Responsibility	This course will provide a short introduction to the Chain of Responsibility legislation and what it might mean to you, as a member of the supply chain	NO	General staff involved in the Supply Chain	30 minutes	Project Induction	Written Assessment
Introduction to Chain of Responsibility	This course will introduce how to follow the requirements of the Chain of Responsibility legislation, as a member of the supply chain.	NO	Supply Chain staff that have roles with CoR responsibilities	90 minutes	On-line E-Learning	Quiz On Line
Chain of Responsibility Level 1 TLIF0001	This unit involves the skills and knowledge required to identify, apply and follow chain of responsibility legislation, regulations and workplace procedures in relation to heavy vehicles as they apply to an individual's own job role.	YES	Staff that influence the supply chain and schedulers	4 to 6 hours	On-line E-Learning	Quiz Verbal Practical
Chain of Responsibility Level 2 TLIF0002	This unit involves the skills and knowledge required to identify, apply and follow chain of responsibility policies and procedures in a supervisory role in relation to heavy vehicles and identifying and reporting chain of responsibility breaches.	YES	Supervisors, Managers and Senior Managers that influence the supply chain	1 day plus 4-5 hours Practical	Face-to-Face	Quiz Verbal Practical
Chain of Responsibility Level 3 TLIF0003	This accredited course relates to implementing Chain of Responsibility regulations through assessment of your business requirements, and development and validation of policies, procedures and tools.	YES	Senior Management that influence policies, procedures and risk within the supply chain	1 day plus 4-5 hours Practical	Face-to-Face	Quiz Verbal Practical
Manage Fatigue Management Policy and Procedures TLIF4064	This accredited course involves the skills and knowledge required to manage organisational fatigue management policy and procedures in accordance with relevant legislation and regulations.	YES	Consignor Scheduler Loading Manager Driver	4 hours	Face-to-Face	Quiz On Line
Fatigue Management TLIF2010A	Accredited course relating specifically to Fatigue Management strategies and recognising fatigue, for persons who operate using BFM or AFM hours.	YES	Scheduler Loading Manager Driver	4 hours	On-line E-Learning	Quiz Practical
Loading and Unloading TLIF2004A	This unit involves the skills and knowledge required to load and unload goods and cargo, including loading and unloading goods, securing and protecting the load and completing all required documentation.	YES	Packer/Loader /Loading Manager Driver	4 to 6 hours	On-line E-Learning Video	Quiz Practical Observation
Administer the implementation of fatigue management strategies TLIF3063	Accredited course relating specifically to the duties of the scheduler who schedules work for drivers who are operating under BFM hours or AFM hours.	YES	Scheduler			Quiz Verbal Practical

Table 16: CoR Training Matrix

Course or Module Name	Senior Manager	Manager	Supervisors	Consignee /Consignor	Scheduler	Loader/Unloader	Loading Manager	Packer	Driver
Basic Awareness of Chain of Responsibility	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Introduction to Chain of Responsibility		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
TLIF0001 Chain of Responsibility Level 1					<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		
TLIF0002 Chain of Responsibility Level 2		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>						
TLIF0003 Chain of Responsibility Level 3	<input checked="" type="checkbox"/>								
TLIF4064 Manage Fatigue Management Policy and Procedures				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>
TLIF2010A Fatigue Management			<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>
TLID2004A Loading and Unloading						<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
TLIF3063A Administer the implementation of fatigue management strategies			<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>				

10. Auditing, Review and Improvement

JCL's safety audit, review and improvement program and processes are outlined in the WHS Management Plan included as part of this Collaborative Contractor Client Interactive Phase submission.

Audits and reviews will be scheduled and carried out to monitor and verify that activities comply with planned arrangements and that the WHS and CoR systems are effectively implemented and maintained.

A schedule of WHS audits and reviews (including CoR requirements) will be developed as part of the audit schedule coordinated by the Quality Manager. Audits will be conducted based on the significance of WHS and HVO risks and the results of previous audits.

In addition to the program of JCL WHS audits, RMS and the D&C Independent Certifier may also conduct WHS and CoR audits of the Project. JCL will consult with the RMS' Representative to develop a mutually acceptable joint program of audits.

10.1. Subcontractor and Supplier Audits and Reviews

Subcontractors' and suppliers' WHS and CoR systems will be audited and reviewed to assess their performance and compliance with the Project's WHS and HVNL requirements.

The audit's desktop component will be completed by interrogating records provided by the subcontractor or supplier. The practical implementation verification will be conducted with the subcontractor or supplier on the Project.

Each subcontractors' WHS management system will be reviewed within three-months after start-up. This will then be audited at least once every six-months for subcontractors carrying out high risk construction work activities and annually for all other subcontractors.

10.2. Compliance Activities

Nominated JCL representatives will regularly monitor, check, inspect and record subcontractor and supplier activities to ensure compliance with WHS and HVNL requirements.

JCL will conduct targeted compliance programs based on identified HVO incident, breach and infringement trends.

10.3. Goods Acceptance

Acceptance testing of the delivered goods against the safety specifications contained in JH-MPR-PMA-004 Purchasing and JH-MPR-PMA-007 Materials Control will be conducted to verify compliance or sign off on the contracted works or services. If the delivery does not satisfy the defined safety specifications, CoR requirements, or is incomplete, it will be quarantined. Acceptance will be held over, until corrective actions have been addressed.

All delivered goods are to conform to the requirements of the Freight and Packaging Guidelines. Any goods delivered in non-conforming packaging will be quarantined and/or returned to the supplier for corrective action at their cost.

The performance of each subcontractor or supplier will be evaluated and communicated during and at the end of their involvement with the Project.

Table 17: Goods acceptance references

Reference Doc No.	Reference Title
JH-MPR-PMA-004	Purchasing
JH-MPR-PMA-007	Materials Control

10.4. Non-conformance Management

Non-conformances from audits, inspections, observations, and reviews will be identified and assigned to appropriate persons for action and close-out. This process will be managed by the Quality Manager.

Breaches of, or non-conformance with legislation, site procedures and directions may be identified through the audit program, consultative forum discussions, site WHS inspections, hazard reports and alerts, incident investigations and external intervention.

Breaches or non-conformance with CoR provisions by an individual JCL worker will require a meeting between the Safety Manager, the worker and their supervisor to determine the cause of the ongoing breaches. Outcomes could include further training, implementation of revised operating methods or disciplinary action.

10.4.a. Subcontractor or supplier breaches

For repeated breaches or non-conformance by subcontractors or suppliers with CoR responsibilities, the Managing Director of the subcontractor or supplier organisation will be required to attend a meeting with the JCL Commercial Manager and Safety Manager to present what corrective actions are to be implemented to eliminate further breaches. A 'show cause' notice may be issued. Meeting minutes recording the issues, discussions and agreed actions will be made and signed by those present.

10.5. Review of the CoR Management Plan

The Safety Manager will review, develop, amend and update this Plan at least every six-months or when:

- There has been a review of the risk register and new control measures are needed
- There have been changes to industry practice as notified by RMS, SafeWork NSW, Comcare or NHVR
- The Plan is no longer adequate for managing HVO or CoR requirements for the Project
- Any of the matters listed in the above points may affect the health and safety of a worker or CoR participant
- There have been any changes in law, technology, safe working requirements or site conditions
- There are changes to the Project organisation and subsequently to Project supply chain participants that have roles with CoR responsibilities.

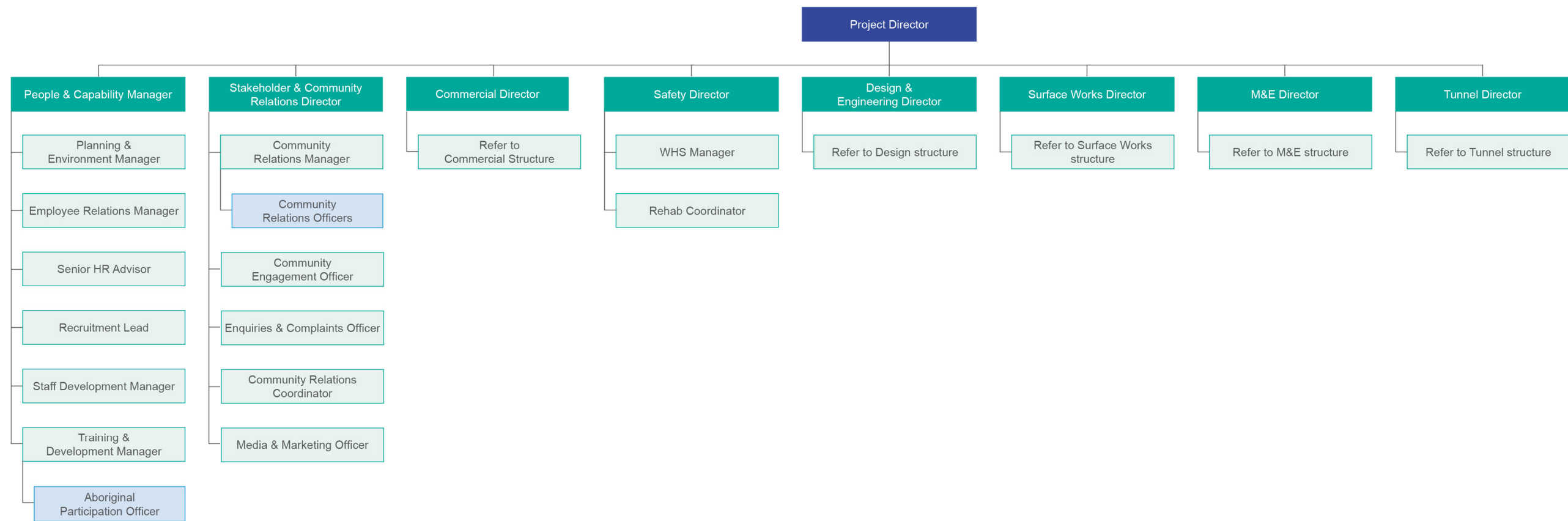
Table 18: CoR review references

Reference Doc No.	Reference Title
JH-MPR-SQE-002	Monitoring & Review
JH-MPR-SQE-007	Non-Conformance and Corrective Action
JH-MPR-WHS-006	Workplace Hazard Identification and Inspection
JH-GUI-HSE-004	HSE Audits
JH-GUI-HSE-001	Responsibility and Authority
JH-GUI-HSE-116	Workplace Inspections
JH-MPR-SQE-004	Inspection, Testing & Surveillance
JH-MPR-SQE-006	Managing SQE Risk
JH-APP-QUA-010-02	Monitoring and Testing Equipment

Annexure A Glossary

Term	Definition
CoR	Chain of Responsibility
CoRMP	Chain of Responsibility Management Plan
HSE	Health, Safety and environment
HSMAs	Health & Safety Management & Consultation Arrangements
HVNL	Heavy Vehicle National Law
HVO	Heavy Vehicle Operations
IMS	John Holland's Integrated Management System
JCL	John Holland CPB Contractors JV
JH	John Holland Pty Limited
NHVAS	National Heavy Vehicle Accreditation Scheme
NHVR	National Heavy Vehicle Regulator
Plan	The Chain of Responsibility Plan
Project	Rozelle Interchange Project
RMS	Roads and Maritime Services
SSSMP	Subcontractor/supplier site-specific safety management plan
WHS	Workplace Health and Safety

Annexure B Project Organisation Chart



Annexure C Workplace Risk Assessment for Rozelle

Rozelle Interchange				WRA-TBC-01																
Ref. No.	Open/Closed	Risk Title	Description	Risk Identification			Qualitative Rating			RESIDUAL RISK RATING			Activity Method Statement -->							
				Risk Categories		Selected Conseq Type	Systems and Training	CONTROLS "Business as Usual"	Control Effectiveness	Planned / Additional treatments • Project Wide Strategies • Systems (Plans, Procedures) • Training Requirements	Expected rating when noted controls including AMS are			Traffic Management Plan	Specific TRA	QA Procedure	Fatigue Management Plan or Equivalent	CoR Third Party Procedure	Software based monitoring equipment	
				Main Categories	Sub Categories						Consq	Likel'd	Rating							
													1	2	3	4	5	6		
1	Open	CoR: Vehicle Operations - Vehicle Standards	Heavy Vehicle standards not being met 1. Increase in heavy vehicle incidents and breakdowns. 2. Road traffic accidents/incidents. 3. Traffic congestion 4. Fatality or serious personal injury 5. Vehicle and property damage	Vehicles	Illegal / Improper Operation	Regulatory	1. NHVAS (National Heavy Vehicle Accreditation Scheme) Maintenance Management Accreditation 2. Current RMS roadworthy Certification 3. All requirements of vehicle registration are maintained. 4. Comply with Heavy Vehicle (Vehicle Standards) National Regulation 5. Selection of experienced and competent subcontractor	1. Apply and maintain the prescribed heavy vehicle standards. 2. No person must use, or permit to be used, on a road a heavy vehicle that is unsafe. 3. All operators and drivers to ensure that their vehicle is safe for use on a road. 4. Unroadworthy and/or unsafe on-road heavy vehicles to be removed from service.	Partial	1. All HV to be subject compliance verification from operators 2. Ad-hoc verification checks by RCL inspectors 3. Emissions checks for all tunnel vehicles 4. Operator employers to ensure vehicle operators possess the correct level of competence to undertake compliance checks on their vehicles - Subcontract requirement 5. Active on-site monitoring regime employed	3	Unlikely	D	Yes	✓	✓	✓			
2	Open	CoR: Vehicle Operations - Load Restraint and Stability	Unsecured loads affecting the stability of vehicles and loads 1. Unplanned movement of load during transport including Loose materials falling from heavy vehicles 2. Rocks ejected from dual wheels 3. Fatality or serious personal injury 4. Vehicle rollover because of a load or part of a load moving or dislodging	Plant Management	Incorrect / Faulty Plant	Regulatory	1. NTC (National Transport Commission) Load Restraint Guide applied. 2. Apply the Freight and Packaging Guideline to all deliveries to site. 3. Electric tarping system used to fully covering load. 4. Inspections for loose or wedged materials before leaving site & tailgate closed 5. Load restraints including binder chains and loading straps to be certified, checked and correctly tensioned	1. Drivers and operators understand their loading and load restraint compliance obligations and apply 2. Suitable methods of restraint are employed every time for every move. 3. CoR parties meet their obligation to take all reasonable steps to ensure that the driver does not commit a loading or load restraint offence	Partial	1. Subcontract requirement to provide training to their operators 2. Subcontract terms and conditions to require a demonstration by the supplier that they have a regime to ensure "fit for purpose" restraining system. 3. All deliveries to require pre journey check to ensure restraints are fit for purpose.	4	Rare	D	Yes		✓				
3	Open	CoR: Driver - Fatigue Management	Road Registered Truck Drivers succumbing to fatigue 1. Unable to perform work safely 2. Lack of ability to understand or comprehend instructions or road rules 3. Erratic driver behaviour 4. Risk of serious injury and illness to the public, themselves and others 5. Property damage	Project Team	Unfit for Work / Fatigue	Regulatory	1. NHVAS (National Heavy Vehicle Accreditation Scheme) Fatigue Management Accreditation – BFM, AFM 2. SMCSWTSE-JCG-TPW-HS-MPR-003034 Fatigue Management 3. SMCSWTSE-JCG-TPW-CN-FRM-004218 Heavy Vehicle Drive Code of Conduct 4. Heavy vehicle drivers trained in fatigue management. 5. Verify drivers are taking rest breaks through C-Track or equivalent. 6. Investigate demographics of drivers to ensure no excessive travel time to and from work. Systems • JHG-STD-WHS-006 GMR 6 - Fitness for Work • Fatigue Management Plan • JH-MPR-SQE-008 Medical Services • Posters on EAP and 1800 NO HARM Training Requirements	1. All heavy vehicle drivers of fatigue-regulated heavy vehicles have been trained in fatigue management. 2. Prescribed rest breaks are taken at the required intervals and records are made. 3. Drivers, operators and other off-road parties develop work arrangements that consider the effects of fatigue and implement flexible and effective procedures to manage fatigue. 4. Take all reasonable steps to ensure that the driver does not drive while impaired by fatigue or commit any other fatigue offence 5. Drug and Alcohol testing program 6. Employee Assistance Program available to employees and contractors.	Partial	1. Subcontract to require employers to have a fatigue management regime 2. All HV to have IVMS to monitor travelling times. 3. Increase the number of delivery trucks to reduce likelihood of drivers exposed to longer driving shifts. 4. HSE(UK) fatigue calculator to be utilised to identify high risk trades and allow specific risk control regimes to be collaboratively created by RCL and subcontractor.	4	Possible	C	Yes	✓	✓	✓	✓		
4	Open	CoR: Vehicle operations - Speeding	Excessive speed contributes to in road fatalities 1. Road traffic accidents/incidents 2. Fatality or serious personal injury 3. Vehicle and property damage 4. Poor business practices often result in either speeding and/or or fatigue breaches.	Vehicles			1. SMCSWTSE-JCG-TPW-CN-FRM-004218 Heavy Vehicle Drive Code of Conduct 2. Speed limiters installed, set and inspected 3. Heavy vehicle and driver management system fitted to provide over speed alerts and back to base warnings for excessive over speed. 4. Heavy vehicle electronic tracking system in place and monitored daily. 5. Heavy Vehicle PCBU disciplinary procedures 6. Selection of experienced and competent subcontractor	1. Speed limiters fitted to heavy vehicles are operational 2. All heavy vehicle drivers to obey posted speed limits 3. Drive at a safe speed for the prevailing conditions. 4. CoR parties are to ensure that the driver does not commit a speeding offence.		1. IVMS system to be used in all HV's. 2. Performance reporting regime to include exceedences. 3. "Zero tolerance" approach to negligent behaviour.	4	Possible	C	Yes	✓		✓	✓		

SCHEDULE 41

Principal Geotechnical Data

(Clause 11.7A)

The categories for the purposes of paragraph (a) of the definition of "Principal Geotechnical Data" are:

With respect to boreholes:

- a) date of drilling (start and end);
- b) location (eastings/northings);
- c) total depth of borehole;
- d) surface relative level (RL);
- e) borehole diameter;
- f) Total Core Recovery (TCR%);
- g) Rock Quality Designation (RQD%); and
- h) core photographs.¹

With respect to laboratory test results:²

- a) point load testing (Is(50));
- b) unconfined compressive strength (UCS);
- c) UCS with modulus;
- d) tensile strength;
- e) rock swelling and slake durability;
- f) consolidated undrained triaxial compression;
- g) Atterberg limits;
- h) moisture content;
- i) particle size distribution (PSD);
- j) hydrometer;
- k) linear shrinkage;
- l) pH, Cl, SO₄, EC; and
- m) organic matter content.

With respect to CPTs:³

- a) date of excavation;
- b) location (easting/northing);
- c) total depth of borehole;
- d) surface relative level (RL); and
- e) Results (qc, fs, Rf, u₂).

¹ The category of raw factual data with regard to core photographs is limited to the fact that each core photograph is an actual photograph of the depicted core.

² The category of raw factual data with regard to laboratory test results is limited to laboratory test results and data for the boreholes in Attachment 1 and Attachment 2 where the laboratory that produced the test results and data held NATA Accreditation at the time the tests were performed and test results and data was produced, the NATA logo is provided on the laboratory certificate and the certificate is signed.

³ The category of raw factual data with regard to CPTs is limited raw data files, not corrected data.

The Information Documents specified for the purposes of paragraph (b) of the definition of 'Principal Geotechnical Data' are set out in Attachment 1 and Attachment 2.

Attachment 1

Location	Borehole / Test Location	Coordinates Easting	Coordinates Northing	Info Doc Number
Easton Park, Rozelle	EP_BH01	330756.850	6250880.370	INFO DOC - 063
Easton Park, Rozelle	EP_BH02	330803.220	6250799.760	INFO DOC - 063
Easton Park, off Lilyfield Rd, Rozelle	EP_BH03	330765.740	6250761.880	INFO DOC - 063
Rozelle Rail Yards, Lilyfield	RZ_BH01	330608.870	6250381.260	INFO DOC - 063
Rozelle Rail Yards, Lilyfield	RZ_BH02	330493.170	6250390.240	INFO DOC - 063
Rozelle Rail Yards, Lilyfield	RZ_BH03	330538.020	6250440.420	INFO DOC - 063
Rozelle Rail Yards, Lilyfield	RZ_BH04	330581.130	6250481.970	INFO DOC - 063
Rozelle Rail Yards, Lilyfield	RZ_BH05	330666.520	6250531.990	INFO DOC - 063
Rozelle Rail Yards, Lilyfield	RZ_BH06	330779.920	6250622.040	INFO DOC - 063
Rozelle Rail Yards, Lilyfield	RZ_BH07	330816.430	6250654.650	INFO DOC - 063
Rozelle Rail Yards, Rozelle	RZ_BH08	331128.100	6250854.130	INFO DOC - 063
Rozelle Rail Yards, Rozelle	RZ_BH09	331174.360	6250871.550	INFO DOC - 063
Rozelle Rail Yards, Rozelle	RZ_BH10	331209.530	6250880.220	INFO DOC - 063
Rozelle Rail Yards, Rozelle	RZ_BH11	331251.200	6250891.390	INFO DOC - 063
Rozelle Rail Yards, Rozelle	RZ_BH12	331289.450	6250894.190	INFO DOC - 063
Rozelle Rail Yards, Lilyfield	RZ_BH13	331337.960	6250915.380	INFO DOC - 063
Rozelle Rail Yards, Rozelle	RZ_BH14	331356.630	6250925.900	INFO DOC - 063
Rozelle Rail Yards, Lilyfield	RZ_BH15	330522.590	6250349.910	INFO DOC - 063
Rozelle Rail Yards, Lilyfield	RZ_BH16	330609.430	6250409.410	INFO DOC - 063
Rozelle Rail Yards, Lilyfield	RZ_BH17	330675.390	6250500.840	INFO DOC - 063
Rozelle Rail Yards, Lilyfield	RZ_BH18	330738.800	6250561.870	INFO DOC - 063
Rozelle Rail Yards, Lilyfield	RZ_BH19	330822.450	6250626.950	INFO DOC - 063
Rozelle Rail Yards, Lilyfield	RZ_BH20	330857.060	6250681.020	INFO DOC - 063
Rozelle Rail Yards, Lilyfield	RZ_BH21	330884.830	6250693.600	INFO DOC - 063
Rozelle Rail Yards, Lilyfield	RZ_BH22A	330911.990	6250711.780	INFO DOC - 063
Rozelle Rail Yards, Lilyfield	RZ_BH23	330959.010	6250740.950	INFO DOC - 063
Rozelle Rail Yards, Lilyfield	RZ_BH24	331001.750	6250763.020	INFO DOC - 063
Rozelle Rail Yards, Rozelle	RZ_BH25A	331029.870	6250820.520	INFO DOC - 063
Rozelle Rail Yards, Lilyfield	RZ_BH26	331066.280	6250835.050	INFO DOC - 063
Rozelle Rail Yards, Rozelle	RZ_BH27	331064.080	6250799.320	INFO DOC - 063
Rozelle Rail Yards, Rozelle	RZ_BH28	331126.560	6250818.780	INFO DOC - 063
Rozelle Rail Yards, Rozelle	RZ_BH29	331158.450	6250828.540	INFO DOC - 063

Location	Borehole / Test Location	Coordinates Easting	Coordinates Northing	Info Doc Number
Rozelle Rail Yards, Rozelle	RZ_BH30	331192.900	6250834.960	INFO DOC - 063
Rozelle Rail Yards, Rozelle	RZ_BH31	331230.810	6250855.280	INFO DOC - 063
Rozelle Rail Yards, Rozelle	RZ_BH32	331265.180	6250858.090	INFO DOC - 063
Rozelle Rail Yards, Rozelle	RZ_BH36	331371.190	6250935.380	INFO DOC - 063
Rozelle Rail Yards, Lilyfield	RZ_BH37	330639.570	6250474.160	INFO DOC - 063
Rozelle Rail Yards, Rozelle	RZ_BH38	330726.610	6250512.070	INFO DOC - 063
Rozelle Rail Yards, Lilyfield	RZ_BH39	330801.420	6250556.740	INFO DOC - 063
Rozelle Rail Yards, Lilyfield	RZ_BH40	330916.650	6250668.040	INFO DOC - 063
Rozelle Rail Yards, Lilyfield	RZ_BH41	330938.410	6250680.860	INFO DOC - 063
Rozelle Rail Yards, Lilyfield	RZ_BH42	330958.270	6250724.160	INFO DOC - 063
Rozelle Rail Yards, Lilyfield	RZ_BH43	331014.030	6250730.970	INFO DOC - 063
Rozelle Rail Yards, Lilyfield	RZ_BH44	330885.770	6250613.960	INFO DOC - 063
Rozelle Rail Yards, Lilyfield	RZ_BH45	330958.800	6250653.910	INFO DOC - 063
Rozelle Rail Yards, Lilyfield	RZ_BH46	330987.830	6250672.160	INFO DOC - 063
Rozelle Rail Yards, Lilyfield	RZ_BH47	331025.230	6250701.670	INFO DOC - 063
Rozelle Rail Yards, Lilyfield	RZ_BH48	330676.260	6250417.470	INFO DOC - 063
Rozelle Rail Yards, Lilyfield	RZ_BH49	330732.310	6250463.600	INFO DOC - 063
Rozelle Rail Yards, Rozelle	RZ_BH50	331255.630	6250841.070	INFO DOC - 063
Rozelle Rail Yards, Rozelle	RZ_BH51	331206.580	6250813.320	INFO DOC - 063
Rozelle Rail Yards, Rozelle	RZ_BH52	331163.770	6250784.580	INFO DOC - 063
Rozelle Rail Yards, Rozelle	RZ_BH53	331100.880	6250738.060	INFO DOC - 063
Brenan Street, Lilyfield	TC_BH01	330661.990	6250305.250	INFO DOC - 063
Canal Road, Leichhardt	TC_BH04	330947.500	6250563.780	INFO DOC - 063
Reserve, Corner Railway Parade, Annandale	TC_BH05	331000.780	6250586.850	INFO DOC - 063
The Crescent	TC_BH06	330610.160	6250298.140	INFO DOC - 063
Grass Verge, Railway Parade, Annandale	TC_BH07	330746.030	6250373.570	INFO DOC - 063
Railway Parade, Annandale	TC_BH08	330818.340	6250435.890	INFO DOC - 063
Railway Parade, Annandale	TC_BH09	330830.310	6250444.460	INFO DOC - 063
Opp 6 Burt St, Rozelle	EP_BH04	330926.550	6250911.090	INFO DOC - 017
Easton Park, Rozelle	EP_BH05	330889.000	6250869.000	INFO DOC - 017
Lilyfield Road, Rozelle	EP_BH06	331025.390	6250903.920	INFO DOC - 017
Lilyfield Road, Rozelle	EP_BH07	331082.280	6250898.800	INFO DOC - 017

Location	Borehole / Test Location	Coordinates Easting	Coordinates Northing	Info Doc Number
46 Waterloo Street, Rozelle	IC_BH01	330514.220	6251504.540	INFO DOC - 017
Toelle street, Rozelle	IC_BH02	330334.970	6251646.370	INFO DOC - 017
132 Terry Street, Rozelle	IC_BH03	330422.810	6251693.680	INFO DOC - 017
47 Ainsworth Street, Lilyfield	MT_BH03	330129.760	6249990.650	INFO DOC - 017
349 Catherine Street, Lilyfield	MT_BH04	330279.020	6250087.320	INFO DOC - 017
40-42 Percival Street, Lilyfield	MT_BH05	330366.760	6250171.660	INFO DOC - 017
34 Starling Street, Lilyfield	MT_BH06	330437.560	6250128.870	INFO DOC - 017
21 Paling Street, Lilyfield	MT_BH07	330355.810	6249914.910	INFO DOC - 017
8 Edna Street, Lilyfield	MT_BH08	330411.640	6249843.820	INFO DOC - 017
Hill St and John St, Leichhardt	MT_BH20	330379.350	6249503.010	INFO DOC - 017
Cnr Ainsworth and Moore Street, Lilyfield	MT_BH21	330066.720	6249770.880	INFO DOC - 017
Opposite 48 Justin Street, Lilyfield	RZ_BH60	330317.830	6250589.570	INFO DOC - 017
Alberto Street, Lilyfield	RZ_BH61	330407.690	6250841.440	INFO DOC - 017
42 Ryan Street, Lilyfield	RZ_BH62	330470.290	6250696.630	INFO DOC - 017
Alberto Street, Lilyfield	RZ_BH63	330318.940	6250944.740	INFO DOC - 017
Brockley Street, Rozelle	RZ_BH64	330623.490	6250949.250	INFO DOC - 017
Opposite 11 Cook Street, Rozelle	RZ_BH65	330535.570	6251109.830	INFO DOC - 017
219 Evans Street, Rozelle	RZ_BH66	330702.070	6251098.040	INFO DOC - 017
Opposite 53 Alfred Street, Lilyfield	RZ_BH67	330961.480	6250999.730	INFO DOC - 017
Easton Street, Rozelle	RZ_BH68	330639.320	6250843.910	INFO DOC - 017
Albion Street, Rozelle	RZ_BH69	330558.170	6251218.370	INFO DOC - 017
Hancock St, Rozelle	RZ_BH70	330682.020	6251323.330	INFO DOC - 017
Cnr Starling St and Brennan St, Lilyfield	TC_BH10	330436.430	6250281.790	INFO DOC - 017
City West Link, Lilyfield	TC_BH11	330618.110	6250343.810	INFO DOC - 017
Ironwood Australia	RZ_BH082	330847.221	6250794.627	INFO DOC - 357
Ironwood Australia	RZ_BH089	330874.734	6250774.278	INFO DOC - 357
Ironwood Australia	RZ_BH090	330902.652	6250797.653	INFO DOC - 357
Swadlings Timber and Hardware	RZ_BH097	330938.432	6250769.856	INFO DOC - 357
Gillespies Crane Services	RZ_BH098	330973.647	6250824.282	INFO DOC - 357
Sydney Harbour Boat Builders	RZ_BH102	330902.299	6250738.877	INFO DOC - 357
RMS Laydown Area	RZ_BH104B	330966.064	6250774.376	INFO DOC - 357
King Georges Park, Rozelle	IC_BH004	330056.976	6251637.761	INFO DOC - 498

Location	Borehole / Test Location	Coordinates Easting	Coordinates Northing	Info Doc Number
King Georges Park, Rozelle	IC_BH005	330066.769	6251669.200	INFO DOC - 498
King Georges Park, Rozelle	IC_BH006	330071.206	6251698.480	INFO DOC - 498
King Georges Park, Rozelle	IC_BH007	330070.974	6251729.977	INFO DOC - 498
King Georges Park, Rozelle	IC_BH008	330080.478	6251757.009	INFO DOC - 498
Bridgewater Park, Rozelle	IC_BH009	330166.264	6251823.718	INFO DOC - 498
King George Park, Rozelle	IC_BH010	330162.008	6251730.296	INFO DOC - 498
Victoria Road, Rozelle	IC_BH011	330443.620	6251610.684	INFO DOC - 498
Victoria Road, Rozelle	IC_BH012	330506.221	6251607.709	INFO DOC - 498
Moodie Street, Rozelle	IC_BH013	330532.129	6251544.702	INFO DOC - 498
Waterloo Street, Rozelle	IC_BH014	330561.102	6251445.234	INFO DOC - 498
Denison Street, Rozelle	IC_BH016	330513.699	6251241.222	INFO DOC - 498
Hancock Street, Rozelle	IC_BH017	330749.979	6251374.312	INFO DOC - 498
Ellen Street, Rozelle	IC_BH018	330806.402	6251233.356	INFO DOC - 498
Waterloo Street, Rozelle	IC_BH019	330583.828	6251413.972	INFO DOC - 498
Rozelle Rail Yards, Rozelle	RZ_BH133	331060.360	6250741.790	INFO DOC - 498
Rozelle Rail Yards, Rozelle	RZ_BH143	330850.900	6250606.410	INFO DOC - 498
Rozelle Rail Yards, Rozelle	RZ_BH144	331080.627	6250776.812	INFO DOC - 498
Evans Street, Rozelle	RZ_BH149	331068.726	6251608.216	INFO DOC - 498
Regent St, Rozelle	RZ_BH150	330460.095	6251175.776	INFO DOC - 498
Evans Street, Rozelle	RZ_BH152	330626.031	6251039.895	INFO DOC - 498
Elizabeth Street, Rozelle	RZ_BH153	330907.879	6251144.836	INFO DOC - 498
Gordon Street, Rozelle	RZ_BH154	330985.136	6250979.775	INFO DOC - 498
Gordon Street, Rozelle	RZ_BH154A	330985.028	6250981.075	INFO DOC - 498
Alfred Street, Rozelle	RZ_BH155	330716.614	6250952.220	INFO DOC - 498
Albert Street, Rozelle	RZ_BH156	330699.733	6250728.342	INFO DOC - 498
Cecily Street, Rozelle	RZ_BH157	330478.963	6250895.326	INFO DOC - 498
Ryan Street, Lilyfield	RZ_BH158	330519.642	6250566.666	INFO DOC - 498
Halloran Street, Rozelle	RZ_BH159	330263.498	6250514.146	INFO DOC - 498
Brenan Street, Rozelle	RZ_BH160	330283.971	6250247.596	INFO DOC - 498
Brenan Street, Rozelle	RZ_BH160A	330277.472	6250243.197	INFO DOC - 498
Ilka Street, Leichhardt	RZ_BH162	330723.538	6250481.785	INFO DOC - 498
Rozelle Rail Yards	RZ_BH165	330533.619	6251357.376	INFO DOC - 498
Cambridge Street, Rozelle	RZ_BH166	330169.740	6250675.872	INFO DOC - 498
Grove Street, Rozelle	RZ_BH167	330169.740	6250675.872	INFO DOC - 498

Location	Borehole / Test Location	Coordinates Easting	Coordinates Northing	Info Doc Number
Cone Penetration Tests (CPT), Field Shear Vane Tests and Seismic DMT Tests				
Rozelle Rail Yards, Rozelle	RZ_CPT143	330850.424	6250606.012	INFO DOC - 498
Rozelle Rail Yards, Rozelle	RZ_CPT144	331041.906	6250738.862	INFO DOC - 498
Rozelle Rail Yards, Rozelle	RZ_CPT165	330723.437	6250478.383	INFO DOC - 498
Rozelle Rail Yards, Rozelle	RZ_CPT169	330917.217	6250601.951	INFO DOC - 498
Rozelle Rail Yards, Rozelle	RZ_CPT169a	330917.217	6250601.951	INFO DOC - 498
Rozelle Rail Yards, Rozelle	RZ_CPT170	330967.911	6250641.483	INFO DOC - 498
Rozelle Rail Yards, Rozelle	RZ_CPT170a	330969.272	6250641.854	INFO DOC - 498
Rozelle Rail Yards, Rozelle	RZ_CPT171	331113.126	6250788.924	INFO DOC - 498
Rozelle Rail Yards, Rozelle	RZ_CPT172	331185.896	6250809.232	INFO DOC - 498
Rozelle Rail Yards, Rozelle	RZ_CPT172a	331185.896	6250809.232	INFO DOC - 498
Rozelle Rail Yards, Rozelle	RZ_CPT174	330883.019	6250672.299	INFO DOC - 498
Rozelle Rail Yards, Rozelle	RZ_CPT176	330860.875	6250574.683	INFO DOC - 498
The Crescent, Annandale	RZ_CPT178	330993.814	6250580.415	INFO DOC - 498
The Crescent, Annandale	RZ_CPT179	331067.748	6250591.882	INFO DOC - 498
Rozelle Rail Yards, Rozelle	RZ_SDMT143	330850.424	6250606.012	INFO DOC - 498
Rozelle Rail Yards, Rozelle	RZ_SDMT144	331041.906	6250738.862	INFO DOC - 498
Rozelle Rail Yards, Rozelle	RZ_SDMT165	330723.437	6250478.383	INFO DOC - 498

Attachment 2

Location	Borehole / Test Location	Coprdinates Easting	Coordinates Northing	Info Doc Number
Beattie Street - Balmain	B149	331286.22	6251986.90	RIC-099-STW-0030
Alice Street - Rozelle	B390	330684.14	6250754.08	RIC-099-STW-0031 RIC-099-STW-0032
Lilyfield Road - Rozelle	B392	330760.42	6250652.93	RIC-099-STW-0033 RIC-099-STW-0034 RIC-099-STW-0035
Lilyfield Road - Rozelle	B391	330719.77	6250613.88	RIC-099-STW-0036 RIC-099-STW-0037
Birchgrove - The Terrace	B104A	331665.8	6252920.8	
Birchgrove - Thomas Street	B209	331520.7	6252619.2	RIC-099-STW-0038
Birchgrove - Darling Street	B208-1	331403.6	6252272.2	RIC-099-STW-0039 RIC-099-STW-0040 RIC-099-STW-0041
Balmain - Little Darling Street	B208	331415.4	6252215.9	RIC-099-STW-0042 RIC-099-STW-0043 RIC-099-STW-0044 RIC-099-STW-0045
Rozelle - Cross Street	B202	330942.5	6251497.3	
Rozelle - Ellen Street	B181A	330808.1	6251232.3	
White Bay	B205W	332150.7	6251476.3	RIC-099-STW-0046
White Bay	B204W	331924.2	6251348.9	RIC-099-STW-0047
White Bay	C150WA	332236.8	6251539.2	RIC-099-STW-0048
White Bay	C157WA	332013.2	6251537.0	RIC-099-STW-0049
White Bay	C151WA	332127.3	6251478.6	RIC-099-STW-0050
White Bay	C156WA	331910.7	6251476.6	RIC-099-STW-0051
White Bay	C152WA	332008.8	6251415.0	RIC-099-STW-0052
White Bay	C155WA	331813.7	6251391.4	RIC-099-STW-0053
White Bay	C153WA	331908.5	6251349.6	RIC-099-STW-0054
White Bay	C154WA	331786.8	6251281.2	RIC-099-STW-0055 RIC-099-STW-0056 RIC-099-STW-0057

SCHEDULE 42

Principal Retained Works

(Clause 1.1 definition of "Principal Retained Works")

PART A – Principal Retained Works (Rozelle Interchange)

- (a) Local Area Works that form part of the Project Works (Rozelle Interchange), excluding any intelligent transportation system devices (such as variable message signs, closed circuit television, over-height vehicle detection systems and tunnel closure systems) which are required for the operation of the Rozelle Interchange and are connected to the "Operations Management Control System" for the Rozelle Interchange;
- (b) Property Works, excluding ventilation buildings, water treatment facilities, water tanks for deluge and pump buildings which are required for the operation of the tunnel;
- (c) Temporary Works (Rozelle Interchange);
- (d) Enabling Works; and
- (e) Utility Service Works, excluding those Utility Services deemed to be private connections for the purpose of tunnel operations.

PART B – Principal Retained Works (WHT Southern Tunnel Works)

- (a) the WHT Southern Tunnel Works; and
- (b) Temporary Works (WHT Southern Tunnel Works).

SCHEDULE 43

Preferred Suppliers and Products

(Clause 15.10)

Asset Item	Preferred Product	Preferred Supplier
Operational Systems		
IOMCS Software	SIDERA	SICE-Sidera
Integrated CCTV Systems	Genetic Compatible Interface	Genetic Pty Ltd
Integrated AVID Systems	Citilog Systems	Citilog Pty Ltd
Integrated Voice Communication System (PABX)	Dallas Delta PABX	Dallas Delta Pty Ltd
Public Access (PA) System	Bosch Pty Ltd (amplifiers & software), Community Professional Loudspeakers	CNG Pty Ltd
Radio Rebroadcast (RRB)	RF Industries RRB	RF Industries
Programmable Logic Controllers (PLCs)	Rockwell PLCs	Rockwell Australia Pty Ltd
M&E Systems		
Jet fans		Witt & Sohn
Axial fans		Witt & Sohn
Tunnel Message Signs (TMS)		Aldridge Electrical Industries Pty Ltd (AEI)
Integrated Speed Lane Usage Sign (ISLUS)		Compusign Pty Ltd
Variable Message Sign (VMS)		Aldridge Electrical Industries Pty Ltd (AEI)
Fire Doors, XP and VXP Doors		ARA Pty Ltd

SCHEDULE 44

Existing Assets

(Clause 1.1 definition of "Existing Assets")

Existing Assets

Connections to Existing Drainage & Sewer Pipes located at:

- Victoria Road (at Quirk Street)
- James Craig Road
- The Crescent Victoria Road intersection
- Victoria Road Iron Cove Bridge outfall
- Balmain Slopes Sewer

Existing Drainage & Sewer Pipes located at:

- Anzac Bridge Approaches
- The Crescent Victoria Road intersection
- City West Link (Westbound) from the western side of The Crescent intersection towards Catherine Street
- Victoria Road (Eastbound) at the tie in to the existing Iron cove Bridge

Existing Structures:

- "The Mousehole" being the grade separated eastbound tunnel section of The Crescent that diverges under Victoria Road intersection and reconnects along the Anzac Bridge approaches
- Whites Creek Channel
- Brick retaining wall adjacent to the light rail corridor
- Iron Cove Bridge
- Retaining wall(s) adjacent to the Anzac Bridge approaches
- White Bay Cable Tunnel
- Retaining walls, foundations and GST within the light rail corridor