



Safe Work Method Statement No:				WMS-01	Task:	Construct Kerb & Gutter by Machine			
No	Activity	Possible Hazards	Possible Risks	Risk Score	Risk Controls	Risk Score (1 – 6) AFTER Controls	Person Responsible	Possible Product / Environment Hazards	Product / Environment Risk Control
1	Site establishment	Un-inducted personnel, incorrect PPE, non-conformance to project policies		5	All staff to be industry inducted (Green / White card), project inducted, wearing correct PPE, and have any required client paperwork completed (toolbox, pre-start etc.)	5	Leading Hand		
		Interference with public vehicles / pedestrians	Death, body impact injuries	4	Client to ensure that work area is sufficiently barricaded, and Traffic Control Plan in place if required to ensure no access / interference to site by members of the public	5	Leading Hand	Personnel / members of the public being injured	Notify persons nearby, apply TCP if working near roadway
2	Unload pegs from truck	Metal splinters	Sprains, strains, cuts to hands	4	Care to be taken where hands are placed when removing pegs from the truck, gloves should be worn to avoid finger / hand injuries	5	Workcrew		
		Person to vehicle collision as truck is in motion	Death, body impact injuries	3	Pedestrian worker must remain alert and aware of truck movement when unloading pegs, steel capped boots and high visibility shirt must be worn	5	Workcrew	Moving vehicles on site / accidents	Barricade work area, use pedestrian and traffic signs
		Handling too many pegs at one time	Musculo-skeletal disorders	3	No more than 10 pegs should be lifted at one time, follow the procedure for manual lifting in the Safety Handbook at all times	5	Workcrew		
3	Place and secure pegs in designated area where kerb will be laid	Use of sledge hammer	Hand / finger impact injured	4	Sledge hammer is to be held at a safe distance away from the head of the hammer with hands, plastic sleeve must be held by free hand below the bottom part of the sleeve	5	Workcrew		
		Repetitive use of sledge hammer	Repetitive strain injury to wrist / arm	4	Proper use of sledge hammer at all times with regular rest and stretch breaks to be taken	5	Workcrew		
		Use of drill to loosen hard ground / rock surfaces	Fractures to wrist / arm / hand	4	Firm hold and control of the drill must be maintained, operator must remain alert and aware of changing ground conditions and drill movement	5	Workcrew		

		Anchor pegs could uplift from ground and become a projectile	Body impact injuries	4	Pegs must be secured into firm ground, check to ensure that the ground is not showing any signs of movement	5	Workcrew		
		Peg protruding out of the ground	Vehicle tyre impact	4	Driver to be aware of setout pegs, pegs taped where possible	5	Workcrew		
		Possibility of striking underground services	Electrocution	3	Dial Before You Dig must be performed, enquire with client to identify service locations before commencing any work	4	Leading Hand / Client Rep		
4	Set-up string line and transfer levels	Uneven ground or open trenches	Slip / trip / fall injuries	5	Remain alert to ground conditions where footing is placed, steel capped boots must be worn	5	Workcrew		
		Excessive tension hold on stringline / breaking of stringline	Burns and cuts to hands / fingers	4	Gloves must be worn	5	Workcrew		
5	Sight stringline	Being hit by vehicle while on the ground	Death, body impact injuries	3	High visibility clothing must be worn, access of vehicles to be limited where practical, witches hats where on or near major road	4	Workcrew		
		Rough terrain or uneven ground	Slip / trip / fall injuries	4	Remain alert to ground conditions where footing is placed, steel capped boots must be worn	5	Workcrew		
6	Unfold and position hiab	Hiab-person collision	Death, body impact injuries	3	High visibility clothing must be worn, remain aware of operator movement and must stay in sight of operator at all times, lights must be on when operating in the dark, operator must be on the correct side of the truck when sluing	5	Workcrew		
		Hiab-vehicle collision	Crushing injuries	3	Operator must be aware and alert to sluing position of the hiab to avoid hitting truck	5	Workcrew		
		Hiab-obstacle collision	Crushing injuries	3	Truck to be located so that hiab is as far as possible from overhead services, trees, signs etc. spotter to be used when unloading	5	Workcrew		
		Overturn, unstable hiab truck	Death, body impact injuries	3	Operator to assess load weight and location prior to lift and set outriggers as necessary, timbers to be pig stayed for secure footing	5	Workcrew		

7	Strap / secure machine for lifting	Possibility of striking another worker with a strap	Body impact injuries, visual impairment	4	All sides of truck must be clear of other workers, clearance must be sought before throwing strap over machine for securing	5	Operator / driver		
		Possibility of strap breaking or snapping	Body impact injuries, visual impairment	5	Straps must be in good condition before use, do not over stretch straps when securing the machine	6	Operator / driver		
8	Transport machine	Vehicle to vehicle collision	Death, body impact injuries	3	Driver must obey the road rules at all times and be aware of irrational drivers on the road	4	Driver		
		Vehicle to obstacle collision	Death, body impact injuries	3	Remain aware and alert to changing conditions on the road	4	Driver		
9	Unload and place machine onto ground	Possibility of hitting power lines	Electrocution, death	3	Where possible always unload away from power lines, remain alert to the distance of the load and the power lines, use a spotter to ensure safe unloading	4	Operator / Workcrew		
		Unloading and positioning machine onto chocks	Hand / finger injuries	4	Pedestrian workers do not obstruct the view of the operator and the chains being unhooked, worker must clearly indicate that the area is ready for unloading, operator must wait until instruction is given to unload	5	Operator / Workcrew		
10	Locate site for mixing of materials	Unloading sand and cement	Manual handling injuries, strains / sprains	4	Follow manual handling procedure in the Safety Handbook, team lift or mechanical lift where possible	5	Leading Hand		
		Rough terrain when moving wheelbarrow	Slip / trip / fall injuries	4	Secure footing, be alert to ground conditions and debris	5	Leading Hand		
11	Position mixer near materials	Rough terrain	Slip / trip / fall injuries	5	Secure footing, be cautious when pushing mixer	6	Workcrew		
		Pushing and positioning mixer	Manual handling injuries, sprains / strains	4	Follow manual handling procedure in the Safety Handbook, team lift or mechanical lift where possible	5	Workcrew		
		Overturn of the mixer	Slip / trip / fall injuries	4	Ensure stable and level footing for mixer	5	Workcrew		

12	Manually start mixer	Starting the mixer	Hand / finger injuries	5	Care must be taken when the mixer is being started, gloves must be worn	6	Workcrew		
		Pull-start rope breaks	Slip / trip / fall injuries	5	Remain alert and focussed on the task and ensure the operator does not over balance when the mixer is being started	6	Workcrew		
13	Load mixer with sand / cement / water	Lifting cement / sand bags and loading into mixer	Manual handling injuries, strains / sprains	3	Regular but short rest breaks to be taken, follow manual handling procedure in the Safety Handbook, use 20kg cement bags only	4	Workcrew		
		Cement particles in the air	Respiratory and eye irritations	4	Dusk masks and eye protection must be worn	5	Workcrew		
14	Tipping slurry into wheelbarrow	Slurry splashing onto pedestrian workers	Allergic reactions, respiratory disorders, visual impairment, burns and skin injuries	4	Care and alertness when pouring slurry into wheelbarrow, pedestrian access to site restricted by proper barriers and signage	5	Workcrew		
		Wheelbarrow becoming unstable and tipping over	Slip / trip / fall injuries	4	Wheelbarrow should be positioned on level ground where possible	5	Workcrew		
		Tipping the mixer and resisting the load	Manual handling, strains / sprains	4	Maintain free movement of mixer to wheelbarrow – do not resist against flow of slurry, wheelbarrow to be correctly positioned before commencing to pour	5	Workcrew		
15	Take full wheelbarrow to designated area on site	Pushing and lifting the wheelbarrow	Manual handling injuries	3	Regular but short stretch and rest breaks to be taken, follow manual handling procedures in the Safety Handbook	4	Workcrew		
		Pushing the wheelbarrow over uneven / slippery ground	Slip / trip / fall injuries	4	Caution and alertness to where footing is placed when pushing the wheelbarrow	5	Workcrew		
		Vehicle to person collision	Death, body impact injuries	3	High visibility shirts must be worn, remain aware of driver movement and stay in sight of driver, all unnecessary workers must remain clear while truck is being positioned	5	Workcrew		

16	Fill machine with slurry	Repetitive lifting	Manual handling injuries	4	Regular but short stretch and rest breaks to be taken, follow manual handling procedures in the Safety Handbook	5	Workcrew		
		Possible splash back of slurry onto face and arms	Allergic reactions, respiratory disorders, visual impairment, burns and skin injuries	5	Tip slurry in a controlled and careful manner, long sleeve shirt must be worn, consult SDS for materials handling instructions	6	Workcrew		
17	Guide concrete truck alongside kerb machine	Vehicle to person collision	Death, body impact injuries	3	Wear high visibility shirt, remain aware of kerb machine and concrete truck movements, operator to stay in sight of the truck driver at all times	5	Workcrew		
		Vehicle to machine collision	Death, body impact injuries	3	Driver's view of the machine is not to be obstructed by pedestrian workers, use clear hand signals, calls to guide driver alongside the machine	5	Workcrew		
18	Feeding the kerb machine with concrete and slurry	Incorrect feeding method	Hand / finger injuries	3	At no times should hands extend beyond the top of the kerb machine, shovel or stoker should be used to unblock kerb machine	5	Workcrew		
		Machine to vehicle collision	Death, body impact injuries	3	Extreme care to be taken when positioning the chute into the kerb machine	5	Workcrew		
		Machine to person collision	Death, body impact injuries	3	Wear high visibility shirt and keep clear from path of concrete truck and kerb machine, machine operator to be aware of pedestrian workers and ensure machine path is kept clear, communication between machine operator and driver to be clear and maintained at all times	4	Workcrew		
		Uneven or rough ground	Slip / trip / fall injuries	4	Secure footing, be cautious and steady when working with the machine, watch for string line and obstacles when moving around machine	5	Workcrew		
		Reactions to chemicals, burns from wet concrete	Allergic reactions, respiratory disorders, visual impairment, burns and skin injuries	4	Wear correct PPE, safety glasses, hearing protection, gloves, long sleeve shirt	6	Workcrew		

19	Machine fails to follow or comes off the stringline	Possibility of striking concrete truck	Death, body impact injuries	3	At no time is an operator to place his body between the machine and the concrete truck, machine is to be switched off before corrective action takes place	4	Workcrew		
		Possibility of striking adjacent ground or becoming tangled in stringline	Crushing injuries, hand / finger injuries	4	Machine is to be switched off before corrective action takes place, align machine and fix stringline before commencing to start machine	6	Workcrew		
20	Completion of load	Vehicle to machine collision	Death, crushing, body impact injuries	3	Operator must guide and instruct driver to depart from machine only after chute has been secured	4	Workcrew		
		Machine to person collision	Slip / trip / fall injuries, body impact injuries	4	Remain aware and alert to site conditions, watch for stringline when moving around machine, switch off machine when load is completed	6	Workcrew		
21	Strip stringline and pegs	Metal splinters	Sprains / strains / cuts to the hands	4	Gloves must be worn at all times while clearing and cleaning	6	Workcrew		
		Stepping over kerb	Slip / trip / fall injuries	4	Caution and alertness to where footing is placed, steel capped boots to be worn at all times	6	Workcrew		
		Repetitive bending / stooping	Manual handling injuries, musculoskeletal injuries	5	Regular but short stretch and rest breaks to be taken, only 10 pegs to be lifted at any time, follow manual handling procedures in Safety Handbook	6	Workcrew		
22	Clean equipment	Scrubbing wheelbarrow and mixer clean from cement	Finger / hand injuries	4	Gloves must be worn, use brush / rag where possible to avoid contact with hands	5	Workcrew		
		Mixer still in operation	Hand / arm injuries	3	Mixer must be turned off prior to any cleaning, disconnect from power source	5	Workcrew		
		Environmental issues	Environmental contamination	3	Gear is to be washed out in designated area to ensure that no cement slurry gets into stormwater systems, any spillage to be contained and cleaned up	5	Workcrew	Waste concrete entering stormwater	Collection of residue / waste, wash-out zones

23	General	Hazards encountered that are not covered by this SWMS or the work changes and new hazards are presented		1	Stop work or source alternative duties, gather the work group and supervisor together and discuss the identified hazard or condition that has resulted in the work ceasing, review the SWMS to incorporate the identified hazard or change, agree on the mitigation or management method required to rectify, eliminate and reduce exposure to the hazard or change, sign off on the revision then continue with the revised procedure, submit the revision of the SWMS to the Safety Manager for approval	4	Crew Leader, Leading Hand, Workcrew		
----	---------	---	--	---	--	---	---	--	--

Plant / Equipment	Maintenance of Plant / Equipment	Plant / Equipment	Maintenance of Plant / Equipment
Arrow Kerb Machine	Maintenance Log		
Cement Mixer	Maintenance Log		

Personal Qualifications & Experience	Personnel, Duties and Responsibilities	Training Required to Complete Works
Construction Industry General Induction (Green / White Card)	Crew Leader	Supervisor to be trained in hazard identification, risk assessment and control
	Leading Hand	Ongoing safety training and toolbox talks
	Workcrew	



<b>NSW Legislation</b>				
Work Health & Safety Act 2011	OHS Amendment (Dangerous Goods) Act 2003	Workers' Compensation (Dust Diseases) Act 1942	Workers' Compensation Act 1987; Workplace Injury Management and Workers' Compensation Act 1998	
Work Health & Safety Regulation 2011	OHS Amendment (Dangerous Goods) Regulation 2005	Workers' Compensation (Dust Diseases) Regulation 2008	Workers Compensation Regulation 2003	
<b>Australian Standards</b>				
AS 1319:1994 Safety signs for the occupational environment	AS/NZS 1270:2002 Acoustics – Hearing protector	AS/NZS 2210.1:2010 Safety, protective and occupational footwear – Guide to selection, care and use	AS/NZS 5762:2005 In-service safety inspection and testing – repaired electrical equipment	
AS 1940:2004 The storage and handling of flammable and combustible liquids	AS/NZS 1337.1:2010 Personal eye protection – Eye and face protectors for occupational applications	AS/NZS 3760:2010 In-service safety inspection and testing of electrical equipment	AS/NZS 31000:2009 Risk management – Principles and guidelines	
AS/NZS 1269:2005 Occupational noise control	AS/NZS 1800:1998 The selection, care and use of industrial safety helmets	AS/NZS 4399:1996 Sun protective clothing	AS/NZS/ISO 600079.1:2009 Classification of hazardous areas	
AS/NZS 2161.1:2000 Occupational protective gloves – Selection, use and maintenance	AS/NZS 4602:2011 High visibility safety garments – Garments for high risk applications			
<b>WorkCover Codes of Practice – NSW</b>	<b>Subject Matter for National COP</b>	<b>National Codes of Practice</b>	<b>Subject Matter for National COP</b>	<b>National Codes of Practice</b>
Amenities for construction work	Consultation	Work health and safety consultation, cooperation and coordination	First aid	Fist aid in the workplace
Excavation work	Construction	Construction work	Hazardous chemicals	Managing risks of hazardous chemicals in the workplace
Formwork	Demolition	Demolition	Manual handling	Hazardous manual tasks
Moving plant on construction sites	Electrical	Managing electrical risks at the workplace	Noise	Managing noise and preventing hearing loss at work
Work near overhead power lines	Excavation	Excavation work	Plant	Managing risks of plant in the workplace
Work in hot or cold environments	Falls	Managing falls at workplaces	Risk Management	How to manage work health and safety risks
Workplace amenities	Facilities	Managing the work environment and facilities		
<b>National Standards / Other Standards</b>				
National Exposure Standards Atmospheric Contaminants in the Occupational Environment [NOHSC 1003 (1995)]		National Standard for Occupational Noise [NOHSC 1007 (2000)]		
National Code of Practice for Noise Management and Protection of Hearing at Work [3 <sup>rd</sup> Edition]		Lend Lease Global Minimum Requirements		

