



# **RISK ASSESSMENT PLAN**

## **Coordination of Risk Assessment process**

The risk assessment process will be co-ordinated and overseen by an appointed risk assessor. The risk assessor will ensure that all appointed supervisors convey the information on the risk assessments over to the respective work crews. The responsibilities of the Risk Assessor are clearly defined in the appropriate appointment form.

## **Risk Assessment process**

Each operational task is broken down and analysed further into individual Task Risk Assessments. The risks associated with that task along with the preventative measures are tabled.

## **List of Risk Assessments**

The list of Risk Assessments which will be included in the Safety File.

## **Additional Risk Assessments**

Additional Risk Assessments will be included in the Safety file as they are warranted during the course of the project

## **Risk Assessment Reviews**

The Risk Assessments will be reviewed annually, after an accident or whenever there are any changes to the process.

### ACKNOWLEDGEMENT OF RISK ASSESSMENT PLAN TRAINING

DATE:

PRESENTER:

I HEREBY CONFIRM THAT THE ABOVE RISK ASSESSMENT PLAN WAS DISCUSSED WITH AND EXPLAINED TO ME, AND THAT I UNDERSTOOD THE CONTENTS.

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## **BLASTING METHOD STATEMENT**

| <b>PREPARATION</b> |  |
|--------------------|--|
| 1                  | Principle Contractor to provide a clean and accessible drilling surface.                                       |
| 2                  | Principle Contractor to liaise with community to inform them of blasting taking place                          |
| 3                  | Blasting and Transport permits will be obtained from the Inspectorate of explosives.                           |
| 4                  | Local Inspector of Explosives will be notified before blasting takes place.                                    |
| 5                  | Principle Contractor to record and inform Blaster of pre-existing damage.                                      |
| 6                  | Principle Contractor to identify and mark services.  |
| 7                  | If there are Eskom pylons or power lines, Eskom will be notified a day before the blast.                       |
| 8                  | Principle Contractor to identify sensitive equipment and installations and inform Blaster                      |
| 9                  | The Blaster will submit blasting plan prior to any blast as per Client, Engineer or Site Agent specifications. |
| 10                 | Employees will receive induction training and training on risk assessments.                                    |

| <b>TRANSPORT DRILLING EQUIPMENT</b> |  |
|-------------------------------------|--|
| 1                                   | Driver of transport vehicle to ensure that the compressor and drilling equipment is properly secured to the vehicle. |
| 2                                   | Drivers must keep to the set speed limit.  |
| 3                                   | Driver of transport vehicle to ensure that the transport vehicle is not overloaded.                                  |

| <b>DRILLING</b> |   |
|-----------------|---|
| 1               | Blaster will identify area which must be drilled and instruct employees                                       |
| 2               | Prestart checklists to be completed   |
| 3               | Where areas are inaccessible for the hydraulic crawler rigs to enter jackhammers will be used to make access. |
| 4               | Holes to be drilled as per blasting plan  |

| <b>EXPLOSIVES TRANSPORT</b> |  |
|-----------------------------|--|
| 1                           | Explosives will be transported to site in compliance with Chapter 6 of the Explosives Act. |
| 2                           | Only the required amount of explosives will be taken to site                               |

| <b>CHARGING UP PROCEDURE</b> |   |
|------------------------------|---|
| 1                            | Charging up will be done under supervision of blaster who will determine the charge required to break the rock. A powder factor of approximately 0.4 kilogram per m <sup>3</sup> will be sufficient to get required results |
| 2                            | Holes will be charged as per blasting plan  |

| <b>PRE BLAST</b> |   |
|------------------|---|
| 1                | "DANGER, BLAST AREA" signage to be erected by Blaster in prominent positions  |
| 2                | The blaster on site will clear all people out of range of the blast site  |
| 3                | Guards with red flags will be placed in positions to prevent any unauthorized persons of entering blasting area (access roads, national roads). |
| 4                | Evacuate all buildings in the vicinity  |
| 5                | Use Vibrometer if there is sensitive equipment or installations   |

| <b>CONNECTING DETONATORS AND FUSE LINES</b> |   |
|---|---|
| 1   | Warning siren will be sounded before detonators and fuse lines are connected              |
| 2   | Every second fuse line should protrude to allow for redetonation in the event of misfires |

| <b>COVERING</b> |  |
|-----------------|--|
| 1               | Blast will be covered with matting or rock free sand if it is in within 500m of buildings or with at least 1.5m of sand in the vicinity of Eskom pylons and cables |

| <b>BLASTING</b> |   |
|-----------------|---|
| 1               | Ensure blast area is clear of unauthorised persons, public and vehicles |
| 2               | Sound final warning siren for at least 3 to 5minutes                    |
| 3               | Detonate blast  |

|                                  |  |
|----------------------------------|--|
| <b>AFTER BLASTING INSPECTION</b> |  |
| 1                                | The blaster on site will inspect the blast after the re-entry period of 30 minutes to ensure that all charges have detonated.. |
| 2                                | Misfires will be handled in accordance with Regulation 10.15.1 of the Explosives Act   |
| 3                                | All clear will be sounded after dissipation of fumes and checking for misfires   |

|                           |   |
|---------------------------|---|
| <b>SPECIAL CONDITIONS</b> |   |
| 1                         | As far as possible, any special conditions set by the Engineer will be abided by. |

### RISK ASSESSMENT MATRIX

| CONSEQUENCE |                                  |  |   |  |   | PROBABILITY |                        |
|-------------|----------------------------------|--|---|--|---|-------------|------------------------|
| Category    | Safety / Health)                 | Environmental Impact                                     | Business Interruption / Material Damage | Legal & Regulatory   | Reputation / Social / Community                       | Category    | Probability            |
| 4           | Fatality or permanent disability | Catastrophic irreversible environmental damage           | Substantial or total loss of operation  | Major breach of the law; considerable prosecution and penalties. Multiple law suits & jail terms       | International impact - international public attention | D           | Common                 |
| 3           | Reportable Injury                | Major long term effect                                   | Partial shutdown                        | Serious breach of law; investigation/report to authority, prosecution and/or moderate penalty possible | National impact - national public concern             | C           | Could happen           |
| 2           | Medical Assistance Case          | Serious short term effect                                | Brief disruption to operation           | Minor legal issue; non compliance and breaches of the law  | Considerable impact - regional public concern         | B           | Not likely             |
| 1           | First Aid Case                   | Minimal environmental harm, can be rectified immediately | Minor damage                            | Low level legal issue  | Limited impact - local public concern                 | A           | Practically impossible |

| RISK MATRIX |    |    |    |    | RISK RATING |  |
|-------------|----|----|----|----|-------------|--|
| RISK        | A  | B  | C  | D  | Score       | Action   |
| 4           | 10 | 13 | 15 | 16 | 14 - 16     | Critical Risk (special measures with constant supervision) |
| 3           | 6  | 9  | 12 | 14 | 11 - 13     | High Risk (constant supervision)                           |
| 2           | 3  | 5  | 8  | 11 | 7 - 10      | Medium Risk (regular monitoring & supervision)             |
| 1           | 1  | 2  | 4  | 7  | 1 - 6       | Low Risk (regular monitoring)                              |



**PRESENTER:**

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## **AGGREGATE / SAND AND OTHER MATERIALS DELIVERY**

**RA NO**

**DATE**

|                               |             |                   |
|-------------------------------|-------------|-------------------|
| <b>H.T.I Score</b>            |             |                   |
| <b>Contract</b>               |             |                   |
| <b>Persons involved in RA</b> | <b>Name</b> | <b>Signatures</b> |
| Foreman                       |             |                   |
| Second Foreman                |             |                   |
| Safety Officer                |             |                   |
| Representative                |             |                   |
|                               |             |                   |

|                                       |                                   |  |
|---------------------------------------|-----------------------------------|--|
| <b>Documentation Required</b>         | <b>Training Required</b>          | <b>PPE and Safety Equipment Required</b> |
| OHS Act and Construction Regulations  | General induction - all employees | Long Trousers                            |
| Appointment 6(1)                      | Environmental induction           | Safety Footwear                          |
| Appointments Plant/ Vehicle Operators | Toolbox talks                     | Dust Masks                               |
| Appointment First Aider               | First Aider                       | Eye Protection                           |
| Competency Operator                   | Operating Chainsaw                | Gloves                                   |
| Competency First Aider                |                                   |  |
| Plant/ Vehicle registers              |                                   |  |
|                                       |                                   |  |
|                                       |                                   |  |

|  |                       |                          |                              |               |
|--|-----------------------|--------------------------|------------------------------|---------------|
|  | <b>Activity Steps</b> | <b>Hazards and Risks</b> | <b>Preventative Measures</b> | <b>Rating</b> |
|  |                       |                          |                              |               |
|  |                       |                          |                              |               |
|  |                       |                          |                              |               |
|  |                       |                          |                              |               |



[illegible]



## ARC WELDING

**RA NO**

**DATE**

|                               |             |  |
|-------------------------------|-------------|--|
| <b>H.T.I Score</b>            | 9           | Medium-Regular monitoring, Supervision |
| <b>Contract</b>               |             |  |
| <b>Persons involved in RA</b> | <b>Name</b> | <b>Signatures</b>                      |
| Foreman                       |             |  |
| Second Foreman                |             |  |
| Safety Officer                |             |  |
| Representative                |             |  |
|                               |             |  |

|                                      |                                   |  |
|--------------------------------------|-----------------------------------|--|
| <b>Documentation Required</b>        | <b>Training Required</b>          | <b>PPE and Safety Equipment Required</b> |
| OHS Act and Construction Regulations | General induction – all employees | Overalls                                 |
| Appointment 6(1)                     | Toolbox talks                     | Safety Footwear                          |
| Appointments Welding Supervisor      | First Aider                       | Flame proof Gloves                       |
| Appointment First Aider              | Operating Arc Welder              | Flame proof apron                        |
| Competency Welder                    |                                   | Spats                                    |
| Competency First Aider               |                                   | Welding Helmet                           |
| Welding Equipment Registers          |                                   | Fire Extinguisher                        |
|                                      |                                   |  |
|                                      |                                   |  |

| <b>Activity Steps</b> |                         | <b>Hazards and Risks</b>   | <b>Preventative Measures</b>   | <b>Rating</b> |
|-----------------------|-------------------------|--|--|---------------|
| 1                     | Pre-use inspection      | Inspection not done can cause injuries, disability and damage to equipment.                        | Inspection to be done by a competent person. User of the welding machine to be trained on how to do the pre use inspection. Inspection registers to be signed off by a competent supervisor. | 8             |
|                       |                         | Register not filled in.  | Foreman to sign off the inspection register. Site safety officer to do spot checks on the registers.   | 8             |
| 2                     | Use of welding machine. | Welding machine used by incompetent employee may cause injury, disability and damage to equipment. | Only trained employees are allowed to work with a welding machine. Welding machine not to be left unsupervised. Task to be supervised by a competent supervisor.                             | 8             |

|   |                             |  |   |    |
|---|-----------------------------|--|---|----|
|   |                             | Employee injured as a result of an electric shock can cause injury and disability.             | Welding machine not to be used while standing in the water. Welding machine to be inspected before use and welding machine with poor connections and cables to be removed from site.                                    | 8  |
|   |                             | Employee burnt can cause injury, disability and damage to equipment.                           | Employee to make use of the P.P.E provided, task to be supervised by a competent supervisor, only trained and competent employees to work with welding machine. All injuries to be reported to the site safety officer. | 8  |
|   |                             | Arc eyes may cause injury and disability.  | Employee to wear proper eye protection, all injuries to be reported to the site HSE officer. Task to be supervised by a competent supervisor.   | 12 |
|   |                             | Fire may cause injury, disability, and property damage and ground and air pollution.           | All flammable materials to be removed from area of work. Fire extinguisher to be close to area of work. Task to be supervised by a competent supervisor.  | 11 |
|   |                             | Cables fitted wrong way around can cause injury, disability and equipment damage.              | Only trained and competent employees to work with the welding machine. Task to be supervised by a competent supervisor.   | 8  |
|   |                             | Welding at heights may cause injury, disability and equipment damage.                          | Area to be demarcated, fire watchers to be posted, task to be supervised by a competent supervisor  | 11 |
| 3 | Storage of welding machine. | Incorrect storage of welding machine may cause equipment damage.                               | Proper storage space for welding machine to be provided. Storage to be controlled by a trained and competent store man  | 8  |
|   |                             | Theft of welding machine may cause property loss.  | Welding machine not to be left unsupervised.  | 8  |
| 4 | Maintenance.                | Defects not reported may cause injury, disability and equipment damage.                        | All defects on the welding machine must be reported to the supervisor.  | 8  |
|   |                             | Defects repaired by an incompetent employee may cause injury, disability and equipment damage. | Only trained and competent persons to repair the welding machine.   | 8  |



## BATCH PLANT OPERATIONS

RA NO

DATE

|                               |             |   |
|-------------------------------|-------------|---|
| <b>H.T.I Score</b>            | 7           | Medium -Regular Monitoring/ Supervision |
| <b>Contract</b>               |             |   |
| <b>Persons involved in RA</b> | <b>Name</b> | <b>Signatures</b>                       |
| Foreman                       |             |   |
| Second Foreman                |             |   |
| Safety Officer                |             |   |
| Representative                |             |   |
|                               |             |   |

|                                  |                                   |  |
|----------------------------------|-----------------------------------|--|
| <b>Documentation Required</b>    | <b>Training Required</b>          | <b>PPE and Safety Equipment Required</b> |
| Supervisor of Machinery App      | General induction – all employees | Overalls                                 |
| Batch Plant Operator App.        | Batch Plant Operator              | Safety Footwear                          |
| OHS Act 85 of 1993               | Toolbox talks                     | Dust Masks                               |
| Batch Plant Daily Checklist      | First Aider                       | Eye Protection                           |
| Competency Operator              |                                   | Ear Protection                           |
| Medical certificate for operator |                                   | Gloves                                   |
|                                  |                                   |  |
|                                  |                                   |  |
|                                  |                                   |  |

| Activity Steps |   | Hazards and Risks  | Preventative Measures  | Rating |
|----------------|---|--|--|--------|
| 1              | Off Loading of Equipment and Erecting of Batch Plant. | Load Falling while in lifting process – injury, loss and damage. | No persons to stand under load.  | 8      |
|                |   | Crane falling over while lifting – injury, loss and damage.      | Right crane to be used for the weight of the load.                                     | 7      |
|                |   | Soil not compacted for crane – injury, loss and damage.          | Soil must be compacted or base plates to be used under outriggers.                     | 7      |
|                |   | Slings breaking under load – injury, loss and damage.            | Correct rated slings to be used and correct type of slings to be used – no web slings. | 8      |
|                |   | No guide ropes to control load – injury, loss and damage.        | Guide ropes to be secured to the load before the lift take place.                      | 8      |

|   |                            |   |   |    |
|---|----------------------------|---|---|----|
|   |                            | Load not properly secured with sling - injury, loss and damage.                 | Correct rigging methods to be used.   | 8  |
|   |                            | No Banks man to control the lift process - injury and damage.                   | Banks man to have radio communication with the crane.   | 8  |
|   |                            | Load Falling on persons.  | Slew area of crane to be barricaded.  | 11 |
|   |                            | Employees working at unprotected heights not wearing Safety Harnesses - injury. | All employees working at unprotected heights must wear and hook their Safety Harnesses.         | 11 |
|   |                            | Tools falling from height - injury and damage.                                  | Tools to be secured with a lanyard to the employees arm.  | 8  |
| 2 | Operating the Batch Plant. | Trucks reversing into structure - damage and injury.                            | Guide to direct the trucks entering area.   | 8  |
|   |                            | Truck not in precise place to load concrete - loss and injury.                  | Sedimentation ponds to be constructed to catch all runoff.                                      | 5  |
|   |                            | Truck cleaning on site - environmental damage.                                  | Only designated areas to be used for truck cleaning.  | 5  |
|   |                            | Batch Plant runoff water - environmental damage.                                | Drains to be installed  | 5  |
|   |                            | Unauthorised persons entering the skip and hopper area - Severe injuries.       | Warning signs to be posted on the fence / barricading.  | 8  |
|   |                            | Wrong formula used to mix the specified concrete - loss of production.          | Supervisor of concrete to specify the concrete mix required in writing.                         | 5  |
|   |                            | Batch Plant not checked prior to work starting damage, loss and injury.         | Batch Plant operator to do daily checks for any damage and dysfunction.                         | 8  |
|   |                            | Batch Plant console not clearly identified - loss and, injury.                  | All buttons to be clearly marked on the console for identification.                             | 5  |
| 3 | Cleaning of Batch plant.   | Entering the Skip and Hopper area while the plant is operational - injury.      | Area must be fenced off to prevent entry while in operation.                                    | 8  |
|   |                            | Employee not using prescribed PPE - injury.                                     | Gates must be locked and fitted with sensors to cut the plant operations out if gate is opened. | 8  |
|   |                            | Warning signs not displayed - injury.   | Noticeable warning signs to be posted on all conspicuous places around the fence / barricading. | 8  |

|   |                                     |   |   |   |
|---|-------------------------------------|---|---|---|
|   |                                     | Using Diesel to clean the discharge area - injury, environmental damage.                                    | Diesel should be used with care and if there are alternatives then it must be used instead of Diesel.           | 5 |
|   |                                     | Sedimentation ponds over flowing - environmental damages.   | Sedimentation ponds to be cleaned regularly and the contents disposed of in an environmentally friendly manner. | 5 |
|   |                                     | Electrical cables and DB boxes exposed to water conditions - electrical shock, injury and damage.           | No electrical cables to lie in water and DB boxes must be erected away from water hazards.                      | 8 |
| 4 | Receiving Fly ash, cement in silos. | Generation of cement dust - injury and loss.  | Silos to be fitted with dust filters to minimise the dust creation.   | 5 |
|   |                                     | Pipe from the delivery truck to the silo bursting - dust generation, environmental damage, injury and loss. | Pipes and connections to be checked before the transfer of material take place.                                 | 5 |



## **BENCH GRINDER**

**RA NO**

**DATE**

|                               |             |  |
|-------------------------------|-------------|--|
| <b>H.T.I Score</b>            | 9           | Medium-Regular Monitoring/ Supervision |
| <b>Contract</b>               |             |  |
| <b>Persons involved in RA</b> | <b>Name</b> | <b>Signatures</b>                      |
| Foreman                       |             |  |
| Second Foreman                |             |  |
| Safety Officer                |             |  |
| Representative                |             |  |
|                               |             |  |

|                                       |                                   |  |
|---------------------------------------|-----------------------------------|--|
| <b>Documentation Required</b>         | <b>Training Required</b>          | <b>PPE and Safety Equipment Required</b> |
| OHS Act and Construction Regulations  | General induction – all employees | Overalls                                 |
| Appointment 6(1)                      | Toolbox talks                     | Safety Footwear                          |
| Appointment Electrical Equipment Supt | First Aider                       | Dust Masks                               |
| Competency Operator                   | Operating Bench Grinder           | Eye Protection                           |
| Competency First Aider                |                                   | Ear Protection                           |
| Monthly checklist by Supt             |                                   | Gloves                                   |
| Prestart checklist by Operator        |                                   |  |
|                                       |                                   |  |
|                                       |                                   |  |

| <b>Activity Steps</b> |                        | <b>Hazards and Risks</b>                       | <b>Preventative Measures</b>   | <b>Rating</b> |
|-----------------------|------------------------|--|--|---------------|
| 1                     | Pre-use inspection     | Inspection not done.                           | Inspection to be done by a competent person. User of the bench grinder to be trained on how to do the pre use inspection. Inspection registers to be signed off by a competent supervisor. | 11            |
|                       |                        | Register not filled in.                        | Foreman to sign off the inspection register. Site safety officer to do spot checks on the registers.   | 8             |
| 2                     | Changing of the stones | Bench grinder not made safe – not plugged out. | Only a trained person is allowed to change the stones on a bench grinder. Task to be supervised by a competent supervisor. User to ensure that the bench grinder is plugged out.           | 11            |

|  |  |  |  |   |
|--|--|--|--|---|
|  |  | Incorrect tools used to change the stones. | Task to be supervised by a competent supervisor. Only trained and competent person to change the stones on the bench grinder.  | 5 |
|  |  | Incorrect stones fitted.                   | Task to be supervised by a competent supervisor. Only a trained and competent person to change the stones on the bench grinder, supervisor to ensure that the correct stones is provided and fitted. | 8 |



|   |                       |   |  |    |
|---|-----------------------|---|--|----|
|   |                       | Stones fitted the wrong way round.                      | Task to be supervised by a competent supervisor. Only a trained and competent person to change the stones on the bench grinder. Supervisor to inspect the bench grinder after fitment of the stones. | 8  |
|   |                       | Damaged stones fitted.                                  | Task to be supervised by a competent supervisor. Stones to be inspected by the supervisor before fitment this task is to be done by a trained and competent person.                                  | 8  |
| 3 | Use of bench grinder. | Safety guard not in place.                              | Bench grinder to be inspected before use by a trained and competent person.  | 8  |
|   |                       | Grinding sparks entering employee's eye.                | Correct eye protection to be used when working with the bench grinder. Only trained and competent employees to work with the bench grinder.  | 8  |
|   |                       | Noise   | When the bench grinder is used for long periods of time - use ear protection.  | 5  |
|   |                       | Bench grinder used by incompetent employee              | Only trained employees are allowed to work with a bench grinder. Bench grinder not to be left unsupervised. Task to be supervised by a competent supervisor.   | 11 |
|   |                       | Stones coming off while working with the bench grinder. | Bench grinder to be inspected before use by a trained and competent person. Inspection registers to sign off by the responsible supervisor.  | 11 |
|   |                       | Employee electrocuted                                   | Bench grinder not to be used while standing in the water. Bench grinder to be inspected before use and bench grinder with poor connections and cables to be removed from site.                       | 11 |

|   |                           |  |  |    |
|---|---------------------------|--|--|----|
|   |                           | Fire.  | All flammable materials to be removed from the area of work. Fire extinguisher to be close to area of work. Task to be done by a competent and trained employee. | 11 |
| 4 | Storage of bench grinder. | Incorrect storage of bench grinder.          | Proper storage space for bench grinder to be provided. Storage to be controlled by a trained and competent store man   | 5  |
|   |                           | Theft of bench grinder.                      | Bench grinder not to be left unsupervised.   | 8  |
| 5 | Maintenance.              | Defects not reported.                        | All defects on the bench grinder must be reported to the supervisor.   | 8  |
|   |                           | Defects repaired by an incompetent employee. | Only trained and competent persons to repair the bench grinder.  | 8  |



## BOBCAT

**RA NO**

**DATE**

|                               |             |  |
|-------------------------------|-------------|--|
| <b>H.T.I Score</b>            | 7           | Medium-Regular Monitoring/ Supervision |
| <b>Contract</b>               |             |  |
| <b>Persons involved in RA</b> | <b>Name</b> | <b>Signatures</b>                      |
| Foreman                       |             |  |
| Second Foreman                |             |  |
| Safety Officer                |             |  |
| Representative                |             |  |
|                               |             |  |

|                                       |                                   |  |
|---------------------------------------|-----------------------------------|--|
| <b>Documentation Required</b>         | <b>Training Required</b>          | <b>PPE and Safety Equipment Required</b> |
| OHS Act and Construction Regulations  | General induction - all employees | Long Trousers                            |
| Appointment 6(1)                      | Toolbox talks                     | Safety Footwear                          |
| Appointments Plant/ Vehicle Operators | First Aider                       | Dust Masks                               |
| Appointment First Aider               | Operating Bobcat                  | Eye Protection                           |
| Competency Operator                   |                                   | Gloves                                   |
| Competency First Aider                |                                   | Ear Protection                           |
| Plant/ Vehicle registers              |                                   |  |
|                                       |                                   |  |
|                                       |                                   |  |

| <b>Activity Steps</b> |                        | <b>Hazards and Risks</b>  | <b>Preventative Measures</b>  | <b>Rating</b> |
|-----------------------|------------------------|---|---|---------------|
| 1                     | Starting up of bobcat. | Employee being injured by standing on, under or to close to the engine or wheels. | All protective guards and cover must be in place before start of the engine. The bobcat must be operated by a competent and trained operator. | 8             |
|                       |                        | Operator being injured while climbing in or out of the bobcat.                    | Operator to ensure that the area the bobcat is standing is slip free E.g. no oil on floor.  | 5             |
|                       |                        | Engine failure  | Engine to be started according to procedure and maintenance schedule to be followed.  | 8             |
| 2                     | Operating bobcat.      | Bobcat colliding into other plant or LDV  | Bobcat to be operated by a competent and trained operator. Operator to keep to the designated area of work.                                   | 8             |

|   |             |   |  |   |
|---|-------------|---|--|---|
|   |             | Employee being run over by bobcat.                                  | Bobcat to be operated by a competent and trained operator. Employees to keep clear of the bobcat during operations. Ensure that the operator has seen you before approaching. Bobcat to be fitted with a reverse hooter. | 8 |
|   |             | Operator driving reckless.  | Bobcat to be operated by a trained and competent operator, bobcat to be operated at a safe speed, task to be supervised by a competent supervisor.   | 8 |
|   |             | Bobcat working in incorrect place.                                  | Task to be supervised by a competent supervisor.   | 5 |
|   |             | Bobcat operator exposed to noise                                    | Operator to make use of ear protection and take frequent breaks.   | 5 |
|   |             | Operator exposed to dust.   | Dust to be controlled.   | 5 |
|   |             | Bobcat driving into trench.   | Bobcat to be operated by a competent and trained operator. Task to be supervised by a competent supervisor.  | 8 |
| 3 | Maintenance | Hydraulic pipe bursting during operation.                           | Burst pipe to be replaced by workshop and maintenance schedule to be followed.   | 5 |
|   |             | Employee being injured while working on bobcat.                     | Maintenance and repair work to be done by a competent person.  | 8 |
|   |             | Hydraulic oil being injected into employee while working on bobcat. | Make use of a board or cardboard when checking for leaks in the hydraulic pipes.   | 5 |
|   |             | Hydraulic oil leaking.  | Leaks to be reported to the foreman and to be repaired by the workshop.  | 5 |
|   |             | Employee injured while changing the bucket on the bobcat.           | Changing of the bucket to be performed by a competent person and the task to be supervised by a competent supervisor.  | 8 |
|   |             | Oil and filters disposal.   | Make use of local waste collectors to collect the used oil and filters.  | 5 |

|   |         |   |  |   |
|---|---------|---|--|---|
|   |         | Employee sustaining burns while working on the bobcat's engine. | Allow the engine to cool down before maintenance work is carried out. Maintenance to be done by a competent person.  | 5 |
|   |         | Employee caught by rotating part of engine.                     | No work to be done on the bobcat while the engine is still running.  | 8 |
|   |         | Employee coming in contact with battery acid.                   | Do not allow electrolyte to come in contact with the skin or eyes. Make use of the correct P.P.E when working with batteries.  | 8 |
|   |         | Fire or explosion occurring.                                    | Remove all flammable materials such as fuel, oil and debris from the engine. Do not weld or flame cut any pipe or tank that contains any flammable fluids. Wiring must be kept in good order and no smoking or naked flames during refuelling. | 8 |
| 4 | General | Theft of batteries and fuel from the bobcat.                    | Security company to be employed and plant to be parked in a secure area.   | 5 |
|   |         | Theft of bobcat.  | As per 4.1.  | 8 |



## **BOMAG ROLLER**

**RA NO**

**DATE**

|                               |             |  |
|-------------------------------|-------------|--|
| <b>H.T.I Score</b>            | 7           | Medium-Regular monitoring, Supervision |
| <b>Contract</b>               |             |  |
| <b>Persons involved in RA</b> | <b>Name</b> | <b>Signatures</b>                      |
| Foreman                       |             |  |
| Second Foreman                |             |  |
| Safety Officer                |             |  |
| Representative                |             |  |
|                               |             |  |

|                                      |                                   |  |
|--------------------------------------|-----------------------------------|--|
| <b>Documentation Required</b>        | <b>Training Required</b>          | <b>PPE and Safety Equipment Required</b> |
| OHS Act and Construction Regulations | General induction - all employees | Overalls                                 |
| Appointment 6(1)                     | Toolbox talks                     | Safety Footwear                          |
| Appointment Bomag Operator           | First Aider                       | Dust Masks                               |
| Appointment First Aider              | Operating Bomag Roller            | Eye Protection                           |
| Competency Operator                  |                                   | Gloves                                   |
| Competency First Aider               |                                   |  |
| Equipment registers                  |                                   |  |
|                                      |                                   |  |
|                                      |                                   |  |

| <b>Activity Steps</b> |                   | <b>Hazards and Risks</b>                   | <b>Preventative Measures</b>   | <b>Rating</b> |
|-----------------------|-------------------|--|--|---------------|
| 1                     | Issuing of P.P.E. | Defective P.P.E issued may cause injuries. | All P.P.E to be SABS approved, supervisor to ensure that the correct P.P.E is issued to the employees.   | 5             |
|                       |                   | P.P.E not on register.                     | All employees are to sign for the P.P.E issued to them, task to be supervised by a competent supervisor, site safety officer to do regular checks on the paper work to ensure that the employees are signing for the P.P.E issued to them. | 5             |

|   |                                 |  |  |   |
|---|---------------------------------|--|--|---|
|   |                                 | Theft of P.P.E.  | All P.P.E to be kept in a safe and secure place only one person to be in control of the issuing of the P.P.E, all employees to look after their own items which were issued to them.   | 5 |
|   |                                 | Operator not trained to use compacting equipment.  | Operator to be competent in the use of the compacting equipment. Employee to be issued with steel toe cap safety boots. All injuries to be reported to the site safety officer. Task to be supervised by a competent supervisor. | 8 |
|   |                                 | Employee exposed to noise may cause hearing loss.  | Employee to make use of SABS approved hearing protection, supervisor to ensure that the correct P.P.E is used. Task to be supervised by a competent supervisor.  | 5 |
|   |                                 | Vibrations of compacting equipment causing trench to collapse may cause injuries and disability. | Daily excavation inspections to be done by the appointed responsible person. Task to be supervised by a competent supervisor.  | 8 |
| 2 | Operating compacting equipment. | Employee over come by fumes may cause asphyxiation and disability.                               | Minimise the use of petrol and diesel driven machines in the excavations. Excavations to be well ventilated. Task to be supervised by a competent supervisor. Working in confined space procedure to be followed where required. | 8 |
|   |                                 | Employee overcome with heat-stroke may cause injuries.   | Drinking water to be supplied to the employees, task to be supervised by a competent supervisor.   | 8 |
|   |                                 | Incompetent employee working with compacting equipment may cause injuries and disability.        | Only trained and competent employees to work with any compacting equipment. Task to be supervised by a competent supervisor.   | 8 |

|  |  |   |  |    |
|--|--|---|--|----|
|  |  | Employee affected by the vibrations of the compacting equipment may cause injuries. | Employees to make use of hand protection, task to be supervised by a competent supervisor. All injuries to be reported to the site safety officer. Long processes to be done in shifts of 30 minutes at a time.  | 5  |
|  |  | Defective compacting equipment may cause injuries and disability.                   | Compacting equipment to be inspected before use, supervisor to ensure the equipment is in a safe working condition. Findings to be recorded on a register. Defective equipment to be removed from site.  | 8  |
|  |  | Other employees in excavation being injured.  | Excavations should be kept clear of any unnecessary employees and only the operator of the compact equipment to be present in excavation.  | 8  |
|  |  | Refuelling of compacting equipment, may cause injuries, damage due to fire.         | Compacting equipment shall be switched off when refuelling takes place. There shall always be a fire extinguisher nearby in the excavation and the operator of the compacting equipment shall know how to use the fire extinguisher.   | 8  |
|  |  | Moving forward and backward with a Bomag roller may cause injuries and fatalities   | Employee shall not walk in front of Bomag when roller is moving forward. The operator shall not walk with his back turned on the roller. The operator shall walk next to the handle of the roller with his hand on the controls of the roller. The operator shall ensure that there are no trip and fall hazards in the work area and that he has a clear space to manoeuvre the roller comfortably. | 11 |



## BRICK CUTTER

RA NO

DATE

|                               |             |  |
|-------------------------------|-------------|--|
| <b>H.T.I Score</b>            | 7           | Medium-Regular monitoring, Supervision |
| <b>Contract</b>               |             |  |
| <b>Persons involved in RA</b> | <b>Name</b> | <b>Signatures</b>                      |
| Foreman                       |             |  |
| Second Foreman                |             |  |
| Safety Officer                |             |  |
| Representative                |             |  |
|                               |             |  |

|                                      |                                   |  |
|--------------------------------------|-----------------------------------|--|
| <b>Documentation Required</b>        | <b>Training Required</b>          | <b>PPE and Safety Equipment Required</b> |
| OHS Act and Construction Regulations | General induction - all employees | Overalls                                 |
| Appointment 6(1)                     | Toolbox talks                     | Safety Footwear                          |
| Appointment Supervisor of Machinery  | First Aider                       | Dust Masks                               |
| Appointment First Aider              | Operating Brick Cutter            | Eye Protection                           |
| Competency Operator                  |                                   | Gloves                                   |
| Competency First Aider               |                                   |  |
| Equipment registers                  |                                   |  |
|                                      |                                   |  |
|                                      |                                   |  |

| Activity Steps |                        | Hazards and Risks                             | Preventative Measures   | Rating |
|----------------|------------------------|---|---|--------|
| 1              | Pre-use inspection     | Inspection not done.                          | Inspection to be done by a competent person. User of the brick cutter to be trained on how to do the pre use inspection. Inspection registers to be signed off by a competent supervisor. | 8      |
|                |                        | Register not filled in.                       | Foreman to sign off the inspection register. Site safety officer to do spot checks on the registers.  | 8      |
| 2              | Changing of the blades | Brick cutter not made safe - not plugged out. | Only a trained person is allowed to change the blades on a brick cutter. Task to be supervised by a competent supervisor. User to ensure that the brick cutter is plugged out.            | 8      |

|   |                      |  |   |    |
|---|----------------------|--|---|----|
|   |                      | Incorrect tools used to change the blades.             | Task to be supervised by a competent supervisor. Only trained and competent person to change the blades on the brick cutter.  | 8  |
|   |                      | Incorrect blades fitted.                               | Task to be supervised by a competent supervisor. Only a trained and competent person to change the blades on the brick cutter, supervisor to ensure that the correct blades is provided and fitted. | 8  |
|   |                      | Blades fitted the wrong way round.                     | Task to be supervised by a competent supervisor. Only a trained and competent person to change the blades on the brick cutter. Supervisor to inspect the brick cutter after fitment of the blades.  | 8  |
|   |                      | Damaged blades fitted.                                 | Task to be supervised by a competent supervisor. Blades to be inspected by the supervisor before fitment this task is to be done by a trained and competent person.                                 | 11 |
| 3 | Use of brick cutter. | Safety guard not in place.                             | brick cutter to be inspected before use by a trained and competent person.  | 11 |
|   |                      | Grinding sparks entering employee's eye.               | Correct eye protection to be used when working with the brick cutter. Only trained and competent employees to work with the brick cutter.   | 5  |
|   |                      | Noise  | When the brick cutter is used for long periods of time – use ear protection.  | 5  |
|   |                      | Brick cutter used by incompetent employee              | Only trained employees are allowed to work with a brick cutter. brick cutter not to be left unsupervised. Task to be supervised by a competent supervisor.  | 8  |
|   |                      | Blades coming off while working with the brick cutter. | brick cutter to be inspected before use by a trained and competent person. Inspection registers to sign off by the responsible supervisor.  | 8  |

|   |                          |   |   |   |
|---|--------------------------|---|---|---|
|   |                          | Employee electrocuted                                       | brick cutter not to be used while standing in the water. brick cutter to be inspected before use and brick cutter with poor connections and cables to be removed from site. | 8 |
|   |                          | Fire can cause property damage or injury to persons.        | All flammable materials to be removed from the area of work. Fire extinguisher to be close to area of work. Task to be done by a competent and trained employee.            | 8 |
| 4 | Storage of brick cutter. | Incorrect storage of brick cutter can cause equipment loss. | Proper storage space for brick cutter to be provided. Storage to be controlled by a trained and competent store man   | 5 |
|   |                          | Theft of brick cutter.                                      | Brick cutter not to be left unsupervised.   | 5 |
| 5 | Maintenance.             | Defects not reported.                                       | All defects on the brick cutter must be reported to the supervisor.   | 5 |
|   |                          | Defects repaired by an incompetent employee.                | Only trained and competent persons to repair the brick cutter.  | 5 |



## BRICKWORK

**RA NO**

**DATE**

|                               |             |                             |
|-------------------------------|-------------|-----------------------------|
| <b>H.T.I Score</b>            | 6           | Low Risk-Regular Monitoring |
| <b>Contract</b>               |             |                             |
| <b>Persons involved in RA</b> | <b>Name</b> | <b>Signatures</b>           |
| Foreman                       |             |                             |
| Second Foreman                |             |                             |
| Safety Officer                |             |                             |
| Representative                |             |                             |
|                               |             |                             |

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|--------------------------------------|-----------------------------------|--|
| <b>Documentation Required</b>        | <b>Training Required</b>          | <b>PPE and Safety Equipment Required</b> |
| OHS Act and Construction Regulations | General induction - all employees | Long Trousers                            |
| Appointment 6(1)                     | Toolbox talks                     | Safety Footwear                          |
| Appointment 6(2)                     | First Aider                       | Dust Masks                               |
|                                      |                                   | Gloves                                   |
|                                      |                                   |  |
|                                      |                                   |  |
|                                      |                                   |  |
|                                      |                                   |  |
|                                      |                                   |  |

| <b>Activity Steps</b> |                 | <b>Hazards and Risks</b>  | <b>Preventative Measures</b>  | <b>Rating</b> |
|-----------------------|-----------------|---|---|---------------|
| 1                     | Mixing mortar   | Dropping cement bags can cause foot injuries.                     | Safety boots are to be worn by employees who must move cement bags  | 5             |
|                       |                 | Inhalation of dry cement can cause lung function damage           | Dust masks are to be worn when working with dry cement products   | 5             |
|                       |                 | Incorrect mixing of mortar can cause material and production loss | Competent Supervision.  | 5             |
|                       |                 | Spillage will have an environmental impact                        | Dedicated mortar mixing areas in order to minimise spillage. Mortar to be mixed and stored on boards or sheets whenever possible. | 5             |
| 2                     | Stacking bricks | Employees can drop bricks causing injuries or damage to bricks.   | Bricks are not to be thrown but passed hand to hand or a wheelbarrow is to be used. Gloves and Safety boots are to be worn.       | 9             |

|   |                |   |   |   |
|---|----------------|---|---|---|
|   |                | Bricks not properly stacked can fall over causing injuries or damage to the bricks  | Constant Supervision to ensure that the right stacking procedures are followed                                | 5 |
| 3 | Placing bricks | Employees can drop bricks causing injuries or damage to bricks.   | Gloves and Safety boots are to be worn.   | 5 |
|   |                | Bricks not properly placed(skew) can cause material and production loss   | Competent Supervision.  | 9 |
|   |                | Not using enough mortar to cement the bricks can cause injuries or material and production loss   | Competent Supervision.  | 9 |
| 4 | Cleaning area  | Not dumping rubble at allocated area can cause injury to persons, production loss or have an environmental impact   | There are to be clearly demarcated rubble dumping areas. These areas must be cleared on a regular basis       | 5 |
|   |                | Leaving spilled mortar, not cleaning up and disposing of in the correct manner can cause injury to persons, production loss or have an environmental impact | Competent Supervisor to ensure that housekeeping is done before people go home at the end of the working day. | 5 |



## CHIP AND SPRAY

**RA NO**

**DATE**

|                               |             |  |
|-------------------------------|-------------|--|
| <b>H.T.I Score</b>            | 8           | Medium-Regular Monitoring/ Supervision |
| <b>Contract</b>               |             |  |
| <b>Persons involved in RA</b> | <b>Name</b> | <b>Signatures</b>                      |
| Foreman                       |             |  |
| Second Foreman                |             |  |
| Safety Officer                |             |  |
| Representative                |             |  |
|                               |             |  |

|                                       |                                   |  |
|---------------------------------------|-----------------------------------|--|
| <b>Documentation Required</b>         | <b>Training Required</b>          | <b>PPE and Safety Equipment Required</b> |
| OHS Act and Construction Regulations  | General induction - all employees | Overalls                                 |
| Appointment 6(1)                      | Toolbox talks                     | Safety Footwear                          |
| Appointments Plant/ Vehicle Operators | First Aider                       | Dust Masks                               |
| Appointment First Aider               | Operating Tipper                  | Eye Protection                           |
| Competency Operator                   | Operating Sprayer                 | Gloves                                   |
| Competency First Aider                | Operating Tractor broom           | Appropriate signage on vehicles          |
| Plant/ Vehicle registers              | Fire precautions                  | Amber rotating lights                    |
| Emergency procedures                  |                                   | Reflective vests                         |
|                                       |                                   | Fire extinguishers on machines           |

|   | <b>Activity Steps</b>             | <b>Hazards and Risks</b>   | <b>Preventative Measures</b>   | <b>Rating</b> |
|---|-----------------------------------|--|--|---------------|
| 1 | Road signs in place at road works | Failure to place road signs can cause injuries to workers and road users, or property damage | Place the correct roadwork signs at the correct distances  | 11            |
| 2 | Pre-use inspections               | Failure to do pre-use inspections checklist can cause injuries or plant damage               | Pre-use inspections to be done to prevent faulty equipment.  | 8             |
| 3 | Warming of bitumen in tanker      | Fire and burns to operator of distributor or hauler  | Use trained operators and keep unauthorized personnel away from area   | 8             |
| 6 | Flagman moves cones               | Flagman may fall and injure himself  | Flagmen to be alternated to allow them to rest. Flagmen to be made aware of dangers. Safety Boots and full overalls to be worn | 5             |
|   |                                   | Cones not positioned correctly may cause traffic to collide with the machines.               | Flagmen must position cones correctly so that there is sufficient clearance  | 11            |

|   |                                     |  |  |    |
|---|-------------------------------------|--|--|----|
|   |                                     | Lack of visibility- being struck by traffic may cause serious injuries.  | Flagman to wear reflective vest and overalls. Flagman to be made aware of dangers of working on roads.                     | 11 |
| 7 | Spraying of bitumen on road         | Use of incompetent operators can lead to damage, injury and lost time  | Use competent operators  | 11 |
|   |                                     | High temperature of bitumen may cause burns and property damage  | Only authorized employees to be in the working area. Employees to wear full overalls and safety boots                      | 8  |
| 8 | Tippers hooking up to Chip Spreader | Incorrect positioning of tipper, or reversing too far may cause property damage.                                   | Banks man to guide tipper into position  | 8  |
|   |                                     | Persons manually hooking tipper to spreader could be injured if they are caught in-between the tipper and spreader | Hydraulic hooking system to be used. Persons may not go in-between the tipper and the spreader during the hooking process. | 11 |

|    |                  |  |  |   |
|----|------------------|--|--|---|
| 9  | Spread chips     | Stones may bounce from road and cause injuries                           | Warn when starting operation use competent operators keep non-essential personnel away     | 5 |
| 10 | Roll stone layer | Rollers colliding with each other can cause injury, damage and lost time | Operators to be aware of plant and machinery movement. Only Competent operators to be used | 8 |
| 11 | Broom road       | Flying stones and dust as broom sweeps                                   | Dust masks and eye protection to be worn   | 5 |





## CLEARING AND GRUBBING

**RA NO**

**DATE**

|                               |             |   |
|-------------------------------|-------------|---|
| <b>H.T.I Score</b>            | 7           | Medium- Regular monitoring, supervision |
| <b>Contract</b>               |             |   |
| <b>Persons involved in RA</b> | <b>Name</b> | <b>Signatures</b>                       |
| Foreman                       |             |   |
| Second Foreman                |             |   |
| Safety Officer                |             |   |
| Representative                |             |   |
|                               |             |   |

|                                       |                                   |  |
|---------------------------------------|-----------------------------------|--|
| <b>Documentation Required</b>         | <b>Training Required</b>          | <b>PPE and Safety Equipment Required</b> |
| OHS Act and Construction Regulations  | General induction - all employees | Long Trousers                            |
| Appointment 6(1)                      | Environmental induction           | Safety Footwear                          |
| Appointments Plant/ Vehicle Operators | Toolbox talks                     | Dust Masks                               |
| Appointment First Aider               | First Aider                       | Eye Protection                           |
| Competency Chainsaw Operator          | Operating Chainsaw                | Gloves                                   |
| Competency First Aider                |                                   |  |
| Plant/ Vehicle registers              |                                   |  |
|                                       |                                   |  |
|                                       |                                   |  |

| <b>Activity Steps</b> |  | <b>Hazards and Risks</b>     | <b>Preventative Measures</b>   | <b>Rating</b> |
|-----------------------|--|------------------------------|--|---------------|
| 1                     | Mobilisation of plant and equipment to working site.         | Traffic injury to personnel  | All drivers must have an approved drivers licence. All signs and site instructions to be strictly obeyed at all times.                           | 11            |
|                       |  | Vehicle / Plant collision    | When unloading plant ensure adequate traffic control is organised.   | 11            |
| 2                     | Walking along working site and general labouring activities. | Uneven ground (trip or fall) | Personnel to be made aware of hazard in induction process/ toolbox talks as appropriate. Ensure correct PPE , especially steel toe safety boots. | 6             |
|                       |  | Heatstroke                   | Provide adequate drinking water to personnel.  | 11            |
|                       |  | Snake bite                   | First aider and kit available on site.   | 5             |

|   |                             |  |   |    |
|---|-----------------------------|--|---|----|
|   |                             | Lacerations  | Early treatment of cuts to avoid infection.   | 6  |
| 3 | Operate plant and machinery | Contact with overhead powerlines or buried live services | Services to be located pre construction and warning signs erected. Look out for overhead powerlines,  | 11 |
|   |                             | Tree/branch impact                                       | All plant and machinery to be fitted with protective cage/cabin.  | 9  |
|   |                             | Vehicle or plant roll over                               | All plant and vehicles to be inspected prior to use. All Roll bars/ cage to be fitted to all plant. Operators to be competent and experienced in operating machinery. Supervision to communicate dangerous areas.   | 11 |
|   |                             | Fire   | Ensure the emergency response procedure is communicated to all personnel.   | 11 |
|   |                             | Fall from machinery                                      | Plant to have suitable step and handholds for access to cabin and service areas.  | 9  |
| 4 | Chainsaw operations         | Lacerations  | Certified operators only and adequate PPE , ear muffs and gloves. Regular maintenance of chainsaw and sharpening of teeth. Hold the chainsaw firmly ensuring the left hand encircles the top handle with the thumb underneath. Don't cut above shoulder height. | 11 |
|   |                             | Fire   | No smoking during refueling. Only use safety approved fuel containers.  | 11 |
| 5 | Access to working site      | Damage to private property                               | Damage likely to be restricted to fencing damage only. Where stockpiled, stockpiled clear of fences.  | 1  |
|   |                             | Disruption to local community and landowners.            | Keep construction gates closed, drive courteously.  | 6  |

|   |  |   |  |   |
|---|--|---|--|---|
|   |  | Degradation of existing roads and tracks          | Use sealed roads where possible - observe speed limits.  | 1 |
|   |  | Unauthorised use of private access roads          | Vehicles to only use public roads and pipeline working area.   | 1 |
|   |  | Disturbance to flora / fauna                      | Vehicles to remain on marked roads and tracks.   | 9 |
| 6 | Access along working site  | Dust and noise                                    | Control vehicle speed along working area.  | 9 |
|   |  | Disturbance to flora/fauna                        | Vehicle parking/driving to be restricted to working area and pipeline construction area.   | 9 |
|   |  | Damage to historical sites                        | All drivers and operators of plant to be trained in the understanding of the tagging system during inductions and toolbox sessions.                          | 2 |
| 7 | Operating plant and machinery. Clearing and grading working site | Sediment Release to land or water                 | Sediment traps to be installed and maintained as required.   | 6 |
| 8 | (Removal of trees, shrubs, stumps etc).                          | Removal of significant flora and wildlife habitat | Trees that are to be retained on to be marked during tagging. Minimise tree removal.   | 9 |
|   |  | Loss of track access                              | Tagging system in place. All personnel performing task must be inducted (environmental induction received). Yellow taped off areas identified and explained. | 2 |
|   |  | Impeded surface drainage                          | Tracks to be kept clear of debris when possible.   | 1 |
|   |  | Damage to cultural heritage,                      | All graveyards identified and demarcated prior to work commencement.   | 9 |



## COMPRESSOR

**RA NO**

**DATE**

|                               |             |  |
|-------------------------------|-------------|--|
| <b>H.T.I Score</b>            | 7           | Medium-Regular monitoring, Supervision |
| <b>Contract</b>               |             |  |
| <b>Persons involved in RA</b> | <b>Name</b> | <b>Signatures</b>                      |
| Foreman                       |             |  |
| Second Foreman                |             |  |
| Safety Officer                |             |  |
| Representative                |             |  |
|                               |             |  |

|                                      |                                   |  |
|--------------------------------------|-----------------------------------|--|
| <b>Documentation Required</b>        | <b>Training Required</b>          | <b>PPE and Safety Equipment Required</b> |
| OHS Act and Construction Regulations | General induction - all employees | Dust Masks                               |
| Appointment 6(1)                     | Toolbox talks                     | Ear protection                           |
| Appointment of Machinery Supervisor  | Operating Compressor              |  |
| Inspection checklist                 |                                   |  |
|                                      |                                   |  |
|                                      |                                   |  |
|                                      |                                   |  |
|                                      |                                   |  |
|                                      |                                   |  |

| <b>Activity Steps</b> |                 | <b>Hazards and Risks</b>  | <b>Preventative Measures</b>   | <b>Rating</b> |
|-----------------------|-----------------|---|--|---------------|
| 1                     | Certification   | Mechanical failure, faulty gauges or metal stress may cause injuries or damage to property. | A mobile air compressor may only be used if supplied with a valid pressure certificate.  | 11            |
| 2                     | Pre-start check | If connection of hose fails, a "whipping" action occurs in the danger of injury.            | Safety chains must be fitted across all connections with proper clamps to prevent "whipping" effect of hose should the connection fail.        | 8             |
|                       |                 | Injuries, property damage or environmental damage can occur                                 | Check exhaust system is sound, there are no leaks in the fuel system; water, oil and fuel levels are satisfactory and all guards are in place. | 9             |

|   |                             |  |   |    |
|---|-----------------------------|--|---|----|
| 3 | Positioning                 | Obstruction of access route, may cause tripping of employees and block access to vehicles. | Air compressor must be positioned as close as possible to area of use. Ensure that access roads and employees access to site is not obstructed when placing hoses and compressor. | 3  |
|   |                             | Fire or explosion may cause injuries and damage to property.                               | The compressor must be switched off when replenishing fuel.   | 5  |
| 4 | Maintenance                 | Machine parts may be damaged or cause injury to employees                                  | Keep the machine and hoses clean and in good condition at all times.  | 5  |
| 5 | Operating an air compressor | Equipment under pressure   | Never exceed safe working pressure on pressure gauges.  | 11 |
|   |                             | Discharging air against the body with air hose may cause injury.                           | Employees to be informed not to clean themselves or their clothes with compressed air   | 5  |
|   |                             | Noise may cause hearing loss   | Wear hearing protection   | 5  |
|   |                             | Dusty conditions can affect lung function.   | Wear dust mask in dusty conditions  | 5  |



## CONCRETE MIXER

**RA NO**

**DATE**

|                               |             |  |
|-------------------------------|-------------|--|
| <b>H.T.I Score</b>            | 10          | Medium-Regular monitoring, Supervision |
| <b>Contract</b>               |             |  |
| <b>Persons involved in RA</b> | <b>Name</b> | <b>Signatures</b>                      |
| Foreman                       |             |  |
| Second Foreman                |             |  |
| Safety Officer                |             |  |
| Representative                |             |  |
|                               |             |  |

|                                      |                                   |  |
|--------------------------------------|-----------------------------------|--|
| <b>Documentation Required</b>        | <b>Training Required</b>          | <b>PPE and Safety Equipment Required</b> |
| OHS Act and Construction Regulations | General induction – all employees | Overalls                                 |
| Appointment 6(1)                     | Toolbox talks                     | Safety Footwear                          |
| Appointment Supervisor of Machinery  | First Aider                       | Dust Masks                               |
| Appointment First Aider              | Operating concrete mixer          | Eye Protection                           |
| Competency Operator                  |                                   | Gloves                                   |
| Competency First Aider               |                                   |  |
| Equipment registers                  |                                   |  |
|                                      |                                   |  |
|                                      |                                   |  |

| <b>Activity Steps</b> |                        | <b>Hazards and Risks</b>  | <b>Preventative Measures</b>  | <b>Rating</b> |
|-----------------------|------------------------|---|---|---------------|
| 1                     | Pre-use inspection     | Inspection not done may lead to injuries and equipment damage                   | Inspection to be done by a competent person. User of the concrete mixer to be trained on how to do the pre use inspection. Inspection registers to be signed off by a competent supervisor. | 9             |
| 2                     | Use of concrete mixer. | Safety guard not in place may cause serious injuries or equipment damage        | concrete mixer to be inspected before use by a trained and competent person.  | 12            |
|                       |                        | Cement dust inhalation may cause serious lung disease and permanent disability. | User of concrete mixer to make use of a dust mask.  | 11            |

|   |                            |  |  |    |
|---|----------------------------|--|--|----|
|   |                            | Noise may cause permanent disability effect to user.   | When the concrete mixer is used use ear protection.  | 11 |
|   |                            | Concrete mixer used by incompetent employee may result in injuries, equipment damage and disability. | Only trained employees are allowed to work with a concrete mixer. concrete mixer not to be left unsupervised. Task to be supervised by a competent supervisor. | 11 |
| 4 | Storage of concrete mixer. | Unauthorised use of concrete mixer   | Concrete mixer not to be left unsupervised.  | 5  |
|   |                            | Defects not reported may lead to injuries, equipment damage and disability.                          | All defects on the concrete mixer must be reported to the supervisor.  | 5  |
| 5 | Maintenance.               | Defects repaired by an incompetent employee may cause injury, equipment damage and disability.       | Only trained and competent persons to repair the concrete mixer.   | 12 |



## CONCRETE SAW

**RA NO**

**DATE**

|                               |             |                   |
|-------------------------------|-------------|-------------------|
| <b>H.T.I Score</b>            | 9           |                   |
| <b>Contract</b>               |             |                   |
| <b>Persons involved in RA</b> | <b>Name</b> | <b>Signatures</b> |
| Foreman                       |             |                   |
| Second Foreman                |             |                   |
| Safety Officer                |             |                   |
| Representative                |             |                   |
|                               |             |                   |

|                                       |                                   |  |
|---------------------------------------|-----------------------------------|--|
| <b>Documentation Required</b>         | <b>Training Required</b>          | <b>PPE and Safety Equipment Required</b> |
| OHS Act and Construction Regulations  | General induction - all employees | Overalls                                 |
| Appointment 6(1)                      | Toolbox talks                     | Safety Footwear                          |
| Appointments Plant/ Vehicle Operators | First Aider                       | Dust Masks                               |
| Appointment First Aider               | Operating                         | Eye Protection                           |
| Competency Operator                   |                                   | Gloves                                   |
| Competency First Aider                |                                   |  |
| Plant/ Vehicle registers              |                                   |  |
|                                       |                                   |  |
|                                       |                                   |  |

| <b>Activity Steps</b> |                 | <b>Hazards and Risks</b>  | <b>Preventative Measures</b>  | <b>Rating</b> |
|-----------------------|-----------------|---|---|---------------|
| 1                     | PPE             | If correct PPE is not used, serious injuries may occur                            | PPE to be used- safety boots, overalls, ear protection, eye protection, gloves, dust mask                       | 12            |
| 2                     | Pre-start check | Mechanical failure can cause injuries or damage to property                       | Machine is to be checked prior to use, include all hose fittings, safety chains before use                      | 8             |
| 3                     | Operating       | Dust can affect lung function   | Dust masks to be worn   | 8             |
|                       |                 | Noise can cause hearing loss  | Ear protection to be worn   | 8             |
|                       |                 | Vibration can cause numbness which can cause loss of control, leading to injuries | Employee to take sufficient breaks or extensive work to be performed by a relay of employees. Gloves to be worn | 3             |
|                       |                 | Fly rock can cause injuries to body or eyes                                       | Impact resistant eye protection to be worn  | 12            |





## CONFINED SPACE ENTRY

**RA NO**

**DATE**

|                               |             |                            |
|-------------------------------|-------------|----------------------------|
| <b>H.T.I Score</b>            | 10          | High- Constant supervision |
| <b>Contract</b>               |             |                            |
| <b>Persons involved in RA</b> | <b>Name</b> | <b>Signatures</b>          |
| Foreman                       |             |                            |
| Second Foreman                |             |                            |
| Safety Officer                |             |                            |
| Representative                |             |                            |
|                               |             |                            |

| Documentation Required           | Training Required                    | PPE and Safety Equipment Required        |
|----------------------------------|--------------------------------------|--|
| OHS Act 85 of 1993               | General induction - all employees    | Overalls, protective footwear, hard hats |
| General Safety Regulation 5      | Toolbox talks - Confined Space Entry | Breathing Apparatus (If Required)        |
| Appointment form for First Aider | First Aider                          | Fire extinguisher                        |
| Register for Plant & equipment   | Breathing Apparatus (BA)             | First Aid Kit                            |
| Confined Space Entry Permit      | Fire Extinguisher Usage              | Warning signs                            |
| Lock Out Procedure               |                                      | No smoking and no naked flame signs      |
| Emergency procedure              |                                      | Safety Harness & Life Line               |
| Method Statement - CR6(1)        |                                      | Barricading                              |
| Confined Space Register          |                                      |  |

|   | Activity Steps   | Hazards and Risks   | Preventative Measures  | Rating |
|---|--|---|--|--------|
| 1 | Identify Confined Space area                                 | Not identifying the confined space area as hazardous could lead to severe injury.                                   | Area Supervisor to evaluate the work area and clearly identify which are confined space areas. If unsure area Supervisor to request professional advice. | 13     |
| 2 | Attaining confined space entry permits and locks out system. | Unauthorised persons entering confined space could lead to injury and loss.   | Area Supervisor to attain an entry permit from the client if required by client specification.   | 13     |
|   |  | Additional process could be started up while persons are still in confined space leading to severe injury and loss. | Training persons in identifying confined space areas.  | 13     |
|   |  | By not attaining a permit persons may not be aware of hazardous gasses / fumes.                                     | Clearly labelling confined space areas and requesting entry permits and lock out tags.   | 13     |

|   |                                       |   |   |    |
|---|---------------------------------------|---|---|----|
| 3 | Entry into confined space area.       | Unsafe access into confined space areas leading to injury and loss.                           | Access points leading to confined space area to be kept clean and tidy.   | 11 |
|   |                                       | Unauthorised entry of persons into confined space.  | Areas inside confined space to be kept clean and tidy.  | 11 |
|   |                                       | Uninformed persons entering into confined space could lead to injury and loss.                | Ladders or staircase to be used to gain access into confined space.   | 12 |
|   |                                       |   | Confined space area clearly labelled and barricaded.  |    |
|   |                                       |   | Toolbox Talks to be conducted with all persons entering the confined space area.                                      |    |
| 4 | Conducting air and heat monitoring.   | Incorrect and irregular readings taken.   | Person conducting monitoring to be trained & approved.  | 10 |
|   |                                       |   | Testing equipment to be calibrated according to manufacturers specifications.   |    |
|   |                                       |   | Readings to be done according to Method Statement   |    |
| 5 | Work conducted inside confined space. | Persons being overcome by hazardous gasses and fumes could lead to severe injury.             | Regular air and heat monitoring to be done and results recorded.  | 10 |
|   |                                       | Explosions caused by work activities, could lead to severe injury, loss and damage.           | Confined space to be declared safe prior to work commencing.  | 13 |
|   |                                       | Not conducting regular air and heat monitoring, could lead to severe injury, loss and damage. | No flammable material or equipment to be taken into confined space area.  | 9  |
|   |                                       | Not being able to rescue injured persons.   | Persons inside confined space area to have safety harness attached to independent life lines which lead outside area. | 9  |
|   |                                       |   | If required breathing apparatus to be used.   |    |
|   |                                       |   | Trained First Aider and spotter to be present outside the confined space at all times.                                |    |
|   |                                       |   | No fuel driven machinery or plant allowed inside confined space (fumes).  |    |

|   |   |  |  |   |
|---|---|--|--|---|
| 6 | Completion of work inside confined space. | Materials and equipment left behind leading to damage and loss.            | Area supervisor to ensure that all equipment and person are removed after completion.        | 5 |
|   |   | Persons left behind and entrances are closed off and secured.              | After completion and removal of equipment all access points to be closed off and barricaded. | 9 |
|   |   | Other processes not aware of work completion resulting in production loss. | Entry permits and locks out systems to be returned to Client (if applicable).                | 5 |

## DIESEL STORAGE - BUND AREA

**RA NO**

**DATE**

|                               |             |  |
|-------------------------------|-------------|--|
| <b>H.T.I Score</b>            | 7           | Medium-Regular Monitoring/ Supervision |
| <b>Contract</b>               |             |  |
| <b>Persons involved in RA</b> | <b>Name</b> | <b>Signatures</b>                      |
| Foreman                       |             |  |
| Second Foreman                |             |  |
| Safety Officer                |             |  |
| Representative                |             |  |
|                               |             |  |

| <b>Documentation Required</b>        | <b>Training Required</b>                          | <b>PPE and Safety Equipment Required</b> |
|--------------------------------------|---|--|
| OHS Act and Construction Regulations | General induction – all employees                 | Long Trousers                            |
| Appointment 6(1)                     | Toolbox talks                                     | Safety Footwear                          |
| EIA – Storage of fuel                | Fire Fighting Training (Basic) selected employees | Gloves                                   |
| Client's environmental report        | Operating   | Fire extinguishers (2 x 9kg DPC)         |
| Material safety data sheet (MSDS)    |   | No smoking and No naked flame signs      |
| Emergency contact numbers            |   |  |
| Environmental management plan        |   |  |
| Appt Fire Equipment Supt             |   |  |
| Fire Equipment Register              |   |  |

|   | <b>Activity Steps</b>                                       | <b>Hazards and Risks</b>                                       | <b>Preventative Measures</b>  | <b>Rating</b> |
|---|---|--|---|---------------|
| 1 | Erection of storage area for fuel, casting of concrete slab | Erection of slab in incorrect position.                        | Task to be supervised by a competent supervisor.                                    | 5             |
|   |   | Employees being injured while casting the slab.                | Task to be performed by competent employees. Employees to make use of concrete PPE. | 5             |
|   |   | Employees being struck by concrete truck.                      | Concrete truck to be operated by a competent operator / driver.                     | 8             |
|   |   | Concrete being dumped in the bush.                             | Concrete to be contained in area where it is required.                              | 5             |
| 2 | Erecting of bund wall                                       | Bund wall not build according to specification.                | Task to be supervised by a competent supervisor.                                    | 8             |
|   |   | Employees being injured while laying bricks for the bund wall. | Task to be performed by competent employees. Employees to make use of concrete PPE. | 5             |

|  |  |                    |                                |   |
|--|--|--------------------|--------------------------------|---|
|  |  | Poor housekeeping. | Waste cement to be controlled. | 5 |
|--|--|--------------------|--------------------------------|---|

|   |   |  |  |   |
|---|---|--|--|---|
|   |   | Leaking of tank.   | Bund wall to be able to contain 100% of tank volume plus 10%.  | 8 |
| 3 | Access to office yard for off loading of storage tank | Delivery truck colliding with other plant.                           | Delivery truck to be operated/driven by a competent person. Operator/driver to keep to designated route for delivery.  | 5 |
|   |   | Slings used for off loading breaking.                                | Task to be supervised by a competent supervisor, slings to be inspected by a competent person.   | 8 |
|   |   | Wrong slings used for task.  | Slinging to be done by a competent and trained rigger.   | 8 |
|   |   | Employees struck by tank.  | Other employees to stand clear of the tank.  | 8 |
|   |   | Crane falling over during lifting process.                           | Task to be supervised by a competent supervisor and crane to be operated by a competent and certified operator.  | 8 |
|   |   | Crane operator-placing tank in incorrect position.                   | Crane operator to be guided by a competent and trained rigger.   | 5 |
|   |   | Fuel tank moving after placement.                                    | Fuel tank to be secured with anchor bolts.   | 8 |
| 4 | Access to storage tank for refuelling.                | Delivery tanker driving into storage tank or other plant.            | Delivery tanker to be driven by a competent driver. Driver to keep to the designated route for delivery.   | 8 |
|   |   | Tanker unable to get close to the storage tank for delivery of fuel. | Housekeeping around tank to be kept in good order, ensure safe access.   | 5 |
|   |   | Offloading fuel in wrong area.                                       | Driver of tanker to report to the site office.   | 5 |
|   |   | Fuel lost during refuelling.   | Refuelling to be done by a competent person.   | 5 |
|   |   | Fire starting during refuelling.                                     | No naked flames or smoking allowed near the storage tank, all sources of ignition to be removed from storage area and ensure that there are a sufficient number of fire extinguishers at hand. | 8 |

|   |                          |   |  |   |
|---|--------------------------|---|--|---|
|   |                          | Large spillage of fuel during refuelling. | Refuelling to be done by a competent person, follow procedure for spills as set out in the MSDS. Ensure that all the hoses and fittings are leak free and secure.  | 8 |
| 5 | Refuelling of plant      | Plant driving into bund wall.             | Plant to be operated by a competent and trained operator.  | 5 |
|   |                          | Minor spillage during refuelling.         | Refuelling to be done by a competent and trained person.   | 5 |
|   |                          | Fire starting during refuelling.          | No naked flames or smoking allowed near the storage area remove all sources of ignition from the storage area and ensure that there are a sufficient number of fire extinguishers available.               | 8 |
|   |                          | Large spillage of fuel.                   | Ensure that the bund wall can contain the spill and ensure that all hoses and fittings are leak free and secure. Follow procedure for spill as set out in the MSDS.  | 8 |
| 7 | General storage of fuel. | Theft of fuel during the night.           | Ensure that a security guard is on duty. Ensure that there is sufficient lighting during the night.  | 5 |
|   |                          | Theft of fuel by employees.               | Ensure that a record is kept of fuel received and fuel issued; the issuing of fuel is to be done by a competent person.  | 5 |
|   |                          | Fire at storage area.                     | A selected number of employees should be trained in basic fire fighting; the fire is to be contained until the fire department arrives. If the fire is too large the offices and yard are to be evacuated. | 8 |

|   |                                   |  |   |   |
|---|-----------------------------------|--|---|---|
|   |                                   | Spillage due to leak in tank.                              | Follow procedure for spill as set out in the MSDS.  | 5 |
| 8 | Dismantling of fuel storage area. | Slings used for loading the tank on to the truck breaking. | Task to be supervised by a competent supervisor, slings to be inspected by a competent person.                  | 5 |
|   |                                   | Wrong slings for task.                                     | Slinging to be done by a competent and trained rigger.  | 8 |
|   |                                   | Employees struck by tank.                                  | Other employees to stand clear of the tank.   | 8 |
|   |                                   | Crane falling over.  | Task to be supervised by a competent supervisor and crane to be operated by a competent and certified operator. | 8 |
|   |                                   | Crane operator-placing tank in incorrect position.         | Crane operator to be guided by a competent and trained rigger.  | 5 |





## DOZER

**RA NO**

**DATE**

|                               |             |  |
|-------------------------------|-------------|--|
| <b>H.T.I Score</b>            | 7           | Medium-Regular Monitoring/ Supervision |
| <b>Contract</b>               |             |  |
| <b>Persons involved in RA</b> | <b>Name</b> | <b>Signatures</b>                      |
| Foreman                       |             |  |
| Second Foreman                |             |  |
| Safety Officer                |             |  |
| Representative                |             |  |
|                               |             |  |

|                                       |                                   |  |
|---------------------------------------|-----------------------------------|--|
| <b>Documentation Required</b>         | <b>Training Required</b>          | <b>PPE and Safety Equipment Required</b> |
| OHS Act and Construction Regulations  | General induction - all employees | Long Trousers                            |
| Appointment 6(1)                      | Toolbox talks                     | Safety Footwear                          |
| Appointments Plant/ Vehicle Operators | First Aider                       | Dust Masks                               |
| Appointment First Aider               | Operating Dozer                   | Eye Protection                           |
| Competency Operator                   |                                   | Gloves                                   |
| Competency First Aider                |                                   | Ear Protection                           |
| Plant/ Vehicle registers              |                                   |  |
|                                       |                                   |  |
|                                       |                                   |  |

| <b>Activity Steps</b> |                      | <b>Hazards and Risks</b>  | <b>Preventative Measures</b>   | <b>Rating</b> |
|-----------------------|----------------------|---|--|---------------|
| 1                     | Starting up of dozer | Employee being injured by standing on, under or to close to the engine or tracks. | All protective guards and cover must be in place before start of the engine. The dozer must be operated by a competent and trained operator. | 8             |
|                       |                      | Operator being injured while climbing into the dozer.                             | Operator to mount and dismount the dozer only at locations that have steps and handholds.  | 5             |
|                       |                      | Engine failure  | Engine to be started according to procedure and maintenance schedule to be followed.   | 8             |
| 2                     | Operating dozer      | Dozer colliding into other plant or LDV   | Dozer to be operated by a competent and trained operator. Operator to keep to the designated area of work.                                   | 8             |

|   |             |  |   |   |
|---|-------------|--|---|---|
|   |             | Employee being struck by dozer.                                    | Dozer to be operated by a competent and trained operator. Employees to keep of the dozer during operations. Ensure that the operator has seen you before approaching. | 8 |
|   |             | Employee caught by dozer tracks                                    | Employees to keep clear of dozer while moving. No passengers allowed on the dozer.  | 8 |
|   |             | Dozer working in incorrect place.                                  | Task to be supervised by a competent supervisor.  | 5 |
|   |             | Dozer operator exposed to noise                                    | Operator to make use of ear protection and take frequent brakes.  | 5 |
|   |             | Operator exposed to dust.  | Dust to be controlled.  | 5 |
|   |             | Dozer driving into trench.   | Dozer to be operated by a competent and trained operator. Task to be supervised by a competent supervisor.  | 8 |
| 3 | Maintenance | Hydraulic pipe bursting during operation.                          | Burst pipe to be replaced by workshop and maintenance schedule to be followed.  | 5 |
|   |             | Employee being injured while working on dozer.                     | Maintenance and repair work to be done by a competent person.   | 8 |
|   |             | Hydraulic oil being injected into employee while working on dozer. | Make use of a board or cardboard when checking for leaks in the hydraulic pipes.  | 5 |
|   |             | Hydraulic oil leaking.   | Leaks to be reported to the foreman and to be repaired by the workshop.   | 5 |
|   |             | Employee injured while changing the blade on the dozer.            | Changing of the blade to be performed by a competent person and the task to be supervised by a competent supervisor.  | 8 |
|   |             | Oil and filters disposal.  | Make use of local waste collectors to collect the used oil and filters.   | 5 |
|   |             | Employee sustaining burns while working on the dozer engine.       | Allow the engine to cool down before maintenance work is carried out. Maintenance to be done by a competent person.   | 5 |

|   |         |   |  |   |
|---|---------|---|--|---|
|   |         | Employee caught by rotating part of engine.   | No work to be done on the dozer while the engine is still running.   | 8 |
|   |         | Employee coming in contact with battery acid. | Do not allow electrolyte to come in contact with the skin or eyes. Make use of the correct P.P.E when working with batteries.  | 8 |
|   |         | Fire or explosion occurring.                  | Remove all flammable materials such as fuel, oil and debris from the engine. Do not weld or flame cut any pipe or tank that contains any flammable fluids. Wiring must be kept in good order and no smoking or naked flames during refuelling. | 8 |
| 4 | General | Theft of batteries and fuel from the dozer.   | Security company to be employed and plant to be parked in a secure area.   | 5 |
|   |         | Theft of dozer.                               | As per 4.1.  | 8 |



## DRILL RIG

**RA NO**

**DATE**

|                               |             |   |
|-------------------------------|-------------|---|
| <b>H.T.I Score</b>            | 8           | Medium-Regular Monitoring & Supervision |
| <b>Contract</b>               |             |   |
| <b>Persons involved in RA</b> | <b>Name</b> | <b>Signatures</b>                       |
| Foreman                       |             |   |
| Second Foreman                |             |   |
| Safety Officer                |             |   |
| Representative                |             |   |
|                               |             |   |

|                                      |                                   |  |
|--------------------------------------|-----------------------------------|--|
| <b>Documentation Required</b>        | <b>Training Required</b>          | <b>PPE and Safety Equipment Required</b> |
| OHS Act and Construction Regulations | General induction - all employees | Overalls                                 |
| Appointment Explosives Manager       | Toolbox talks                     | Safety Footwear                          |
| Appointment Blasting Supervisor      | First Aider                       | Ear Protection                           |
| Appointment First Aider              | Competency Operator               | Eye Protection                           |
| Appointment Operator                 |                                   | Gloves                                   |
| Competency First Aider               |                                   | Hard Hat                                 |
| Competency Operator                  |                                   | Fire Extinguishers                       |
| Plant/ Vehicle registers             |                                   | First Aid Box                            |
| Compressor certificate               |                                   |  |

| <b>Activity Steps</b> |   | <b>Hazards and Risks</b>  | <b>Preventative Measures</b>  | <b>Rating</b> |
|-----------------------|---|---|---|---------------|
| 1                     | Transport of compressor and drilling rigs | Damage to compressor and drill rig if not secured to the transport vehicle.                     | Driver of transport vehicle to ensure that the compressor and drill rig is properly secured to the vehicle.                 | 11            |
|                       |   | Accident and injury if driver of transport vehicle is speeding.                                 | Speed limit to be set on site. All drivers must keep to the set speed limit.  | 8             |
|                       |   | Time delay and possible damage if compressor and drill rig are too heavy for transport vehicle. | Driver of transport vehicle to ensure that the transport vehicle is not overloaded.   | 8             |
| 2                     | Pre Start                                 | Employee not conducting pre start check could lead to damage or property loss.                  | Only trained and competent employees to start the compressor and drill rig start up check list to be completed by operator. | 8             |

|   |                        |  |  |    |
|---|------------------------|--|--|----|
|   |                        | Not checking the water, oil and lubricants could lead to damage and loss.                                  | Only trained and competent employees to start the compressor and drill rig start up check list to be completed by operator.  | 8  |
|   |                        | Doing walk around inspection while the area around the machine is not level can result in injury           | The operator must make sure the area is safe and level before leaving machine  | 5  |
|   |                        | Operator bumps his head while checking under machine for loose pipes can cause injury                      | Operator must wear his PPE while doing his inspection  | 5  |
|   |                        | Dust inhalation can result into illness  | The supervisor must make sure the correct PPE are used.  | 5  |
|   |                        | Slip and fall from step while climbing into the cab can cause injury                                       | Operator must make sure the correct manufactured none slip steps are still in place  | 5  |
|   |                        | Hydraulic oil leaks can cause environmental damage   | The machine is not allowed to work if a serious hydraulic oil leak occurs  | 5  |
| 3 | Start up               | Employee injured by moving parts   | Drill rig operator to ensure that all moving parts are protected by means of machine guards  | 8  |
|   |                        | Incompetent Operators can cause injuries, property damage and environmental damage                         | All operators are to be competent before operating any machine or equipment.   | 8  |
|   |                        | Compressor and drill rig not used safely causing injury loss and damage.                                   | Drill rig operators to be trained and to undergo regular Toolbox Talks.  | 11 |
| 4 | Operation of Drill Rig | If the boom is not correctly positioned while working it can cause damage to the boom                      | If the drilling machine must work for a long distance the boom must be lowered to the horizontal position and be secured before moving off. The boom of the drill must be in a horizontal position whilst travelling from point A to point B | 8  |
|   |                        | Machine that tilts could lead to serious injury or death   | The drilling machine must always drill at a level position   | 11 |
|   |                        | Operating on slopes may cause the machine to roll over or slip sideways result into damage and injury      | When operating on slopes and far as possible avoid turning the machine on a slope  | 11 |
|   |                        | Operate the drilling machine at incorrect speed whilst drilling can result into damage of the drilling rod | The machine should always be operating at a speed where it can be correctly controlled   | 8  |

|   |                  |  |   |    |
|---|------------------|--|---|----|
|   |                  | Working on embankments can cause injury and damage if embankment collapses   | Check stability of embankment before commencing   | 11 |
|   |                  | Working too close to overhead lines<br>Overhead electric cables may cause an electric shock and damage to surrounding property | If you have to work close to overhead power lines the engineer must give clearance to work  | 11 |
|   |                  | Operating at the edge of a high wall. The machine may fall over the edge of the high wall causing injury                       | Machine must be parked at least 3m from a high wall.  | 11 |
|   |                  | Long term exposure to noise can result in hearing loss.  | The supervisor must make sure that ear protection is used   | 5  |
| 5 | Operational Area | Working area is not big enough can cause damage or injury  | Supervisor must make sure the working area is big enough for work to be done  | 8  |
|   |                  | Poor floor conditions can result in production loss  | Supervisor must make sure drilling area is clean  | 5  |
| 6 | Parking          | Operator does not switch off machine when parked. Unauthorised person can use machine  | Operator will not leave machine unattended while idling   | 11 |
|   |                  | The machine may fall over the edge of the high wall if it is parked too close, causing injury                                  | Machine must be parked at least 3m from the high wall   | 11 |
|   |                  | If the machine is not locked out, unauthorised persons can access the machine  | Driver will remove the key at all times from the machine when leaving   | 11 |
| 7 | Maintenance      | Compressor and drill rig not in a safe condition can cause injuries, property damage or environmental damage                   | All discrepancies on the pre-start checklist must be reported immediately. Compressor and Drill rigs to be maintained by workshops according to maintenance schedule. Compressor to have a valid test certificate (36 monthly), compressor to be visually inspected (findings to be recorded on to a register). | 8  |
|   |                  | Working on a running engine can cause injury or death  | The mechanic must remove the keys from the machine until he is finished with the job for preventing somebody to start engine.   | 11 |



## DUMPER

**RA NO**

**DATE**

|                               |             |  |
|-------------------------------|-------------|--|
| <b>H.T.I Score</b>            | 8           | Medium-Regular monitoring, Supervision |
| <b>Contract</b>               |             |  |
| <b>Persons involved in RA</b> | <b>Name</b> | <b>Signatures</b>                      |
| Foreman                       |             |  |
| Second Foreman                |             |  |
| Safety Officer                |             |  |
| Representative                |             |  |
|                               |             |  |

|                                       |                                   |  |
|---------------------------------------|-----------------------------------|--|
| <b>Documentation Required</b>         | <b>Training Required</b>          | <b>PPE and Safety Equipment Required</b> |
| OHS Act and Construction Regulations  | General induction - all employees | Ear protection                           |
| Appointment 6(1)                      | Environmental induction           | Safety Footwear                          |
| Appointments Plant/ Vehicle Operators | Toolbox talks                     | Fire Extinguisher fitted to Dumper       |
| Appointment First Aider               | First Aider                       | Overalls                                 |
| Competency Operator                   | Operating Dumper                  | Dust Mask                                |
| Competency First Aider                |                                   |  |
| Plant/ Vehicle registers              |                                   |  |
|                                       |                                   |  |
|                                       |                                   |  |

| <b>Activity Steps</b> |                        | <b>Hazards and Risks</b>   | <b>Preventative Measures</b>  | <b>Rating</b> |
|-----------------------|------------------------|--|---|---------------|
| 1                     | Starting up of Dumper. | Employee being injured by standing on, under or too close to the engine or wheels. | All protective guards and cover must be in place before start of the engine. The Dumper must be operated by a competent and trained operator. | 9             |
|                       |                        | Operator being injured while mounting or dismounting the Dumper.                   | Operator to mount and dismount the Dumper only at locations that have steps and handholds.  | 5             |
|                       |                        | Engine failure   | Engine to be started according to procedure and maintenance schedule to be followed.  | 5             |

|   |                   |   |  |    |
|---|-------------------|---|--|----|
| 2 | Operating Dumper. | Dumper colliding into other plant or LDV                            | Dumper to be operated by a competent and trained operator. Operator to keep to the designated area of work.  | 9  |
|   |                   | Employee being run over by Dumper.                                  | Dumper to be operated by a competent and trained operator. Employees to keep of the Dumper during operations. Ensure that the operator has seen you before approaching. Dumper to be fitted with a reverse hooter. | 13 |
|   |                   | Dumper overturning.   | Dumper to be operated by a trained and competent operator, Dumper to be operated at a safe angle, task to be supervised by a competent supervisor.   | 9  |
|   |                   | Dumper working in incorrect place.                                  | Task to be supervised by a competent supervisor.   | 5  |
|   |                   | Dumper operator exposed to noise                                    | Operator to make use of ear protection and take frequent brakes.   | 10 |
|   |                   | Operator exposed to dust.   | Dust to be controlled.   | 13 |
|   |                   | Dumper driving into trench.   | Dumper to be operated by a competent and trained operator. Task to be supervised by a competent supervisor.  | 9  |
| 3 | Maintenance       | Hydraulic pipe bursting during operation.                           | Burst pipe to be replaced by workshop and maintenance schedule to be followed.   | 13 |
|   |                   | Employee being injured while working on Dumper.                     | Maintenance and repair work to be done by a competent person.  | 13 |
|   |                   | Hydraulic oil being injected into employee while working on Dumper. | Make use of a board or cardboard when checking for leaks in the hydraulic pipes.   | 9  |
|   |                   | Hydraulic oil leaking.  | Leaks to be reported to the foreman and to be repaired by the workshop.  | 5  |



|   |         |   |  |   |
|---|---------|---|--|---|
|   |         | Employee injured while changing the wheels on the Dumper.     | Changing of the wheels to be performed by a competent person and the task to be supervised by a competent supervisor.  | 5 |
|   |         | Oil and filters disposal.                                     | Make use of local waste collectors to collect the used oil and filters.  | 9 |
|   |         | Employee sustaining burns while working on the Dumper engine. | Allow the engine to cool down before maintenance work is carried out.  | 3 |
|   |         | Employee caught by rotating part of engine.                   | Maintenance to be done by a competent person.No work to be done on the Dumper while the engine is still running.   | 9 |
|   |         | Employee coming in contact with battery acid.                 | Do not allow electrolyte to come in contact with the skin or eyes.Make use of the correct P.P.E when working with batteries.   | 9 |
|   |         | Fire or explosion occurring.                                  | Remove all flammable materials such as fuel, oil and debris from the engine. Do not weld or flame cut any pipe or tank that contains any flammable fluids. Wiring must be kept in good order and no smoking or naked flames during refuelling. | 9 |
| 4 | General | Theft of batteries and fuel from the Dumper.                  | Security company to be employed and plant to be parked in a secure area.   | 6 |
|   |         | Theft of Dumper.  | As per 4.1.  | 6 |



## ELECTRIC DRILL

**RA NO**

**DATE**

|                               |             |  |
|-------------------------------|-------------|--|
| <b>H.T.I Score</b>            | 9           | Medium-Regular monitoring, Supervision |
| <b>Contract</b>               |             |  |
| <b>Persons involved in RA</b> | <b>Name</b> | <b>Signatures</b>                      |
| Foreman                       |             |  |
| Second Foreman                |             |  |
| Safety Officer                |             |  |
| Representative                |             |  |
|                               |             |  |

| <b>Documentation Required</b>          | <b>Training Required</b>          | <b>PPE and Safety Equipment Required</b> |
|--|-----------------------------------|--|
| OHS Act and Construction Regulations   | General induction - all employees | Eye protection                           |
| Appointment 6(1)                       | Toolbox talks                     | Ear protection                           |
| Daily Pre-use Inspection register      | Operating Drill                   | Dust Mask                                |
| Monthly check by Electrical Supervisor | RA Training                       | Fire extinguisher                        |
|  |                                   | Gloves                                   |
|  |                                   |  |
|  |                                   |  |
|  |                                   |  |
|  |                                   |  |

|   | <b>Activity Steps</b> | <b>Hazards and Risks</b>   | <b>Preventative Measures</b>  | <b>Rating</b> |
|---|-----------------------|--|---|---------------|
| 1 | PPE                   | Not wearing PPE's. Injury to eyes, hands & feet.   | PPE to be used at all times- Eye protection, Gloves, Overalls, Ear protection             | 9             |
| 2 | Pre-start check       | Damage to the cord might cause a short or electrocution of a person. Burns to body.                      | Check the electrical cord and extension for any sign of damage.                           | 9             |
|   |                       | Plug not correctly wired, shock. Burns to body & damage to drill.  | Check condition of the plugs that they are intact, with not damaged or disconnected wires | 9             |
|   |                       | Not being able to control the drill properly. Injury to body, damage to item being drilled or drill bit. | Check that the on/off switch is working properly.   | 9             |
| 3 | Operation             | Incorrect drill bit being used. Damage to drill bit or material being drilled                            | Use the type of drill bit suitable for the material to be drilled.                        | 5             |
|   |                       | Standing in water - electrocution. Shock, burns to body.   | Do not stand in water when operating the drill.   | 8             |

|   |                            |  |   |    |
|---|----------------------------|--|---|----|
|   |                            | Cord lying on the floor can get damaged by plant, people or machines. Could cause shock, loss of production and loss of material.        | Where possible, lift the extension cord off the floor to avoid it being damaged.                                      | 8  |
| 4 | Working at heights         | Not using a harness or safety belt can cause serious, possibly fatal injuries due to falling from a height.                              | When working in an elevated position, always use a safety belt.   | 11 |
|   |                            | Dropping of drill from elevated position, flying swath or metal pieces can cause injuries to workers underneath or damage the equipment. | Drill to be secured to prevent it from falling. Safe area to be barricaded underneath overhead operations.            | 8  |
| 5 | Storage of electric drill. | Incorrect storage of electric drill may result in damage to the electric drill.  | Proper storage space for electric drill to be provided. Storage to be controlled by a trained and competent store man | 5  |
|   |                            | Theft of electric drill.   | Electric drill not to be left unsupervised. If not in use the grinder must be returned to the store.                  | 5  |
| 6 | Maintenance.               | Defects not reported may lead to injuries, equipment damage and disability.  | All defects on the electric drill must be reported to the supervisor.   | 12 |
|   |                            | Defects repaired by an incompetent employee may cause injury, equipment damage and disability.   | Only trained and competent persons to repair the electric drill.  | 12 |



## ERECTING FENCING

**RA NO**

**DATE**

|                               |             |                        |
|-------------------------------|-------------|------------------------|
| <b>H.T.I Score</b>            | 4           | Low-Regular Monitoring |
| <b>Contract</b>               |             |                        |
| <b>Persons involved in RA</b> | <b>Name</b> | <b>Signatures</b>      |
| Foreman                       |             |                        |
| Second Foreman                |             |                        |
| Safety Officer                |             |                        |
| Representative                |             |                        |
|                               |             |                        |

|                                       |                                   |  |
|---------------------------------------|-----------------------------------|--|
| <b>Documentation Required</b>         | <b>Training Required</b>          | <b>PPE and Safety Equipment Required</b> |
| OHS Act and Construction Regulations  | General induction - all employees | Long Trousers                            |
| Appointment 6(1)                      | Environmental induction           | Safety Footwear                          |
| Appointments Plant/ Vehicle Operators | Toolbox talks                     | Dust Masks                               |
| Appointment First Aider               | First Aider                       | Eye Protection                           |
| Competency Operator                   | Operating Chainsaw                | Gloves                                   |
| Competency First Aider                |                                   |  |
| Plant/ Vehicle registers              |                                   |  |
|                                       |                                   |  |
|                                       |                                   |  |

| <b>Activity Steps</b> |                                 | <b>Hazards and Risks</b>  | <b>Preventative Measures</b>   | <b>Rating</b> |
|-----------------------|---------------------------------|---|--|---------------|
| 1                     | Digging Holes for fencing poles | Employees injured by hand tools may cause a medical aid injury and short term disability. | Employees must stand away from another worker busy digging a hole.   | 3             |
|                       |                                 | Holes not barricaded may cause serious injuries and long term disability.                 | All Holes / excavations will be barricaded when in public areas and after shift.   | 6             |
| 2                     | Housekeeping                    | Housekeeping not done after shift could cause trip and fall injuries                      | Housekeeping will be done after each shift. The supervisor will be held responsible to ensure that housekeeping is done. | 1             |
| 3                     | Tensioning Wire                 | Steel wire breaking under tension and causing injury.                                     | Employees must not stand in the way of the pulling mechanism or while wire is placed under tension.                      | 5             |

|   |  |  |  |   |
|---|--|--|--|---|
| 4 | Placing poles                            | Poles falling onto employees may cause serious injuries and long term disability.          | Poles must be held upright by more than one person.                                    | 6 |
| 5 | Handling materials- poles, wire, fencing | Injuries while doing material handling may cause minor injuries and short term disability. | Employees must be taught in the correct lifting procedures and must wear provided PPE. | 3 |



## EXCAVATIONS

**RA NO**

**DATE**

|                               |             |   |
|-------------------------------|-------------|---|
| <b>H.T.I Score</b>            | 10          | Medium, regular monitoring, supervision |
| <b>Contract</b>               |             |   |
| <b>Persons involved in RA</b> | <b>Name</b> | <b>Signatures</b>                       |
| Foreman                       |             |   |
| Second Foreman                |             |   |
| Safety Officer                |             |   |
| Representative                |             |   |
|                               |             |   |

| Documentation Required                | Training Required                 | PPE and Safety Equipment Required |
|---------------------------------------|-----------------------------------|-----------------------------------|
| OHS Act and Construction Regulations  | General induction - all employees | Life lines                        |
| Appointment 6(1)                      | Toolbox talks                     | Safety Footwear                   |
| Appointments Plant/ Vehicle Operators | First Aider                       | Dust Masks                        |
| Appointment First Aider               |                                   | Eye Protection                    |
| Competency Operator                   |                                   | Gloves                            |
| Competency First Aider                |                                   |                                   |
| Plant/ Vehicle registers              |                                   |                                   |
| Appointment Excavation Supervisor     |                                   |                                   |
| Excavation Registers                  |                                   |                                   |
| Appontment Hand Tool Inspector        |                                   |                                   |
| Hand Tool Registers                   |                                   |                                   |
| Appointment Ladder Inspector          |                                   |                                   |
| Ladder Registers                      |                                   |                                   |

|   | Activity Steps     | Hazards and Risks  | Preventative Measures   | Rating |
|---|--------------------|--|---|--------|
| 1 | Excavation permits | Services underground not pointed out on the permit. Damage to services and damage to equipment and possible injury to personnel. | Ensure an excavation permit is in place and all relevant people have signed. Have a copy of the permit at the area of work. | 11     |

|   |                                |   |  |    |
|---|--------------------------------|---|--|----|
| 2 | Ground and soil conditions     | Trench collapsing as a result of poor ground/ soil conditions may cause injuries and disability.                                | Daily excavation inspection to be done by the appointed responsible person, all findings to be recorded on to register. Sides of excavation to be shored (if necessary) & barricaded immediately. Emergency evacuation plan to be in place in the event of such an incident. | 8  |
| 3 | Rain                           | Trench collapsing as a result of rain may cause injuries and disability.  | Inspections to be done after rain by the appointed responsible person, all findings to be recorded on to register.   | 12 |
| 4 | Access to excavations          | No safe access into deep excavation may cause injuries and disability.  | All excavations deeper than 1.5m must have access ladders or ramps provided for employees to get into & out of the excavation safely   | 9  |
| 5 | Spoil heaps                    | Material falling on to employees working in the trench may cause injuries with disability.                                      | Material to be stacked 1m from the edge of the trench. Task to be supervised by a competent supervisor.  | 9  |
| 6 | Plant, Machines and Vehicles   | Plant, machines and vehicles working too close to the edge could fall into the excavation or cause the trench walls to collapse | Plant, machinery and vehicles not involved in excavation must not work too close to excavations. No employees to be in trenches when plant, machinery or vehicles are operating near the trenches.   | 11 |
| 7 | Excavations standing overnight | Pedestrians, public vehicles or animals could fall into open excavations  | Excavations which are accessible to the public must be barricaded to a height of at least 1m. Warning signs to be erected with lights in poor visibility conditions. Excavations must be backfilled as soon as possible after excavation.                                    | 11 |



## EXCAVATIONS USING PLANT

**RA NO**

**DATE**

|                               |             |                            |
|-------------------------------|-------------|----------------------------|
| <b>H.T.I Score</b>            | 11          | High- constant supervision |
| <b>Contract</b>               |             |                            |
| <b>Persons involved in RA</b> | <b>Name</b> | <b>Signatures</b>          |
| Foreman                       |             |                            |
| Second Foreman                |             |                            |
| Safety Officer                |             |                            |
| Representative                |             |                            |
|                               |             |                            |

| Documentation Required                | Training Required                 | PPE and Safety Equipment Required |
|---------------------------------------|-----------------------------------|-----------------------------------|
| OHS Act and Construction Regulations  | General induction - all employees | Reflective vests                  |
| Appointment 6(1)                      | Toolbox talks                     | Safety Footwear                   |
| Appointments Plant/ Vehicle Operators | First Aider                       | Dust Masks                        |
| Appointment First Aider               | RA Training                       | Eye Protection                    |
| Competency Operator                   |                                   | Gloves                            |
| Competency First Aider                |                                   |                                   |
| Plant/ Vehicle registers              |                                   |                                   |
| Excavation permit                     |                                   |                                   |
|                                       |                                   |                                   |

|   | Activity Steps       | Hazards and Risks  | Preventative Measures  | Rating |
|---|----------------------|--|--|--------|
| 1 | Underground services | Interruption of electrical, water, etc. services, explosions from gas lines and ground pollution can be caused by damage to unidentified services. | Excavation permit must be provided. Operators will be made aware of the position of the services and services will be marked clearly for the plant operator. | 11     |
| 2 | Wet Conditions       | Plant slipping or sliding could cause injuries to employees or damage to equipment   | Plant must not be used in extreme wet conditions. If water ponds in the trench it must be pumped away  | 11     |
| 3 | Plant                | Plant overturning or falling into trenches can cause possible fatal injuries and damage to plant   | Workers must not work inside trenches in the vicinity of working plant. Plant must be a safe distance from the excavations                                   | 11     |



|  |  |                                  |  |    |
|--|--|----------------------------------|--|----|
|  |  | Workers run over by moving plant | Plant to have rotating amber lights and reverse warning hooters. Employees must wear reflective vests. Access to area must be monitored and controlled | 11 |
|--|--|----------------------------------|--|----|



## EXCAVATOR

RA NO

DATE

|                               |             |  |
|-------------------------------|-------------|--|
| <b>H.T.I Score</b>            | 9           | Medium-Regular monitoring, Supervision |
| <b>Contract</b>               |             |  |
| <b>Persons involved in RA</b> | <b>Name</b> | <b>Signatures</b>                      |
| Foreman                       |             |  |
| Second Foreman                |             |  |
| Safety Officer                |             |  |
| Representative                |             |  |
|                               |             |  |

|                                       |                                   |  |
|---------------------------------------|-----------------------------------|--|
| <b>Documentation Required</b>         | <b>Training Required</b>          | <b>PPE and Safety Equipment Required</b> |
| OHS Act and Construction Regulations  | General induction – all employees | Ear protection                           |
| Appointment 6(1)                      | Environmental induction           | Safety Footwear                          |
| Appointments Plant/ Vehicle Operators | Toolbox talks                     | Fire Extinguisher fitted to Excavator    |
| Appointment First Aider               | First Aider                       | Overalls                                 |
| Competency Operator                   | Operating Excavator               | Dust Mask                                |
| Competency First Aider                |                                   |  |
| Plant/ Vehicle registers              |                                   |  |
|                                       |                                   |  |
|                                       |                                   |  |

| <b>Activity Steps</b> |                          | <b>Hazards and Risks</b>  | <b>Preventative Measures</b>   | <b>Rating</b> |
|-----------------------|--------------------------|---|--|---------------|
| 1                     | Starting up of excavator | Employee being injured by standing on, under or to close to the engine or tracks. | All protective guards and cover must be in place before start of the engine. The excavator must be operated by a competent and trained operator. | 9             |
|                       |                          | Operator being injured while climbing into the excavator                          | Operator to mount and dismount the excavator only at locations that have steps and handholds.  | 5             |
|                       |                          | Engine failure  | Engine to be started according to procedure and maintenance schedule to be followed.   | 5             |
| 2                     | Operating excavator      | Excavator colliding into other plant or LDV                                       | Excavator to be operated by a competent and trained operator. Operator to keep to the designated area of work.                                   | 9             |

|  |  |  |   |    |
|--|--|--|---|----|
|  |  | Employee being struck by excavator bucket. | Excavator to be operated by a competent and trained operator. Employees to keep clear of the excavator during operations. Ensure that the operator has seen you before approaching. | 13 |
|--|--|--|---|----|

|   |             |   |   |    |
|---|-------------|---|---|----|
|   |             | Employee caught by excavator tracks                                   | Employees to keep clear of excavator while moving.No passengers allowed on the excavator.                                     | 13 |
|   |             | Excavator working in incorrect place.                                 | Task to be supervised by a competent supervisor.  | 5  |
|   |             | Excavator operator exposed to noise                                   | Operator to make use of ear protection and take frequent breaks.  | 10 |
|   |             | Operator exposed to dust.   | Dust to be controlled.  | 13 |
|   |             | Excavator falling into trench.  | Excavator to be operated by a competent and trained operator. Task to be supervised by a competent supervisor.                | 9  |
| 3 | Maintenance | Hydraulic pipe bursting during operation.                             | Burst pipe to be replaced by workshop and maintenance schedule to be followed.  | 13 |
|   |             | Employee being injured while working on excavator                     | Maintenance and repair work to be done by a competent person.   | 13 |
|   |             | Hydraulic oil being injected into employee while working on excavator | Make use of a board or cardboard when checking for leaks in the hydraulic pipes.  | 9  |
|   |             | Hydraulic oil leaking.  | Leaks to be reported to the foreman and to be repaired by the workshop.   | 5  |
|   |             | Employee injured while changing the bucket on the excavator.          | Changing of the bucket to be performed by a competent person and the task to be supervised by a competent supervisor.         | 5  |
|   |             | Oil and filters disposal.   | Make use of local waste collectors to collect the used oil and filters.   | 9  |
|   |             | Employee sustaining burns while working on the excavator engine.      | Allow the engine to cool down before maintenance work is carried out. Maintenance to be done by a competent person.           | 3  |
|   |             | Employee caught by rotating part of engine.                           | No work to be done on the excavator while the engine is still running.  | 9  |
|   |             | Employee coming in contact with battery acid.                         | Do not allow electrolyte to come in contact with the skin or eyes. Make use of the correct P.P.E when working with batteries. | 9  |

|  |  |                              |  |   |
|--|--|------------------------------|--|---|
|  |  | Fire or explosion occurring. | Remove all flammable materials such as fuel, oil and debris from the engine. Do not weld or flame cut any pipe or tank that contains any flammable fluids. Wiring must be kept in good order and no smoking or naked flames during refuelling. | 9 |
|--|--|------------------------------|--|---|

## **FIRE FIGHTING**

**RA NO**

**DATE**

|                               |                                |                   |
|-------------------------------|--------------------------------|-------------------|
| <b>H.T.I Score</b>            | High Risk-Constant Supervision |                   |
| <b>Contract</b>               |                                |                   |
| <b>Persons involved in RA</b> | <b>Name</b>                    | <b>Signatures</b> |
| Foreman                       |                                |                   |
| Second Foreman                |                                |                   |
| Safety Officer                |                                |                   |
| Representative                |                                |                   |
|                               |                                |                   |

|                                      |                                   |  |
|--------------------------------------|-----------------------------------|--|
| <b>Documentation Required</b>        | <b>Training Required</b>          | <b>PPE and Safety Equipment Required</b> |
| OHS Act and Construction Regulations | General induction - all employees | Overalls                                 |
| Appointment 6(1)                     | Toolbox talks                     | Safety Footwear                          |
| Appointment Fire Equipment Inspector | First Aider                       | Dust Masks                               |
| Appointment First Aider              | Emergency Plan                    | Eye Protection                           |
| Emergency Plan                       |                                   | Gloves                                   |
| Competency First Aider               |                                   | Fire Equipment-Extinguishers/hoses       |
| Fire Equipment Registers             |                                   | Fire Equipment Signage                   |
|                                      |                                   |  |
|                                      |                                   |  |

| <b>Activity Steps</b> |                                 | <b>Hazards and Risks</b>   | <b>Preventative Measures</b>  |  |
|-----------------------|---------------------------------|----------------------------|---|--|
| 1                     | Inspection of fire extinguisher | No inspection done         | All fire extinguishers to be inspected on a monthly basis by a trained and competent person.  |  |
|                       |                                 | No register kept           | All findings of inspections to be recorded on a register. Inspection to be done by a trained and competent person.  |  |
|                       |                                 | Extinguishers not serviced | All fire extinguishers to be serviced one a year by a competent person  |  |
|                       |                                 | Fire extinguisher empty    | All fire extinguishers to be inspected on a monthly basis by a trained and competent person. All fire extinguishers to be serviced one a year by a competent person |  |

|  |  |                              |  |  |
|--|--|------------------------------|--|--|
|  |  | Fire extinguisher obstructed | An area of 1,5 m to be kept clear and free of obstructions around the fire extinguisher. |  |
|--|--|------------------------------|--|--|

|   |                          |  |  |  |
|---|--------------------------|--|--|--|
| 2 | Detecting a fire         | Sound the alarm  | On discovering a fire alarm needs to be made. The emergency evacuation plan to be followed. Safety Representative together with the Principal Evacuation Supervisor to supervise the evacuation. |  |
| 3 | Use of fire extinguisher | Employee not trained in the use of a fire extinguisher | Only trained employees to attempt extinguishing a fire. Emergency procedure (from the Principal Contractor) to be followed.  |  |
|   |                          | Wrong extinguisher used to extinguish fire             | All employees to be trained in the use of a fire extinguisher. Training to be done by a trained and competent person.  |  |
|   |                          | Incorrect fire extinguishing method or equipment       | Fire fighting only to be done by trained employees. Emergency procedure to be followed.  |  |
|   |                          | Hazardous chemical fire                                | Area to be evacuated and fire department must be notified of the fire.   |  |
|   |                          | Gas fire (gas cylinders)                               | Gas cylinders to be kept cool by means of spraying water on them. Fire department to be notified of fire.  |  |
|   |                          | Employee attempting to extinguish fire alone           | Call for back up. Only trained employees to attempt extinguishing a fire. Emergency procedure to be followed.  |  |
|   |                          | Building on fire                                       | Building not to be entered. Fire department to be notified of fire.  |  |
|   |                          | Employee burnt   | All injuries to be reported. Emergency services to be notified.  |  |
|   |                          | Fire spreading to other buildings                      | All buildings to be evacuated as per emergency plan of the Principal Contractor.   |  |
|   |                          | Electrical fire  | No water to be used. Fire to be extinguished by trained person.  |  |



|  |  |                                 |   |  |
|--|--|---------------------------------|---|--|
|  |  | Insufficient fire extinguishers | Survey to be done to identify all fire hazards. |  |
|--|--|---------------------------------|---|--|



|   |             |  |
|---|-------------|--|
| <div style="text-align: center;"> <b>FLAME CUTTING</b> </div> |             | RA NO                                  |
|   |             | DATE                                   |
| H.T.I Score   | 10          | Medium-Regular monitoring, Supervision |
| Contract  |             |  |
| <b>Persons involved in RA</b>                                 | <b>Name</b> | <b>Signatures</b>                      |
| Foreman   |             |  |
| Second Foreman  |             |  |
| Safety Officer  |             |  |
| Representative  |             |  |
|   |             |  |

| Documentation Required                  | Training Required                 | PPE and Safety Equipment Required |
|---|-----------------------------------|-----------------------------------|
| OHS Act and Construction Regulations    | General induction - all employees | Overalls                          |
| Appointment 6(1)                        | Toolbox talks                     | Safety Footwear                   |
| Appointments Welding Supervisor         | First Aider                       | Flame proof Gloves                |
| Appointment First Aider                 | Operating Flame Cutting Equipment | Flame proof apron                 |
| Competency Welder                       |                                   | Spats                             |
| Competency First Aider                  |                                   | Welding Helmet                    |
| Flame Cutting Equipment Registers       |                                   | Fire Extinguisher                 |
| Appointment Vessels under Pressure Supt |                                   |                                   |
|   |                                   |                                   |

|   | Activity Steps           | Hazards and Risks   | Preventative Measures   | Rating |
|---|--------------------------|---|---|--------|
| 1 | Pre-use check            | No soap test done may lead to gas escaping, could lead to fires and explosions.         | Soap test to be done by a trained and competent person. Findings to be recorded on a register. Defects to be reported to the supervisor and defects to be repaired by a trained and competent person. | 11     |
|   |                          | Oil based soap used for soap test may result in explosions.                             | Supervisor to ensure that soap is used which breaks down oil. Test to be done by a trained and competent person.  | 11     |
| 2 | Storage of gas cylinders | Gas cylinders left free standing may cause serious injuries and medium property damage. | All cylinders to be stored in a secure position, cylinders to be secured upright.   | 11     |

|   |                                 |  |  |    |
|---|---------------------------------|--|--|----|
|   |                                 | Cylinders stored in direct sunlight may lead to serious injuries and major property damage.                          | Cylinders to be stored under cover in a well ventilated gas storage area.  | 11 |
|   |                                 | Empty and full cylinders stored together may cause cylinders to ignite and explode.                                  | Empty and full cylinders to be stored in separate areas identified by signs.   | 11 |
|   |                                 | Oxygen cylinders stored in oil and grease store may lead to serious injuries/fatalities and major property damage.   | No gas cylinders to be stored near or in oil and grease stores. Cylinders to be stored in designated gas storage area.   | 11 |
|   |                                 | Gas cylinders stored in a closed up container may lead to pressure build up resulting in fatalities/property damage. | No gas cylinders to be stored in a closed up containers. Storage area must be well ventilated.   | 11 |
|   |                                 | Oxygen stored with acetylene may lead to fatalities and property damage.   | Cylinders to be stored in designated areas, oxygen and acetylene separately.   | 11 |
|   |                                 | No fire fighting equipment may lead to fatalities and major property damage.   | A minimum of two (2) 9kg dry chemical powder fire extinguishers to be placed $\pm$ 10m from the gas storage area.  | 11 |
|   |                                 | Fire may lead to fatalities. Major property damage major health risk and serious pollution.                          | All sources of ignition to be removed from the storage area. No smoking, no naked flame signs to be posted at the storage area. Fire extinguishers to serviceable and in a good working condition. | 11 |
| 3 | Use of flame cutting equipment. | Gas cylinders not in a trolley may lead to medical injuries and minor property damage.                               | Gas cylinders to be place in a trolley. Supervisor to ensure that the cylinders are fitted in a trolley and secure.  | 8  |
|   |                                 | No fire extinguisher fitted to the trolley may lead to injuries and property damage.                                 | Supervisor to ensure that a 4,5 kg DCP fire extinguisher is fitted to all gas trolleys. A daily check should be done to ensure compliance. Checklist should be signed off by the supervisor.       | 11 |
|   |                                 | Gas cylinders lying flat on the ground   | Cylinders to be placed in an upright position in a cylinder trolley and be secured.  | 8  |
|   |                                 | No flash back arrestors fitted may lead to fire and explosions.  | Flash back arrestors to be fitted on gauges and the torch. Daily checks to be done to ensure compliance.   | 11 |

|  |  |  |   |    |
|--|--|--|---|----|
|  |  | Hose damage may result in gas leaks which may lead to an explosion.  | Daily pre-check and monthly inspection to be done to ensure equipment is in good and safe order. Checklist to be signed off by the supervisor. Inspection to be done by a trained and competent person. Damaged equipment to be replaced.   | 11 |
|  |  | Damaged gauges can cause a gas leak which may lead to an ignition and explosion.                           | Daily pre-check and monthly inspection to be done to ensure equipment is in good and safe order. Checklist to be signed off by the supervisor. Inspection to be done by a trained and competent person. Damaged equipment to be replaced.   | 11 |
|  |  | Damaged torch may cause a flashback which may lead to an explosion   | Soap test to be done daily before use. Daily pre use checks and monthly inspections to be done to ensure that the equipment is in good working order. Checklist to be signed off by the supervisor. Inspection to be done by a trained and competent person and damaged equipment to be replaced. | 11 |
|  |  | User not making use of PPE may cause serious burns to user.  | Only trained and competent person to use flame cutting equipment. Supervisor to ensure that employees are issued with the correct PPE and that they use it correctly.   | 8  |
|  |  | Fire can cause fatalities, major property damage, serious health risk and ground, water air pollution.     | Hot work permit to be obtained and inspection of work area to be done before work starts. All flammable liquids and materials to be removed from the area of work.  | 12 |
|  |  | Flame cutting done at heights may lead to materials below been ignited, workers been burnt and explosions. | Area below work to be demarcated as a No Go zone. Spotter to be posted at demarcated area and warning signs to be displayed.  | 8  |



## **FORM AND SUPPORT WORK**

**RA NO**

**DATE**

|                               |             |  |
|-------------------------------|-------------|--|
| <b>H.T.I Score</b>            | 7           | Medium-Regular Monitoring/ Supervision |
| <b>Contract</b>               |             |  |
| <b>Persons involved in RA</b> | <b>Name</b> | <b>Signatures</b>                      |
| Foreman                       |             |  |
| Second Foreman                |             |  |
| Safety Officer                |             |  |
| Representative                |             |  |
|                               |             |  |

| Documentation Required               | Training Required                 | PPE and Safety Equipment Required |
|--------------------------------------|-----------------------------------|-----------------------------------|
| OHS Act and Construction Regulations | General induction - all employees | Long Trousers                     |
| Appointment 6(1)                     | Toolbox talks                     | Safety Footwear                   |
| App Form & Supportwork Supt          | First Aider                       | Gloves                            |
| Appointment First Aider              | Fall Protection Plan              | Eye Protection                    |
| Fall Protection Plan                 | Working at heights                | Safety Harnesses                  |
| Competency First Aider               |                                   |                                   |
|                                      |                                   |                                   |
|                                      |                                   |                                   |
|                                      |                                   |                                   |

|   | Activity Steps       | Hazards and Risks                            | Preventative Measures   | Rating |
|---|----------------------|--|---|--------|
| 1 | Off loading shutters | Employee sustaining hand and finger injuries | Employees to make use of hand protection which must be provided. All employees to undergo a toolbox talk. Task to be supervised by a competent supervisor. All injuries to be reported to the site safety officer | 5      |
|   |                      | Employee sustaining back injury              | Employees to attend a toolbox talk on material handling. Task to be supervised by a competent supervisor. All injuries to be reported to the site safety officer  | 5      |

|   |                                   |  |  |   |
|---|-----------------------------------|--|--|---|
|   |                                   | Material thrown from truck   | Task to be supervised by a competent supervisor. Employees to attend a toolbox talk on material handling.  | 5 |
|   |                                   | Employee struck by shutter   | Shutters not to be thrown off the truck. Task to be supervised by a competent supervisor. All injuries to be reported to the site safety officer | 8 |
| 2 | Storage of shutters               | Material stacked on uneven ground  | Ground to be firm and level. Storage to be controlled by a competent stacking supervisor.  | 5 |
|   |                                   | Material stacked unevenly  | Stacking to be controlled by a competent stacking supervisor.  | 5 |
|   |                                   | Material falling over on plant or employee   | Storage to be controlled by a competent stacking supervisor.   | 8 |
|   |                                   | Poor house keeping   | House keeping to be maintained. Stacking and storage to be maintained and supervised by a competent supervisor.                                  | 5 |
| 3 | Erecting Box Shutters             | Hand injuries caused by use of hammers   | Employees must wear hand protection  | 5 |
|   |                                   | Shutter not sufficiently constructed   | Before shutter is lifted by the crane, the shutter must be inspected for any loose panels  | 8 |
| 4 | Lifting the shutter into position | Shutter catching the scaffold and pulling scaffold over causing injuries   | A guide rope must be used to guide the shutter into position. No person to be on scaffold while shutter is being lowered into position           | 8 |
|   |                                   | Releasing the crane hooks before the Shutter is held in position with props from the side, causing the shutter to collapse and cause injuries. | The hooks of the crane will only be unhooked when the shutter is sufficiently propped.   | 8 |

|   |   |   |  |   |
|---|---|---|--|---|
|   |   | Shutter fastened to the rebar column and crane hook unhooked without props, causing the shutter to pull the rebar over and cause severe injuries. | Shutter will not be tied to the rebar and the crane hooks unhooked unless the shutter is sufficiently propped.   | 8 |
|   |   | Load falling onto employees, causing severe injuries or fatalities.   | No person to be standing under load and slew crane will not slew over employees.   | 8 |
| 5 | Using access scaffold to gain access to the top of the shutter to unhook the crane or for pouring concrete. | Scaffolds not build to OHS Act regulations or SABS standards.   | Scaffolds will be erected on sole boards, will be levelled with base jacks, will be build with same size ledgers and standards, will be sufficiently cross braced, will have a full working platform for employees, will have handrails of 900mm high around the platform, will be erected with hook on ladders and will have a safe to use or unsafe to use sign at the ladder. | 8 |
|   |   | Employees falling from scaffold where a full floor board could not be constructed.  | In the event where a full floor board could not be erected, employees will wear and use a safety harness connected to the scaffold handrail.   | 8 |



## FRONT END LOADER

**RA NO**

**DATE**

|                               |             |  |
|-------------------------------|-------------|--|
| <b>H.T.I Score</b>            | 8           | Medium-Regular monitoring, Supervision |
| <b>Contract</b>               |             |  |
| <b>Persons involved in RA</b> | <b>Name</b> | <b>Signatures</b>                      |
| Foreman                       |             |  |
| Second Foreman                |             |  |
| Safety Officer                |             |  |
| Representative                |             |  |
|                               |             |  |

|                                       |                                   |  |
|---------------------------------------|-----------------------------------|--|
| <b>Documentation Required</b>         | <b>Training Required</b>          | <b>PPE and Safety Equipment Required</b>     |
| OHS Act and Construction Regulations  | General induction - all employees | Ear protection                               |
| Appointment 6(1)                      | Environmental induction           | Safety Footwear                              |
| Appointments Plant/ Vehicle Operators | Toolbox talks                     | Fire Extinguisher fitted to Front End Loader |
| Appointment First Aider               | Operator training                 | Overalls                                     |
| Competency Operator                   |                                   | Dust Mask                                    |
| Competency First Aider                |                                   |  |
| Plant/ Vehicle registers              |                                   |  |
| Maintenance schedule                  |                                   |  |
| Schedule "D" notice                   |                                   |  |

| <b>Activity Steps</b> |                                  | <b>Hazards and Risks</b>  | <b>Preventative Measures</b>  | <b>Rating</b> |
|-----------------------|----------------------------------|---|---|---------------|
| 1                     | Starting up of front end loader. | Employee being injured by standing on, under or to close to the engine or wheels. | All protective guards and cover must be in place before start of the engine. The front end loader must be operated by a competent and trained operator. | 9             |
|                       |                                  | Operator being injured while mounting or dismounting the front end loader.        | Operator to mount and dismount the front end loader only at locations that have steps and handholds.  | 5             |
|                       |                                  | Engine failure  | Engine to be started according to procedure and maintenance schedule to be followed.  | 5             |



|   |                            |  |  |    |
|---|----------------------------|--|--|----|
| 2 | Operating front end loader | Front end loader colliding into other plant or LDV                                 | Front end loader to be operated by a competent and trained operator. Operator to keep to the designated area of work.  | 9  |
|   |                            | Employee being run over by front end loader.                                       | Front end loader to be operated by a competent and trained operator. Employees to keep clear of the front end loader during operations. Ensure that the operator has seen you before approaching. Front end loader to be fitted with a reverse hooter. | 13 |
|   |                            | Front end loader overturning.  | Front end loader to be operated by a trained and competent operator, front end loader to be operated at a safe angle, task to be supervised by a competent supervisor.   | 9  |
|   |                            | Front end loader working in incorrect place.                                       | Task to be supervised by a competent supervisor.   | 5  |
|   |                            | Front end loader operator exposed to noise   | Operator to make use of ear protection and take frequent breaks.   | 10 |
|   |                            | Operator exposed to dust.  | Dust to be controlled.   | 13 |
| 3 | Maintenance                | Hydraulic pipe bursting during operation.  | Burst pipe to be replaced by workshop and maintenance schedule to be followed.   | 13 |
|   |                            | Employee being injured while working on front end loader.                          | Maintenance and repair work to be done by a competent person.  | 13 |
|   |                            | Hydraulic oil being injected into employee while working on front end loader/ TLB. | Make use of a board or cardboard when checking for leaks in the hydraulic pipes.   | 9  |
|   |                            | Hydraulic oil leaking.   | Leaks to be reported to the foreman and to be repaired by the workshop.  | 5  |
|   |                            | Employee injured while changing the wheels on the front end loader/ TLB.           | Changing of the wheels to be performed by a competent person and the task to be supervised by a competent supervisor.  | 5  |

|   |         |   |  |   |
|---|---------|---|--|---|
|   |         | Oil and filters disposal.   | Make use of local waste collectors to collect the used oil and filters.  | 9 |
|   |         | Employee sustaining burns while working on the front end loader engine. | Allow the engine to cool down before maintenance work is carried out.  | 3 |
|   |         |   | Maintenance to be done by a competent person.  | 9 |
|   |         | Employee caught by rotating part of engine.                             | No work to be done on the front end loader while the engine is still running.  | 5 |
|   |         | Employee coming in contact with battery acid.                           | Do not allow electrolyte to come in contact with the skin or eyes. Make use of the correct PPE when working with batteries.  | 9 |
|   |         | Fire or explosion occurring.  | Remove all flammable materials such as fuel, oil and debris from the engine. Do not weld or flame cut any pipe or tank that contains any flammable fluids. Wiring must be kept in good order and no smoking or naked flames during refuelling. | 9 |
| 4 | General | Theft of batteries and fuel from the front end loader.                  | Security company to be employed and plant to be parked in a secure area.   | 6 |
|   |         | Theft of front end loader.  | As per 4.1.  | 6 |



## GRADER

**RA NO**

**DATE**

|                               |             |  |
|-------------------------------|-------------|--|
| <b>H.T.I Score</b>            | 8           | Medium-Regular monitoring, Supervision |
| <b>Contract</b>               |             |  |
| <b>Persons involved in RA</b> | <b>Name</b> | <b>Signatures</b>                      |
| Foreman                       |             |  |
| Second Foreman                |             |  |
| Safety Officer                |             |  |
| Representative                |             |  |
|                               |             |  |

|                                       |                                   |  |
|---------------------------------------|-----------------------------------|--|
| <b>Documentation Required</b>         | <b>Training Required</b>          | <b>PPE and Safety Equipment Required</b> |
| OHS Act and Construction Regulations  | General induction - all employees | Ear protection                           |
| Appointment 6(1)                      | Environmental induction           | Safety Footwear                          |
| Appointments Plant/ Vehicle Operators | Toolbox talks                     | Fire Extinguisher fitted to Grader       |
| Appointment First Aider               | First Aider                       | Overalls                                 |
| Competency Operator                   | Operating Grader                  | Dust Mask                                |
| Competency First Aider                |                                   |  |
| Plant/ Vehicle registers              |                                   |  |
|                                       |                                   |  |
|                                       |                                   |  |

| <b>Activity Steps</b> |                        | <b>Hazards and Risks</b>  | <b>Preventative Measures</b>  | <b>Rating</b> |
|-----------------------|------------------------|---|---|---------------|
| 1                     | Starting up of grader. | Employee being injured by standing on, under or to close to the engine or wheels. | All protective guards and cover must be in place before start of the engine. The grader must be operated by a competent and trained operator. | 9             |
|                       |                        | Operator being injured while mounting or dismounting the grader.                  | Operator to mount and dismount the grader only at locations that have steps and handholds.  | 5             |
|                       |                        | Engine failure  | Engine to be started according to procedure and maintenance schedule to be followed.  | 5             |
| 2                     | Operating grader.      | Grader colliding into other plant or LDV  | Grader to be operated by a competent and trained operator. Operator to keep to the designated area of work.                                   | 9             |

|   |             |   |  |    |
|---|-------------|---|--|----|
|   |             | Employee being run over by grader.                                  | Grader to be operated by a competent and trained operator. Employees to keep clear of the Grader during operations. Ensure that the operator has seen you before approaching. Grader to be fitted with a reverse hooter. | 13 |
|   |             | Grader overturning.   | Grader to be operated by a trained and competent operator, grader to be operated at a safe angle, task to be supervised by a competent supervisor.   | 9  |
|   |             | Grader working in incorrect place.                                  | Task to be supervised by a competent supervisor.   | 5  |
|   |             | Grader operator exposed to noise                                    | Operator to make use of ear protection and take frequent breaks.   | 10 |
|   |             | Operator exposed to dust.   | Dust to be controlled.   | 13 |
|   |             | Grader driving into trench.   | Grader to be operated by a competent and trained operator. Task to be supervised by a competent supervisor.  | 9  |
| 3 | Maintenance | Hydraulic pipe bursting during operation.                           | Burst pipe to be replaced by workshop and maintenance schedule to be followed.   | 13 |
|   |             | Employee being injured while working on grader.                     | Maintenance and repair work to be done by a competent person.  | 13 |
|   |             | Hydraulic oil being injected into employee while working on grader. | Make use of a board or cardboard when checking for leaks in the hydraulic pipes.   | 9  |
|   |             | Hydraulic oil leaking.  | Leaks to be reported to the foreman and to be repaired by the workshop.  | 5  |
|   |             | Employee injured while changing the blade on the grader.            | Changing of the blade to be performed by a competent person and the task to be supervised by a competent supervisor.   | 5  |
|   |             | Oil and filters disposal.   | Make use of local waste collectors to collect the used oil and filters.  | 9  |

|   |         |  |  |   |
|---|---------|--|--|---|
|   |         | Employee sustaining burns while working on the graders engine. | Allow the engine to cool down before maintenance work is carried out.  | 3 |
|   |         | Employee caught by rotating part of engine.                    | Maintenance to be done by a competent person.  | 9 |
|   |         |  | No work to be done on the grader while the engine is still running.  | 5 |
|   |         | Employee coming in contact with battery acid.                  | Do not allow electrolyte to come in contact with the skin or eyes. Make use of the correct P.P.E when working with batteries.  | 9 |
|   |         | Fire or explosion occurring.                                   | Remove all flammable materials such as fuel, oil and debris from the engine. Do not weld or flame cut any pipe or tank that contains any flammable fluids. Wiring must be kept in good order and no smoking or naked flames during refuelling. | 9 |
| 4 | General | Theft of batteries and fuel from the grader.                   | Security company to be employed and plant to be parked in a secure area.   | 6 |
|   |         | Theft of grader.   | As per 4.1.  | 6 |



## GRINDER

**RA NO**

**DATE**

|                               |             |  |
|-------------------------------|-------------|--|
| <b>H.T.I Score</b>            | 9           | Medium-Regular monitoring, Supervision |
| <b>Contract</b>               |             |  |
| <b>Persons involved in RA</b> | <b>Name</b> | <b>Signatures</b>                      |
| Foreman                       |             |  |
| Second Foreman                |             |  |
| Safety Officer                |             |  |
| Representative                |             |  |
|                               |             |  |

|  |                                   |  |
|--|-----------------------------------|--|
| <b>Documentation Required</b>          | <b>Training Required</b>          | <b>PPE and Safety Equipment Required</b> |
| OHS Act and Construction Regulations   | General induction - all employees | Eye protection                           |
| Appointment 6(1)                       | Toolbox talks                     | Ear protection                           |
| Daily Pre-use Inspection register      | Operating Grinder                 | Dust Mask                                |
| Monthly check by Electrical Supervisor | RA Training                       | Fire extinguisher                        |
|  |                                   | Gloves                                   |
|  |                                   |  |
|  |                                   |  |
|  |                                   |  |
|  |                                   |  |

| <b>Activity Steps</b> |                                       | <b>Hazards and Risks</b>   | <b>Preventative Measures</b>   | <b>Rating</b> |
|-----------------------|---------------------------------------|--|--|---------------|
| 1                     | Pre-use inspection                    | Inspection not done may lead to injuries and equipment damage                            | Inspection to be done by a competent person. User of the grinder to be trained on how to do the pre use inspection. Inspection registers to be signed off by a competent supervisor. | 9             |
| 2                     | Changing of cutting or grinding disk. | Grinder not made safe - not plugged out may lead to injuries or equipment damage         | Only a trained person is allowed to change the disk on a grinder. Disks that get wet or lay in water may not be used. User to ensure that the grinder is plugged out.                | 9             |
|                       |                                       | Incorrect tools used to change the disk may lead to injuries and minor equipment damage. | Only trained, appointed and competent person to change the disc on the grinder.  | 6             |

|   |                 |   |   |    |
|---|-----------------|---|---|----|
|   |                 | Incorrect disk fitted may lead to injuries and minor equipment damage                         | Only a trained and competent person to change the disc on the grinder.  | 9  |
|   |                 | Disk fitted the wrong way round may lead to injuries equipment damage and disability effect.  | Only a trained and competent person to change the disc on the grinder.  | 9  |
|   |                 | Damaged disk fitted may lead to injuries or equipment damage                                  | Disc to be inspected by the supervisor before fitment. This task is to be done by a trained and competent person.   | 9  |
| 3 | Use of grinder. | Safety guard not in place may cause serious injuries or equipment damage                      | Grinder to be inspected before use by a trained and competent person.   | 12 |
|   |                 | Cutting of steel may cause injuries through sparks flying steel                               | Grinder to be used by a trained and competent person. The steel is to be placed on a level area in order to prevent any possible damage to the cutting disc. The steel should not be supported by means of holding it in ones hands. No unnecessary people to be allowed in the area where cutting will take place. | 8  |
|   |                 | Grinding sparks entering eyes may cause eye injuries and disability effect.                   | Eye protection to be used – safety glasses and face shield. Assistants to make use of eye protection as well.   | 12 |
|   |                 | Cement dust inhalation may cause serious lung disease and permanent disability.               | User of grinder to make use of a dust mask.   | 11 |
|   |                 | Noise may cause permanent disability effect to user.  | When the grinder is used – use ear protection. Avoid using grinder in a confined space or in closed area.   | 11 |
|   |                 | Grinder used by incompetent employee may result in injuries, equipment damage and disability. | Only trained employees are allowed to work with a grinder. Grinder not to be left unsupervised. Task to be supervised by a competent supervisor.  | 11 |
|   |                 | Disk coming off while cutting may cause injuries, equipment damage and disability.            | Grinder to be inspected before use by a trained and competent person. Inspection registers to be signed off by the responsible supervisor.  | 8  |

|   |                     |  |  |    |
|---|---------------------|--|--|----|
|   |                     | Employee dropping grinder may cause an injury, equipment damage and disability.                | Only trained employees are allowed to work with a grinder. No horse play allowed while working with the grinder. Grinder may only be put down when the disc has stopped turning.               | 8  |
|   |                     | Employee being shocked may cause injury and disability.  | Grinder not to be used while standing in the water. No work to be done in the rain, grinder to be inspected before use and grinder with poor connections and cables to be removed from site.   | 9  |
|   |                     | Employee using grinding disk for cutting may cause injuries, equipment damage and disability.  | Only trained and competent employees to work with grinder, task to be supervised by a competent supervisor.  | 8  |
|   |                     | Employee using cutting disk for grinding may cause injury, equipment damage and disability.    | Only trained and competent employees to work with grinder, task to be supervised by a competent supervisor. Use the correct disc for cutting or grinding and for the material being processed. | 8  |
|   |                     | Employee using grinder to cut wood may result in injury and disability due to fire.            | Only trained and competent employees to work with grinder, task to be supervised by a competent supervisor. Fire extinguisher to be on hand.   | 8  |
| 4 | Storage of Grinder. | Incorrect storage of grinder may result in damage to the grinder.                              | Proper storage space for grinder to be provided. Storage to be controlled by a trained and competent store man   | 5  |
|   |                     | Theft of grinder.  | Grinder not to be left unsupervised. If not in use the grinder must be returned to the store.  | 5  |
| 5 | Maintenance.        | Defects not reported may lead to injuries, equipment damage and disability.                    | All defects on the grinder must be reported to the supervisor.   | 12 |
|   |                     | Defects repaired by an incompetent employee may cause injury, equipment damage and disability. | Only trained and competent persons to repair the grinder.  | 12 |





## IDENTIFYING UNDERGROUND SERVICES

**RA NO**

**DATE**

|                               |             |                                |
|-------------------------------|-------------|--------------------------------|
| <b>H.T.I Score</b>            | 11          | High Risk-Constant Supervision |
| <b>Contract</b>               |             |                                |
| <b>Persons involved in RA</b> | <b>Name</b> | <b>Signatures</b>              |
| Foreman                       |             |                                |
| Second Foreman                |             |                                |
| Safety Officer                |             |                                |
| Representative                |             |                                |
|                               |             |                                |

| Documentation Required                | Training Required                 | PPE and Safety Equipment Required |
|---------------------------------------|-----------------------------------|-----------------------------------|
| OHS Act and Construction Regulations  | General induction - all employees | Overalls                          |
| Appointment 6(1)                      | Toolbox talks                     | Safety Footwear                   |
| Appointments Plant/ Vehicle Operators | First Aider                       | Gloves                            |
| Appointment First Aider               |                                   | Fire Extinguisher                 |
| Competency Operator                   |                                   |                                   |
| Competency First Aider                |                                   |                                   |
| Plant/ Vehicle registers              |                                   |                                   |
| Excavation Permit                     |                                   |                                   |
|                                       |                                   |                                   |

| Activity Steps | Hazards and Risks                | Preventative Measures  | Rating  |
|----------------|----------------------------------|--|---|
| 1              | Identifying underground services | <p>If services are not identified prior to operations they may be damaged. Interruption of electricity, gas, water, sewerage, telephonic services to the community.</p> <p>Damage to property due to explosions or fire.</p> <p>Environmental damage from spillages</p> <p>Injury to persons due to explosions, fire, electrocution or asphyxiation due to exposure to gas</p> | <p>Services must be identified prior to excavation starting. An excavation permit must be issued which indicates the location of these services. Liasson must take place with the relevant service providers: Eskom, Telkom etc</p> <p style="text-align: center;">11</p> |

|   |                                |  |   |    |
|---|--------------------------------|--|---|----|
| 2 | Marking known services         | <p>If the services are not marked, the operators/ employees will be unaware of the services and may damage them during operations. Interruption of electricity, gas, water, sewerage, telephonic services to the community.</p> <p>Damage to property due to explosions or fire.</p> <p>Environmental damage from spillages</p> <p>Injury to persons due to explosions, fire, electrocution or asphyxiation due to exposure to gas</p> | Known services must be clearly marked and all employees must be informed with regard to the hazards   | 11 |
| 3 | Identifying suspected services | <p>If services are not identified prior to operations they may be damaged. Interruption of electricity, gas, water, sewerage, telephonic services to the community.</p> <p>Damage to property due to explosions or fire.</p> <p>Environmental damage from spillages</p> <p>Injury to persons due to explosions, fire, electrocution or asphyxiation due to exposure to gas</p>   | <p>If it is suspected that there are possible underground services in the area of operations (unidentified on plans) they must be exposed using manual excavation methods. This task must be supervised constantly by a competent supervisor/ foreman</p> | 11 |
|   |                                | Employee may strike and damage electrical cables. Electrocution from contact with electrical cables.   | Employees doing manual excavation must be issued with rubber soled safety boots and heavy duty rubber gloves . They must be informed with regard to the hazards. This task must be supervised constantly by a competent supervisor/ foreman               | 11 |
|   |                                | Employee may strike and damage water pipe. Interruption of water services to the community.  | Employees must be informed of the hazards and be told to proceed with caution. This task must be supervised constantly by a competent supervisor/ foreman   | 11 |
|   |                                | Employee may strike and damage sewerage pipe. Damage to the environment from spillage  | Employees must be informed of the hazards and be told to proceed with caution. This task must be supervised constantly by a competent supervisor/ foreman   | 11 |

|   |   |   |   |    |
|---|---|---|---|----|
|   |   | Employee may strike and damage telephone cables. Interruption of telephone services to the community.   | Employees must be informed of the hazards and be told to proceed with caution. This task must be supervised constantly by a competent supervisor/ foreman | 11 |
| 4 | Informing the relevant service providers of construction activity in the area | If service providers are not informed of construction activities in the area they will be unable to respond timeously should damages occur. Delayed restoration of service to community.<br>Damage could worsen due to delayed repairs, causing additional financial implications.<br>Production loss | All service providers must be warned in advance of construction activities in the area  | 11 |



## JACK HAMMER

RA NO

DATE

|                               |             |   |
|-------------------------------|-------------|---|
| <b>H.T.I Score</b>            | 8           | Medium-Regular Monitoring & Supervision |
| <b>Contract</b>               |             |   |
| <b>Persons involved in RA</b> | <b>Name</b> | <b>Signatures</b>                       |
| Foreman                       |             |   |
| Second Foreman                |             |   |
| Safety Officer                |             |   |
| Representative                |             |   |
|                               |             |   |

|                                      |                                   |  |
|--------------------------------------|-----------------------------------|--|
| <b>Documentation Required</b>        | <b>Training Required</b>          | <b>PPE and Safety Equipment Required</b> |
| OHS Act and Construction Regulations | General induction – all employees | Overalls                                 |
| Appointment Explosives Manager       | Toolbox talks                     | Safety Footwear                          |
| Appointment Blasting Supervisor      | First Aider                       | Ear Protection                           |
| Appointment First Aider              | Competency Operator               | Eye Protection                           |
| Appointment Operator                 |                                   | Gloves                                   |
| Competency First Aider               |                                   | Hard Hat                                 |
| Competency Operator                  |                                   | Fire Extinguishers                       |
| Plant/ Vehicle registers             |                                   | First Aid Box                            |
| Compressor certificate               |                                   |  |

| <b>Activity Steps</b> |                                     | <b>Hazards and Risks</b>   | <b>Preventative Measures</b>   | <b>Rating</b> |
|-----------------------|-------------------------------------|--|--|---------------|
| 1                     | Pre-use inspection of all equipment | Failure of equipment, will cause injuries to persons and/or property damage. | Inspections to be completed at prescribed periods. Faulty equipment to be reported immediately and repaired or replaced. | 8             |
| 2                     | PPE                                 | Hand and foot injuries   | Operators to use gloves and safety boots   | 5             |
|                       |                                     | Drill causing dust pollution and dust inhalation.                            | Excessive dust to be controlled with water. Operators to wear dust masks.  | 5             |
|                       |                                     | Drill causing noise pollution resulting in hearing loss.                     | Noise levels to be monitored and area to be demarcated as a noise zone. Operators to use hearing protection.             | 5             |
|                       |                                     | Foreign bodies in eyes will cause eye injuries                               | Operators to make use of eye protection  | 5             |

|   |  |   |  |    |
|---|--|---|--|----|
| 3 | Competent Operators  | Untrained operators will cause injuries to themselves or other employees.   | Supervisors to ensure operation by trained operators only. Operators to be undergo regular Toolbox Talks.  | 8  |
| 4 | Coupling compressor and hoses  | By not making use of safety chains the hose can come loose under pressure causing the hose to whip lash resulting in injuries and or property damage. | Install air hoses [not water hoses] to Compressor and Jackhammer, making use of Safety chains between hose and hammer, hose and compressor.                      | 11 |
| 5 | Opening air valve  | A full blast of air into the system might cause the hose to burst or couplings to come loose causing injuries or property damage.                     | After coupling up, the air control valve must be opened slowly, not fully at once.   | 11 |
| 6 | Changing drill bits and compressed air hoses.                          | Pressure can cause the hose to whip lash causing injuries.  | Compressors to be switched off and pressure released before drill bits and hoses are changed and all air compressor connections to be fitted with safety chains. | 11 |
| 7 | Uncoupling Hoses   | Not releasing the pressure before will cause the hose to whip lash.   | Before uncoupling of hoses the air supply will be shut off and the hammer must be operated to release the last pressure left in the hose.                        | 11 |
| 8 | Compressors pressure vessel certificate must be available at all times | Failure will cause time delays and the use of faulty equipment.   | Supervisor must ensure the availability of required documentation.   | 8  |



## KERBS AND PAVING

**RA NO**

**DATE**

|                               |             |  |
|-------------------------------|-------------|--|
| <b>H.T.I Score</b>            | 7           | Medium-Regular monitoring, Supervision |
| <b>Contract</b>               |             |  |
| <b>Persons involved in RA</b> | <b>Name</b> | <b>Signatures</b>                      |
| Foreman                       |             |  |
| Second Foreman                |             |  |
| Safety Officer                |             |  |
| Representative                |             |  |
|                               |             |  |

|                                      |                                   |  |
|--------------------------------------|-----------------------------------|--|
| <b>Documentation Required</b>        | <b>Training Required</b>          | <b>PPE and Safety Equipment Required</b> |
| OHS Act and Construction Regulations | General induction - all employees | Overalls                                 |
| Appointment 6(1)                     | Toolbox talks                     | Safety Footwear                          |
| Appointment First Aider              | First Aider                       | Dust Masks                               |
| Competency First Aider               |                                   | Eye Protection                           |
|                                      |                                   | Gloves                                   |
|                                      |                                   |  |
|                                      |                                   |  |
|                                      |                                   |  |
|                                      |                                   |  |

| <b>Activity Steps</b> |   | <b>Hazards and Risks</b>   | <b>Preventative Measures</b>   | <b>Rating</b> |
|-----------------------|---|--|--|---------------|
| 1                     | Blocks/Slabs offloaded by supplier placing on instruction by user       | Stacking higher than twice base leading to collapse of stacks                            | Keep to single stacks placed near job  | 8             |
| 2                     | Transport of blocks / slabs to job on pallets using forks               | Collapse of stack whilst being transported over rough terrain                            | Secure blocks/slabs on pallets with straps/transport in cages                          | 8             |
| 3                     | Transport of blocks / slabs to job using wheelbarrow / bucket of loader | Overloading of wheelbarrow leading to back strains and sideways collapse of wheelbarrow. | Training in correct handling of wheelbarrows / provide level path from storage to job. | 8             |
| 4                     | Laying of Kerb stones and paving slabs                                  | Injury to back whilst lifting blocks.  | Training in correct lifting techniques   | 8             |
|                       |   | Injury to hands and feet whilst handling blocks.   | Safety boots and gloves to be worn   | 5             |
|                       |   | Breathing in of dry cement dust  | Dust masks to be used  | 5             |



## LOADING / OFFLOADING TRUCKS

**RA NO**

**DATE**

|                               |             |  |
|-------------------------------|-------------|--|
| <b>H.T.I Score</b>            | 10          | Medium-Regular monitoring, Supervision |
| <b>Contract</b>               |             |  |
| <b>Persons involved in RA</b> | <b>Name</b> | <b>Signatures</b>                      |
| Foreman                       |             |  |
| Second Foreman                |             |  |
| Safety Officer                |             |  |
| Representative                |             |  |
|                               |             |  |

|                                       |                                   |  |
|---------------------------------------|-----------------------------------|--|
| <b>Documentation Required</b>         | <b>Training Required</b>          | <b>PPE and Safety Equipment Required</b> |
| OHS Act and Construction Regulations  | General induction - all employees | Hard Hat                                 |
| Appointment 6(1)                      | Toolbox talks                     | Safety Footwear                          |
| Appointments Plant/ Vehicle Operators | First Aider                       | Gloves                                   |
| Appointment First Aider               | RA Training                       |  |
| Competency Operator                   |                                   |  |
| Competency First Aider                |                                   |  |
| Plant/ Vehicle registers              |                                   |  |
| Appt Stacking and Storage Supervisor  |                                   |  |
| Appt Ladder Inspector                 |                                   |  |
| Ladder Register                       |                                   |  |
| PPE issue register                    |                                   |  |
|                                       |                                   |  |

| <b>Activity Steps</b> |        | <b>Hazards and Risks</b>   | <b>Preventative Measures</b>   | <b>Rating</b> |
|-----------------------|--------|--|--|---------------|
| 1                     | PPE    | Not using correct PPE could cause injury to hands, legs and feet.            | PPE equipment to be used, Safety Boots, Gloves, Hardhat. Employees to sign for PPE on PPE issue register | 10            |
| 2                     | Cement | Inhalation of cement dust during handling can cause lung function impairment | Dust masks to be worn during handling of cement bags/ products   | 12            |

|   |                               |   |  |    |
|---|-------------------------------|---|--|----|
| 3 | Housekeeping                  | Obstacles on ground may cause tripping and falling with the load on top of Employee could cause serious injuries.   | Ensure that the lay-down area is free of obstacles and large enough to stack material being off-loaded in an orderly way. Stacking and Storage Supervisor to ensure good stacking and housekeeping standards are maintained.         | 10 |
| 4 | Stacks                        | Stacks could collapse and cause injuries or damage to property or material if they are not stacked correctly  | Stacking and storage to be controlled by an appointed Stacking and Storage Supervisor. Stacking must take place in the prescribed manner.  | 12 |
| 5 | Climbing on stacked material. | Material may dislodge causing employee to fall causing injury to all parts of the body.   | Employees are not allowed to climb on material that has been stacked & should always handle material on top of stack first.  | 8  |
|   |                               | Topmost level of stack may be too high to reach safely from the ground causing employees to climb on stacks and possibly injuring themselves.   | Safe access to be provided to enable employees to handle topmost material on stacks.   | 12 |
| 6 | Distribution of load          | Weight not distributed evenly makes it difficult to control. Material not positioned properly may fall off truck. Material falling off truck may get lost, injure people or damage the vehicle of a third party. Truck difficult to control – may leave the road causing an accident with a third party, resulting in property loss, injury &/or fatal. | Driver of truck and loading Supervisor to come to an agreement as to what gets loaded where, take into consideration the weight distribution and requirements of the statutory laws applicable.                                      | 11 |
| 7 | Manual lifting                | Workers may injure their backs if loads are too heavy for them. Dropping of load because of its weight. Injury to backs. Dropping load onto fingers, legs or feet.  | Determine the weight of individual items and engage sufficient workers to load the material or equipment onto the back of the truck in an orderly way. Use lifting equipment if the item is too unwieldy or heavy for manual lifting | 8  |



|   |                         |  |  |    |
|---|-------------------------|--|--|----|
|   |                         | Sudden release of load on one side of load will cause the other party to release the load, possibly onto his legs, feet or hands. Injuries to legs, feet or hands. | The communication between Employees is to be of a high standard. They should release the load being handled at the same time, continuously advising the other parties when they are going to release their hold of the load being handled. | 9  |
| 8 | Securing of load        | Unsecured loads could dislodge themselves and cause injury to persons or damage to product or property.  | After loading of truck, double check that material is safely secured and incapable of dislodging during transit.   | 11 |
| 9 | Using Lifting Equipment | Employees may be injured, property damaged or material lost if incorrect procedures are followed when using lifting equipment.                                     | Employees to be trained in craneage and associated Risk assessments.   | 11 |



## LP GAS TORCH

RA NO

DATE

|                               |             |  |
|-------------------------------|-------------|--|
| <b>H.T.I Score</b>            | 9           | Medium-Regular monitoring, Supervision |
| <b>Contract</b>               |             |  |
| <b>Persons involved in RA</b> | <b>Name</b> | <b>Signatures</b>                      |
| Foreman                       |             |  |
| Second Foreman                |             |  |
| Safety Officer                |             |  |
| Representative                |             |  |
|                               |             |  |

|                                      |                                   |  |
|--------------------------------------|-----------------------------------|--|
| <b>Documentation Required</b>        | <b>Training Required</b>          | <b>PPE and Safety Equipment Required</b> |
| OHS Act and Construction Regulations | General induction - all employees | Gloves                                   |
| Appointment 6(1)                     | Toolbox talks                     | Eye protection                           |
| Appointment welding supervisor       | Operating LP Gas torch            | Apron                                    |
| Welding and flame cutting register   | RA LP Gas Torch                   | Overalls                                 |
|                                      |                                   | Fire extinguisher                        |
|                                      |                                   |  |
|                                      |                                   |  |
|                                      |                                   |  |
|                                      |                                   |  |

| <b>Activity Steps</b> |                 | <b>Hazards and Risks</b>                                   | <b>Preventative Measures</b>  | <b>Rating</b> |
|-----------------------|-----------------|--|---|---------------|
| 1                     | PPE             | Incorrect PPE used could cause burn injuries               | Flame proof welding PPE to be used- Gloves, eye protection, apron   | 8             |
| 2                     | Pre-start check | Failure of equipment can lead to burns and property damage | Inspect all areas of the bottle, pipe regulator and nozzle before use and record findings   | 8             |
| 3                     | Operation       |  | Practise good house keeping. Clear work area of all combustible materials prior to using equipment. Fire extinguisher to be on hand | 12            |
|                       |                 | Incorrect lighting could cause burn injuries               | Only a flint type lighter is to be used   | 8             |



## MANUAL BACKFILLING

**RA NO**

**DATE**

|                               |             |  |
|-------------------------------|-------------|--|
| <b>H.T.I Score</b>            | 8           | Medium-Regular monitoring, Supervision |
| <b>Contract</b>               |             |  |
| <b>Persons involved in RA</b> | <b>Name</b> | <b>Signatures</b>                      |
| Foreman                       |             |  |
| Second Foreman                |             |  |
| Safety Officer                |             |  |
| Representative                |             |  |
|                               |             |  |

|                                      |                                   |  |
|--------------------------------------|-----------------------------------|--|
| <b>Documentation Required</b>        | <b>Training Required</b>          | <b>PPE and Safety Equipment Required</b> |
| OHS Act and Construction Regulations | General induction - all employees | Safety Footwear                          |
| Appointment 6(1)                     | Toolbox talks                     | Dust Masks                               |
| Hand tool register                   | RA Excavations                    | Gloves                                   |
|                                      |                                   |  |
|                                      |                                   |  |
|                                      |                                   |  |
|                                      |                                   |  |
|                                      |                                   |  |
|                                      |                                   |  |

| Activity Steps |                 | Hazards and Risks  | Preventative Measures  | Rating |
|----------------|-----------------|--|--|--------|
| 1              | Access          | Injuries can be caused when jumping into or climbing out of excavations  | A ladder must always be used to get into and out of excavated area.                          | 8      |
| 2              | Tools           | Wooden handles of picks and shovels may have splinters which will cause hand injuries. Loose pick heads can fall off causing injuries. | Tools must be inspected monthly and a visual check to be done on when issued and before use. | 5      |
|                |                 | Injuries to feet or hands  | Safety boots and gloves to be worn   |        |
| 3              | Dust            | Excessive dust can impair lung function  | Dust Masks to be worn in dusty conditions  |        |
| 4              | Other employees | Employees can be injured by the tools of other employees if they are standing too close to each other                                  | Employees to be well spaced away from each other   | 9      |

|   |                     |   |   |   |
|---|---------------------|---|---|---|
| 5 | Stability of ground | Excavation sides can collapse causing injuries due to falling in the excavation.        | Employees must check excavation for overhanging rocks that might fail, bad soil conditions that might collapse. Employees must not stand too close to the excavation edge | 9 |
| 6 | Machinery           | Machinery in the area can cause vibrations which could cause the excavation to collapse | No employee is allowed in an excavation while machines are working nearby   | 9 |



## MANUAL EXCAVATION

**RA NO**

**DATE**

|                               |             |  |
|-------------------------------|-------------|--|
| <b>H.T.I Score</b>            | 7           | Medium-Regular monitoring, Supervision |
| <b>Contract</b>               |             |  |
| <b>Persons involved in RA</b> | <b>Name</b> | <b>Signatures</b>                      |
| Foreman                       |             |  |
| Second Foreman                |             |  |
| Safety Officer                |             |  |
| Representative                |             |  |
|                               |             |  |

| Documentation Required                | Training Required                 | PPE and Safety Equipment Required |
|---------------------------------------|-----------------------------------|-----------------------------------|
| OHS Act and Construction Regulations  | General induction - all employees | Life lines                        |
| Appointment 6(1)                      | Toolbox talks                     | Safety Footwear                   |
| Appointments Plant/ Vehicle Operators | First Aider                       | Dust Masks                        |
| Appointment First Aider               |                                   | Eye Protection                    |
| Competency First Aider                |                                   | Gloves                            |
| Appointment Excavation Supervisor     |                                   | Reflective vests                  |
| Excavation Permit                     |                                   |                                   |
| Excavation Registers                  |                                   |                                   |
| Appontment Hand Tool Inspector        |                                   |                                   |
| Hand Tool Registers                   |                                   |                                   |
| Appointment Ladder Inspector          |                                   |                                   |
| Ladder Registers                      |                                   |                                   |

| Activity | Activity Steps | Hazards and Risks                                     | Preventative Measures   | Rating |
|----------|----------------|---|---|--------|
| 1        | Tools          | Tools which are in a bad condition may cause injuries | Safety officer and representatives to carry out regular inspections to ensure that all equipment is in good condition. All hand tools to be on register and inspected on a monthly basis. Storeman to do a visual check when issuing tools. | 9      |
| 2        | Excavating     | Over exertion may cause injuries and disability.      | Sufficient rest periods to be observed  | 5      |

|   |                                    |   |   |   |
|---|------------------------------------|---|---|---|
| 3 | Services                           | Accidental contact with underground power cables may cause electrocution.   | Excavation permit must be provided. Employees will be made aware of the position of the services and services will be marked clearly for the plant operator. Where doubt exists, employees will be issued with non-conductive PPE e.g. rubber soled shoes and rubber gloves and tools will have handles of non-conductive material. | 1 |
|   |                                    | Employee struck on head by pick may cause injuries with disability.   | Task to be supervised by a competent supervisor, employees to be spaced well apart from each other when digging the trench.   | 8 |
| 4 | Entering and exiting of excavation | Employees can slip and fall when sides collapse. Jumping into excavation can cause injury to feet and other body parts. | All excavations deeper than 1.5m must have access ladders or ramps provided for employees to get into & out of the excavation safely. Supervisors to enforce the use thereof by means of toolbox talks.   | 9 |
| 5 | Ground/ soil stability             | Collapse of walls with people inside. Can cause death to employees.   | Labourers to be warned against undermining. Make use of shoring in all excavations deeper than 1.5 meters. Supervisors to inspect each excavation prior to each shift according to the standard check list provided.  | 8 |
| 6 | PPE                                | Hand injuries may cause disability.   | Foreman to ensure that all employees make use of the P.P.E issued to them.  | 9 |



## MANUAL HANDLING

RA NO

DATE

|                               |             |  |
|-------------------------------|-------------|--|
| <b>H.T.I Score</b>            | 9           | Medium-Regular monitoring, Supervision |
| <b>Contract</b>               |             |  |
| <b>Persons involved in RA</b> | <b>Name</b> | <b>Signatures</b>                      |
| Foreman                       |             |  |
| Second Foreman                |             |  |
| Safety Officer                |             |  |
| Representative                |             |  |

|                                      |                                   |  |
|--------------------------------------|-----------------------------------|--|
| <b>Documentation Required</b>        | <b>Training Required</b>          | <b>PPE and Safety Equipment Required</b> |
| OHS Act and Construction Regulations | General induction – all employees | Safety Footwear                          |
| Appointment 6(1)                     | Toolbox talks                     | Gloves                                   |
|                                      |                                   |  |
|                                      |                                   |  |
|                                      |                                   |  |
|                                      |                                   |  |
|                                      |                                   |  |
|                                      |                                   |  |
|                                      |                                   |  |

| Activity Steps |                                       | Hazards and Risks  | Preventative Measures  | Rating |
|----------------|---------------------------------------|--|--|--------|
| 1              | Moving of heavy material or equipment | Using incorrect lifting techniques may cause back injuries                                 | Employees to be trained in correct lifting techniques.   | 12     |
|                |                                       | Materials may fall on feet and cause injuries  | Protective footwear to be worn.  | 9      |
| 2              | Pinch points                          | Pinch points may cause injuries to hands and fingers.                                      | Gloves to be worn  | 6      |
| 3              | Sharp edges                           | Sharp edges on objects may cause injuries to hands and fingers.                            | Gloves to be worn  | 6      |
| 4              | Heavy or awkwardly shaped objects     | One person moving heavy or awkwardly shaped equipment or material alone may cause injuries | Sufficient employees must be used to carry heavy objects. Employees to maintain good communications. | 12     |



## MANUAL SLURRY HANDLING

**RA NO**

**DATE**

|                               |             |                              |
|-------------------------------|-------------|------------------------------|
| <b>H.T.I Score</b>            | 6           | Low Risk- Regular monitoring |
| <b>Contract</b>               |             |                              |
| <b>Persons involved in RA</b> | <b>Name</b> | <b>Signatures</b>            |
| Foreman                       |             |                              |
| Second Foreman                |             |                              |
| Safety Officer                |             |                              |
| Representative                |             |                              |
|                               |             |                              |

|                                      |                                   |  |
|--------------------------------------|-----------------------------------|--|
| <b>Documentation Required</b>        | <b>Training Required</b>          | <b>PPE and Safety Equipment Required</b> |
| OHS Act and Construction Regulations | General induction - all employees | Overalls                                 |
| Appointment 6(1)                     | Toolbox talks                     | Safety Footwear                          |
| Appointment First Aider              | First Aider                       | Dust Masks                               |
| Competency First Aider               | Correct lifting techniques        | Gloves                                   |
|                                      |                                   | Reflective vests                         |
|                                      |                                   |  |
|                                      |                                   |  |
|                                      |                                   |  |
|                                      |                                   |  |

| <b>Activity Steps</b> |                                    | <b>Hazards and Risks</b>   | <b>Preventative Measures</b>  | <b>Rating</b> |
|-----------------------|------------------------------------|--|---|---------------|
| 1                     | Pouring slurry                     | Not wearing gum boots in wet slurry. Injuries to employees especially feet   | Wear suitable PPE, gumboots   | 5             |
| 2                     | Using shovels to mix slurry        | Not using gloves and gum boots. Injuries to hands and feet   | Wear suitable PPE for the job- gum boots and PVC gloves   | 5             |
| 3                     | Handling/ carrying a bag of cement | Not wearing approved safety boots or shoes. Not bending knees and keeping back nearly straight when lifting heavy items may cause injuries to feet or back | Wear approved safety shoes/ boots. Use correct lifting techniques when lifting something- bend knees and keep back straight | 8             |
| 4                     | Mixing slurry                      | Dry cement exposure may cause damage to lungs  | Employees are to wear dust masks when working with dry cement products.   | 5             |





## MILLING/ RECYCLING

**RA NO**

**DATE**

|                               |             |  |
|-------------------------------|-------------|--|
| <b>H.T.I Score</b>            | 10          | Medium-Regular Monitoring/ Supervision |
| <b>Contract</b>               |             |  |
| <b>Persons involved in RA</b> | <b>Name</b> | <b>Signatures</b>                      |
| Foreman                       |             |  |
| Second Foreman                |             |  |
| Safety Officer                |             |  |
| Representative                |             |  |
|                               |             |  |

|                                       |                                   |  |
|---------------------------------------|-----------------------------------|--|
| <b>Documentation Required</b>         | <b>Training Required</b>          | <b>PPE and Safety Equipment Required</b> |
| OHS Act and Construction Regulations  | General induction – all employees | Overalls                                 |
| Appointment 6(1)                      | Toolbox talks                     | Safety Footwear                          |
| Appointments Plant/ Vehicle Operators | First Aider                       | Dust Masks                               |
| Appointment First Aider               |                                   | Eye Protection                           |
| Competency Operator                   |                                   | Reflective vests                         |
| Competency First Aider                |                                   | Appropriate signage on vehicles          |
| Plant/ Vehicle registers              |                                   | Amber rotating lights                    |
| Emergency procedures                  |                                   |  |
|                                       |                                   |  |

| <b>Activity Steps</b> |                         | <b>Hazards and Risks</b>  | <b>Preventative Measures</b>  | <b>Rating</b> |
|-----------------------|-------------------------|---|---|---------------|
| 1                     | Moving to and from site | Mechanical failure may cause serious injury to persons or property damage.                          | Pre-start check must be performed to ensure, amongst other things, that the warning hooter is audible and sufficient.   | 8             |
|                       |                         | Collisions with persons, plant or machinery may cause serious injury to persons or property damage. | All personnel to wear reflective vests. Site must be cleared of all unnecessary personnel, plant machinery. All persons to be made aware of the danger of working on public roads. All vehicles to be fitted with amber rotating lights and reverse warning hooter. | 11            |

|   |         |  |   |    |
|---|---------|--|---|----|
|   |         | Collisions with public vehicles may cause serious injury to persons, property damage or legal liability claims.      | Machine to be accompanied by a bakkie while travelling to work site. All vehicles to be fitted with amber rotating lights and reverse warning hooter. Signage to be sufficient and correctly placed .   | 11 |
|   |         | Lack of visibility of workers in work area to operators may cause serious injury to persons.                         | Machine to be accompanied by a flagman whilst maneuvering on site. All personnel to wear reflective vests<br>Trained and competent operator. All vehicles to be fitted with amber rotating lights and reverse warning hooter.                                       | 11 |
| 2 | Milling | Mechanical failure may cause serious injury to persons or property damage.   | Pre-start check must be performed to ensure, amongst other things, that the warning hooter is audible and sufficient.   | 8  |
|   |         | Collisions with persons, plant or machinery or flying debris may cause serious injury to persons or property damage. | All personnel to wear reflective vests. Site must be cleared of all unnecessary personnel, plant machinery. All persons to be made aware of the danger of working on public roads. All vehicles to be fitted with amber rotating lights and reverse warning hooter. | 11 |
|   |         | Collisions with public vehicles may cause serious injury to persons, property damage or legal liability claims.      | Machine to be accompanied by a bakkie while travelling to work site. All vehicles to be fitted with amber rotating lights and reverse warning hooter. Signage to be sufficient and correctly placed.  | 11 |
|   |         | Lack of visibility of workers in work area to operators may cause serious injury to persons.                         | Machine to be accompanied by a flagman whilst maneuvering on site. All personnel to wear reflective vests<br>Trained and competent operator. All vehicles to be fitted with amber rotating lights and reverse warning hooter.                                       | 11 |

|   |  |  |   |    |
|---|--|--|---|----|
| 3 | Using picks to finish off the finer details. | Lack of visibility of workers in work area to operator may cause serious injury to persons.  | Machine to be accompanied by a flagman whilst maneuvering on site. All personnel to wear reflective vests. Trained and competent operator. All vehicles to be fitted with amber rotating lights and reverse warning hooter. | 11 |
|   |  | Workers too close to each other may cause injuries to persons                                | Workers are to keep a safe distance between themselves and other workers. Foreman to instruct the employees.  | 5  |
|   |  | Workers hitting their foot with the pick may cause serious foot injuries                     | Safety boots are to be worn by workers.   | 5  |
| 4 | Manual brooming of area                      | Lack of visibility of workers in work area to operators may cause serious injury to persons. | Machine to be accompanied by a flagman whilst maneuvering on site. All personnel to wear reflective vests. Trained and competent operator. All vehicles to be fitted with amber rotating lights and reverse warning hooter. | 11 |
|   |  | Workers too close to each other may cause injuries to persons                                | Workers are to keep a safe distance between themselves and other workers. Foreman to instruct the employees.  | 5  |



## MOBILE CRANE

**RA NO**

**DATE**

|                               |             |  |
|-------------------------------|-------------|--|
| <b>H.T.I Score</b>            | 10          | Medium-Regular monitoring, Supervision |
| <b>Contract</b>               |             |  |
| <b>Persons involved in RA</b> | <b>Name</b> | <b>Signatures</b>                      |
| Foreman                       |             |  |
| Second Foreman                |             |  |
| Safety Officer                |             |  |
| Representative                |             |  |
|                               |             |  |

|  |                                   |  |
|--|-----------------------------------|--|
| <b>Documentation Required</b>            | <b>Training Required</b>          | <b>PPE and Safety Equipment Required</b> |
| OHS Act and Construction Regulations     | General induction – all employees | Overalls                                 |
| Appointment 6(1)                         | Toolbox talks                     | Safety Footwear                          |
| Appointments Crane Operator              | First Aider                       | Dust Masks                               |
| Appointment Lifting Equipment Supervisor | Crane Operator Certificate        | Ear Protection                           |
| Competency Operator                      |                                   | Gloves                                   |
| Competency First Aider                   |                                   |  |
| Crane log                                |                                   |  |
| Load test certificates                   |                                   |  |
| Lifting Equipment Register               |                                   |  |
| Competency Rigger                        |                                   |  |

|   | <b>Activity Steps</b> | <b>Hazards and Risks</b>  | <b>Preventative Measures</b>  | <b>Rating</b> |
|---|-----------------------|---|---|---------------|
| 1 | Starting up of crane  | Employee being injured by standing on, under or too close to truck        | All protective guards and covers must be in place before starting the engine. The crane must be operated by a competent and trained operator. | 8             |
|   |                       | Operator being injured while mounting or dismounting the crane            | Operator to mount or dismount the crane only at locations that has steps and handholds.   | 8             |
|   |                       | Motor failure   | Motor to be started according to procedure and maintenance schedule to be followed.   | 8             |
|   |                       | Operator not ensuring crane hook is secured prior to set crane in motion. | Crane hook must be secured prior to operator setting crane in motion.   | 8             |

|   |                    |   |   |    |
|---|--------------------|---|---|----|
| 2 | Operating of crane | Crane colliding into other plant or LDV     | Crane to be operated by a competent and trained operator. Operator to keep to the designated area of work.  | 8  |
|   |                    | Load being dropped onto employees           | Crane to be operated by a competent and trained operator. Employees to keep clear of crane slew area. Ensure that the operator has seen you before approaching.   | 11 |
|   |                    | Operator operating recklessly               | Crane to be operated by a trained and competent operator, crane to be operated at a safe speed, task to be supervised by a competent supervisor.  | 11 |
|   |                    | Crane working in the incorrect place        | Task to be supervised by a competent supervisor.  | 5  |
|   |                    | Crane operator exposed to noise             | Operator to make use of ear protection and he must take frequent breaks.  | 5  |
|   |                    | Operator exposed to dust                    | Dust to be controlled, wearing of dust mask   | 5  |
|   |                    | Crane lifting a too heavy load              | Crane to be operated by a trained and competent operator. Load chart on crane to be followed, onboard computer to be tested for the correct readings. Rigging of material to be done by a competent and trained rigger.                                       | 11 |
|   |                    | Operator placing load in wrong area         | Crane operator to be guided by a trained and competent banks man - only one person at a time to guide the crane operator, the crane must be operated by a trained and competent operator. The lifting operation must be supervised by a competent supervisor. | 5  |
|   |                    | Crane falling over during lifting operation | The crane must be operated by a trained and competent operator. Crane to stand on firm and level ground.  | 12 |

|   |             |   |   |    |
|---|-------------|---|---|----|
|   |             | Load swinging out of control  | Load to be secured by means of guide ropes, no high lifts to be done in strong winds, crane to be operated by a trained and competent operator and the task must be supervised by a competent supervisor.   | 12 |
|   |             | Load falling on to an employee  | Area of lifting operations to be barricaded with a barrier and warning signs posted. Watch men are to be posted to ensure that no body enters the area. All employees to undergo induction before entering the site. Task to be supervised by a competent supervisor. | 11 |
| 3 | Maintenance | Lifting tackle breaking   | Rigging to be done by a trained and competent rigger, all lifting tackle to be inspected prior to lifting. This must be done by a competent person and all recordings must be on register.  | 11 |
|   |             | Employee injured while working on crane   | Maintenance and repair work to be done by a competent person.   | 8  |
|   |             | Fire or explosion occurring   | A functional fire extinguisher must be available inside the crane truck   | 12 |
| 4 | General     | Employee working on the jib may be injured  | Jib should be lowered to ground level for employees to work on. No employee allowed to climb on the jib.  | 12 |
|   |             | Crane collapse during inclement weather may cause injuries, damage and loss of production | Crane operations should be stopped when wind speeds reaches 70km/h  | 12 |
|   |             | Crane not checked before operations start   | Operator must do a pre-inspection checklist before the crane is started every morning.  | 12 |
|   |             | Crane not certified to use  | The crane must be erected by competent persons and the crane must be load tested every 12 months and whenever maintenance has been done.  | 12 |
|   |             | Mechanical work not done by competent person  | Installations must only be done by a qualified and competent person who can certify his work.   | 12 |



## **PAINTING**

**RA NO**

**DATE**

|                               |             |  |
|-------------------------------|-------------|--|
| <b>H.T.I Score</b>            | 7           | Medium-Regular Monitoring/ Supervision |
| <b>Contract</b>               |             |  |
| <b>Persons involved in RA</b> | <b>Name</b> | <b>Signatures</b>                      |
| Foreman                       |             |  |
| Second Foreman                |             |  |
| Safety Officer                |             |  |
| Representative                |             |  |
|                               |             |  |

|                                      |                                   |  |
|--------------------------------------|-----------------------------------|--|
| <b>Documentation Required</b>        | <b>Training Required</b>          | <b>PPE and Safety Equipment Required</b> |
| OHS Act and Construction Regulations | General induction - all employees | Overalls                                 |
| Appointment 6(1)                     | Toolbox talks                     | Safety Footwear                          |
| Appointment Scaffold Supervisor      | First Aider                       | Gloves                                   |
| Scaffold Registers                   | MSDS                              | Safety Harnesses                         |
| Appointment Ladder Inspector         | Fall Protection Plan              | Respiratory Mask                         |
| Ladder Register                      | Elevated positions                |  |
| MSDS                                 |                                   |  |
| Fall Protection Plan                 |                                   |  |
|                                      |                                   |  |

| <b>Activity Steps</b> |                        | <b>Hazards and Risks</b>                      | <b>Preventative Measures</b>   | <b>Rating</b> |
|-----------------------|------------------------|---|--|---------------|
| 1                     | Off loading of Paint   | Paint tin too heavy for one person to lift.   | Safe material handling practises must be followed and more than one employee to move the tins of paint | 5             |
|                       |                        | PPE not worn by employees                     | Hand, feet, head protection to be worn during handling   | 5             |
| 2                     | Working on heights     | Falling from heights can cause serious        | Employees to wear Safety harnesses   | 11            |
|                       |                        | Working on unsafe scaffolds                   | Only safe to use scaffolds to be used  | 11            |
|                       |                        | Working on unsafe ladders                     | Only ladders checked on register to be used  | 11            |
|                       |                        | Working on drums                              | Workers must only work from a safe access platform   | 8             |
| 3                     | Painting of structures | Paint dripping on carpets and other employees | Proper precautionary measures to be in place to protect the carpets and other people                   | 5             |

|   |                                  |   |   |   |
|---|----------------------------------|---|---|---|
|   |                                  | Paint falling from heights  | Paint tins to be fastened properly to ensure that the paint tin will not fall from heights  | 8 |
|   |                                  | Paint brush or roller falling from heights  | Paint brush and rollers to be fastened to a lanyard and to the wrist of the painter   | 5 |
|   |                                  | Employees not wearing PPE   | All employees to wear the prescribed PPE  | 5 |
| 4 | Openings tins of paint           | Deep lacerations caused to employees by opening tins with improper tools e.g. Stanley knife, etc. | All paint tins must be opened with an appropriate tin opener  | 5 |
| 5 | Exposure to paint                | Exposure to paint fumes   | Painting must only be done in a well ventilated area, or respiratory mask must be provided. MSDS of product to be available and discussed with painters | 8 |
|   |                                  | Skin exposure to paint  | Gloves and overalls to be worn. MSDS of product to be available and discussed with painters   | 5 |
| 6 | Cleaning brushes and other tools | Exposure to thinners/ turpentine fumes  | Cleaning must only be done in a well ventilated area. MSDS of product to be available and discussed with painters                                       | 8 |
|   |                                  | Skin exposure to thinners/ turpentine   | Gloves and overalls to be worn. MSDS of product to be available and discussed with painters   | 5 |





## PLASTERING

**RA NO**

**DATE**

|                               |             |  |
|-------------------------------|-------------|--|
| <b>H.T.I Score</b>            | 7           | Medium-Regular Monitoring/ Supervision |
| <b>Contract</b>               |             |  |
| <b>Persons involved in RA</b> | <b>Name</b> | <b>Signatures</b>                      |
| Foreman                       |             |  |
| Second Foreman                |             |  |
| Safety Officer                |             |  |
| Representative                |             |  |
|                               |             |  |

|                                      |                                   |  |
|--------------------------------------|-----------------------------------|--|
| <b>Documentation Required</b>        | <b>Training Required</b>          | <b>PPE and Safety Equipment Required</b> |
| OHS Act and Construction Regulations | General induction - all employees | Overalls                                 |
| Appointment 6(1)                     | Toolbox talks                     | Safety Footwear                          |
| Appointment Scaffold Supervisor      | First Aider                       | Gloves                                   |
| Scaffold Registers                   | Fall Protection Plan              | Safety Harnesses                         |
| Appointment Ladder Inspector         | Elevated positions                | Respiratory Mask                         |
| Ladder Register                      |                                   |  |
| Fall Protection Plan                 |                                   |  |
|                                      |                                   |  |
|                                      |                                   |  |

| <b>Activity Steps</b> |                            | <b>Hazards and Risks</b>   | <b>Preventative Measures</b>   | <b>Rating</b> |
|-----------------------|----------------------------|--|--|---------------|
| 1                     | Mix mortar                 | Faulty hand tools can cause bruises or cuts.                           | Shovels and hand tools must be inspected to ensure they are in good condition.               | 5             |
|                       |                            | Inhalation of dry cement dust can cause lung function impairment       | Dust Masks to be worn when working with dry cement   | 8             |
| 2                     | Wet walls.                 | Plaster can dry out or not stick to wall causing poor quality of work. | Moisten wall prior to applying mortar.   | 5             |
| 3                     | Supply mortar to plasterer | Faulty hand tools can cause bruises or cuts.                           | Shovels, wheelbarrows and hand tools must be inspected to ensure they are in good condition. | 5             |
| 4                     | Apply mortar to wall.      | Faulty hand tools can cause bruises or cuts.                           | Trowels and hand tools must be inspected to ensure they are clean and in good condition.     | 5             |
|                       |                            | Skin exposure to cement can cause cement burns                         | Gloves and overalls to be worn   | 5             |

|   |   |  |  |    |
|---|---|--|--|----|
| 5 | Working on heights                              | Falling from heights can cause serious   | Employees to wear Safety harnesses   | 11 |
|   |   | Working on unsafe scaffolds  | Only safe to use scaffolds to be used  | 11 |
|   |   | Working on unsafe ladders  | Only ladders checked on register to be used  | 11 |
|   |   | Working on drums   | Workers must only work from a safe access platform   | 8  |
| 6 | Screed mortar.                                  | Faulty spirit level; uneven straight edge.<br>Poor quality of work   | Levels, trowels and hand tools must be inspected to ensure they are clean and in good condition., good standard of scaffolding / trestles. | 5  |
| 7 | Skim, float or scratch plaster to final finish. | Faulty spirit level, faulty tools can cause poor quality of work   | Trowels and hand tools must be inspected to ensure they are clean and in good condition.   | 5  |
| 8 | Clean up area.                                  | Rubble, people could trip or fall causing bruises, scratches, cuts or fractures when falling over objects. | Good housekeeping standards to be maintained   | 5  |
| 9 | Moisten wall.                                   | Plaster could dry too fast causing cracks and poor quality of work   | Apply water to prevent rapid drying out,   | 5  |



## POKER VIBRATOR

**RA NO**

**DATE**

|                               |             |  |
|-------------------------------|-------------|--|
| <b>H.T.I Score</b>            | 7           | Medium-Regular monitoring, Supervision |
| <b>Contract</b>               |             |  |
| <b>Persons involved in RA</b> | <b>Name</b> | <b>Signatures</b>                      |
| Foreman                       |             |  |
| Second Foreman                |             |  |
| Safety Officer                |             |  |
| Representative                |             |  |
|                               |             |  |

|                                      |                                   |  |
|--------------------------------------|-----------------------------------|--|
| <b>Documentation Required</b>        | <b>Training Required</b>          | <b>PPE and Safety Equipment Required</b> |
| OHS Act and Construction Regulations | General induction - all employees | Overalls                                 |
| Appointment 6(1)                     | Toolbox talks                     | Safety Footwear                          |
| Appointment Supervisor of Machinery  | First Aider                       | Ear Protection                           |
| Appointment First Aider              | Operating poker vibrator          | Gloves                                   |
| Competency Operator                  |                                   | Eye protection                           |
| Competency First Aider               |                                   |  |
| Equipment registers                  |                                   |  |
|                                      |                                   |  |
|                                      |                                   |  |

| <b>Activity Steps</b> |                   | <b>Hazards and Risks</b>                   | <b>Preventative Measures</b>   | <b>Rating</b> |
|-----------------------|-------------------|--|--|---------------|
| 1                     | Issuing of P.P.E. | Defective P.P.E issued may cause injuries. | All P.P.E to be SABS approved, supervisor to ensure that the correct P.P.E is issued to the employees.   | 5             |
|                       |                   | P.P.E not on register.                     | All employees are to sign for the P.P.E issued to them, task to be supervised by a competent supervisor, site safety officer to do regular checks on the paper work to ensure that the employees are signing for the P.P.E issued to them. | 5             |

|   |                           |   |  |   |
|---|---------------------------|---|--|---|
|   |                           | Theft of P.P.E.   | All P.P.E to be kept in a safe and secure place only one person to be in control of the issuing of the P.P.E, all employees to look after their own items which were issued to them.                                       | 5 |
|   |                           | Operator not trained to use poker vibrator.   | Operator to be competent in the use of the poker vibrator. Employee to be issued with steel toe cap safety boots. All injuries to be reported to the site safety officer. Task to be supervised by a competent supervisor. | 8 |
|   |                           | Employee exposed to noise may cause hearing loss.                                   | Employee to make use of SABS approved hearing protection, supervisor to ensure that the correct P.P.E is used. Task to be supervised by a competent supervisor.  | 5 |
| 2 | Pre-start check           | Mechanical failure can cause injuries or damage to property                         | Machine is to be checked prior to use.   | 8 |
| 3 | Operating poker vibrator. | Employee over come by fumes may cause asphyxiation and disability.                  | Minimise the use of petrol and diesel driven machines excavations. Excavations to be well ventilated. Task to be supervised by a competent supervisor. Working in confined space procedure to be followed where required.  | 8 |
|   |                           | Employee overcome with heat-stroke may cause injuries.                              | Drinking water to be supplied to the employees, task to be supervised by a competent supervisor.   | 8 |
|   |                           | Incompetent employee working with poker vibrator may cause injuries and disability. | Only trained and competent employees to work with any poker vibrator. Task to be supervised by a competent supervisor.   | 8 |

|  |  |   |  |    |
|--|--|---|--|----|
|  |  | Employee affected by the vibrations of the poker vibrator may cause injuries.     | Employees to make use of hand protection, task to be supervised by a competent supervisor. All injuries to be reported to the site safety officer. Long processes to be done in shifts of 30 minutes at a time.                            | 5  |
|  |  | Refuelling of poker vibrator, may cause injuries, damage due to fire.             | Poker vibrator shall be switched off when refuelling takes place. There shall always be a fire extinguisher nearby in the excavation and the operator of the poker vibrator shall know how to use the fire extinguisher.                   | 8  |
|  |  | Moving around with a poker vibrator may cause injuries and fatalities             | The operator shall walk with his hand on the controls of the poker vibrator. The operator shall ensure that there are no trip and fall hazards in the work area and that he has a clear space to manoeuvre the poker vibrator comfortably. | 11 |
|  |  | Noise can cause hearing loss  | Ear protection to be worn  | 8  |
|  |  | Vibration can cause numbness which can cause loss of control, leading to injuries | Employee to take sufficient breaks or extensive work to be performed by a relay of employees. Gloves to be worn  | 3  |



## POURING READY MIX CONCRETE

**RA NO**

**DATE**

|                               |             |  |
|-------------------------------|-------------|--|
| <b>H.T.I Score</b>            | 7           | Medium-Regular Monitoring/ Supervision |
| <b>Contract</b>               |             |  |
| <b>Persons involved in RA</b> | <b>Name</b> | <b>Signatures</b>                      |
| Foreman                       |             |  |
| Second Foreman                |             |  |
| Safety Officer                |             |  |
| Representative                |             |  |
|                               |             |  |

|                                       |                                   |  |
|---------------------------------------|-----------------------------------|--|
| <b>Documentation Required</b>         | <b>Training Required</b>          | <b>PPE and Safety Equipment Required</b> |
| OHS Act and Construction Regulations  | General induction - all employees | Long Trousers                            |
| Appointment 6(1)                      | Toolbox talks                     | Safety Gumboots                          |
| Appointments Plant/ Vehicle Operators | First Aider                       | Eye Protection                           |
| Appointment First Aider               |                                   | Gloves                                   |
| Competency Operator                   |                                   |  |
| Competency First Aider                |                                   |  |
| Plant/ Vehicle registers              |                                   |  |
|                                       |                                   |  |
|                                       |                                   |  |

|   | <b>Activity Steps</b>        | <b>Hazards and Risks</b>   | <b>Preventative Measures</b>  | <b>Rating</b> |
|---|------------------------------|--|---|---------------|
| 1 | Positioning of truck on site | Persons in work area.Positioning truck too close to excavation/ structures/ material.Person can be run over and injured.<br>Truck can collapse the walls of the excavation or fall into it.<br>Structures or material can be damaged | Area to be cleared of personnel while truck is being positioned.<br>Truck to have reverse warning hooter.<br>Spotter to be used to direct driver to correct position. | 8             |
| 2 | Positioning of chute         | Sharp edges and snags on chute. Incorrect placement of chute.Injuries to persons-cuts, bruises, puncture wounds.<br>Concrete poured in/ on wrong area.   | Gloves to be worn. Competent person to position chute.  | 5             |

|   |                  |  |  |   |
|---|------------------|--|--|---|
| 3 | Pouring concrete | Concrete splashes into eyes or skin contact. Persons working in area where concrete is being poured. Moving/ rotating machine parts. Eye or skin damage. Injury to persons | Gloves and eye goggles to be worn. Area to be cleared of all persons not directly involved in the pouring. Competent person to supervise the pouring. No loose clothing to be worn by operator. Persons to practise caution when in the vicinity of moving machinery/ parts. | 8 |
|---|------------------|--|--|---|



## POWER FLOAT

**RA NO**

**DATE**

|                               |             |                   |
|-------------------------------|-------------|-------------------|
| <b>H.T.I Score</b>            | 9           |                   |
| <b>Contract</b>               |             |                   |
| <b>Persons involved in RA</b> | <b>Name</b> | <b>Signatures</b> |
| Foreman                       |             |                   |
| Second Foreman                |             |                   |
| Safety Officer                |             |                   |
| Representative                |             |                   |
|                               |             |                   |

|                                       |                                   |  |
|---------------------------------------|-----------------------------------|--|
| <b>Documentation Required</b>         | <b>Training Required</b>          | <b>PPE and Safety Equipment Required</b> |
| OHS Act and Construction Regulations  | General induction - all employees | Overalls                                 |
| Appointment 6(1)                      | Toolbox talks                     | Safety Footwear                          |
| Appointments Plant/ Vehicle Operators | First Aider                       | Dust Masks                               |
| Appointment First Aider               | Operating                         | Eye Protection                           |
| Competency Operator                   |                                   | Gloves                                   |
| Competency First Aider                |                                   |  |
| Plant/ Vehicle registers              |                                   |  |
|                                       |                                   |  |
|                                       |                                   |  |

|   | <b>Activity Steps</b> | <b>Hazards and Risks</b>  | <b>Preventative Measures</b>  | <b>Rating</b> |
|---|-----------------------|---|---|---------------|
| 1 | PPE                   | If correct PPE is not used, serious injuries may occur                            | PPE to be used- safety boots, overalls, ear protection, eye protection, gloves, dust mask                       | 12            |
| 2 | Pre-start check       | Mechanical failure can cause injuries or damage to property                       | Machine is to be checked prior to use, include all hose fittings, safety chains before use                      | 8             |
| 3 | Operating             | Dust can affect lung function   | Dust masks to be worn   | 8             |
|   |                       | Noise can cause hearing loss  | Ear protection to be worn   | 8             |
|   |                       | Vibration can cause numbness which can cause loss of control, leading to injuries | Employee to take sufficient breaks or extensive work to be performed by a relay of employees. Gloves to be worn | 3             |
|   |                       | Fly rock can cause injuries to body or eyes                                       | Impact resistant eye protection to be worn  | 12            |





## ROAD MARKING

**RA NO**

**DATE**

|                               |             |                                |
|-------------------------------|-------------|--------------------------------|
| <b>H.T.I Score</b>            | 11          | High Risk-Constant Supervision |
| <b>Contract</b>               |             |                                |
| <b>Persons involved in RA</b> | <b>Name</b> | <b>Signatures</b>              |
| Foreman                       |             |                                |
| Second Foreman                |             |                                |
| Safety Officer                |             |                                |
| Representative                |             |                                |
|                               |             |                                |

|                                      |                                   |  |
|--------------------------------------|-----------------------------------|--|
| <b>Documentation Required</b>        | <b>Training Required</b>          | <b>PPE and Safety Equipment Required</b> |
| OHS Act and Construction Regulations | General induction - all employees | Overalls                                 |
| Appointment 6(1)                     | Toolbox talks                     | Safety Footwear                          |
| Emergency procedures                 |                                   | Reflective vests                         |
|                                      |                                   | Appropriate signage on vehicles          |
|                                      |                                   | Amber rotating lights                    |
|                                      |                                   |  |
|                                      |                                   |  |
|                                      |                                   |  |
|                                      |                                   |  |

| <b>Activity Steps</b> |                      | <b>Hazards and Risks</b>   | <b>Preventative Measures</b>  | <b>Rating</b> |
|-----------------------|----------------------|--|---|---------------|
| 1                     | Measurement of lanes | Collision with vehicles, plant or machines. Confusion of public traffic. May cause accidents which lead to injuries to persons and damage to property. | All personnel to wear reflective vests. Vehicles to be fitted with rotating amber lights. Vehicles to have chevrons/ construction vehicle signs on the back. Flagmen to placed to warn oncoming traffic of road works ahead. All personnel to be made aware of dangers. | 11            |

|   |   |  |   |    |
|---|---|--|---|----|
| 2 | Temporary Pre-marking of road                       | Collision with vehicles, plant or machines. Confusion of public traffic. May cause accidents which lead to injuries to persons and damage to property. | All personnel to wear reflective vests. Vehicles to be fitted with rotating amber lights. Vehicles to have chevrons/ construction vehicle signs on the back. Flagmen to placed to warn oncoming traffic of road works ahead. All personnel to be made aware of dangers. | 11 |
| 3 | Painting permanent road markings/ placing cats eyes | Collision with vehicles, plant or machines. Confusion of public traffic. May cause accidents which lead to injuries to persons and damage to property. | All personnel to wear reflective vests. Vehicles to be fitted with rotating amber lights. Vehicles to have chevrons/ construction vehicle signs on the back. Flagmen to placed to warn oncoming traffic of road works ahead. All personnel to be made aware of dangers. | 11 |



## ROLLERS AND COMPACTORS

**RA NO**

**DATE**

|                               |             |  |
|-------------------------------|-------------|--|
| <b>H.T.I Score</b>            | 8           | Medium-Regular monitoring, Supervision |
| <b>Contract</b>               |             |  |
| <b>Persons involved in RA</b> | <b>Name</b> | <b>Signatures</b>                      |
| Foreman                       |             |  |
| Second Foreman                |             |  |
| Safety Officer                |             |  |
| Representative                |             |  |
|                               |             |  |

|                                       |                                   |  |
|---------------------------------------|-----------------------------------|--|
| <b>Documentation Required</b>         | <b>Training Required</b>          | <b>PPE and Safety Equipment Required</b> |
| OHS Act and Construction Regulations  | General induction - all employees | Ear protection                           |
| Appointment 6(1)                      | Environmental induction           | Safety Footwear                          |
| Appointments Plant/ Vehicle Operators | Toolbox talks                     | Fire Extinguisher fitted to Roller       |
| Appointment First Aider               | First Aider                       | Overalls                                 |
| Competency Operator                   | Operating Roller                  | Dust Mask                                |
| Competency First Aider                |                                   |  |
| Plant/ Vehicle registers              |                                   |  |
|                                       |                                   |  |
|                                       |                                   |  |

| <b>Activity Steps</b> |                       | <b>Hazards and Risks</b>  | <b>Preventative Measures</b>  | <b>Rating</b> |
|-----------------------|-----------------------|---|---|---------------|
| 1                     | Starting up of roller | Employee being injured by standing on, under or to close to the engine or tamping drum. | All protective guards and cover must be in place before start of the engine. The roller must be operated by a competent and trained operator. | 9             |
|                       |                       | Operator being injured while mounting or dismounting the roller.                        | Operator to mount and dismount the roller only at locations that have steps and handholds.  | 5             |
|                       |                       | Engine failure  | Engine to be started according to procedure and maintenance schedule to be followed.  | 5             |
| 2                     | Operating roller.     | Roller colliding into other plant or LDV  | Roller to be operated by a competent and trained operator. Operator to keep to the designated area of work.                                   | 9             |

|   |             |   |  |    |
|---|-------------|---|--|----|
|   |             | Employee being run over by roller.                                  | Roller to be operated by a competent and trained operator. Employees to keep clear of the roller during operations. Ensure that the operator has seen you before approaching. Roller to be fitted with a reverse hooter. | 13 |
|   |             | Roller overturning.   | Roller to be operated by a trained and competent operator, roller to be operated at a safe angle, task to be supervised by a competent supervisor.   | 9  |
|   |             | Roller working in incorrect place.                                  | Task to be supervised by a competent supervisor.   | 5  |
|   |             | Roller operator exposed to noise                                    | Operator to make use of ear protection and take frequent brakes.   | 10 |
|   |             | Operator exposed to dust.   | Dust to be controlled.   | 13 |
|   |             | Roller driving into trench.   | Roller to be operated by a competent and trained operator. Task to be supervised by a competent supervisor.  | 9  |
| 3 | Maintenance | Hydraulic pipe bursting during operation.                           | Burst pipe to be replaced by workshop and maintenance schedule to be followed.   | 13 |
|   |             | Employee being injured while working on Roller.                     | Maintenance and repair work to be done by a competent person.  | 13 |
|   |             | Hydraulic oil being injected into employee while working on Roller. | Make use of a board or cardboard when checking for leaks in the hydraulic pipes.   | 9  |
|   |             | Hydraulic oil leaking.  | Leaks to be reported to the foreman and to be repaired by the workshop.  | 5  |
|   |             | Employee injured while changing the wheels on the Roller.           | Changing of the wheels to be performed by a competent person and the task to be supervised by a competent supervisor.  | 5  |
|   |             | Oil and filters disposal.   | Make use of local waste collectors to collect the used oil and filters.  | 9  |
|   |             | Employee sustaining burns while working on the roller engine.       | Allow the engine to cool down before maintenance work is carried out.  | 3  |

|   |         |   |  |   |
|---|---------|---|--|---|
|   |         | Employee caught by rotating part of engine.   | Maintenance to be done by a competent person. No work to be done on the roller while the engine is still running.  | 9 |
|   |         | Employee coming in contact with battery acid. | Do not allow electrolyte to come in contact with the skin or eyes. Make use of the correct P.P.E when working with batteries.  | 9 |
|   |         | Fire or explosion occurring.                  | Remove all flammable materials such as fuel, oil and debris from the engine. Do not weld or flame cut any pipe or tank that contains any flammable fluids. Wiring must be kept in good order and no smoking or naked flames during refuelling. | 9 |
| 4 | General | Theft of batteries and fuel from the Roller.  | Security company to be employed and plant to be parked in a secure area.   | 6 |
|   |         | Theft of roller.                              | As per 4.1.  | 6 |



## ROOF WORK

**RA NO**

**DATE**

|                               |             |                   |
|-------------------------------|-------------|-------------------|
| <b>Contract</b>               |             |                   |
| <b>Persons involved in RA</b> | <b>Name</b> | <b>Signatures</b> |
| Foreman                       |             |                   |
| Second Foreman                |             |                   |
| Safety Officer                |             |                   |
| Representative                |             |                   |
|                               |             |                   |
|                               |             |                   |

|                                       |                                   |  |
|---------------------------------------|-----------------------------------|--|
| <b>Documentation Required</b>         | <b>Training Required</b>          | <b>PPE and Safety Equipment Required</b> |
| OHS Act and Construction Regulations  | General induction - all employees | Overalls                                 |
| Appointment 6(1)                      | Toolbox talks                     | Safety Footwear                          |
| Appointments Plant/ Vehicle Operators | First Aider                       | Gloves                                   |
| Appointment First Aider               | Manual handling RA                | Eye Protection                           |
| Competency Operator                   | Lifting techniques                | Safety Harnesses                         |
| Competency First Aider                | Fall Protection Plan              | Life line                                |
| Plant/ Vehicle registers              | Elevated Positions RA             |  |
| Scaffold Register                     |                                   |  |
| Fall Protection Plan                  |                                   |  |
| Appt Stacking and Storage Supt        |                                   |  |
| Appt Scaffold Supervisor              |                                   |  |

| <b>Activity Steps</b> |                                | <b>Hazards and Risks</b>   | <b>Preventative Measures</b>  | <b>Rating</b> |
|-----------------------|--------------------------------|--|---|---------------|
| 1                     | Truck deliver material to site | Unsuitable off loading area can cause injuries due to poor stacking and storage  | Area for offloading to be identified and barricaded prior to offloading.  | 5             |
| 2                     | Workers lift material          | Heavy loads and incorrect lifting techniques could cause back and other injuries | Allocate enough employees to offload and crane assistance where required. Employees to be inducted in correct lifting techniques.     | 8             |
| 3                     | Placing of material            | Material not stacked properly can collapse causing injuries                      | Clear instructions to be given to offloading team of correct stacking procedures and area to be prepared for material to be offloaded | 5             |

|   |  |  |   |    |
|---|--|--|---|----|
|   |  | Poor housekeeping can cause onjuries and delay work progress                       | Clear instructions to be given to offloading team of correct stacking procedures and area to be prepared for material to be offloaded | 5  |
| 4 | Build scaffolds                                | Unsafe scaffold could collapse causing serious injuries                            | Scaffold to be erected by a competent team supervisoed by a competent scaffold supervisor   | 11 |
| 5 | Pull roof trusses/ material to the top of roof | Falling from elevated position could cause serious injuries.                       | Supervisor to enforce the use of ppe and life lines   | 11 |
|   |  | Falling material can cause injuries to persons underneath the lifting area         | Area beneath lifting area to be barricaded off. No persns allowed underneath suspended loads.   | 8  |
| 6 | Install roof trusses/ tiles/ sheets            | Working in elevated positions, a fall can cause serious injuries                   | Supervisor to enforce the use of PPE and life lines   | 11 |
|   |  | Workers may slip on wet surface causing them to fall. Workers struck by lightning. | No roof work is to take place during adverse weather conditions, i.e.Winds above 45 km/h, rain, lightning                             | 11 |



## RUTFILL / TEXTURE SLURRY

**RA NO**

**DATE**


|                               |             |                                |
|-------------------------------|-------------|--------------------------------|
| <b>H.T.I Score</b>            | 11          | High Risk-Constant Supervision |
| <b>Contract</b>               |             |                                |
| <b>Persons involved in RA</b> | <b>Name</b> | <b>Signatures</b>              |
| Foreman                       |             |                                |
| Second Foreman                |             |                                |
| Safety Officer                |             |                                |
| Representative                |             |                                |
|                               |             |                                |

|                                       |                                   |  |
|---------------------------------------|-----------------------------------|--|
| <b>Documentation Required</b>         | <b>Training Required</b>          | <b>PPE and Safety Equipment Required</b> |
| OHS Act and Construction Regulations  | General induction - all employees | Overalls                                 |
| Appointment 6(1)                      | Toolbox talks                     | PVC Safety Footwear                      |
| Appointments Plant/ Vehicle Operators | First Aider                       | Eye Protection                           |
| Appointment First Aider               |                                   | PVC Gloves                               |
| Competency Operator                   |                                   | Reflective vests                         |
| Competency First Aider                |                                   | Appropriate signage on vehicles          |
| Plant/ Vehicle registers              |                                   | Amber rotating lights                    |
| Emergency procedures                  |                                   |  |
|                                       |                                   |  |

| <b>Activity Steps</b> |                                | <b>Hazards and Risks</b>  | <b>Preventative Measures</b>   | <b>Rating</b> |
|-----------------------|--------------------------------|---|--|---------------|
| 1                     | Preparation- Lowering squeegee | Pinch injuries in chains. Lowering squeegee onto feet. Mechanical failure. Visibility to oncoming traffic. May cause injury to persons. Property damage and material waste may occur.                     | Overalls, reflective vests, gumboots/ safety boots and gloves to be worn by personnel loosening squeegee. All personnel to be made aware of the dangers. Pre-start checklist to be completed.  | 11            |
| 2                     | Filling squeegee with slurry   | Feet in squeegee. Splashes of slurry. Mechanical failure. Visibility to oncoming traffic. May cause injury to persons including eye injuries from splashes. Property damage and material waste may occur. | Pouring to start only once the all-clear has been given. Persons operating close to the squeegee to wear safety goggles, gumboots/ safety boots overalls, reflective vests. Prestart checklist to be completed. All personnel to be made aware of the dangers. | 11            |



|   |                      |  |   |    |
|---|----------------------|--|---|----|
| 3 | Dragging squeegee    | Dragging over persons feet. Slurry splashing. Mechanical failure. Visibility to oncoming traffic. May cause injury to persons. Property damage and material waste may occur. | Persons operating close to the squeegee to wear safety goggles, gumboots/ safety boots overalls, reflective vests. Prestart checklist to be completed. All personnel to be made aware of the dangers. | 11 |
| 4 | Manual squeegee      | Slurry splashing. Visibility to oncoming traffic. May cause injury to persons  | Persons to wear gumboots/ safety boots overalls, reflective vests. All personnel to be made aware of the dangers.   | 11 |
| 5 | Dragging wet hessian | Slurry splashing. Visibility to oncoming traffic. May cause injury to persons  | Persons to wear gumboots/ safety boots overalls, reflective vests. All personnel to be made aware of the dangers.   | 11 |

|   |   |                                 |       |
|---|---|---------------------------------|-------|
|  | <b>SCAFFOLDING - ERECTION AND DISMANTLING</b> |                                 | RA NO |
|   |   |                                 | DATE  |
| H.T.I Score   | 10  | High Risk- Constant Supervision |       |
| Contract  |   |                                 |       |
| <b>Persons involved in RA</b>   | <b>Name</b>                                   | <b>Signatures</b>               |       |
| Foreman   |   |                                 |       |
| Second Foreman  |   |                                 |       |
| Safety Officer  |   |                                 |       |
| Representative  |   |                                 |       |
|   |   |                                 |       |

| Documentation Required               | Training Required                 | PPE and Safety Equipment Required |
|--------------------------------------|-----------------------------------|-----------------------------------|
| OHS Act and Construction Regulations | General induction - all employees | Long Trousers                     |
| Appointment 6(1)                     | Fall Protection Plan              | Safety Footwear                   |
| Appointments Scaffold Inspector      | Toolbox talks                     | Dust Masks                        |
| Appointment Erectors                 | First Aider                       | Eye Protection                    |
| Appointment First Aider              | Working at Heights                | Gloves                            |
| Competency Scaffold Inspector        |                                   | Safety Harnesses                  |
| Competency Scaffold Erectors         |                                   |                                   |
| Scaffold Inspection Register         |                                   |                                   |
| Fall Protection Plan                 |                                   |                                   |

|   | Activity Steps   | Hazards and Risks   | Preventative Measures  | Rating |
|---|--|---|--|--------|
| 1 | Erecting / dismantling first element for access scaffold | Tripping and falling hazards may cause injuries and disabilities. | Material must be stacked and stored in racks or bins. Area in which the scaffold is erected shall be clean and no rubble present. Area of the construction of the scaffold shall be barricaded to prevent entry of unauthorised persons. | 9      |
|   |  | Dropping material on feet may cause injury and disability.        | Material must be carried properly. Heavy material shall be carried by two or more people. Safety boots shall be worn all the time. Material shall be hoisted to next level with ropes.   | 5      |

|  |  |   |   |    |
|--|--|---|---|----|
|  |  | Not placing sole boards may cause fatalities and property damage.                                 | Soil must be level and compacted before the Sole boards are placed. Sole boards must be placed under base jacks. Base jacks must be used to level the scaffold.   | 11 |
|  |  | Extending the base jacks more than 300mm high may cause fatalities, injuries and property damage. | Base jacks must be used to level the scaffold and must not be over extended /turned out more than 300mm to level scaffolds. Supervisor must ensure that scaffold is level and stable.   | 11 |
|  |  | Not fixing cross braces to the ledgers may cause fatalities, injuries and property damage.        | Cross bracing must be fitted to scaffolds on every element. These cross bracings shall be done to make the scaffold stable. Where possible the scaffold will also be tied into an existing structure capable of assisting the scaffold support. | 11 |
|  |  | Using different size ledgers & standards may fatalities, injuries and property damage             | Same size ledgers & standards to be used. If the same size ledgers & standards are not used the scaffold will be unstable and skew.   | 11 |
|  |  | Not securing access ladder to the scaffold may cause fatalities and injuries.                     | Access ladder must be secured to the scaffold. Ladders will protrude at least 900mm beyond the landing platforms.   | 11 |
|  |  | Not securing scaffold planks or hook on boards may cause injuries / fatalities.                   | Scaffold planks and hook on boards must be sufficiently fastened to the ledgers to prevent them from moving around.   | 11 |
|  |  | No barricaded area may cause injuries / fatalities.   | Before erection starts the area must be barricaded to prevent persons from entering the area. No unauthorised person to be allowed inside the scaffold erecting area.   | 8  |

|   |   |  |  |    |
|---|---|--|--|----|
| 2 | Erecting / dismantling next level of elements | Falling from height may cause injuries/fatalities.   | Employees working on heights must stand on scaffold planks or hook on boards and must wear safety harnesses attached to the structure.   | 11 |
|   |   | Not placing connectors between the first and next level elements may cause fatalities and injuries.                | Place connectors to fit into the standards of the first and next level element. These connectors are there to secure the first and next element to each other and to give it support.  | 11 |
|   |   | Not securing the connectors may cause fatalities and injuries.   | Secure the connectors with bolts to the standards. Bolts must be used to secure the two elements and the connector to each other.  | 11 |
|   |   | Not continuing with the cross bracing may cause fatalities and injuries.   | Continue with cross bracing from the first level element. This is to give the scaffold stability.  | 8  |
|   |   | Scaffold collapse due to not following the SABS 085 code of practise may fatalities, injuries and property damage. | SABS 085 code of practise must be followed when scaffolds are erected. The SABS 085 standards were developed to ensure that scaffolds are all erected in the same manner and that scaffolds are build to certain safety specifications.                                      | 11 |
|   |   | No handrails around working platform may cause injuries / fatalities.  | Handrails must be erected on the last level (working platform) at 900mm high from the floor boards. Handrails must be able to support the weight of any person or equipment on the scaffold working platform. Knee rails shall be fitted at 450mm high from the floor level. | 11 |
|   |   | No full floor boarded platform, may lead to injuries and fatalities.   | All working platforms will be fitted with a full floor boarded surface (Hook on boards or scaffold planks.   | 11 |

|  |  |   |  |    |
|--|--|---|--|----|
|  |  | No toe / kick boards around the working platform.                                     | Every working platform will be fitted with a toe board / kick board extending 250mm high from the floor board around the working platform.   | 8  |
|  |  | Employees using unsafe scaffold, may cause injuries and fatalities.                   | There shall be a sign at every scaffold at the entrance point to the scaffold stating if the scaffold is safe or unsafe to use. On this sign it will also be indicated when last the scaffold has been inspected. Scaffolds will be inspected once a week and after inclement weather. | 11 |
|  |  | Dropping material from a height may cause injuries / fatalities and equipment damage. | Persons must pass material from the bottom up or a prescribed lifting method must be used to get the equipment from the bottom up.   | 8  |



## **SCAFFOLDING - GENERAL WORKING CONDITIONS**

**RA NO**
**DATE**

|                               |             |                                 |
|-------------------------------|-------------|---------------------------------|
| <b>H.T.I Score</b>            | 11          | High Risk- Constant Supervision |
| <b>Contract</b>               |             |                                 |
| <b>Persons involved in RA</b> | <b>Name</b> | <b>Signatures</b>               |
| Foreman                       |             |                                 |
| Second Foreman                |             |                                 |
| Safety Officer                |             |                                 |
| Representative                |             |                                 |
|                               |             |                                 |

|                                      |                                   |  |
|--------------------------------------|-----------------------------------|--|
| <b>Documentation Required</b>        | <b>Training Required</b>          | <b>PPE and Safety Equipment Required</b> |
| OHS Act and Construction Regulations | General induction - all employees | Long Trousers                            |
| Appointment 6(1)                     | Fall Protection Plan              | Safety Footwear                          |
| Appointments Scaffold Inspector      | Toolbox talks                     | Dust Masks                               |
| Appointment Erectors                 | First Aider                       | Eye Protection                           |
| Appointment First Aider              | Working at Heights                | Gloves                                   |
| Competency Scaffold Inspector        |                                   | Safety Harnesses                         |
| Competency Scaffold Erectors         |                                   |  |
| Scaffold Inspection Register         |                                   |  |
| Fall Protection Plan                 |                                   |  |

| <b>Activity Steps</b> |                        | <b>Hazards and Risks</b>   | <b>Preventative Measures</b>  | <b>Rating</b> |
|-----------------------|------------------------|--|---|---------------|
| 1                     | Working on scaffolding | Scaffold collapse may cause injuries / damage to property.                   | Scaffold must be build to SABS 085 Standards. Pre-use inspection to be conducted daily and results to be recorded on the safe for use notice and the inspection record. | 11            |
|                       |                        | Mobile scaffold moving around may cause injuries / damage to property.       | Brakes must be locked before working on scaffold  | 11            |
|                       |                        | Overloading of scaffold may cause injuries and damage to property.           | Only the recommended weight load to be placed on scaffold, Don't overload the scaffold, this shall be   | 11            |
|                       |                        | Wrong loading methods used on scaffold may cause injury and property damage. | Load should be placed over the standards. Do not point load the working platform.   | 11            |

|  |  |   |   |    |
|--|--|---|---|----|
|  |  | Falling from scaffold may cause injuries and fatalities.                                    | Scaffold must be fitted with a full boarded platform. Employees must wear and hook their safety harnesses to a solid structure. These safety harnesses shall be worn and hooked at 1.5m from the ground level. The harnesses shall be hooked above the head where possible. Working platform must be fitted with handrails 900mm high and a knee rail 450mm.  | 11 |
|  |  | Tools and or equipment falling from the working platform may cause injuries and fatalities. | A proper kick board to be erected around the working platform. All tools and equipment used on platforms or at elevated heights must be secured to a safe structure. Tools must be fitted with a safety thong placed around the wrist when it is being used. Sufficient area around the scaffolds must be barricaded to prevent persons from entering the area where tools or equipment can fall from above. Good housekeeping practises to be enforced on the working platforms. | 8  |
|  |  | Scaffold unsafe for use may cause injuries and fatalities.                                  | Only trained, appointed employees are allowed to erect and dismantle scaffolding. Only scaffolds which has been checked and fitted with a safe to use sign may be used  | 11 |
|  |  | Untrained persons erecting scaffolding may cause injuries and damage to property.           | Only trained, appointed employees are allowed to erect and dismantle scaffolding  | 11 |



## SCAFFOLDING - MOBILE TOWERS

**RA NO**

**DATE**

|                               |             |                                 |
|-------------------------------|-------------|---------------------------------|
| <b>H.T.I Score</b>            | 10          | High Risk- Constant Supervision |
| <b>Contract</b>               |             |                                 |
| <b>Persons involved in RA</b> | <b>Name</b> | <b>Signatures</b>               |
| Foreman                       |             |                                 |
| Second Foreman                |             |                                 |
| Safety Officer                |             |                                 |
| Representative                |             |                                 |
|                               |             |                                 |

| Documentation Required               | Training Required                 | PPE and Safety Equipment Required |
|--------------------------------------|-----------------------------------|-----------------------------------|
| OHS Act and Construction Regulations | General induction - all employees | Long Trousers                     |
| Appointment 6(1)                     | Fall Protection Plan              | Safety Footwear                   |
| Appointments Scaffold Inspector      | Toolbox talks                     | Dust Masks                        |
| Appointment Erectors                 | First Aider                       | Eye Protection                    |
| Appointment First Aider              | Working at Heights                | Gloves                            |
| Competency Scaffold Inspector        |                                   | Safety Harnesses                  |
| Competency Scaffold Erectors         |                                   |                                   |
| Scaffold Inspection Register         |                                   |                                   |
| Fall Protection Plan                 |                                   |                                   |

| Activity Steps |  | Hazards and Risks                        | Preventative Measures  | Rating |
|----------------|--|--|--|--------|
| 1              | Erecting / dismantling first element for access scaffold | Tripping and falling hazards             | Material must be stacked and stored in racks or bins   | 8      |
|                |  | Dropping material on feet                | Material must be carried properly  | 8      |
|                |  | Ground level not compacted or concrete   | Ground level must be concrete or compacted if not then u-iron tracks must be used to let the wheels follow a solid surface | 5      |
|                |  | Wheels not fitted with lockable brakes   | Wheels must be fitted with lockable brakes. These brakes must be used before working on the scaffold                       | 8      |
|                |  | Not fixing cross braces to the ledgers   | Cross bracing must be fitted to scaffolds  | 8      |
|                |  | Using different size ledgers & standards | Same size ledgers & standards to be used   | 8      |



|   |   |  |   |    |
|---|---|--|---|----|
|   |   | Not attaching access ladder on to the scaffold                       | Access ladder must be secured to the scaffold   | 11 |
|   |   | Not securing scaffold planks or hook on boards                       | Scaffold planks and hook on boards must be sufficiently be fastened to the ledgers  | 11 |
| 2 | Erecting / dismantling next level of elements | Falling from height  | Employees working on heights must stand on scaffold planks or hook on boards and must wear safety harnesses attached to the structure | 11 |
|   |   | Not placing connectors between the first and next level elements     | Place connectors to fit into the standards of the first and next level element  | 11 |
|   |   | Not securing the connectors  | Secure the connectors with bolts to the standards   | 11 |
|   |   | Not continuing with the cross bracing                                | Continue with cross bracing from the first level element  | 11 |
|   |   | Scaffold collapse due to not following the SABS 085 code of practise | SABS 085 code of practise must be followed when scaffolds are erected   | 11 |
| 3 | Working on Mobile scaffold                    | Scaffold moving around   | Brakes must be able to hold the scaffold in place   | 11 |
|   |   | Employees falling down when scaffold is moved                        | No employee is allowed to be on the scaffold when it is pushed around   | 11 |
|   |   | Employees falling down from scaffold                                 | Scaffold must be fitted with a full handrail 900mm high and safety harnesses hooked to a solid structure                              | 11 |



## SCRAPER

**RA NO**

**DATE**

|                               |             |  |
|-------------------------------|-------------|--|
| <b>H.T.I Score</b>            | 7           | Medium-Regular Monitoring/ Supervision |
| <b>Contract</b>               |             |  |
| <b>Persons involved in RA</b> | <b>Name</b> | <b>Signatures</b>                      |
| Foreman                       |             |  |
| Second Foreman                |             |  |
| Safety Officer                |             |  |
| Representative                |             |  |
|                               |             |  |

|                                       |                                   |  |
|---------------------------------------|-----------------------------------|--|
| <b>Documentation Required</b>         | <b>Training Required</b>          | <b>PPE and Safety Equipment Required</b> |
| OHS Act and Construction Regulations  | General induction – all employees | Overalls                                 |
| Appointment 6(1)                      | Toolbox talks                     | Safety Footwear                          |
| Appointments Plant/ Vehicle Operators | First Aider                       | Ear Protection                           |
| Appointment First Aider               | Operating Scraper                 | Eye Protection                           |
| Competency Operator                   |                                   | Fire Extinguisher                        |
| Competency First Aider                |                                   | First Aid Box                            |
| Plant/ Vehicle registers              |                                   |  |
| Schedule D                            |                                   |  |
|                                       |                                   |  |

| <b>Activity Steps</b> |                         | <b>Hazards and Risks</b>  | <b>Preventative Measures</b>   | <b>Rating</b> |
|-----------------------|-------------------------|---|--|---------------|
| 1                     | Starting up of scraper. | Employee being injured by standing on, under or to close to the engine or wheels. | All protective guards and cover must be in place before start of the engine. The scraper must be operated by a competent and trained operator. | 8             |
|                       |                         | Operator being injured while mounting or dismounting the scraper.                 | Operator to mount and dismount the scraper only at locations that have steps and handholds.  | 5             |
|                       |                         | Engine failure  | Engine to be started according to procedure and maintenance schedule to be followed.   | 5             |
| 2                     | Operating scraper.      | Scraper colliding into other plant or LDV   | Scraper to be operated by a competent and trained operator. Operator to keep to the designated area of work.                                   | 8             |

|  |  |                                     |   |   |
|--|--|-------------------------------------|---|---|
|  |  | Employee being run over by scraper. | Scraper to be operated by a competent and trained operator. Employees to keep clear of the scraper during operations. Ensure that the operator has seen you before approaching. | 8 |
|--|--|-------------------------------------|---|---|

|   |             |  |   |    |
|---|-------------|--|---|----|
|   |             | Scraper operator losing control of the scraper.                      | Scraper to be operated by a trained and competent operator, task to be supervised by a competent supervisor.          | 8  |
|   |             | Scraper working in incorrect place.                                  | Task to be supervised by a competent supervisor.  | 5  |
|   |             | Scraper operator exposed to noise                                    | Operator to make use of ear protection and take frequent brakes.  | 5  |
|   |             | Operator exposed to dust.  | Dust to be controlled.  | 5  |
| 3 | Maintenance | Hydraulic pipe bursting during operation.                            | Burst pipe to be replaced by workshop and maintenance schedule to be followed.  | 5  |
|   |             | Employee being injured while working on scraper.                     | Maintenance and repair work to be done by a competent person.   | 8  |
|   |             | Hydraulic oil being injected into employee while working on scraper. | Make use of a board or cardboard when checking for leaks in the hydraulic pipes.                                      | 8  |
|   |             | Hydraulic oil leaking.   | Leaks to be reported to the foreman and to be repaired by the workshop.   | 5  |
|   |             | Employee injured while changing the wheels on the scraper.           | Changing of the wheels to be performed by a competent person and the task to be supervised by a competent supervisor. | 8  |
|   |             | Oil and filters disposal.  | Make use of local waste collectors to collect the used oil and filters.   | 5  |
|   |             | Employee sustaining burns while working on the scraper's engine.     | Allow the engine to cool down before maintenance work is carried out.   | 8  |
|   |             | Employee caught by rotating part of engine.                          | Maintenance to be done by a competent person. No work to be done on the scraper while the engine is still running.    | 8  |
|   |             | Employee coming in contact with battery acid.                        | Do not allow electrolyte to come in contact with the skin or eyes.  | 8  |
|   |             |  | Make use of the correct PPE when working with batteries.  | 11 |

|   |         |   |   |   |
|---|---------|---|---|---|
|   |         | Fire or explosion occurring.                  | Remove all flammable materials such as fuel, oil and debris from the engine. Do not weld or flame cut any pipe or tank that contains any flammable fluids. Wiring must be kept in good order and no smoking or naked flames during refueling. | 8 |
| 4 | General | Theft of batteries and fuel from the scraper. | Security company to be employed and plant to be parked in a secure area.  | 5 |
|   |         | Theft of scraper.                             | As per 4.1.   | 8 |

## SITE ESTABLISHMENT

RA NO

DATE

|                               |             |  |
|-------------------------------|-------------|--|
| <b>H.T.I Score</b>            | 9           | Medium-Regular monitoring, supervision |
| <b>Contract</b>               |             |  |
| <b>Persons involved in RA</b> | <b>Name</b> | <b>Signatures</b>                      |
| Foreman                       |             |  |
| Second Foreman                |             |  |
| Safety Officer                |             |  |
| Representative                |             |  |
|                               |             |  |

| <b>Documentation Required</b>         | <b>Training Required</b>          | <b>PPE and Safety Equipment Required</b> |
|---------------------------------------|-----------------------------------|--|
| OHS Act and Regulations               | General induction – all employees | Safety Footwear                          |
| Appointment 6(1), 6(2)                | Environmental induction           | Dust Masks                               |
| Appointments Plant/ Vehicle Operators | Toolbox talks                     | Eye Protection                           |
| Appointment First Aider               | First Aider                       | Gloves                                   |
| Competency Operators                  | RA-Fencing                        | Hard Hats                                |
| Competency First Aider                | RA-Cranage                        | First Aid boxes                          |
| Plant/ Vehicle registers              | RA-Manual Handling                | Fire Extinguishers                       |
| Appointment Crane Operator            | RA-Concrete Activities            | Safety Harnesses                         |
|                                       | Electrician                       |  |

| <b>Activity Steps</b> |  | <b>Hazards and Risks</b>   | <b>Preventative Measures</b>  | <b>Rating</b> |
|-----------------------|--|--|---|---------------|
| 1                     | Placement of concrete for surface beds and around fence poles. | Trucks involved in collisions may cause serious injuries or property damage                      | Trucks must be guided to area where the load must be dropped.   | 12            |
|                       |  | Employees not using PPE while working with wet concrete can cause skin irritation.               | Employees must wear suitable hand and foot protection when working with concrete.   | 6             |
|                       |  | Wrong type of concrete for the specific task – concrete wasted.                                  | Supervisor must order the correct specified concrete in the correct amounts.  | 9             |
|                       |  | Cement dust inhaled can cause lung function impairment.  | Employees working with dry cement must use dust masks.  | 5             |
| 2                     | Vehicle Access and Parking                                     | Restricted access to parking, delivery and storage areas can cause damage to transport and plant | Proper layout of site at planning stage by Construction Manager and Site Agent. Access to be a main consideration when positioning offices, stores and parking areas on site during planning stage. | 9             |

|   |                                   |  |  |    |
|---|-----------------------------------|--|--|----|
| 3 | Signage                           | Standard signage not being erected will result in uninformed employees, visitors and public which could result in personal injuries, property damage or losses.                    | All relevant signage e.g. Construction Site, No unauthorised Entry, All visitors to report to Site Office, PPE signage etc to be displayed.  | 12 |
|   |                                   | Emergency signage not being displayed could cause exacerbated property damage or injury through delays or confusion.   | Relevant emergency signage e.g First Aid box, Fire Equipment, Escape Route, Assembly Point etc to be displayed   | 11 |
|   |                                   | No notice boards, or relevant information being displayed will result in employees or visitors not being aware of company procedures and requirements or legislative requirements. | Notice board/s must be erected and have all the relevant legislative requirements displayed. All relevant company documents e.g. SHE Plan, Policies, SHE rules, emergency evacuation plan and procedures, emergency contact numbers etc which are required by law are to be displayed. | 11 |
| 4 | Fencing                           | Not having fencing can cause theft of property or injury to persons due to unauthorised access.  | Security fencing minimum height of 1.8 metre around site area together with two double gates. Security guards to be appointed to keep watch.   | 9  |
| 5 | Offloading containers and offices | Trucks involved in collisions may cause serious injuries or property damage  | Trucks must be guided to area where the containers or offices must be dropped. Only the necessary employees are to be within the offloading area.  | 12 |
|   |                                   | Correct PPE not being used could cause injuries to persons   | Full PPE to be worn during offloading- Overalls, Safety Boots, Hard Hat, Gloves.<br>If a crane is being used, train employees with regard to hazards using the applicable craneage RA  | 11 |
| 6 | Electrical installations          | Damaged or exposed cables could cause electrocution, fires or damage to equipment.   | All cables from distribution board to offices, store and for security to be under-ground. The distribution board is to stand on a firm level base and should be locked at all times. Electrical installations must be done by a qualified electrician.                                 | 11 |

|    |  |   |   |    |
|----|--|---|---|----|
|    |  | Wiring not done to SABS standards – injuries and property damage.   | Electrician must provide a COC after the installation is completed.   | 11 |
| 7  | Offload Materials, Tools and equipment | Trucks involved in collisions may cause serious injuries or property damage   | Trucks must be guided to area where the load must be dropped.   | 11 |
|    |  | Incorrect placement or stacking of materials could cause injuries to persons, property damage and material loss.                                      | Materials to be placed in the designated storage area. Stacking and Storage Supervisor is to ensure that correct stacking procedures are followed.  | 9  |
|    |  | Tripping/ falling over materials and equipment.   | Good housekeeping standards are to be maintained.   | 6  |
| 8  | Equipment and tool storage             | Uncontrolled access to equipment and tools could cause theft of tools or equipment.   | Equipment and tools to be stored in an area/ container which can be locked to prevent unauthorised access. Dedicated storeman to control issue and return of tools and equipment.             | 9  |
|    |  | Injury to persons or damage to property through incompetent/ untrained use of equipment or tools.   | Equipment and tools to be issued by storeman to trained and competent employees.  | 12 |
| 9  | Hazardous/ Flammable material storage. | Incorrect storage of hazardous/ flammable substances/ gas cylinders could cause fire or explosions.   | Hazardous/ flammable substances/ gas cylinders to be stored in clearly designated and demarcated areas.   | 8  |
|    |  | Unauthorised access could cause injury to persons or damage to property.  | Access to be controlled. All relevant signage to be present.  | 9  |
|    |  | PPE not being used could cause asphyxiation, skin injuries, lung function impairment  | Dust masks, respirators, protective clothing etc to be used where relevant. Relevant MSDS's must be kept on site in case of exposure.   | 7  |
| 10 | Diesel Tanks                           | Fire may spread if diesel tanks are too close to adjacent buildings and plant. Can cause burns on all parts of body, damage to plant and property and | Diesel tanks to be a distance of 10 metres away from any building and parking areas. Persons in charge of tanks should be inducted regarding all the hazards involved and how to control them | 11 |



|    |  |  |  |    |
|----|--|--|--|----|
|    |  | Uncontrolled spillage can cause environmental damage   | A slab with a bund wall capable of carrying 110% of the tank capacities must be constructed for the tanks to stand in.   | 8  |
| 11 | Toilet Facilities.                           | Inadequate and or substandard toilet facilities could affect employee health through disease or illness                      | Toilets must be provided at a minimum ratio of 1 toilet per 30 employees. Toilet paper must be supplied to employees free of charge. Sufficient maintenance and cleaning must be done taking usage into consideration.   | 5  |
| 12 | Eating area                                  | Eating area not protected from the elements could affect employee health.  | The eating area must be sheltered from the elements e.g. sun, rain, wind etc   | 5  |
| 13 | Drinking water                               | Dehydration and heat stroke as a result of a lack of drinking water.   | Adequate potable water must be provided. Signage indicating that the water is suitable for drinking must be displayed  | 5  |
| 14 | Fire fighting equipment.<br>First aid boxes. | Not having the essential services at hand could affect the health of employees or cause loss of property through fire.       | Fire extinguishers and first aid box/es to be brought to site together with containers.  | 13 |
| 15 | Waste disposal.                              | Substandard waste management programme could cause environmental damage or injury to employees through trip/ fall accidents. | Sufficient and strategically placed waste bins to be supplied on site for normal household waste. Waste must be removed regularly to designated dumping areas. Spillages to be cleaned up. Hazardous waste to be stored correctly until removal. Building waste to be cleared on the same day of operations. | 8  |



## SKILL SAW

RA NO

DATE

|                               |             |  |
|-------------------------------|-------------|--|
| <b>H.T.I Score</b>            | 9           | Medium-Regular monitoring, Supervision |
| <b>Contract</b>               |             |  |
| <b>Persons involved in RA</b> | <b>Name</b> | <b>Signatures</b>                      |
| Foreman                       |             |  |
| Second Foreman                |             |  |
| Safety Officer                |             |  |
| Representative                |             |  |
|                               |             |  |

| Documentation Required               | Training Required                 | PPE and Safety Equipment Required |
|--------------------------------------|-----------------------------------|-----------------------------------|
| OHS Act and Construction Regulations | General induction – all employees | Overalls                          |
| Appointment 6(1)                     | Toolbox talks                     | Safety Footwear                   |
| Appointment First Aider              | First Aider                       | Dust Masks                        |
| Competency First Aider               | Operating Skill Saw               | Eye Protection                    |
| Competency Operator                  |                                   | Gloves                            |
| Equipment Registers                  |                                   |                                   |
|                                      |                                   |                                   |
|                                      |                                   |                                   |
|                                      |                                   |                                   |

| Activity Steps |                       | Hazards and Risks  | Preventative Measures  | Rating |
|----------------|-----------------------|--|--|--------|
| 1              | Pre-use inspection    | Inspection not done may cause injuries and equipment damage.                       | Inspection to be done by a competent person. User of the skill saw to be trained on how to do the pre use inspection. Inspection registers to be signed off by a competent supervisor. | 8      |
|                |                       | Register not filled in may cause injuries and equipment damage.                    | Foreman to sign off the inspection register. Site safety officer to do spot checks on the registers.   | 8      |
| 2              | Changing of the blade | Skill saw not made safe – not plugged out may cause injuries and equipment damage. | Only a trained person is allowed to change the blade on a skill saw. Task to be supervised by a competent supervisor. User to ensure that the skill saw is plugged out.                | 11     |

|   |                   |   |  |    |
|---|-------------------|---|--|----|
|   |                   | Incorrect tools used to change the blade may cause injuries and equipment damage. | Task to be supervised by a competent supervisor. Only trained and competent person to change the blade on the skill saw.   | 8  |
|   |                   | Incorrect blade fitted may cause injuries and equipment damage.                   | Task to be supervised by a competent supervisor. Only a trained and competent person to change the blade on the skill saw, supervisor to ensure that the correct blade is provided and fitted.   | 8  |
|   |                   | Blade fitted the wrong way round may cause injuries and equipment damage.         | Task to be supervised by a competent supervisor. Only a trained and competent person to change the blade on the skill saw. Supervisor to inspect the skill saw after fitment of the blade.   | 8  |
|   |                   | Damaged blade fitted may cause injuries and equipment damage.                     | Task to be supervised by a competent supervisor. Blade to be inspected by the supervisor before fitment this task is to be done by a trained and competent person.   | 12 |
| 3 | Use of skill saw. | Safety guard not working may cause injuries and equipment damage.                 | Skill saw to be inspected before use by a trained and competent person.  | 12 |
|   |                   | Cutting of big sheet of shutter board may cause injuries and equipment damage.    | Task to be supervised by a competent supervisor. Skill saw to be used by a trained and competent person. The shutter board are to be placed on a work bench or trestles. The shutter board should not be supported by means of placing ones hands under the board. | 12 |
|   |                   | Dust or splinter entering eyes may cause eye injuries and permanent disability.   | Double eye protection to be used - safety glasses and face shield. Bystanders to make use of eye protection as well.   | 8  |
|   |                   | Dust inhalation may cause lung disease and long term disability.                  | User of skill saw to make use of a dust mask. Skill saw to be fitted with a dust bag. Task to be supervised by a competent supervisor.   | 5  |

|   |                       |   |  |    |
|---|-----------------------|---|--|----|
|   |                       | Noise may cause long term disability and effect.  | When the skill saw is used for long periods of time – use ear protection. Avoid using skill saw in a confined space or in closed area.   | 5  |
|   |                       | Skill saw used by incompetent employee may cause injuries and equipment damage.                     | Only trained employees are allowed to work with a skill saw. Skill saw not to be left unsupervised. Task to be supervised by a competent supervisor.   | 12 |
|   |                       | Blade coming off while cutting may cause injuries equipment damage and permanent disability effect. | Skill saw to be inspected before use by a trained and competent person. Inspection registers to sign off by the responsible supervisor.  | 12 |
|   |                       | Employee dropping skill saw may cause an injury and equipment damage.                               | Only trained employees are allowed to work with a skill saw. No horse play allowed while working with the skill saw.   | 12 |
|   |                       | Employee electrocuted may cause injuries, equipment damage and permanent disability effect.         | Skill saw not to be used while standing in the water. No work to be done in the rain, skill saw to be inspected before use and skill saw with poor connections and cables to be removed from site. | 8  |
| 4 | Storage of skill saw. | Incorrect storage of skill saw could cause equipment damage.  | Proper storage space for skill saw to be provided. Storage to be controlled by a trained and competent store man   | 5  |
|   |                       | Theft of skill saw.   | Skill saw not to be left unsupervised. If not in use the skill saw must be returned to the store.  | 5  |
| 5 | Maintenance.          | Defects not reported may lead to injuries or equipment damage                                       | All defects on the skill saw must be reported to the supervisor.   | 9  |
|   |                       | Defects repaired by an incompetent employee may lead to injuries and equipment damage.              | Only trained and competent persons to repair the skill saw.  | 12 |



## STACKING AND STORAGE

**RA NO**

**DATE**

|                               |             |                             |
|-------------------------------|-------------|-----------------------------|
| <b>H.T.I Score</b>            | 6           | Low Risk-Regular Monitoring |
| <b>Contract</b>               |             |                             |
| <b>Persons involved in RA</b> | <b>Name</b> | <b>Signatures</b>           |
| Foreman                       |             |                             |
| Second Foreman                |             |                             |
| Safety Officer                |             |                             |
| Representative                |             |                             |
|                               |             |                             |

|   |                                   |  |
|---|-----------------------------------|--|
| <b>Documentation Required</b>           | <b>Training Required</b>          | <b>PPE and Safety Equipment Required</b> |
| OHS Act and Construction Regulations    | General induction - all employees | Long Trousers                            |
| Appointment 6(1)                        | Toolbox talks                     | Safety Footwear                          |
| Appointment Stacking and Storage Supt   | First Aider                       | Dust Masks                               |
| Stacking and Storage Register registers |                                   | Eye Protection                           |
|   |                                   | Gloves                                   |
|   |                                   |  |
|   |                                   |  |
|   |                                   |  |
|   |                                   |  |

|   | <b>Activity Steps</b>            | <b>Hazards and Risks</b>  | <b>Preventative Measures</b>  | <b>Rating</b> |
|---|----------------------------------|---|---|---------------|
| 1 | Stacking and storing of material | Material stacked on uneven ground may cause injuries and disability.                              | Material to be stacked on firm and level ground. Stacking to be supervised by a competent supervisor. | 8             |
|   |                                  | Insufficient storage area may cause poor housekeeping resulting in injuries and equipment damage. | Adequate storage area to be provided  | 5             |
|   |                                  | Storage area not demarcated may cause injuries and disability.                                    | All storage areas to be demarcated  | 5             |
|   |                                  | Poor house keeping may cause injuries and disability.   | Storage area to be kept neat and under control.   | 5             |
|   |                                  | Odd size articles may cause instability of stacks and may collapse.                               | Articles making up on tier all to be the same size shape and mass.                                    | 8             |
|   |                                  | Pallets and containers in poor condition may cause materials to collapse                          | All pallets, containers and support structures must be structurally sound.                            | 8             |

|  |  |   |   |   |
|--|--|---|---|---|
|  |  | Unstable stack may cause collapse and result in injuries and disability                 | All unstable stacks to be dismantled and stacked over.    | 8 |
|  |  | Walkways obstructed may lead to tripping hazards, injuries and disability.              | All walkways to be clear of obstructions.                 | 5 |
|  |  | Employee being injured while tripping over materials may cause injuries and disability. | Good housekeeping standards to be maintained at all times | 5 |



## STEEL FIXING

**RA NO**

**DATE**

|                               |             |                             |
|-------------------------------|-------------|-----------------------------|
| <b>H.T.I Score</b>            | 5           | Low Risk-Regular Monitoring |
| <b>Contract</b>               |             |                             |
| <b>Persons involved in RA</b> | <b>Name</b> | <b>Signatures</b>           |
| Foreman                       |             |                             |
| Second Foreman                |             |                             |
| Safety Officer                |             |                             |
| Representative                |             |                             |
|                               |             |                             |

| Documentation Required               | Training Required                 | PPE and Safety Equipment Required |
|--------------------------------------|-----------------------------------|-----------------------------------|
| OHS Act and Construction Regulations | General induction - all employees | Long Trousers                     |
| Appointment 6(1)                     | Toolbox talks                     | Safety Footwear                   |
| Appointment First Aider              | First Aider                       | Eye Protection                    |
| Competency First Aider               |                                   | Gloves                            |
|                                      |                                   |                                   |
|                                      |                                   |                                   |
|                                      |                                   |                                   |
|                                      |                                   |                                   |
|                                      |                                   |                                   |

|   | Activity Steps                                      | Hazards and Risks   | Preventative Measures   | Rating |
|---|---|---|---|--------|
| 1 | Delivery and stacking of material                   | Inefficient stacking. Poor housekeeping. Sharp edges, protrusions and snags. Lost productivity, injuries to persons-cuts, bruises, puncture wounds. | Stacking and storage supervisor ensures efficient and safe stacking. Daily tidying of stored materials. Protective gloves to be worn. | 5      |
| 2 | Movement of material from storage area to work area | Sharp edges, protrusions and snags. Uneven ground. Obstacles on path. Injuries to persons-cuts, bruises, puncture wounds. Trip/ fall injuries.      | Protective gloves to be worn. Create level walkway to work area. Remove obstacles from path.  | 5      |
| 3 | Tying steel   | Sharp edges, protrusions and snags. Steel/ wire off cuts. Injuries to persons-cuts, bruises, puncture wounds.                                       | Protective gloves to be worn. Good housekeeping to be maintained at all times. Daily removal of steel/ wire off cuts.                 | 5      |

|   |   |   |  |   |
|---|---|---|--|---|
| 4 | Movement of completed reinforced structure to site                | Sharp edges, protrusions and snags.<br>Uneven ground. Obstacles on path.<br>Injuries to persons-cuts, bruises, puncture wounds. Injuries to eyes.<br>Trip/ fall injuries. | Protective gloves and safety goggles to be worn. Create level walkway to work area. Remove obstacles from path.                            | 5 |
| 5 | Placement of reinforced structure on site and insertion of stools | Sharp edges, protrusions and snags.<br>Reinforced structure can cause trips/ falls.<br>Trip/ fall injuries-cuts, bruises, puncture wounds.                                | Protective gloves to be worn.<br>Caution must be exercised when walking over reinforced structure.<br>Foothold must be selected carefully. | 5 |





## STRUCTURAL STEEL ERECTION

**RA NO**

**DATE**

|                               |             |                                |
|-------------------------------|-------------|--------------------------------|
| <b>H.T.I Score</b>            | 10          | High Risk-Constant Supervision |
| <b>Contract</b>               |             |                                |
| <b>Persons involved in RA</b> | <b>Name</b> | <b>Signatures</b>              |
| Foreman                       |             |                                |
| Second Foreman                |             |                                |
| Safety Officer                |             |                                |
| Representative                |             |                                |
|                               |             |                                |

|                                      |                                   |  |
|--------------------------------------|-----------------------------------|--|
| <b>Documentation Required</b>        | <b>Training Required</b>          | <b>PPE and Safety Equipment Required</b> |
| OHS Act and Construction Regulations | General induction - all employees | Overalls                                 |
| Appointment 6(1)                     | Toolbox talks                     | Non-slip Safety Footwear                 |
| Appointments 6(2)                    | First Aider                       | Hard Hat                                 |
| Appointment First Aider              | Use of Safety Harness             | Gloves                                   |
| Competency First Aider               | Erecting structural steel         | Safety Harness                           |
| Emergency Plan                       |                                   | Life lines                               |
|                                      |                                   |  |
|                                      |                                   |  |
|                                      |                                   |  |

|   | <b>Activity Steps</b>        | <b>Hazards and Risks</b>   | <b>Preventative Measures</b>  | <b>Rating</b> |
|---|------------------------------|--|---|---------------|
| 1 | Competency of steel erectors | Erectors not being competent or used to working at heights may fall causing injury to all parts of body, possibly fatal. | Supervisor to induct steel erectors and their assistants in the safe-way to erect the steel and how to use their personal protective equipment.   | 11            |
| 2 | PPE                          | Not wearing personal protective equipment could cause injury to all parts of body, possible fatality                     | Erection team is to use the following personal protective equipment at all times: Overall, Hardhat, Harness with double lanyards and shock absorber, safety shoes with non-slip soles for structural steel work, gloves (if required). The use of harness is to be demonstrated to erection crew. | 11            |

|   |  |  |  |    |
|---|--|--|--|----|
| 3 | Use of lifelines   | Lifelines not properly installed could cause injury to all parts of body, possible fatality  | Lifelines are to be used and must be approx. 1 metre above working area of erectors for them to anchor their lanyards onto.  | 11 |
|   |  | Erectors not hooking themselves properly to lifelines or steel structure causing employee to fall could cause injury to all parts of body, possible fatality                 | Supervisor to check that lifelines has properly been installed and secure. One lanyard must be hooked at all times. Do not disengage a lanyard until the other has been hooked.  | 11 |
| 4 | Tools used by erection crew                              | Tools not thonged may fall and worn spanners may slip causing erector to lose his balance and fall. Injury to hands and all parts of the body, possible fatality due to fall | Tools used by erection crew must be in good condition and thonged to avoid dropping them during use. Worn spanners may not be used.  | 11 |
| 5 | Hoisting or lowering items                               | Materials or tools might drop onto person below when dropped from an elevated position. Injury to head, arms or legs.  | Do not drop any material or tools from the top of the structure. Use ropes attached to a bucket to hoist or lower items as required.   | 8  |
| 6 | Areas below working area                                 | Materials or tools might drop onto person below when dropped from an elevated position. Injury to head, arms or legs.  | All areas below where work is being done at an elevated level should be barricaded to restrict entry by any person. Tape to be yellow & black in colour indicating no entry at all. Safety signs indicating workers above - falling objects to be displayed. | 11 |
| 7 | Building rubble, stones or any materials at ground level | Injury of employee that falls might be aggravated if he falls on top of materials, stones, bricks, equipment or any other object.  | No building rubble, stones or any materials are to be stored at ground level below workers working at an elevated position. The ground must be free of any objects and debris.   | 8  |
| 8 | Hoisting steel with crane                                | Persons walking underneath load being hoisted may be seriously injured if the load should fall   | Banksman/rigger to make sure that no persons are under load being hoisted. He should be equipped with a whistle to warn all employees that a load is about to be lifted and that they should stand clear.  | 8  |

|    |                                  |  |  |    |
|----|----------------------------------|--|--|----|
|    |                                  | Contact of load with structure may cause damage to structural elements or workers to fall causing injury to all parts of body, possibly fatal. | To control the movements of structural elements hoisted, guide ropes are to be used and crane operator instructed to be aware of keeping the load at least two metres away from the structure and to move the load very slowly when it comes into proximity of the workers on the structure. | 11 |
| 9  | Adverse weather conditions       | Workers may slip on wet surface causing them to fall. Workers struck by lightning.   | No erection of structure is to take place during adverse weather conditions, i.e. Winds above 45 km/h, rain, lightning   | 11 |
| 10 | Sequential erecting of structure | Collapse of structure possible if sequence of erection is not followed by erection team.   | Sequence of erecting structural elements as required by the supervisor is to be adhered to at all times by all members of the erection crew. Competent supervisor to monitor   | 11 |
| 11 | Grouting of base plates          | Structure not being on firm base could cause collapse resulting in property damage or injuries.  | Grouting of base plates is to be done as soon as possible after erection of structure.   | 11 |
| 12 | Painting steel work              | Erector slipping on a painted section causing him to fall causing injury to all parts of body, possibly fatal.                                 | Painter's painting steel work is not to paint on same level where erection team is working.  | 11 |
| 13 | Emergency procedure              | Hanging in the air for more than two minutes may cause internal injury to employee.  | An emergency procedure is to be in place to retrieve an employee that has fallen from the structure and hanging from a lanyard. Allowable time to retrieve is two minutes.   | 11 |



## SURVEYING

**RA NO**

**DATE**

|                               |             |                              |
|-------------------------------|-------------|------------------------------|
| <b>H.T.I Score</b>            | 6           | Low Risk- Regular Monitoring |
| <b>Contract</b>               |             |                              |
| <b>Persons involved in RA</b> | <b>Name</b> | <b>Signatures</b>            |
| Foreman                       |             |                              |
| Second Foreman                |             |                              |
| Safety Officer                |             |                              |
| Representative                |             |                              |
|                               |             |                              |

| Documentation Required               | Training Required                 | PPE and Safety Equipment Required |
|--------------------------------------|-----------------------------------|-----------------------------------|
| OHS Act and Construction Regulations | General induction - all employees | Long Trousers                     |
| Appointment 6(1)                     | Toolbox talks                     | Safety Footwear                   |
| Appointment First Aider              | First Aider                       | Dust Masks                        |
| Competency First Aider               |                                   | Eye Protection                    |
|                                      |                                   | Gloves                            |
|                                      |                                   |                                   |
|                                      |                                   |                                   |
|                                      |                                   |                                   |
|                                      |                                   |                                   |

|   | Activity Steps              | Hazards and Risks  | Preventative Measures   | Rating |
|---|-----------------------------|--|---|--------|
| 1 | Setting up survey equipment | Tri-pod falling over                                     | Task to be done by a trained and competent surveyor.  | 5      |
|   |                             | Dropping surveying equipment                             | Task to be done by a trained and competent surveyor.  | 5      |
| 2 | Surveying                   | Surveyor standing in the sun                             | Surveyor to make use of umbrella and sun block cream. Surveyor and team to drink lots of water. | 5      |
|   |                             | Survey assistant struck by large hammer                  | Employee working with the hammer must be physically fit to work with a heavy tool.              | 5      |
|   |                             | Eye injury   | Employees to make use of the correct eye protection.  | 5      |
|   |                             | Employee run over by plant                               | Employees to keep clear of large earth moving plant.  | 8      |
|   |                             | Survey equipment run over by plant - damage to equipment | Survey equipment must be closed off with barrier tape   | 8      |



## TLB OPERATIONS

**RA NO**

**DATE**

|                               |             |   |
|-------------------------------|-------------|---|
| <b>H.T.I Score</b>            | 9           | Medium- Regular Monitoring, supervision |
| <b>Contract</b>               |             |   |
| <b>Persons involved in RA</b> | <b>Name</b> | <b>Signatures</b>                       |
| Foreman                       |             |   |
| Second Foreman                |             |   |
| Safety Officer                |             |   |
| Representative                |             |   |
|                               |             |   |

|                                       |                                   |  |
|---------------------------------------|-----------------------------------|--|
| <b>Documentation Required</b>         | <b>Training Required</b>          | <b>PPE and Safety Equipment Required</b> |
| OHS Act and Construction Regulations  | General induction - all employees | Ear protection                           |
| Appointment 6(1)                      | Environmental induction           | Safety Footwear                          |
| Appointments Plant/ Vehicle Operators | Toolbox talks                     | Fire Extinguisher fitted to TLB          |
| Appointment First Aider               | Operator training                 |  |
| Competency Operator                   |                                   |  |
| Competency First Aider                |                                   |  |
| Plant/ Vehicle registers              |                                   |  |
| Maintenance schedule                  |                                   |  |
| Schedule "D" notice                   |                                   |  |

| <b>Activity Steps</b> |                     | <b>Hazards and Risks</b>   | <b>Preventative Measures</b>   | <b>Rating</b> |
|-----------------------|---------------------|--|--|---------------|
| 1                     | Starting up of TLB. | Employee being injured by standing on, under or too close to the engine or wheels may result in injuries and disability. | All protective guards and cover must be in place before start of the engine. The TLB Must be operated by a competent and trained operator. | 9             |
|                       |                     | Operator being injured while mounting or dismounting the TLB may result in an injury with disability.                    | Operator to mount and dismount the TLB only at locations that have steps and handholds.  | 5             |
|                       |                     | Engine failure may lead to production loss.  | Engine to be started according to procedure and maintenance schedule to be followed.   | 5             |
| 2                     | Operating TLB.      | TLB colliding into other plant or LDV may result in injuries with disability.  | TLB to be operated by a competent and trained operator. Operator to keep to the designated area of work.                                   | 9             |

|   |                         |   |   |    |
|---|-------------------------|---|---|----|
| 3 | Excavation of trenches. | Employee being run over by TLB may result in injuries with disability.                    | TLB to be operated by a competent and trained operator. Employees to keep clear of the TLB during operations. Ensure that the operator has seen you before approaching. TLB to be fitted with a reverse hooter. | 13 |
|   |                         | TLB overturning may result in injuries with disability and major plant damage.            | TLB to be operated by a trained and competent operator, TLB to be operated at a safe angle, task to be supervised by a competent supervisor.  | 9  |
|   |                         | TLB working in incorrect place may lead to loss of production.                            | Task to be supervised by a competent supervisor.  | 5  |
|   |                         | TLB operator exposed to noise may lead to hearing loss.                                   | Operator to make use of ear protection and take frequent breaks.  | 10 |
|   |                         | TLB driving or falling into trench may result in injury with disability and plant damage. | TLB to be operated by a competent and trained operator. Task to be supervised by a Competent supervisor.  | 13 |
|   |                         | Material tipped on to employee in the trench may cause injury and disability.             | All employees to move out of the trench before the material is tipped, task to be supervised by a competent supervisor.   | 13 |
|   |                         | Trench collapsing may cause injuries with disability and plant damage.                    | All excavations to be inspected daily by a competent person who's appointed in writing, inspection register to be signed off by the site agent.   | 13 |
|   |                         | Hydraulic pipe bursting during operation may cause long term ground/water pollution.      | Burst pipe to be replaced by workshop and maintenance schedule to be followed.  | 9  |
| 4 | Maintenance             | Employee being injured while working on TLB may cause injuries with disability.           | Maintenance and repair work to be done by a competent person.   | 5  |
|   |                         | Hydraulic oil being dispersed onto employee while working on TLB may cause a health risk  | Make use of a board or cardboard when checking for leaks in the hydraulic pipes.  | 5  |
|   |                         | Hydraulic oil leaking may cause long term ground/water pollution.                         | Leaks to be reported to the foreman and to be repaired by the workshop.   | 9  |

|   |         |  |  |    |
|---|---------|--|--|----|
|   |         | Employee injured while changing the wheels on the TLB may cause a serious injury.        | Changing of the wheels to be performed by a competent person and the task to be supervised by a competent supervisor.  | 3  |
|   |         | Oil and filters disposal may cause short term ground pollution and minor health risk.    | Make use of local waste collectors to collect the used oil and filters.  | 9  |
|   |         | Employee sustaining burns while working on the TLB engine.                               | Allow the engine to cool down before maintenance work is carried out. Maintenance to be done by a competent person.  | 5  |
|   |         | Employee caught by rotating part of engine may cause serious injuries.                   | No work to be done on the TLB while the engine is still running.   | 9  |
|   |         | Employee coming in contact with battery acid may cause serious burns                     | Do not allow electrolyte to come in contact with the skin or eyes. Make use of the correct P.P.E when working with batteries.  | 9  |
|   |         | Fire or explosion occurring may cause serious injuries/fatalities and major plant damage | Remove all flammable materials such as fuel, oil and debris from the engine. Do not weld or flame cut any pipe or tank that contains any flammable fluids. Wiring must be kept in good order and no smoking or naked flames during refuelling. | 13 |
| 5 | General | Theft of batteries and fuel from the TLB.  | Security company to be employed and plant to be parked in a secure area.   | 6  |
|   |         | Theft of TLB.  | Security company to be employed and plant to be parked in a secure area.   | 10 |



## TELEPORTERS

**RA NO**

**DATE**

|                               |             |                             |
|-------------------------------|-------------|-----------------------------|
| <b>H.T.I Score</b>            | 6           | Low Risk-Regular Monitoring |
| <b>Contract</b>               |             |                             |
| <b>Persons involved in RA</b> | <b>Name</b> | <b>Signatures</b>           |
| Foreman                       |             |                             |
| Second Foreman                |             |                             |
| Safety Officer                |             |                             |
| Representative                |             |                             |
|                               |             |                             |

|                                       |                                   |  |
|---------------------------------------|-----------------------------------|--|
| <b>Documentation Required</b>         | <b>Training Required</b>          | <b>PPE and Safety Equipment Required</b> |
| OHS Act and Construction Regulations  | General induction - all employees | Overalls                                 |
| Appointment 6(1)                      | Toolbox talks                     | Safety Footwear                          |
| Appointments Plant/ Vehicle Operators | First Aider                       | Ear Protection                           |
| Appointment First Aider               | Operating Teleporter              | Eye Protection                           |
| Competency Operator                   |                                   | Hard Hat                                 |
| Competency First Aider                |                                   | Fire Extinguisher                        |
| Plant/ Vehicle registers              |                                   | First Aid Box                            |
| Load Test Certificate                 |                                   |  |
|                                       |                                   |  |

| <b>Activity Steps</b>       | <b>Hazards and Risks</b>   | <b>Preventative Measures</b>  | <b>Rating</b> |
|-----------------------------|--|---|---------------|
| 1 Starting up of teleporter | Employee injured by standing on, under or to close to the engine or wheels | All protective guards and covers must be in place before start of the engine. Teleporter to be operated by a trained and competent operator | 5             |
|                             | Operator injured while mounting or dismounting the teleporter              | Operator to mount and dismount teleporter only at locations that has steps and handrails.   | 5             |
|                             | Engine failure   | Engine to be started according to procedure. Maintenance schedule to be followed.   | 5             |
| 2 Operating teleporter      | Teleporter colliding into other plant or buildings                         | Teleporter to be operated by a trained and competent operator. Task to be supervised by a competent supervisor                              | 8             |



|  |  |   |  |   |
|--|--|---|--|---|
|  |  | Employee being run over by the teleporter | Teleporter to be operated by a trained and competent operator. Teleporter to be fitted with a reverse hooter. Other employees to keep clear of teleporter. | 8 |
|--|--|---|--|---|

|   |             |  |   |   |
|---|-------------|--|---|---|
|   |             | Teleporter dropping load                   | Teleporter to be operated by a trained and competent operator. Load to be properly secured. | 8 |
|   |             | Teleporter speeding                        | Teleporter to be operated by a trained and competent operator.                              | 8 |
| 3 | Maintenance | Hydraulic pipe bursting                    | Burst pipe to be repaired.  | 5 |
|   |             | Hydraulic oil being injected into employee | Make use of a board or cardboard when checking for leaks in the hydraulic pipes             | 8 |
|   |             | Hydraulic oil leaking                      | Leaks to be reported  | 5 |
|   |             | Disposal of used oils                      | Make use of local waste collectors to collect the used oil.                                 | 5 |
|   |             | Employee burnt while working on the engine | Allow the engine to cool down before working on it.   | 5 |



## TRUCKS- TIPPERS AND ADT'S

**RA NO**

**DATE**

|                               |             |  |
|-------------------------------|-------------|--|
| <b>H.T.I Score</b>            | 8           | Medium-Regular monitoring, Supervision |
| <b>Contract</b>               |             |  |
| <b>Persons involved in RA</b> | <b>Name</b> | <b>Signatures</b>                      |
| Foreman                       |             |  |
| Second Foreman                |             |  |
| Safety Officer                |             |  |
| Representative                |             |  |
|                               |             |  |

|                                       |                                   |  |
|---------------------------------------|-----------------------------------|--|
| <b>Documentation Required</b>         | <b>Training Required</b>          | <b>PPE and Safety Equipment Required</b> |
| OHS Act and Construction Regulations  | General induction - all employees | Ear protection                           |
| Appointment 6(1)                      | Environmental induction           | Safety Footwear                          |
| Appointments Plant/ Vehicle Operators | Toolbox talks                     | Fire Extinguisher fitted to Truck        |
| Appointment First Aider               | First Aider                       | Overalls                                 |
| Competency Operator                   | Operating Truck                   | Dust Mask                                |
| Competency First Aider                |                                   |  |
| Plant/ Vehicle registers              |                                   |  |
|                                       |                                   |  |
|                                       |                                   |  |

| <b>Activity Steps</b> |                       | <b>Hazards and Risks</b>  | <b>Preventative Measures</b>   | <b>Rating</b> |
|-----------------------|-----------------------|---|--|---------------|
| 1                     | Starting up of Truck. | Employee being injured by standing on, under or to close to the engine or wheels. | All protective guards and cover must be in place before start of the engine. The Truck must be operated by a competent and trained operator. | 9             |
|                       |                       | Operator being injured while mounting or dismounting the Truck.                   | Operator to mount and dismount the Truck only at locations that have steps and handholds.  | 5             |
|                       |                       | Engine failure  | Engine to be started according to procedure and maintenance schedule to be followed.   | 5             |
| 2                     | Operating Truck.      | Truck colliding into other plant or LDV   | Truck to be operated by a competent and trained operator. Operator to keep to the designated area of work.                                   | 9             |

|   |             |  |   |    |
|---|-------------|--|---|----|
|   |             | Employee being run over by Truck.                                  | Truck to be operated by a competent and trained operator. Employees to keep of the Truck during operations. Ensure that the operator has seen you before approaching. Truck to be fitted with a reverse hooter. | 13 |
|   |             | Truck overturning.   | Truck to be operated by a trained and competent operator, Truck to be operated at a safe angle, task to be supervised by a competent supervisor.  | 9  |
|   |             | Truck working in incorrect place.                                  | Task to be supervised by a competent supervisor.  | 5  |
|   |             | Truck operator exposed to noise                                    | Operator to make use of ear protection and take frequent brakes.  | 10 |
|   |             | Operator exposed to dust.  | Dust to be controlled.  | 13 |
|   |             | Truck driving into trench.   | Truck to be operated by a competent and trained operator. Task to be supervised by a competent supervisor.  | 9  |
| 3 | Maintenance | Hydraulic pipe bursting during operation.                          | Burst pipe to be replaced by workshop and maintenance schedule to be followed.  | 13 |
|   |             | Employee being injured while working on Truck.                     | Maintenance and repair work to be done by a competent person.   | 13 |
|   |             | Hydraulic oil being injected into employee while working on Truck. | Make use of a board or cardboard when checking for leaks in the hydraulic pipes.  | 9  |
|   |             | Hydraulic oil leaking.   | Leaks to be reported to the foreman and to be repaired by the workshop.   | 5  |
|   |             | Employee injured while changing the wheels on the Truck.           | Changing of the wheels to be performed by a competent person and the task to be supervised by a competent supervisor.   | 5  |
|   |             | Oil and filters disposal.  | Make use of local waste collectors to collect the used oil and filters.   | 9  |
|   |             | Employee sustaining burns while working on the Truck engine.       | Allow the engine to cool down before maintenance work is carried out.   | 3  |

|   |         |   |  |   |
|---|---------|---|--|---|
|   |         | Employee caught by rotating part of engine.   | Maintenance to be done by a competent person.No work to be done on the Truck while the engine is still running.  | 9 |
|   |         | Employee coming in contact with battery acid. | Do not allow electrolyte to come in contact with the skin or eyes.Make use of the correct P.P.E when working with batteries.   | 9 |
|   |         | Fire or explosion occurring.                  | Remove all flammable materials such as fuel, oil and debris from the engine. Do not weld or flame cut any pipe or tank that contains any flammable fluids. Wiring must be kept in good order and no smoking or naked flames during refuelling. | 9 |
| 4 | General | Theft of batteries and fuel from the Truck.   | Security company to be employed and plant to be parked in a secure area.   | 6 |
|   |         | Theft of Truck.                               | As per 4.1.  | 6 |



## TRAFFIC ACCOMMODATION

**RA NO**

**DATE**

|                               |             |                                |
|-------------------------------|-------------|--------------------------------|
| <b>H.T.I Score</b>            | 11          | High Risk-Constant Supervision |
| <b>Contract</b>               |             |                                |
| <b>Persons involved in RA</b> | <b>Name</b> | <b>Signatures</b>              |
| Foreman                       |             |                                |
| Second Foreman                |             |                                |
| Safety Officer                |             |                                |
| Representative                |             |                                |
|                               |             |                                |

|                                      |                                   |  |
|--------------------------------------|-----------------------------------|--|
| <b>Documentation Required</b>        | <b>Training Required</b>          | <b>PPE and Safety Equipment Required</b> |
| OHS Act and Construction Regulations | General induction - all employees | Overalls                                 |
| Appointment 6(1)                     | Toolbox talks                     | Safety Footwear                          |
| Appointment Traffic Safety Officer   | First Aider                       | Gloves                                   |
| Appointment First Aider              | Flag Persons                      | Reflective vests                         |
| Competency Operator                  |                                   | Dust masks                               |
| Competency Flag persons              |                                   | Appropriate signage on vehicles          |
| Traffic Safety Officer Report        |                                   | Amber rotating lights                    |
| SARTSM no 13                         |                                   |  |
| Emergency procedures                 |                                   |  |

| <b>Activity Steps</b> |   | <b>Hazards and Risks</b>   | <b>Preventative Measures</b>   | <b>Rating</b> |
|-----------------------|---|--|--|---------------|
| 1                     | Position Flag persons prior to erecting signage | If flag persons are not in place prior to placement of signage, traffic will not be aware of activities and may cause accidents leading to injuries, property damage and legal liability claims. | Positioning of signboards not to be commenced until flag persons are in a position to control oncoming traffic. Employees to be instructed by foreman, regarding the procedure | 11            |
|                       |   | Not knowing how to use flag and what to do perfectly and properly may cause accidents leading to injuries, property damage and legal liability claims.   | Only trained and competent flag persons to be used   | 11            |
|                       |   | Communication not up to standard may cause accidents leading to injuries, property damage and legal liability claims.  | Voice/ Gestures communication must be effective at all times. Foreman to instruct flag persons accordingly.  | 11            |

|   |                        |   |  |    |
|---|------------------------|---|--|----|
|   |                        | Poor communication due to distance between flag persons or radio interference from geological factors may cause accidents leading to injuries, property damage and legal liability claims.      | Lookout persons/ flag persons to be positioned at sufficient intervals between the flag persons in order to provide an effective line of communication. Foreman to instruct lookout person of what is expected of him and the importance thereof   | 11 |
|   |                        | Excessive dust may be created if operations are taking place on a gravel road.  | Flag Persons must be issued with and use dust masks. Speed limits to be imposed in operational areas of gravel roads. Speed humps (with relevant signage) to be introduced if necessary.   |    |
|   |                        | Flag persons abandoning post to go for lunch/ toilet etc may cause accidents leading to injuries, property damage and legal liability claims.   | Flag persons cannot leave their position or working area unless the foreman has instructed them to do so. Relief flag persons to be utilised. Foreman to instruct flag persons accordingly   | 11 |
| 2 | Positioning signboards | Hand injuries from sharp edges of signs or signs which have been heated by the sun.   | Employees positioning signs must wear gloves   | 5  |
|   |                        | Foot injuries should the sign fall on the employee's foot   | Employees positioning signs must wear safety boots   | 8  |
|   |                        | Not being visible. Motorist confusion may cause accidents leading to injuries, property damage and legal liability claims.  | Traffic maintenance vehicle to be fitted with amber rotating lights and clear, visible and correct signage on the back indicating that it is a traffic control vehicle and with chevrons/ arrows indicating the direction which passing motorists must take. Employees to wear reflective vests. | 11 |
|   |                        | Signage and cones which are dirty or have lost their reflective properties may not be seen by motorists and may lead to accidents causing injuries, property damage and legal liability claims. | Signage is to maintained in a good state of repair. It must be cleaned regularly. Uncleanable signage or cones must be taken out of service and replaced.  | 11 |

|   |                   |  |   |    |
|---|-------------------|--|---|----|
|   |                   | Uncovered permanent signage which conflicts with temporary signage may cause confusion for traffic leading to accidents, injury, property damage and legal liability claims.   | All permanent signage which conflicts with temporary signage is to be covered for the duration that the temporary signage is in force   | 11 |
|   |                   | Incorrect signage, incorrectly placed signage or insufficient signage may cause confusion for traffic leading to accidents, injury, property damage and legal liability claims.  | The South African Road traffic Signs Manual no 13 is to be consulted at all times and strictly adhered. Foreman to be instructed not to work without consulting it  | 11 |
| 3 | Stop/ Go Controls | Signs not positioned at correct distances may cause confusion for traffic leading to accidents, injury, property damage and legal liability claims.  | Point Zero and all other distances are to be marked on the road by the surveyor. Traffic Safety Officer to confirm works with foreman/ engineer prior to setting out signage. Foreman to be trained how to use No. 13 manual. Surveyor to check weekly. | 11 |
|   |                   | Employees not visible may lead to accidents causing injuries, property damage and legal liability claims.  | All employees are to wear reflective vests. Employees are to be instructed that they may not sit down in a position where they are not visible while manning controls. Employees are to be inducted in this procedure.                                  | 11 |
| 4 | Daily checks      | Excess persons in the area other than employees manning the stop/ go control and the required flag persons may confuse drivers and may lead to accidents causing injuries, property damage and legal liability claims. | Only Employees actually operating in the area may be there. Employees are to be inducted in this procedure.   | 11 |
|   |                   | Missing, damaged or dirty signage may cause confusion for traffic leading to accidents, injury, property damage and legal liability claims.  | Daily checks to see whether signs are still in place need to be done. Any missing signs are to be replaced immediately.   | 11 |
|   |                   | Signage which have been displaced may lead to accidents causing injuries, property damage and legal liability claims.  | Continual checks to be performed by management, Traffic Safety Officer and employees. Displaced signage must be replaced. Employees to be inducted accordingly.   | 11 |



|   |                 |  |   |    |
|---|-----------------|--|---|----|
| 5 | Records         | Signage and cones which have been blown over may lead to accidents causing injuries, property damage and legal liability claims.             | Sandbags must be of sufficient weight to support signage. Cone bases must in be in good condition.  | 11 |
|   |                 | Not recording daily inspections may lead to legal liability claims in the event of an accident.  | Daily checks must be fully recorded: date, time, chainage, types of signs, placement distances, condition of signage etc. all discrepancies are to be noted   | 11 |
|   |                 | Not addressing recorded discrepancies immediately may lead to accidents causing injuries, property damage and legal liability claims.        | Recorded discrepancies are to be discussed with the relevant employees and management and corrected without delay.  | 11 |
| 6 | Stockpile areas | Not investigating accidents thoroughly may lead to future legal liability claims.  | All accidents on site (whether as a result of construction activities or not) are to be investigated thoroughly. All evidence must be attached to report.   | 11 |
|   |                 | Heavy vehicle movement at, in and out of stockpile areas may lead to accidents causing injuries, property damage and legal liability claims. | There must be sufficient and correct signage positioned to warn motorists of heavy vehicle movement   | 11 |
| 7 | General         | Stockpiles encroaching or close to road surface may lead to accidents causing injuries, property damage and legal liability claims.          | Delineators are to be placed to indicate to direct traffic away from stockpiled material  | 11 |
|   |                 | Not having or knowing what the emergency procedures are. Delayed arrival of ambulance on site could cause injuries to be exacerbated or .    | Foreman and all employees to be conversant with emergency procedures to be followed should an accident occur.   | 11 |
|   |                 | Obstacles left on road after shift end may lead to accidents causing injuries, property damage and legal liability claims.                   | Traffic Safety Officer, Foreman, and employees manning traffic control vehicle are to ensure the roadway is free of signage, stock material, construction debris etc. All construction waste in the road reserve is to removed at shift end (no piles of asphalt waste are allowed) | 11 |

|  |  |   |   |    |
|--|--|---|---|----|
|  |  | Poor visibility of works at night may lead to accidents causing injuries, property damage and legal liability claims. | Lights to be displayed at night and placed and manned as required by the manual | 11 |
|--|--|---|---|----|



## USING LADDERS

RA NO

DATE

|                               |             |  |
|-------------------------------|-------------|--|
| <b>H.T.I Score</b>            |             | Medium-Regular Monitoring/ Supervision |
| <b>Contract</b>               |             |  |
| <b>Persons involved in RA</b> | <b>Name</b> | <b>Signatures</b>                      |
| Foreman                       |             |  |
| Second Foreman                |             |  |
| Safety Officer                |             |  |
| Representative                |             |  |

|                                      |                                   |  |
|--------------------------------------|-----------------------------------|--|
| <b>Documentation Required</b>        | <b>Training Required</b>          | <b>PPE and Safety Equipment Required</b> |
| OHS Act and Construction Regulations | General induction – all employees | Overalls                                 |
| Appointment 6(1)                     | Toolbox talks                     | Safety Footwear                          |
| Appointment Ladder Inspector         | First Aider                       | hard hat                                 |
| Appointment First Aider              |                                   |  |
| Ladder Register                      |                                   |  |
|                                      |                                   |  |
|                                      |                                   |  |
|                                      |                                   |  |

|   | <b>Activity Steps</b>                   | <b>Hazards and Risks</b>              | <b>Preventative Measures</b>                                   |  |
|---|---|---------------------------------------|--|--|
| 1 | Identify the need of the ladder         | Not using ladder could lead to a fall | Safety induction to all employees by the Principal Contractor. |  |
| 2 | Identify the correct type of ladder     | Incorrect type could lead to a fall   | Supervisor to instruct on correct type.                        |  |
|   |   | Ladder may be too short               | Supervisor to instruct on correct type.                        |  |
|   |   | Ladder may not be suitable            | Supervisor to instruct on correct type.                        |  |
| 3 | Collect ladder from stores or container | Employee may fall or hurt hands       | Employee induction & toolbox talk.                             |  |

|   |                                      |  |   |  |
|---|--------------------------------------|--|---|--|
|   |                                      | Ladder may be damaged causing injury     | Ladders - inspected monthly by Safety Representative. |  |
| 4 | Place ladder into position           | Ladder may slip from the top             | Secure ladder at the top.                             |  |
|   |                                      | Ladder may slip from the bottom          | Assistant to hold ladder at the bottom.               |  |
|   |                                      | Ladder may endanger other persons        | Check surrounding area - Safety Representative.       |  |
|   |                                      | Ladder may fall backwards                | Ladder to be placed at safe angle (67 degrees)        |  |
| 5 | User to climb up ladder              | User may fall off                        | User to use both hands                                |  |
|   |                                      | User may slip off rungs                  | User to watch rungs closely                           |  |
|   |                                      | Ladder may slip                          | Ladder to remain secured (rope or assistant)          |  |
| 6 | Work from ladder                     | User may fall off and get injured        | User to undergo toolbox - safety measures             |  |
|   |                                      | User may drop tools and equipment        | Tools not to be carried up ladder                     |  |
|   |                                      | Ladder may fall backwards                | User must not push against surface                    |  |
|   |                                      | User maybe afraid of heights             | User must inform supervisor                           |  |
|   |                                      | Ladder may effect other trades           | Ladder to be removed when finished                    |  |
| 7 | User to climb down ladder            | User may fall off                        | User to use both hands                                |  |
|   |                                      | User may slip off rungs                  | User to watch rungs closely                           |  |
|   |                                      | Ladder may slip                          | Ladder to remain secured (rope or assistant)          |  |
|   |                                      | Material may fall below                  | User to lower material before climbing down           |  |
| 8 | Ladder to be replaced back at stores | Manual handling injuries                 | General safety awareness                              |  |
|   |                                      | Ladder may fall                          | Care to be taken when un-securing ladder              |  |
|   |                                      | Damage to ladder                         | User to report damage to supervisor                   |  |
|   |                                      | Possible dirt, grease, slippery surfaces | User and store man to clean ladder                    |  |



## WACKER

**RA NO**

**DATE**

|                               |             |                   |
|-------------------------------|-------------|-------------------|
| <b>H.T.I Score</b>            | 7           |                   |
| <b>Contract</b>               |             |                   |
| <b>Persons involved in RA</b> | <b>Name</b> | <b>Signatures</b> |
| Foreman                       |             |                   |
| Second Foreman                |             |                   |
| Safety Officer                |             |                   |
| Representative                |             |                   |
|                               |             |                   |

|                                      |                                   |  |
|--------------------------------------|-----------------------------------|--|
| <b>Documentation Required</b>        | <b>Training Required</b>          | <b>PPE and Safety Equipment Required</b> |
| OHS Act and Construction Regulations | General induction - all employees | Overalls                                 |
| Appointment 6(1)                     | Toolbox talks                     | Safety Footwear                          |
| Appointment Supervisor of Machinery  | First Aider                       | Dust Masks                               |
| Appointment First Aider              | Operating Wacker                  | Eye Protection                           |
| Competency Operator                  |                                   | Gloves                                   |
| Competency First Aider               |                                   |  |
| Equipment registers                  |                                   |  |
|                                      |                                   |  |
|                                      |                                   |  |

| <b>Activity Steps</b> | <b>Hazards and Risks</b>                   | <b>Preventative Measures</b>   | <b>Rating</b> |
|-----------------------|--|--|---------------|
| 1 Issuing of P.P.E.   | Defective P.P.E issued may cause injuries. | All P.P.E to be SABS approved, supervisor to ensure that the correct P.P.E is issued to the employees.   | 5             |
|                       | P.P.E not on register.                     | All employees are to sign for the P.P.E issued to them, task to be supervised by a competent supervisor, site safety officer to do regular checks on the paper work to ensure that the employees are signing for the P.P.E issued to them. | 5             |

|   |                   |  |   |   |
|---|-------------------|--|---|---|
|   |                   | Theft of P.P.E.  | All P.P.E to be kept in a safe and secure place only one person to be in control of the issuing of the P.P.E, all employees to look after their own items which were issued to them.                                      | 5 |
|   |                   | Operator not trained to use wacker.  | Operator to be competent in the use of the wacker. Employee to be issued with steel toe cap safety boots. All injuries to be reported to the site safety officer. Task to be supervised by a competent supervisor.        | 8 |
|   |                   | Employee exposed to noise may cause hearing loss.                                  | Employee to make use of SABS approved hearing protection, supervisor to ensure that the correct P.P.E is used. Task to be supervised by a competent supervisor.   | 5 |
|   |                   | Vibrations of wacker causing trench to collapse may cause injuries and disability. | Daily excavation inspections to be done by the appointed responsible person. Task to be supervised by a competent supervisor.   | 8 |
| 2 | Pre-start check   | Mechanical failure can cause injuries or damage to property                        | Machine is to be checked prior to use, include all hose fittings, safety chains before use  | 8 |
| 3 | Operating wacker. | Employee over come by fumes may cause asphyxiation and disability.                 | Minimise the use of petrol and diesel driven machines excavations. Excavations to be well ventilated. Task to be supervised by a competent supervisor. Working in confined space procedure to be followed where required. | 8 |
|   |                   | Employee overcome with heat-stroke may cause injuries.                             | Drinking water to be supplied to the employees, task to be supervised by a competent supervisor.  | 8 |
|   |                   | Incompetent employee working with wacker may cause injuries and disability.        | Only trained and competent employees to work with any wacker. Task to be supervised by a competent supervisor.  | 8 |

|  |  |   |   |    |
|--|--|---|---|----|
|  |  | Employee affected by the vibrations of the wacker may cause injuries.             | Employees to make use of hand protection, task to be supervised by a competent supervisor. All injuries to be reported to the site safety officer. Long processes to be done in shifts of 30 minutes at a time.   | 5  |
|  |  | Other employees in excavation being injured.                                      | Excavations should be kept clear of any unnecessary employees and only the operator of the wacker to be present in excavation.  | 8  |
|  |  | Refuelling of wacker, may cause injuries, damage due to fire.                     | Wacker shall be switched off when refuelling takes place. There shall always be a fire extinguisher nearby in the excavation and the operator of the wacker shall know how to use the fire extinguisher.  | 8  |
|  |  | Moving forward and backward with a wacker may cause injuries and fatalities       | Employees must not walk in front of wacker when wacker is moving forward. The operator shall not walk with his back turned on the wacker. The operator shall walk next to the handle of the wacker with his hand on the controls of the wacker. The operator shall ensure that there are no trip and fall hazards in the work area and that he has a clear space to manoeuvre the wacker comfortably. | 11 |
|  |  | Dust can affect lung function   | Dust masks to be worn   | 8  |
|  |  | Noise can cause hearing loss  | Ear protection to be worn   | 8  |
|  |  | Vibration can cause numbness which can cause loss of control, leading to injuries | Employee to take sufficient breaks or extensive work to be performed by a relay of employees. Gloves to be worn   | 3  |



## WORKING AT ELEVATED POSITIONS

**RA NO**

**DATE**

|                               |             |                                 |
|-------------------------------|-------------|---------------------------------|
| <b>H.T.I Score</b>            | 11          | High risk- constant supervision |
| <b>Contract</b>               |             |                                 |
| <b>Persons involved in RA</b> | <b>Name</b> | <b>Signatures</b>               |
| Foreman                       |             |                                 |
| Second Foreman                |             |                                 |
| Safety Officer                |             |                                 |
| Representative                |             |                                 |
|                               |             |                                 |

|  |                                   |  |
|--|-----------------------------------|--|
| <b>Documentation Required</b>            | <b>Training Required</b>          | <b>PPE and Safety Equipment Required</b> |
| OHS Act and Construction Regulations     | General induction - all employees | Non-slip safety boots                    |
| Appointment 6(1)                         | Toolbox talks                     | Safety harnesses                         |
| Appointment Scaffolding Supervisor       | Fall Protection Plan              | Life lines                               |
| Scaffold Inspections                     | RA Working at elevated positions  | Barricading tape                         |
| Appointment Lifting Equipment Supervisor | Use of Harnesses                  |  |
| Lifting Tackle Inspection                |                                   |  |
| Ladder Inspector                         |                                   |  |
| Ladder Inspections                       |                                   |  |
|  |                                   |  |

| <b>Activity Steps</b> |        | <b>Hazards and Risks</b>  | <b>Preventative Measures</b>   | <b>Rating</b> |
|-----------------------|--------|---|--|---------------|
| 1                     | Access | Employees unable to maintain balance while climbing scaffolding can be injured                                    | Safe access is to be provided, employees must not use the scaffold structure to gain access and use it   | 11            |
| 2                     | Tools  | Employees unable to maintain a three point hold on access ladders may slip and fall resulting in serious injuries | Tools must not be carried in employees hands when they are using the access ladder. Tools must be carried in a tool bag or lifted using a tool bucket. | 11            |



|   |   |   |  |    |
|---|---|---|--|----|
| 3 | Scaffolding                                   | Serious injuries may occur if the scaffolding is not built according to standard            | Ensure that there are sufficient handrails at 900mm high and full floor boards. All openings must be barricaded and sign boarded. Scaffolding to be checked by the scaffolding supervisor. Only use scaffolding declared safe for use. | 8  |
| 4 | Training                                      | Employees who are unable to identify unsafe conditions may be injured                       | Employees to be trained in the site fall protection plan, accident procedure and evacuation procedure.   | 12 |
| 5 | Fall protection                               | Falling from an elevated position can cause serious or fatal injuries                       | Safety harnesses must be used at heights above 1,5m and ensure they are attached properly to a solid structure. If there is no place to hook a safety belt – a lifeline must be supplied.  | 11 |
| 6 | Housekeeping                                  | Tripping can cause the employee to fall from a height or a same level fall causing injuries | Practise good house keeping. Keep all work areas free of debris. Tools not to be left unattended. Material to be stacked neatly.   | 11 |
| 7 | Public and other employees below working area | Injuries from falling tools or materials  | Areas below elevated work area to be kept clear and clean and barricaded.  | 11 |
|   |   | Materials and debris being thrown off scaffolding can cause serious injuries                | Areas below elevated work area to be kept clear and clean and barricaded.  | 11 |



## WORKING ENVIRONMENT

**RA NO**

**DATE**

|                               |             |   |
|-------------------------------|-------------|---|
| <b>H.T.I Score</b>            | 8           | Medium, regular monitoring, supervision |
| <b>Contract</b>               |             |   |
| <b>Persons involved in RA</b> | <b>Name</b> | <b>Signatures</b>                       |
| Foreman                       |             |   |
| Second Foreman                |             |   |
| Safety Officer                |             |   |
| Representative                |             |   |
|                               |             |   |

|                                       |                                   |  |
|---------------------------------------|-----------------------------------|--|
| <b>Documentation Required</b>         | <b>Training Required</b>          | <b>PPE and Safety Equipment Required</b> |
| OHS Act and Construction Regulations  | General induction - all employees | Reflective vests                         |
| Appointment 6(1)                      | Environmental induction           | Safety Footwear                          |
| Appointments Plant/ Vehicle Operators | Toolbox talks                     | Dust Masks                               |
| Appointment First Aider               | First Aider                       | Eye Protection                           |
| Competency Operator                   | RA Training                       | Gloves                                   |
| Competency First Aider                | Flagmen                           |  |
| Plant/ Vehicle registers              |                                   |  |
| Appointment Hazchem Supervisor        |                                   |  |
|                                       |                                   |  |

| <b>Activity Steps</b> |                     | <b>Hazards and Risks</b>                                  | <b>Preventative Measures</b>   | <b>Rating</b> |
|-----------------------|---------------------|---|--|---------------|
| 1                     | Plant and machinery | Operator not aware of persons or other plant or machinery | Reflective vests to be worn by all employees   | 12            |
|                       |                     |   | Spotters to be used if workers are in close proximity to moving plant or machinery where operators have low visibility capabilities. | 12            |
|                       |                     | Employees not aware of plant or machinery movement        | All vehicles to be fitted with rotating amber lights and reverse warning hooters. Employees to be trained in respect of hazards      | 12            |
|                       |                     | Vibration<br>Noise<br>Dust                                | Operators must wear PPE where vibration, noise, dust hazards have been identified in separate RA's or PPE risk assessments.          | 6             |

|   |             |  |   |    |
|---|-------------|--|---|----|
|   |             | Hazardous materials                    | MSDS's to be available. First aiders to be aware of procedures in case of personal contamination. Employees to be trained with regard to hazards.   | 6  |
| 2 | Work areas  | Trip and fall hazards due to terrain   | Employees to be trained in respect of hazards   | 6  |
|   |             | Bees, snakes                           | Employees to be informed of emergency procedures  | 5  |
| 3 | Weather     | Wet conditions                         | Employees to be provided with rainsuits when working in inclement weather.  | 6  |
|   |             | Heat exposure                          | Employees to be aware of the dangers of heat exhaustion and to be informed to take in enough liquids.   | 9  |
|   |             | Lightning                              | Employees not to work in the open during thunderstorms. Employees to be familiar with emergency procedures.   | 5  |
| 4 | Traffic     | Lack of visibility to oncoming traffic | Reflective vests to be worn by all employees. Employees to be informed of dangers. All vehicles to be fitted with rotating amber lights and reverse warning hooters. Spotters to be used if workers are in close proximity to road used by traffic.                                 | 14 |
|   |             | Confusion of traffic                   | Sufficient and correct signage to be used to warn oncoming traffic of all hazards. Sufficient competent flagmen to be posted. Sufficient traffic cones to be used. Permanent signs which conflict with temporary signs are to be covered. Signage and cones to be clean and visible | 14 |
| 5 | Environment | Noise                                  | All work to be carried out during daylight hours.   | 10 |
|   |             | Dust                                   | Excessive dust to be controlled by water spray vehicles.  | 10 |
|   |             | Building waste                         | All building waste to be removed on the same day as it was created.   | 10 |

|  |  |                                  |   |   |
|--|--|----------------------------------|---|---|
|  |  | Hazardous materials and waste    | Hazardous waste must be removed or stored safely until removal.                                   | 5 |
|  |  | Spillages of hazardous materials | Spillages must be cleaned up.   | 5 |
|  |  | Littering                        | Sufficient waste bins to be provided in strategic positions on site. Bins to be emptied regularly | 5 |



## WORKING INSIDE EXCAVATIONS

**RA NO**

**DATE**

|                               |             |  |
|-------------------------------|-------------|--|
| <b>H.T.I Score</b>            | 7           | Medium-Regular Monitoring/ Supervision |
| <b>Contract</b>               |             |  |
| <b>Persons involved in RA</b> | <b>Name</b> | <b>Signatures</b>                      |
| Foreman                       |             |  |
| Second Foreman                |             |  |
| Safety Officer                |             |  |
| Representative                |             |  |
|                               |             |  |

|                                      |                                   |  |
|--------------------------------------|-----------------------------------|--|
| <b>Documentation Required</b>        | <b>Training Required</b>          | <b>PPE and Safety Equipment Required</b> |
| OHS Act and Construction Regulations | General induction – all employees | Overalls                                 |
| Appointment 6(1)                     | Toolbox talks                     | Safety Footwear                          |
| Appointment Excavation Supt          | First Aider                       | Dust Masks                               |
| Hand Tool Inspections                |                                   | Eye Protection                           |
| Excavation Inspections               |                                   | Gloves                                   |
| Competency First Aider               |                                   | Ladder                                   |
| Appointment Ladder Inspector         |                                   | Lifeline                                 |
| Ladder Register                      |                                   | Hard Hat                                 |
| PPE Register                         |                                   |  |

| <b>Activity Steps</b> |                 | <b>Hazards and Risks</b> | <b>Preventative Measures</b>   | <b>Rating</b> |
|-----------------------|-----------------|--------------------------|--|---------------|
| 1                     | Issuing of PPE. | Defective PPE issued.    | All PPE to be SABS approved, supervisor to ensure that the correct PPE is issued to the employees.   | 5             |
|                       |                 | PPE not on register.     | All employees are to sign for the PPE issued to them, task to be supervised by a competent supervisor, site safety officer to do regular checks on the paper work to ensure that the employees are signing for the PPE issued to them. | 5             |
|                       |                 | Theft of PPE.            | All PPE to be kept in a safe and secure place only one person to be in control of the issuing of the PPE, all employees to look after their own items which were issued to them.   | 5             |

|   |                                   |   |  |   |
|---|-----------------------------------|---|--|---|
| 2 | General activities in the trench. | Trench collapsing may result in injuries with disability.                 | Daily excavation inspections to be done by the appointed responsible person/supervisor. Task to be supervised by a competent supervisor. | 8 |
|   |                                   | No safe access in to the trench may result in injuries with disabilities. | Safe access to be provided in the form of a ladder or ramp. Task to be supervised by a competent supervisor.                             | 8 |

|  |  |  |   |   |
|--|--|--|---|---|
|  |  | Material or equipment falling onto employees may cause injuries with disability. | No material or equipment to be placed on the edge of the excavation. An area of 2 m is to be kept clear from the edge of the excavation. Task to be supervised by a competent supervisor. | 8 |
|  |  | Employee over come by fumes may cause asphyxiation with disability.              | Minimize the use of petrol and diesel driven machines in the excavations. Task to be supervised by a competent supervisor. Working in confined space procedure to be followed             | 8 |
|  |  | Employee overcome with heat-stroke may cause disability.                         | Water to be supplied to the employees, task to be supervised by a competent supervisor.   | 5 |



### PLANNED TASK OBSERVATION

DATE: \_\_\_\_\_ NAME: \_\_\_\_\_  
DEPARTMENT: \_\_\_\_\_ OCCUPATION: \_\_\_\_\_  
JOB OBSERVED: \_\_\_\_\_

| Time on this job | Notification    |     |    |  |  |
|------------------|-----------------|-----|----|--|--|
|                  |                 | Yes | No |  |  |
| Years            | Told in advance |     |    |  |  |
|                  | Not told        |     |    |  |  |
|                  |                 |     |    |  |  |

Is there a written standard procedure for this job? Yes ☐ No ☐  
Did you get understanding & acceptance from the worker on doing this work? Yes ☐ No ☐

Could acts / conditions observed lead to

|                          |                      |
|--------------------------|----------------------|
| <input type="checkbox"/> | Reduced productivity |
| <input type="checkbox"/> | Damage               |
| <input type="checkbox"/> | Injury               |

Loss potential

|                          |       |
|--------------------------|-------|
| <input type="checkbox"/> | Major |
| <input type="checkbox"/> | Minor |

|  |                              |                             |
|--|------------------------------|-----------------------------|
| 1 Are company Health & Safety rules complied with?           | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| 2 Is standard procedure for the job followed?                | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| 3 Is correct personal protective clothing used?              | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| 4 Is person physically fit for the job?                      | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| 5 Environmental conditions (is there gas, smoke, heat, etc)? | Yes <input type="checkbox"/> | No <input type="checkbox"/> |

Remarks

|  |
|--|
|  |
|  |
|  |
|  |
|  |
|  |


Suggested Remedies.

|  |  |
|--|--|
| Start procedure on this job.             |  |
| Revise present procedure.                |  |
| Different equipment - tools.             |  |
| Engineering revision.                    |  |
| Retraining.                              |  |
| Additional - better personal protection. |  |
| Placement of worker.                     |  |

Signature: Foreman: \_\_\_\_\_  
Superintendent: \_\_\_\_\_  
Manager/Engineer: \_\_\_\_\_

|                                |       |       |       |
|--------------------------------|-------|-------|-------|
| Observation conducted by:      | _____ | Date: | _____ |
| Reviewed with employee:        | _____ | Date: | _____ |
| Employee's signature:          | _____ | Date: | _____ |
| Reviewed by: Supt/Eng/Manager: | _____ | Date: | _____ |



|   |                                   |  |               |
|---|-----------------------------------|--|---------------|
|  |                                   |  | RA NO         |
|   |                                   |  | DATE          |
| H.T.I Score   |                                   |  |               |
| Contract  |                                   |  |               |
| Persons involved in RA  | Name                              | Signatures                               |               |
| Foreman   |                                   |  |               |
| Second Foreman  |                                   |  |               |
| Safety Officer  |                                   |  |               |
| Representative  |                                   |  |               |
|   |                                   |  |               |
| <b>Documentation Required</b>   | <b>Training Required</b>          | <b>PPE and Safety Equipment Required</b> |               |
| OHS Act and Construction Regulations  | General induction - all employees | Overalls                                 |               |
| Appointment 6(1)  | Toolbox talks                     | Safety Footwear                          |               |
| Appointments Plant/ Vehicle Operators   | First Aider                       | Dust Masks                               |               |
| Appointment First Aider   | Operating                         | Eye Protection                           |               |
| Competency Operator   |                                   | Gloves                                   |               |
| Competency First Aider  |                                   |  |               |
| Plant/ Vehicle registers  |                                   |  |               |
|   |                                   |  |               |
|   |                                   |  |               |
| <b>Activity Steps</b>   | <b>Hazards and Risks</b>          | <b>Preventative Measures</b>             | <b>Rating</b> |
|   |                                   |  |               |
|   |                                   |  |               |
|   |                                   |  |               |
|   |                                   |  |               |

[illegible]