

Platform Renewal- Concrete Deck


Issue date: 20/10/10
Review date: 14/09/13

SWMS number: SMS-06-SW-0962	SWMS Name: Platform Renewal- Concrete Deck			SWMS Team: Civil Construction Review Team
Custodian (Position): Services Manager Civil	Assumptions: Site specific risks are addressed and assessed in pre- work briefing			Content reviewed by Technical expert (SME) and RailCorp safety professional (position including Div/Group) GM Civil Services and SEQ Coordinator Asset Management, Commercial Renewals.
Approver (Position): Civil Electrical Works Manager Infrastructure Renewals	Plant/Equipment/Tools: <ul style="list-style-type: none">Dumper, Trolley, Concrete Pump, Concrete TruckStraps, TiesBarricades, Construction Equipment, Demarcation Fencing, Signs, Plywood, Safety TapeElectrical Power ToolsRigging Tools, Podger, Impact WrenchFire Extinguisher, No-Spill Fuel Cans, Spill Response Kit, Silt Fencing, Hay Bales, BungsHilti “HIT”, Curing compound, bond breaker, sealants, Concrete, BoltsPit Steelwork, Dowel Bars, Brackets & Coping Angle	Records/Reporting: <ul style="list-style-type: none">Worksite Protection PlanPre-work BriefSite Specific Management PlanDaily Plant ChecklistElectrical Test TagsHazardous Substance Register, MSDSHot Work Permit (During Total Fire Ban)Environmental Protection PlanElectrical Permits	Permits/licences required: <ul style="list-style-type: none">Dumper / Concrete Pump Operator CertificateWelding CertificateElectrical Permit Holder	
Applicable Standards, Codes of Practice and guidance: <ul style="list-style-type: none">OH&S Act 2000OH&S Regulation 2001Rail Safety Regulation 2003RailCorp Network Rules & ProceduresRailCorp Safety Management System.MSDS for all chemicals and hazardous Substances used on siteWorking near Overhead Power LinesNational Code of Practice for Manual Handling [NOHSC:2005]EC14 – Guide to Electrical Workers Safety EquipmentAS 4839 portable oxy-fuel gas systemsAS 1674.1 – Safety in welding processesAS-1674.2 Safety in welding & allied processes (Part 2 – Electrical)AS 2550.15-1994 Cranes safe use - Concrete placing equipmentAS 2550.5-2002 Cranes, hoists and winches - Safe use - Mobile cranes				
PPE required: <ul style="list-style-type: none">Safety BootsHigh Visibility VestsHardhatsProtective ClothingSafety Glasses / Goggles And as specified below. <ul style="list-style-type: none">Fall Arrest DevicesGlovesEar Plugs / Ear MuffsWelding Gloves / Spats,/ Goggles / Face ShieldDuring all Site Works a FIRST AIDER MUST be Present				

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1	Material Transfer (Decking)	Personnel Struck By Machinery	B+	Implement exclusion zones. Use ticketed operators. Plan work to avoid site congestion	C+	Team Leaders Work Group Leaders All Staff	SSMP, Pre work Briefing SMS-06-FM-0163 Plant SMS-06-PR-0225
		Manual Handling Injuries	B-	Correct manual handling techniques. Rotate staff on repetitive tasks. Use gloves if required	C+	Team Leaders Work Group Leaders All Staff	SSMP, Pre work Briefing SMS-06-FM-0163 Manual Handling SMS-06-GD-0001
		Unstable Loads	B+	Ensure materials are secured during transit. Don't exceed safe working load of plant.	C+	Licence, Competent Team Leaders Work Group Leaders All Staff	Plant SMS-06-PR-0225
		Cuts, Scratches And Abrasions	C-	Gloves to be worn as necessary.	D	Team Leaders Work Group Leaders All Staff	SSMP, Pre work Briefing SMS-06-FM-0163 PPE- SMS-06-GD-0323
<div></div> <div>WARNING</div>		<div><i>The Following Precautions Are To Be Undertaken For When Using Hot Works As In Activity 2&5 During Total Fire Bans:</i></div> <ul style="list-style-type: none">• An Hot Works Permit Must Be Issued Before Work Tasks Are To Be Performed• The Welder Or Other Person In Control Of The Worksite Must Take Reasonable Care To Inspect The Workplace To Identify Potential Fire Hazards• All Fire Hazards Are To Be Removed Prior To Commencing Welding Tasks• Fire Fighting Equipment Must Be On Hand At The Worksite E.G. Water cart, Knapsacks, Fire Extinguishers• (Hot Works In Progress) Warning Signs Are To Be Placed At Appropriate Locations <div>Hot Work Sms-06-Pr-0329</div>					
2	Install Bondec	Manual Handling Injuries	B-	Correct manual handling techniques. Rotate staff on repetitive tasks. Use gloves if required	C+	Team Leaders Work Group Leaders All Staff	SSMP, Pre work Briefing SMS-06-FM-0163 Manual Handling SMS-06-GD-0001
		Crushed Fingers	B+	Keep hands clear of joining steel when positioning	C+	Team Leaders Work Group Leaders All Staff	SSMP, Pre work Briefing SMS-06-FM-0163 PPE- SMS-06-GD-0323
		Cuts, Scratches And Abrasions	C-	Gloves to be worn as necessary.	D	Team Leaders Work Group Leaders All Staff	SSMP, Pre work Briefing SMS-06-FM-0163 PPE- SMS-06-GD-0323
		Welder Flash	C-	Wear appropriate eye protection	D	Ticketed Welder Team Leaders Work Group Leaders All Staff	SSMP, Pre work Briefing SMS-06-FM-0163 PPE- SMS-06-GD-0323

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		Burns From Hot Work	C+	Wear gloves long sleeve shirts, long pants , spats, goggles or face shield as appropriate	D	Ticketed Welder Team Leaders Work Group Leaders All Staff	SSMP, Pre work Briefing SMS-06-FM-0163 PPE- SMS-06-GD-0323 Hot Work SMS-06-PR-0329
3	Epoxy Dowel Bars	USE OF HAZARDOUS MATERIALS E.G.: Hilti "HIT", Etc.	B-	Refer to MSDS and/or manufacturers instructions before using. Avoid spills. Use PPE. Identification and separation of flammable materials. Use in ventilated areas.	C-	Team Leaders Work Group Leaders All Staff	SSMP, Pre work Briefing SMS-06-FM-0163 MSDS, Hazardous Substances SMS-06-GD-0199 AS4839 AS2030
		Muscle Strain	B-	Correct manual handling procedures. "back-safe" training. Rotate usage.	C+	Team Leaders Work Group Leaders All Staff	SSMP, Pre work Briefing SMS-06-FM-0163 Manual Handling SMS-06-GD-0001
		Cuts, Scratches And Abrasions	C-	Gloves to be worn as necessary.	D	Team Leaders Work Group Leaders All Staff	SSMP, Pre work Briefing SMS-06-FM-0163 PPE- SMS-06-GD-0323
4	Install Pit Steelwork	Manual Handling Injuries	B-	Correct manual handling techniques. Rotate staff on repetitive tasks. Use gloves if required	C+	Team Leaders Work Group Leaders All Staff	SSMP, Pre work Briefing SMS-06-FM-0163 Manual Handling SMS-06-GD-0001
		Crushed Fingers	B+	Keep hands clear of joining steel when positioning	C+	Competent Person Team Leaders Work Group Leaders All Staff	SSMP, Pre work Briefing SMS-06-FM-0163 PPE- SMS-06-GD-0323
		Cuts, Scratches And Abrasions	C-	Gloves to be worn as necessary.	D	Team Leaders Work Group Leaders All Staff	SSMP, Pre work Briefing SMS-06-FM-0163 PPE- SMS-06-GD-0323
5	Install Support Brackets And Coping Angle	Coping Support Brackets Falling On Workers	C-	Hard hats to be worn at all times implement exclusion zone for workers not involved in tasks	D	Team Leaders Work Group Leaders All Staff	SSMP, Pre work Briefing SMS-06-FM-0163 PPE- SMS-06-GD-0323
		Muscle Strain	B-	Correct manual handling procedures. "back-safe" training.	C+	Team Leaders Work Group Leaders All Staff	SSMP, Pre work Briefing SMS-06-FM-0163 Manual Handling SMS-06-GD-0001

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		Electrocution. Use Of Power Tools	B-	All electrical equipment to be tagged /tested, earth leakage units to be used with all tools. Equipment to be fitted with effective safe guards * training *. Correct use of PPE	C-	Team Leaders Work Group Leaders All Staff	SSMP, Pre work Briefing SMS-06-FM-0163 Electrical Equipment SMS-06-GD-0268
		Jammed Fingers	B+	Keep hands clear of joining steel when positioning	C+	Team Leaders Work Group Leaders All Staff	SSMP, Pre work Briefing SMS-06-FM-0163 PPE- SMS-06-GD-0323
		Noise From Tightening Bolts With Impact Wrench.	C+	Use hearing protection	D	Team Leaders Work Group Leaders All Staff	SSMP, Pre work Briefing SMS-06-FM-0163 PPE- SMS-06-GD-0323
		USE OF HAZARDOUS MATERIALS E.G.: Hilti "HIT", Etc.	B-	Refer to MSDS and/or manufacturers instructions before using. Avoid spills. Use PPE. Identification and separation of flammable materials. Use in ventilated areas.	C-	Team Leaders Work Group Leaders All Staff	SSMP, Pre work Briefing SMS-06-FM-0163 MSDS, Hazardous Substances SMS-06-GD-0199 AS4839 AS2030
		Welder Flash	C-	Wear appropriate eye protection	D	Ticketed Welder Team Leaders Work Group Leaders All Staff	PPE- SMS-06-GD-0323
		Burns From Hot Work	C+	Wear gloves long sleeve shirts, long pants , spats, goggles or face shield as appropriate	D	Ticketed Welder Team Leaders Work Group Leaders All Staff	SSMP, Pre work Briefing SMS-06-FM-0163 PPE- SMS-06-GD-0323 Hot Work SMS-06-PR-0329
6	Place Reinforcement Form Back Edge And Coping Step	Manual Handling Injuries	B-	Correct manual handling techniques. Rotate staff on repetitive tasks. Use gloves if required	C+	Team Leaders Work Group Leaders All Staff	SSMP, Pre work Briefing SMS-06-FM-0163 Manual Handling SMS-06-GD-0001
		Crushed Fingers	B+	Keep hands clear of joining steel when positioning	C+	Team Leaders Work Group Leaders All Staff	SSMP, Pre work Briefing SMS-06-FM-0163 PPE- SMS-06-GD-0323
		Cuts, Scratches And Abrasions	C-	Gloves to be worn as necessary.	D	Team Leaders Work Group Leaders All Staff	SSMP, Pre work Briefing SMS-06-FM-0163 PPE- SMS-06-GD-0323
		Electrocution. Use Of High Speed Power Tools	B+	All electrical equipment to be tagged /tested, earth leakage units to be used with all tools. Equipment to be fitted with effective safe guards * training *. Correct use of PPE	C-	Team Leaders Work Group Leaders All Staff	SSMP, Pre work Briefing SMS-06-FM-0163 Electrical Equipment SMS-06-GD-0268

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		Object In Eye	C-	Protective eye-wear must be worn	D	Team Leaders Work Group Leaders All Staff	SSMP, Pre work Briefing SMS-06-FM-0163 PPE- SMS-06-GD-0323
		USE OF HAZARDOUS MATERIALS E.G.: Curing Compound, Bond Breaker, Sealants, Etc.	B-	Refer to MSDS and/or manufacturers instructions before using. Avoid spills. Use PPE. Identification and separation of flammable materials. Use in ventilated areas.	C-	Ticketed Operator Team Leaders Work Group Leaders All Staff	SSMP, Pre work Briefing SMS-06-FM-0163 MSDS, Hazardous Substances SMS-06-GD-0199 AS4839 AS2030
		Cuts, Scratches And Abrasions	C-	Gloves to be worn as necessary.	D	Team Leaders Work Group Leaders All Staff	SSMP, Pre work Briefing SMS-06-FM-0163 PPE- SMS-06-GD-0323
		Manual Handling Injuries	B-	Correct manual handling techniques. Rotate staff on repetitive tasks. Use gloves if required	C+	Team Leaders Work Group Leaders All Staff	SSMP, Pre work Briefing SMS-06-FM-0163 Manual Handling SMS-06-GD-0001
7	Set Up Concrete Pump	Struck By Boom / Concrete Truck	B+	Be aware, Ticketed operators.	C+	Team Leaders Work Group Leaders All Staff	SSMP, Pre work Briefing SMS-06-FM-0163 Plant SMS-06-PR-0225
		Contact With Live O/H Wires	A	Maintain clearances at all times. Isolate power	C+	Qualified Permit Holder QEL29/MEI61 Team Leaders Work Group Leaders All Staff	Electrical Equipment SMS-06-GD-0268 Electrical Permits SMS-06-EN-0577
		Damage To Rail Infrastructure	B+	Vigilance/cover to protect. Report any damage.	C+	Team Leaders Work Group Leaders All Staff	SSMP, Pre work Briefing SMS-06-FM-0163
		Oil/Fuel Spillage	C-	Plant to be inspected daily. Use correct methods for filling machinery. Spill response kits on-site.	D	Ticketed Operator Team Leaders Work Group Leaders All Staff	SSMP, Pre work Briefing SMS-06-FM-0163 ENVIRONMENTAL PROTECTION PLAN
		Plant Roll-Over/Collapse	B+	SWL of machinery not to be exceeded. Ensure that outriggers or stabilisers in position	C-	Ticketed Operator Team Leaders Work Group Leaders All Staff	Plant SMS-06-PR-0225
8	Pour Concrete Deck	Concrete	B-	Protective clothing. Gloves	C-	Team Leaders Work Group Leaders All Staff	SSMP, Pre work Briefing SMS-06-FM-0163 MSDS

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		Skin Irritations	C-	Wear gloves long sleeve shirts	D	Team Leaders Work Group Leaders All Staff	Pre work Briefing SMS-06-FM-0163 MSDS
		Concrete In Eyes	C-	Wear glasses/goggles. First aid	D	Team Leaders Work Group Leaders All Staff	SSMP, Pre work Briefing SMS-06-FM-0163 PPE- SMS-06-GD-0323
		Manual Handling Injuries	B-	Correct manual handling techniques. Rotate staff on repetitive tasks. Use gloves if required	C+	Team Leaders Work Group Leaders All Staff	SSMP, Pre work Briefing SMS-06-FM-0163 Manual Handling SMS-06-GD-0001
		Struck By Boom / Concrete Truck	B+	Be aware, ticketed operators.	C+	Team Leaders Work Group Leaders All Staff	SSMP, Pre work Briefing SMS-06-FM-0163 Plant SMS-06-PR-0225
9		MANUAL HANDLING INJURIES	B-	Correct manual handling techniques. Rotate staff on repetitive tasks. Use gloves if required	C+	Team Leaders Work Group Leaders All Staff	SSMP, Pre work Briefing SMS-06-FM-0163 Manual Handling SMS-06-GD-0001
		USE OF HAZARDOUS MATERIALS E.G.: Curing Compound, Bond Breaker, Sealants, Etc.	B-	Refer to MSDS and/or manufacturers instructions before using. Avoid spills. Use PPE. Identification and separation of flammable materials. Use in ventilated areas.	C-	Team Leaders Work Group Leaders All Staff	SSMP, Pre work Briefing SMS-06-FM-0163 MSDS Hazardous Substances SMS-06-GD-0199
10	Strip Formwork	Electric Shock	B-	All tools tested and tagged	C-	Team Leaders Work Group Leaders All Staff	SSMP, Pre work Briefing SMS-06-FM-0163 Electrical Equipment SMS-06-GD-0268
		Cuts, Scratches And Abrasions	C-	Take care stripping and de-nailing formwork	D	Team Leaders Work Group Leaders All Staff	SSMP, Pre work Briefing SMS-06-FM-0163 PPE- SMS-06-GD-0323
		Unstable Loads	B+	Ensure materials are secured during transit. Don't exceed safe working load of plant.	C+	Ticketed Operator Team Leaders Work Group Leaders All Staff	SSMP, Pre work Briefing SMS-06-FM-0163 Plant SMS-06-PR-0225
		Manual Handling Injuries	B-	Correct manual handling techniques. Rotate staff on repetitive tasks. Use gloves if required	C+	Team Leaders Work Group Leaders All Staff	SSMP, Pre work Briefing SMS-06-FM-0163 Manual Handling SMS-06-GD-0001

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11	REINSTATE FENCING	Contact With Services	B+	Service search maps on site. Mark out locations. Hand dig to locate if not certain of exact location of any services	C+	Team Leaders Work Group Leaders All Staff	SSMP, Pre work Briefing SMS-06-FM-0163 Excavation & Earthworks SMS-06-GD-0378
		Plant Roll-Over	B+	Ensure that outriggers or stabilisers in position prior to lifting	C-	Ticketed Operator Team Leaders Work Group Leaders All Staff	SSMP, Pre work Briefing SMS-06-FM-0163 Plant SMS-06-PR-0225
		Head Injuries	C-	Hard hats to be worn at all times implement exclusion zone for workers not involved in tasks	D	Team Leaders Work Group Leaders All Staff	SSMP, Pre work Briefing SMS-06-FM-0163 PPE- SMS-06-GD-0323
		Eye Injuries	C-	Eye protection to be worn at all times.	D	Team Leaders Work Group Leaders All Staff	SSMP, Pre work Briefing SMS-06-FM-0163 PPE- SMS-06-GD-0323
		Contact With Live O/H Wires	A	Keep clearances at all times. Be aware. Power out permit	C+	Crane Operator, Dogman Qualified Permit Holder QEL29/MEI61 Team Leaders Work Group Leaders All Staff	SSMP, Pre work Briefing SMS-06-FM-0163 Electrical Equipment SMS-06-GD-0268 Electrical Permits SMS-06-EN-0577
		Electric Shock	B+	All tools tested and tagged	C-	Team Leaders Work Group Leaders All Staff	SSMP, Pre work Briefing SMS-06-FM-0163 Electrical Equipment SMS-06-GD-0268
		Back Injury / Muscle Strain	B-	Correct lifting procedures. Use mechanical means to transfer heavy or bulky items.	C+	Team Leaders Work Group Leaders All Staff	SSMP, Pre work Briefing SMS-06-FM-0163 Manual Handling SMS-06-GD-0001
		USE OF HAZARDOUS MATERIALS E.G.: Concrete Etc.	B-	Refer to MSDS and/or manufacturers instructions before using. Avoid spills. Use PPE. Identification and separation of flammable materials. Use in ventilated areas.	C-	Team Leaders Work Group Leaders All Staff	SSMP, Pre work Briefing SMS-06-FM-0163 MSDS Hazardous Substances SMS-06-GD-0199

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NOTE: Each work group or team member must sign off on the SWMS to acknowledge they have been briefed about or instructed in the SWMS

Team member name (Please print)	Team Member signature	Instructor/ Briefer name	Date	Team member name (Please print)	Team Member signature	Instructor/ Briefer name	Date

RailCorp Level 2 Risk Matrix - Regional & Local (Workplace)			Likelihood/Frequency							<u>Definition for Use - Regional & Local level (Workplace)</u> Used for workplace hazards and safety risks that do not consider the whole of the network. Indicatively this matrix is appropriate for use where the hazards under consideration are up to 10% of the total network exposure. This includes regional and local workplace risk assessments. As an example, the Level 2 scale would be used when examining the risk of slips, trips and falls on specific RailCorp platforms within a region or at a particular station, or the risk of fire within a depot. There are 3 options for descriptors which can be used to determine the frequency category. One set of descriptors is provided for frequency, one for historical likelihood, and one for predictive likelihood in the workplace. Choose the most appropriate. To score the risk, follow the steps: 1. Identify the magnitude of the credible consequence if the risk were to occur. If applicable, risks should be considered in terms of the safety (this matrix), commercial and environmental impact (using other matrices). 2. Identify the likelihood of this level of consequence occurring. (This is done after considering the effectiveness of the current controls in place) 3. Score the risk using the combination of likelihood and consequence ranking. Note: Where there are a range of credible consequences which may lead to a different level or risks and/or where the controls may be different. It may be useful to score the risk more than once.
			Event Frequency	Less than once every 1000 years	Once every 100 to 1,000 years	Once every 10 to 100 years	Once every 1 to 10 years	More than once per year up to and including 10 times per year	More than 10 times per year	
			Historical (Likelihood)	Unheard of in the rail industry	Has occurred once or twice in the rail industry	Has occurred many times in the rail industry, but not in NSW	Has occurred once or twice in NSW	Has occurred frequently in NSW	Has occurred frequently at specific locations	
			Workplace Predictive (Likelihood)	Not expected to occur	May occur only in exceptional circumstances	Could occur at some time but not likely	You would expect it to occur at least once in the next 10 years performing similar activities	You would expect it to occur at least once this year performing similar activities	You would expect it to occur at least once this month performing similar activities	
				F1	F2	F3	F4	F5	F6	
Consequence			Incredible	Improbable	Remote	Occasional	Probable	Frequent		
>10 Fatalities	C6	Disastrous	B-	B+	A	A	A	A		
2-10 Fatalities	C5	Catastrophic	C+	B-	B+	A	A	A		
1 Fatality (2-10 Major Injuries)	C4	Critical	C-	C+	B-	B+	A	A		
1 Major Injury	C3	Major	D	C-	C+	B-	B+	A		
1 or more Minor Injuries	C2	Minor	D	D	C-	C+	B-	B+		
First aid treatment, or illness/injury not requiring treatment	C1	Negligible	D	D	D	C-	C+	B-		