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| **Project Location:** |  | **Date:** |
| **Principal Contractor:** |  | **Site Manager:** |
| **Contact Number:** |  | **Contact Number:** |
| This JSA will provide practicable guidance to workers engaged in work associated with working at height. Covered in this JSA are planning and preparation, pre-start inspections, operational considerations, risk matrix and emergency management procedures.  **WorkSafe NZ Guidelines have been attached at the end of the JSA for workers who are unsure about working at height.** | | |

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| **Worker Name**  Team Members who were consulted in the development of this JSA | **Worker Signature** | **Worker Position** | **Date** |
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**Underline the following requirements that apply to your task**

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| **PPE Requirements** | **Plant, Equipment Tools** | **Permits, Barricades & Signs** |
| personal safety harness equipment  safety helmet – induction sticker  hi-viz vest  steel capped boots  approved hearing protection  eye protection mandatory  safety gloves  approved respiratory specific to job. example cutting disturbing concrete | man cage,  power tools, electrical leads  battery powered tools, hand tools  nuts, bolts, steel brackets  safety rope, first aid kit  heavy machinery  knuckle boom, telehandlers, scissor lifts, cranes & lifting equipment excavator machines, dumper trucks, roller machine, loading unloading trucks, concrete machines, pumps, hopper. | exclusion zones must be set up to protect all workers  working at height permit. exclusion zones, traffic cones, telescopic arms, warning tape, signage, prestart meetings,  traffic flag lines, steel mesh panel security fencing. |

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| **Level** | **Descriptor** | **Examples** |
| 1 | Insignificant | No injury, no financial loss |
| 2 | Minor | First aid treatment, on-site release immediately contained, medium financial loss |
| 3 | Moderate | Medical treatment required, on-site release contained with outside assistance, high financial loss |
| 4 | Major | Extensive injuries, loss of production capability, off-site release with no detrimental effects, major financial loss |
| 5 | Catastrophic | Death, toxic release off-site with detrimental effect, huge financial loss |

**Step1: Determine the consequence**

**Step 2: determine the Likelihood**

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| **Level** | **Descriptor** | **Examples** |
| A | V Likely | Is expected to occur in most circumstances |
| B | Likely | Will probably occur in most circumstances |
| C | Moderate | Might occur at some time |
| D | Unlikely | Could occur at some time |
| E | Rare | May occur only in exceptional circumstances |

**Step 3: Use the Matrix to determine the risk**

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|  | **Consequence** | | | | |
| **Likelihood** | Insignificant  1 | Minor  2 | Moderate  3 | Major  4 | Catastrophic  5 |
| Very Likely  A | **High** | **High** | **Urgent** | **Urgent** | **Urgent** |
| Likely  B | **Medium** | **High** | **High** | **Urgent** | **Urgent** |
| Moderate  C | **Low** | **Medium** | **High** | **Urgent** | **Urgent** |
| Unlikely  D | **Low** | **Low** | **Medium** | **High** | **Urgent** |
| Rare  E | **Low** | **Low** | **Medium** | **High** | **High** |

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| **Risk Level** | **Recommended Action** |
| **Urgent** | Act Immediately  The proposed task or process activity must not proceed. Steps must be taken to lower the risk level to as low as reasonably practicable using the hierarchy of risk controls |
| **High** | Act Within  The proposed activity can only proceed, provided that:   1. The risk level has been reduced to as low as reasonably practicable using the hierarchy of risk controls 2. The risk controls must include those identified in legislation, Australian Standards, codes of practice 3. The risk assessment has been reviewed and approved 4. A Safe Working Procedure (SWP) has been prepared 5. The manager must review and document the effectiveness of the implemented risk controls. |
| **Medium** | Act Within  The proposed task or process can proceed, provided that:   1. The risk level has been reduced to as low as practicable using the hierarchy of risk controls 2. The risk assessment has been reviewed and approved 3. A Safe Working Procedure (SWP) has been prepared. |
| **Low** | Act Within  Managed by local documented routine procedures which must include application of the hierarchy of controls. |

**Hierarchy of Controls**

Controlling the health and safety risks in a workplace is necessary to prevent injury and illness. identify and assess the risks, then decide on the best way to control them, by applying the Hierarchy of Controls.

1. **Elimination** - eliminating the hazard
2. **Substitution** - replacing one substance or activity with a less hazardous one
3. **Isolation** - use of barriers to shield or isolate the hazard, enclosures for noisy machinery, installing guards on machinery
4. **Engineering** - design and install equipment to counteract the hazard
5. **Administration** - policies and procedures for safe work practices
6. **Personal Protective Equipment** - respirators, ear plugs, face masks

*When deciding on the best way to control a risk, start at the top of the hierarchy of controls, i.e., investigate if the risk can be eliminated first, for example by changing the way the work is done, or by using safer substances or equipment. This is the most effective way to control a hazard. If these methods are not possible, then the use of isolation, engineering or administrative controls to reduce or minimise the risk are to be used.*

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| **Step**  **No.** | **Job Step** | **hazards** | **Risk** | **Controls** | **Residual Risk** | **Action** |
|  | **List the tasks required to perform the activity** | **list the hazards that could cause injury** |  | **List the control measures required to eliminate or minimise the risk of injury** |  | **Name of person applying the controls** |
| 1 | Complete pre-start and after start checks | * Unsafe equipment * Damaged equipment * No records of checks been done * Damaged harnesses, lanyards |  | * Complete checklist/logbook when completing the pre-op checks * Report faults/problems that can’t be rectified before work starts * Complete a check sheet or logbook for harnesses and lanyards if required in that workplace   ***Take care and think about the task a*** |  |  |
| 2 | Check emergency controls | * Emergency controls not working * Operator not familiar with emergency controls * Support staff / spotters not familiar with emergency controls * Incorrect response to hazardous or emergency situations |  | * Test all emergency functions * Familiarise all operators with emergency functions * Familiarise all support staff / spotters with emergency controls * Take care and think about the task at all times |  |  |
| 3 | Assess job requirements and work | * Emergency controls not working * Operator not familiar with emergency controls * Support staff / spotters not familiar with emergency controls * Incorrect response to hazardous or emergency situations |  | * Do a RISK ASSESSMENT, JSA or TAKE 5 for the task * Check job requirements with supervisor * Weight of load including people and equipment is correctly estimated and within EWP capacity * Confirm job specifications and procedures on the RISK ASSESSMENT, JSA or TAKE 5 for the task * Obtain copy of site plans if needed.   ***Take care and think about the task at all times*** |  |  |

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| 4 | Get a copy of any site OHS policies and requirements, as well as manufacturer’s instructions / operator’s manual. | | * May contravene OHS policies and place people or company at risk * May contravene Environmental policies and place people, flora, or fauna at risk * May contravene Traffic Act and place people at risk * May not use equipment correctly | |  | * Check policies with supervisor and obtain a copy if not certain * Ensure permits are completed if necessary * Report hazards/problems that can’t be rectified before work commences * Get a copy of the operator’s manual, or Australian Standards 2550.10 if the operator’s manual is not available   ***Take care and think about the task at all times*** |  |  |
| 5 | | Plan work and set up for lift | | * Workers not sure of job role * Procedures get missed * Job not done properly * Ground may not be suitable * EWP may not be set up correctly * Tools and equipment may fall out of the EWP, or cause a trip hazard * People injured /equipment damaged * Overload the machine * Rollovers * Crushing of people / objects * EWP (and parts of the EWP in blind spots to the operator) become jammed when operating * Damaged product * Damaged equipment |  | * Job roles clearly defined * Communication system agreed upon e.g., radio, mobile phone, hand signals, voice contact, etc * Check procedures with supervisor * Discuss the RISK ASSESSMENT, JSA or TAKE 5 for the task and confirm with all relevant personnel * Have the ground checked by someone with training or experience in that situation * Store smaller hand tools In a box or a basket, or use a tool lanyard * Operate by licenced personnel only who have had an induction on the EWP to be used (Licence not required for EWP not capable of going over 11 metres, but operator must be trained / inducted on the EWP to be used) * Select appropriate EWP for the job * Wear all necessary PPE identified for site requirements, and identified on the RISK ASSESSMENT, JSA or TAKE 5 for the task * Operate cautiously at a safe speed * Maintain footing on the floor of the platform at all times * Follow manufacturers and site procedures including: |  |  |

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| 6 | Isolating work area | * Falling tools and materials hitting others below. * Scissor action could cause harm if a worker comes into contact while they are moving. |  | Assess the work site and where necessary establish a safe work zone – isolate the area under the MEWP using flag rope of danger tape, to prevent others inadvertently walking under an elevated work platform or contacting the scissor action. |  |  |
| 7 | Raising workers in platform | Untrained workers who use these vehicles could potentially kill themselves and or others, by machine hitting overhead obstructions power lines etc.  Worker being ejected if machine travels over uneven ground. Tipping over slab edges  Workers being crushed against overhead obstructions. |  | Only workers who are trained to unit standard level, or who are directly supervised by a person with that training, or who have been assessed as being competent by the site foreman, are permitted to operate these machines.  On uneven surface Operator to ensure the leveling legs are deployed to level the machine-    Operator must ensure that no one is close to the scissor action prior to elevating or lowering the platform. Ensure that warning devices are working prior to commencing work  No one is permitted to climb over or sit on the guard rails.  Full body harnesses (Comply with AS/NZS 1891) will be worn in all instances by operators of Knuckle booms, these will be attached via adjustable lanyard to dedicated anchor points. Adjust so that operator cannot overreach outside the basket.  Harness and lanyards (Comply with AS/NZS 1891) are required for scissor lifts if the task requires workers to reach excessively outside the confines of the platform or have to exit the platform to reach another work area which exposes the worker to a risk of falling.  Operator to assessed ground conditions prior to task commencing - level and well compacted. Operator to do visual checks of ground prior to travel not closer than 600mm from excavations – Concrete slab edges approach with care under direction by ground based spotter.  Hard hats to be worn when determined by the site foreman or when otherwise a risk of head injury from contact with overhead structures exists. |  |  |
| 8 | Machine traveling about site.  Knuckle booms travelling over uneven surfaces | Machine falling over while traveling  Machine damaging plant or persons while traveling  Knuckle booms When elevated over 3m the oscillating axles lock, and machines become unstable if required to travel over uneven ground. |  | Keep a safe distance from changes in slope, depressions, debris, overhead power lines and building structures or within 600mm of excavations.  Operator must check ground conditions prior to traveling – must be firm and level  Operator to ensure the way is clear prior to travel.  All Workers in Hi Vis.  Knuckle-boom must be lowered to below 3 m to disengage axle locks prior to travelling the machine.  No blind travelling- Operators must be able to see the ground they are travelling over. |  |  |
| 9 | Using portable mains powered, electric power tools from the platforms. | Electric shock from exposure to electric leakage.  Damage to electrical equipment by driving over or parking lifts on power leads. |  | Battery tools to be used  Check power leads are clear of scissor action when raising and lowering platform.  Check before raising platform that leads are not trapped under a wheel.  Do not driver over power cables. |  |  |
| 10 | Carry out elevation | * Obstacles and hazards in the way |  | * Operation of the EWP is checked as necessary to ensure a safe lift * Follow the RISK ASSESSMENT, JSA or TAKE 5 for the task   ***Take care and think about the task at all times*** |  |  |
| 11 | Operating in high winds | * Machine tip overs or safety limit equipment cut outs activation due to excessive sway when operating in High winds. |  | Operator and or site foreman will cease work and lower the EWP lift if they believe that wind speeds exceed the maximum load for the type of machine (12.5m/s large all terrain- zero for narrow flat slab machines) or otherwise believe that the stability of the machine is at risk due to the nature and direction of the wind loadings. |  |  |
| 12 | Planned hazard control and strategies are implemented | * Load too heavy * Unplanned events/circumstances may occur * Signals could be confused |  | Hierarchy of hazard control is followed when dealing with hazards ¬ A combination of the following, but the order of preference when dealing with hazards is to - 1. Eliminate 2. Substitute 3. Engineer / Isolate 4. Admin controls ( Safe Operating Procedures etc.) 5. PPE (as the last resort when it is not practical to control the hazards by other means)   * Load is constantly monitored * Contingency plans are used that minimise risk to personnel and equipment   ***Take care and think about the task at all times*** |  |  |
| 13 | Park and shut down equipment | * Unsafe area * Possible damage to equipment * Machine may be dirty, or loose tools or rubbish left in basket or on the floor * No logbook records |  | * Park in a safe place * Follow manufacturers and site procedures when packing up the EWP boom and outriggers / stabilisers if applicable * Leave the EWP in a clean condition, and all tools, rubbish and other equipment is removed from the basket/platform and placed in the correct place. Rubbish should be disposed of in an environmentally sensitive manner in accordance with site environmental guidelines. * Complete the post-op checks * Complete the logbook at the end of the day if there are any damage or defects * Enter all other work you do in the logbook   ***Take care and think about the task at all times*** |  |  |

