

Introduction:

- This Baseline risk assessment is drafted on behalf of the client: **UP**
for the: **Post Office & Garden Service Building Upgrade Project**
- Project phases have taken into account all possible activities during each phase. These activities were rated as if there are no mitigating control measures in place to enable the generation of a risk profile for the project. The risk profile serves to enable the Contractor to prioritize risks and to draft their own Issue Based Risk Assessments in order to ensure adequate and effective control measures for all identified risks, taking into account the baseline risk rating. This is to ensure that each identified risk is prioritised according to the baseline risk rating.
- The Contractor is to ensure that any additional issue based risk assessments, required for activities covered in the baseline risk assessment in each phase, are addressed and effectively mitigated through rigorous control measures, taking into account the hierarchy of controls, and implementation of effective safe work procedures.
- All risk assessments and safe work procedures are to be communicated to the workforce and proof of such communication attached to each risk assessment.
- This baseline risk assessment may be revisited midway during the course of the project and the risk ratings amended according to the actual statistics for the site. After such review the Contractor shall review their issue based risk assessments where required and as identified by the amended baseline risk assessment.
- This Baseline Risk assessments does not alleviate the principal contractor of the duties imposed in terms of the Act or the regulations, specifically CR. 9

Project Baseline Risk Assessment



Project Detail Capture Form

Client and Project Details

| | |
|-------------------------------|---|
| Client: (Company Name) | <i>University Of Pretoria</i> |
| Principal Agent | N/A |
| Contact | N/A |
| Project Name: | Post Office & Garden Service Building Upgrade Project |
| Project Location: | Prospect and Festival St, Hatfield, Pretoria, 0028 |
| Email contact address: | N/A |

Project Details

| | |
|--------------------------------------|----------|
| Principal contractor/s: | TBC |
| Duration of Project: | 6 Months |
| Maximum contractors expected: | TBC |

Brief description of scope of work:

The proposed works generally involve the refurbishment of existing buildings to bring into compliance with current standards.

Project related Information

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|---|---|
| Size of project (Floor space m²): | Huis Herman (264 squares) Swot n Bietjie (280 Squares) |
| Hot/Cold site: | Hot/Cold |
| Number of storeys / Multi level: | Single |

Any specific hazards foreseen:

Structural instability, Electrical hazards, Falls from height, Trips and slips, Fire hazards, Manual handling injuries, NIHL, Public interference, traffic management, Roof work, demolition, sub-contractor management, hoarding

Project Baseline Risk Assessment

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| Probability Rating Factors | | | | | | |
|----------------------------|---|-------------|-----------|-----------|----------|----|
| No. | Frequency | | | | | |
| 5 | Common or daily | | | | | |
| 4 | Has happened OR Weekly | | | | | |
| 3 | Could Happen OR Monthly | | | | | |
| 2 | Not likely OR Once per year | | | | | |
| 1 | Practically impossible OR Once in ten years | | | | | |
| Consequence Rating Factors | | | | | | |
| No. | Safety | Health | Environ. | Financial | | |
| | | | | Equip. | Product. | |
| 5 | Fatality | Short | Long | > R1m | >1 shift | |
| 4 | Disability | Long | Short | >R300k | 4-8 hrs | |
| 3 | Lost Time | Temporary | Temporary | >R50k | 2-4 hrs | |
| 2 | Medical | Irritant | Low | <R50k | 1-2 hrs | |
| 1 | Minor | Minor | Minor | <R1000 | <1 hr | |
| Risk Matrix | | | | | | |
| Risk | | Probability | | | | |
| | | 1 | 2 | 3 | 4 | 5 |
| Consequence | 5 | 5 | 10 | 15 | 20 | 25 |
| | 4 | 4 | 8 | 12 | 16 | 20 |
| | 3 | 3 | 6 | 9 | 12 | 15 |
| | 2 | 2 | 4 | 6 | 8 | 10 |
| | 1 | 1 | 2 | 3 | 4 | 5 |

In order to assure that all consequences are treated as equally important, the risk rating is calculated using the highest consequence rating multiplied by the probability rating.

Risk Rating = (Max Consequence) x Probability

Project Baseline Risk Assessment

HEALTH, SAFETY & ENVIRONMENT BASELINE RISK ASSESSMENT



BASELINE SAFETY, HEALTH & ENVIRONMENTAL (SHE) ASSESSMENT FOR - Post Office & Garden Service Building Upgrade Project

| ACTIVITY | HAZARD / SOURCE | RISK | ASSESSMENT OF RISK | | |
|--|--|---|--------------------|--------|------|
| | | | LOW | MEDIUM | HIGH |
| Site establishment | Off-site transportation accidents | Project completion, disruption, fatalities and property damage | | | |
| | No notice of arrivals on-site | Delays, resulting with loss of production time | | 9 | |
| | Incorrect loading & off-loading | Injuries / Unsafe work practices | | 6 | |
| | Use of unsafe lifting equipment resulting to equipment failure | Death, injury and damage to property | | | 12 |
| | Unsafe stacking and storage practices | Damage to property, injury to people | 5 | | |
| | Conducting work activities on poor ground conditions | Damage to property, injury to people | 3 | | |
| | Hoarding and Barricading public access | Public Liability | | | 12 |
| | Speeding and movement of vehicles on poor ground conditions | Damage to property, injury to people | | 8 | |
| | Vehicles in substandard conditions | Property damage, damage to surroundings and personnel injuries | | | 12 |
| | Unsafe/Unsecured storage of equipment and materials | Property damage, disruption | | 6 | |
| | Provision of inadequate/substandard ablution facilities and disposal of sewerage | Spillages, unhygienic conditions resulting in disease | 5 | | |
| | Provision of inadequate facilities (sheltered eating areas, lockers, etc.) | Poor facility management | | 6 | |
| | Disposal of cleared vegetation, rocks, boulders, etc. | Environmental degradation | 3 | | |
| Boundary & Access Control / Public Liability Exposure | Unauthorized access to construction site (Staff, tenants, students) | Fatality, Injury to people | | | 20 |
| | Unaccompanied visitors/persons moving on construction site | Fatality, Injury to people | | | 16 |
| | | | | | |
| Excavations Trenching & Working in Trenches | Employees not visible to operators/moving machinery | Accidents resulting in death or injury | | | 16 |
| | Excavations conducted without supervision of competent person | Injury to people, damage to property | | 10 | |
| | Inadequate shoring or bracing of excavation works | Sliding of ground resulting in death or injury | | | 15 |
| | Unsafe usage of hand tools (picks, shovels) when conducting excavation work | Injury to other workers as a result of overcrowding | | 6 | |
| | Access in and out of trenches not provided with ladders, etc. | Escape routes not available in the event of an emergency | | 10 | |
| | Presence of overhanging rocks or poor soil conditions | Collapsing of walls, falling objects resulting in injury to people | | | 12 |
| | Presence and/or operation of vibrating machinery close to trenches | Collapsing of walls resulting in injury to people | | 9 | |
| | Overcrowding of workers in trenches | Injury to other workers as a result of overcrowding | | 8 | |
| | Excavations not adequately barricaded | Employees falling and vehicles driving into excavations resulting in injury or damage to property | | 8 | |
| | Failure to comply with SHE specifications | Damage to property and rework | | 6 | |
| | Handling, Placing and lifting/ lowering Heavy concrete storm water pipe. | Injury to people, damage to property | | 10 | |
| | Confined space | Inundation, Fatality | | | 16 |
| | Spoil and back fill ground. | Injury to workers. Slipping and Falling | 4 | | |
| | Slippery, uneven surfaces and tripping hazards | Injury to workers. Slipping and Falling | 5 | | |
| Nuclear testing of compaction by Troxler | Radiation | | | | |

Project Baseline Risk Assessment

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|---|---|---|---|----|----|
| | Inadequate barricading of excavations, unauthorized access to excavations | Injury to people | | 8 | |
| Backfilling in Trenches | Wearing of inadequate and incorrect PPE during operations | Injury to people | 4 | | |
| | Collapsing of trenches during backfilling operations | Death, falling, injury to people | | | 16 |
| | Trenches not cleared and unmanned before backfilling commences | Death, injury to people as a result of being buried | | | 20 |
| | Presence and/or operation of vibrating machinery close to trenches | Collapsing of walls resulting in injury to people | | 8 | |
| | Presence of overhanging rocks or poor soil conditions | Collapsing of walls, falling objects resulting in injury to people | | 8 | |
| | Access in and out of trenches not provided with ladders, etc. | Escape routes not available in the event of an emergency | | 6 | |
| | Hand tools damaged, splintered, unmaintained and not inspected | Injury to hands, e.g. splinters and body as a result of damaged hand tools | 5 | | |
| | Overcrowding of workers in trenches | Injury to other workers as a result of overcrowding | | 6 | |
| | Employee census not conducted when working in trenches | Not extracting buried persons in time due to not knowing where they worked. | | | 16 |
| Steel reinforcing | Protruding reinforcing blocking walkways | Injuries to people | | 6 | |
| | Sharp edges and cutting ends. | Injury to people | | 8 | |
| | Unsafe stacking and storage practices of steel | Damage to property, injury to people | | 6 | |
| | Incorrect loading & off-loading by untrained personnel | Injuries to people | | 9 | |
| Concreting - Placing and Pumping | No or incorrect PPE use | Foreign body in eyes | | 6 | |
| | Concrete spills due to poor housekeeping practices | Injuries to personnel and environmental pollution | 5 | | |
| | Incorrect handling of concrete bucket | Injuries to hands | | 10 | |
| | High Pressure Pumping columns | High Pressure injuries, damage | | 10 | |
| | Incorrect handling of concrete chute, Pump nozzle hose. | Severe injuries to hands | | 10 | |
| Use of electricity | Lock-out procedure not followed resulting in electrocution | Fatalities, serious injuries | | | 20 |
| | Test equipment not available, faulty testing equipment, failure to test for zero energy | Fatalities, serious injuries | | | 20 |
| Scaffolding Erecting, Dismantling and the access thereof | Scaffolding collapsing are a result of inadequate design/erection | Fatalities, serious injuries and damage to property | | | 20 |
| | Using substandard scaffolding and untrained personnel falling from heights | Fatalities and damage to property | | | 20 |
| | Unskilled erectors, inspectors and supervisors. Lack of planning. | Fatalities, serious injuries and damage to property | | | 15 |
| | Faulty, damaged and poor quality form work material | Fatalities, serious injuries and damage to property | | | 15 |
| | Unsafe inadequate access. | Fatalities, serious injuries and damage to property | | | 15 |
| | Equipment, material falling from scaffolds | Fatalities, serious injuries and damage to property | | | 16 |
| | Inadequate/ unsafe edge protection | Fatalities, serious injuries and damage to property | | | 20 |
| | Inadequate safety signs and notices | Injuries and damage to property | | 10 | |

Project Baseline Risk Assessment

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|--|---|--|---|----|----|
| Dealing with and identification of existing services | Major power/water services failure | Loss of production time | | | 15 |
| | Unidentified existing infrastructure | Injuries and damage to property | | 10 | |
| | Bursting pipe | Flooding | | 10 | |
| | Electrical cables | Electrocutions, Power outage, Public interference, | | | 15 |
| | Subsiding surfaces | Injury to people and damage to property | | 8 | |
| Work in the vicinity of neighbouring buildings and structures | Damage to surrounding property as a result of construction activities | Injury to people and damage to property | | 8 | |
| | Ecological disturbance as a result of dust and other Total Solid Particle emissions depositing on adjacent properties | Air & Soil pollution | | 6 | |
| | Noise pollution as a result of construction activities | Noise pollution | | 6 | |
| | Contaminated storm-water runoff from site onto adjacent properties | Surface water and soil pollution | | 6 | |
| | Asbestos fibres | Exposure, illness and civil lawsuits | | | 12 |
| | Dumping of wastes and other materials on surrounding land uses. Visual disturbances. | Waste generation & disposal | 5 | | |
| | Uncontrolled access of other parties to construction premises | Injury to people | | 10 | |
| Movement of and working with construction vehicles | Usage of unsafe, unmaintained vehicles | Injury to people, damage to property | | 9 | |
| | Pedestrian accidents and collisions of vehicles | Injury to people, damage to property | | 9 | |
| | Plant colliding into co workers working on site | Injury to employees, damage to plant | | | 12 |
| | Speeding of construction vehicles on site | Injury to people, damage to property | | 10 | |
| | Passengers falling from truck | Injury to people | | 9 | |
| | Driving for prolonged hours (10 hours) | Injury to people, damage to property as a result of falling a sleep | | | 15 |
| | Unauthorized driving / operating of vehicles | Accidents, collisions, injury to people, damage to property | | 10 | |
| | Unskilled/ trained operators | Accidents, collisions, injury to people, damage to property | | 10 | |
| | Overloading of vehicles | Accidents, collisions, injury to people, damage to property | | 8 | |
| Confined spaces | Permit to work is not issued before commencement of activity | Injury to people | | | 16 |
| | Activity is not conducted under supervision of competent person | Injury to people | | | 15 |
| | Lock-out system is not in place and controlled | Injury to people | | | |
| | Air quality is not tested before entering confined space | Injury to people | | | 16 |
| | Inadequate ventilation conditions | Injury to people | | | 12 |
| | Inadequate artificial illumination | Injury to people | | | |
| | Breathing apparatus is not maintained, in good working order and correctly used | Injury to people | | | 15 |
| | "Buddy-system" is not implemented when necessary | Injury to people | | | 12 |
| | Confined space is not certified to be safe before entering | Injury to people | | | 15 |
| Confined space is not evacuated on completion of work activities | Injury to people | | | 16 | |
| Accommodation of traffic | Regulating/Warning of traffic in poor visibility conditions | Fatality, injury to people due to accidents as a result of poor visibility conditions | | | 15 |
| | Workers walking to construction site across public areas, roads and parking areas. | Fatality, injury to people due to poor visibility of workers for traffic | | | 15 |
| | Traffic signs and notice boards unclear and not visible to oncoming traffic | Accidents as a result of poor visibility of traffic safety signs | | 10 | |
| | Placement of traffic signs only after flagmen are in position to control oncoming traffic | Accidents as a result of poor warning systems to oncoming traffic | | 10 | |
| | No flagging as a result of flagmen leaving their post | Accidents as a result of oncoming traffic approach to fast as a result of poor warning systems | | | 12 |
| | Poor communication and warning system between flagmen and workers | Accidents as a result of unexpected traffic due to poor communications | | 10 | |
| | Insufficient space demarcated for workers to perform functions | Accidents, injury to people due to workers performing activities too close to moving traffic | | 6 | |

Project Baseline Risk Assessment

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|----------------------------------|--|--|---|----|----|
| | Uncontrolled flying objects e.g. stones, rocks from road surface due to moving traffic | Injury to people as a result of uncontrolled flying and/or moving objectives from road surface | 5 | | |
| | Vehicles running out of control | Deaths, injury to people, damage to property | | | 15 |
| | Warning systems not clearly visible and not functioning during evenings | Accidents due to poorly visible and lit warning systems during evenings | | 6 | |
| | Petrol/Diesel fume emissions from vehicles | Prolonged exposure to petrol and diesel fumes resulting in breathing and/or lung problems | 5 | | |
| Fuel storage & supply | Fuelling of engines while running | Sparks, explosion causing injury to people | | 9 | |
| | Spillages of fuel during refuelling operations | Environmental pollution | | 6 | |
| | Smoking or fires during refuelling operations or at fuel storage tanks | Open flames, explosion causing injury to people & damage to property | | 10 | |
| | Fuel storage tanks not properly earthed | Lightning, electricity, sparks, explosions | | 9 | |
| | Inadequate containment space within bund wall | Environmental pollution | | 6 | |

Project Baseline Risk Assessment

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|---|---|---|---|----|----|
| Health hazards Hazardous Chemicals Hydro Carbons Paints, thinners etc. | Exposure to insects, bees, snakes, rats etc. | Bites, stings, etc. | | 10 | |
| | Exposure to gases and fumes in working environment | Inhalation resulting in breathing problems | | 6 | |
| | Exposure to extreme temperatures in working environment | Dehydration, cold | | 8 | |
| | Exposure to noise | Noise induced hearing loss | | 10 | |
| | Exposure to dust and total solid particles | Inhalation resulting in breathing problems | 5 | | |
| | Exposure to vapours or explosions | Inhalation resulting in breathing problems. Explosions resulting in death, injury to people & excessive damage to Property. | | 10 | |
| | Exposure to vibration | Injury to people | | 10 | |
| | Ergonomic hazards from manual handling & mechanical operations | Back strains, backaches, spasms, etc. | | 8 | |
| | Exposure to sewage | Contracting Hepatitis | | | 12 |
| | | | | | |
| Night work Brickwork and Plastering | Inadequate illumination to perform work activities | Injury to people, damage to property | | 6 | |
| | Fatigue | Injury to people, damage to property | | 6 | |
| | Lack of supervision | Injury to people, damage to property | | 8 | |
| | Security | Security uncontrolled access. Theft, Sabotage, Damage to property. Personal injury. Liability claims | | 8 | |
| | Use of faulty or damaged hand tools when mixing mortar | Cutting, bruising, injury to people. Skin disorders, dermatitis and allergies | 5 | | |
| | Unsafe stacking practices of brick | Collapsing of stacks resulting in damage to property and injury to people | 5 | | |
| | Falling windows, frames and other objects | Injury to people | | 8 | |
| | Usage of angle grinder / brick cutter for cutting of bricks | Injury to people due to failure in equipment or exposure to electrical current | | | 12 |
| | Climbing onto and working from scaffolding | Falling, injury to people as a result of working from height | | | 15 |
| | Falling bricks, mortar and hand tools from scaffolds, platforms. | Injury to people | | 10 | |
| | Dust emissions from cutting of bricks | Air pollution | 5 | | |
| | Consumption of electricity as energy source for portable electrical equipment | Depletion / Use of natural resources | 3 | | |
| | Removal of rubble from area. Housekeeping and cleaning | Waste generation & disposal | 5 | | |
| | Spillages from cement and other materials | Soil pollution, wasted material. | 4 | | |
| | | | | | |
| Use of hand tools | Use of substandard/broken hand tools | Injuries and damage to property | | 8 | |
| | Misuse of hand tools by untrained personnel | Injuries and damage to property | | 6 | |
| | Tools falling from heights as a result of not being adequately secured | Injuries and damage to property | | | 12 |
| | | | | | |
| Temporary works | Form work and support work not according to specification, including unsafe access, open edges and unsafe edge protection | Fatalities and property damage, Falling from heights | | | 15 |
| | Collapsing of structures | Fatalities and property damage | | | 12 |
| | Unsafe / inadequate design. | Fatalities and property damage | | | 12 |
| | Unskilled erectors, inspectors. Lack of planning. | Fatalities and property damage | | | 15 |
| | Faulty, damaged and poor quality form work material | Fatalities and property damage | | | 15 |
| | Equipment falling from heights as a result of not being adequately secured | Injuries and damage to property and falling from heights | | | 16 |
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Project Baseline Risk Assessment

Emergencies Fire fighting and Fire prevention

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|--|--|---|----|----|
| Inadequate fire fighting equipment provided of suitable capacity and located at suitable locations | Fires burning out of control resulting in injury to people and/or damage to property | | 8 | |
| Fire fighting equipment not maintained and serviced | Death and/or injury to people due to failure of fire fighting equipment | | 9 | |
| Fire fighting equipment not accessible and unobstructed | Death and/or injury to people due to inaccessibility of fire fighting equipment | | 9 | |
| Application of incorrect type of fire fighting equipment on various type of fires | Electrocution, increased spreading of fires, explosions, etc. | | | 12 |
| Inadequate symbolic safety signs and notices indicating location of fire fighting equipment | Death and/or injury to people due to inaccessibility of fire fighting equipment | | 6 | |
| Misuse or damaging of fire fighting equipment by employees | Death and/or injury to people due to failure of fire fighting equipment | | 6 | |
| Emergency exists not kept clear, unobstructed and able to open in an emergency situation | Death and/or injury to people due to blocking of escape routes | | 10 | |
| Emergency alarm system not present and in operation | Death and/or injury to people as a result of poor warning system | | 9 | |
| Fire team members untrained, unfamiliar with emergency procedures and alert | Slow response from fire fighting team resulting in deaths, injury to people and excessive damage to property | | 9 | |
| Entering buildings, etc. with diminishing structural integrity | Failure in structural integrity resulting in injury to people | | 9 | |
| Excessive smoke emissions from fires | Smoke inhalation resulting in suffocation | | | 12 |
| Excessive smoke emissions from fires | Air pollution | | 6 | |
| Excessive heat emissions from fires | Death, burns, injury to people & damage to property | | | 12 |
| Disposal of waste, ash and coal after fire is extinguished | Waste generation & disposal | 5 | | |
| Usage of water from hydrant during fire fighting operations | Depletion / Use of natural resources | 3 | | |
| Contaminated water runoff from emergency scene | Surface water & soil pollution | 3 | | |
| Fire fighting done without or with incorrect PPE | Death, burns, injury to people | | 8 | |
| Stress, trauma during fire fighting operations | Psychological effect on fire fighters, e.g. depression | | 8 | |
| Explosion of combustible or flammable materials during emergency situations | Explosions, deaths, injury to people & excessive damage to property | | | 15 |
| Smoking and burning cigarette butts on site | Starting of fires as a result of poor smoking management | 5 | | |
| Inadequate emergency exits and passageways to ensure safe egress from buildings and structures | Death and/or injury to people due to inadequate emergency exits and passageways | | 10 | |

Project Baseline Risk Assessment

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|---|--|--|---|----|----|
| Work in elevated positions | Overcrowding of assembly points | Falling, tripping, panic due to overcrowding of assembly points | 5 | | |
| | Hysteria due to panic state during fire emergency situation as a result of lack of emergency drills | Long-term psychological effects on employees, e.g.. depression, fear as a result of emergency situation | | 6 | |
| | Unsafe access resulting in personnel falling from heights | Fatalities and property damage | | | 20 |
| | No fall protection plan | Non Conformance. Legal action. | | 9 | |
| Operation of Mobile cranes and use of Ancillary lifting tackle. | Personnel falling from heights due to opening in floors, edges. Unsafe barriers, barricading and edge protection | Fatalities and property damage | | | 16 |
| | Inadequate emergency , recovery plan. | Fatalities and property damage | | | 15 |
| | Personnel not using safety equipment (Untrained, poor quality, wrong application, negligent, fall arrest equipment, not inspected) | Fatalities and property damage | | | 15 |
| | Mobile cranes and ancillary lifting tackle damaged, unmaintained & not adhering to legal requirements | Injuries to people, damage to property, productivity and financial loss | | 9 | |
| | Mobile cranes operated on unstable/ uncompacted soil or foundation. No geo science study. | Toppling of crane resulting in injury to people and damage to property | | | 20 |
| | Movement of people under suspended loads or during crane operations | Dropping of load on pedestrian traffic resulting in injury to people and/or death | | | 15 |
| | Crane and ancillary lifting tackle left unattended while in operation | Dropping of load, clutch failure resulting in injury to people and damage to property | | | 16 |
| | Lifting of unstable, excessive weight, lengths and shapes loads. (Concrete beams) | Falling loads resulting in injury to people and damage to raw materials | | | 20 |
| | Lifting of loads other than in skip boxes | Falling loads resulting in injury to people and damage to raw materials | | | 20 |
| | Crane hooks not correctly assembled and provide with safety clips | Falling of loads due to slipping of sling, unhooking resulting in injury to people and damage to raw materials | | | 20 |
| | Crane operations under extreme wind conditions . Wind speed limit must not exceed client specifications. | Extreme wind conditions causing loads to swing resulting in injury to people, struck against structure, equipment, objects. | | | 16 |
| | Inadequate safety signs with regard to maximum safe working load displayed | Overloading of sling resulting in snapping or collapsing of crane | | | 20 |
| | Lifting loads with mobile crane in proximity of structures, power lines, buildings etc. | Loads hitting structure resulting in failure of structural integrity and injury to people | | | 16 |
| | Crane operations conducted in inadequate lighting conditions (poor illumination) | Injury to people and damage to property due to poor lighting conditions | | | 16 |
| | Crane operated without assistance of competent, appointed, designated bandsman or rigger | Confusion / disorientation / miss communication (understanding) of crane operator due to multiple persons giving instructions, resulting in falling loads. | | 8 | |
| | Crane operations conducted close to scaffolding, support work, decking, shutters and other structures | Loads hitting structure resulting in failure of structural integrity and injury to people | | | 16 |
| | Consumption of diesel for energy purposes | Depletion / Use of natural resources | | 10 | |
| | Diesel fume emissions | Air pollution | | 10 | |
| | Smoke emissions from diesel engine | Air pollution | | 10 | |
| | Oil and grease spillages from crane and equipment on unlined soil | Soil pollution | | 9 | |
| Entering and exiting crane cabin | Repetitive strain of back muscles resulting in permanent injury | | 8 | | |
| Blinding | Hazardous Chemicals | Air pollution, Injury to persons, occupational diseases, skin disorders (dermatitis) | | | 15 |
| | Inadequate or no PPE used | Foreign body in eye | | 10 | |
| Installation & maintenance of temporary construction electrical supply, lighting and equipment | Conducting of unauthorized electrical work | Electrocution and burn | | 8 | |
| | Appropriate circuit breakers and electrical supply not switched off | Electrocution and burns | | | 12 |
| | Unsafe cabling and electrical supply system, earth leakages inadequate | Electrocution, disruption in electrical supply, fire, etc. | | 10 | |
| Staff, Students, Tenants exposure Surrounding property exposures | Damage to surrounding property as a result of construction activities | Injury to people and damage to property | | 10 | |
| | Ecological disturbance as a result of dust and other Total Solid Particle emissions depositing on adjacent properties | Air & Soil pollution | 4 | | |

Project Baseline Risk Assessment

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|--|---|---|--|----|----|
| Loading & Off-loading of trucks materials delivery | Noise pollution as a result of construction activities | Noise pollution | 5 | | |
| | Contaminated storm-water runoff from site onto adjacent properties | Surface water and soil pollution | 5 | | |
| | Dumping of wastes and other materials on surrounding land uses | Waste generation & disposal | 5 | | |
| | Exposure to construction activities | Legal action against company | | | 16 |
| | Asbestos fibres | Exposure, illness, and civil lawsuits | | | 12 |
| | Movement of vehicles and pedestrians on construction site | Accidents, injury to people as a result of moving traffic onsite | | 10 | |
| | Inadequate directional and traffic signs | Accidents, injury to people and damage to property as a result of inadequate directional and traffic signs | | 6 | |
| | Inadequate warning systems in place when reversing and off-loading | Accidents, injury to people and damage to property as a result of poor warning systems | | 9 | |
| | Collision with skips and other equipment | Injury to people, damage to property | | 8 | |
| | Load throws as a result of poor driving | Injury to people, damage to property and loss of raw materials | 5 | | |
| | Load throws as a result of poor road conditions | Injury to people, damage to property and loss of raw materials | 5 | | |
| | Unsafe Stacking and Storage | Accidents, injury to people and damage to property as a result of poor stacking and storage discipline systems | | 6 | |
| | Spillages from materials | Waste generation & disposal | 5 | | |
| Use of portable electrical equipment: Electrical drilling machine, angle grinder, skill saw etc. | Portable electrical equipment damaged or electrical wiring exposed | Injury to people due to failure in portable electrical equipment | | 9 | |
| | Plug and electrical cord damaged, uncovered or incorrectly wired | Electrical shock | | 9 | |
| | Connecting portable electrical equipment to electricity supply while switched on | Uncontrolled operation of portable electrical equipment resulting in injury to people and/or damage to property | | 6 | |
| | Consumption of electricity for energy purposes | Depletion / Use of natural resources | 4 | | |
| | Operating portable electrical equipment close to water or other conducting environments | Electrical shock from electrical current | | 9 | |
| | Usage of wrong drill bits for the type of material to be drilled | Breaking of drill bits resulting in uncontrolled flying objects resulting in injury to people and/or damage to property | | 6 | |
| | Long extension cords lying around operator while using portable electrical equipment | Cluttered working environment causing tripping or falling | 5 | | |
| | Dust and other solid particles emitted/flying into surrounding atmosphere | Inhalation of excessive dust, particle emissions by operator | | 6 | |
| | Noise generated by drilling operations | Excessive noise emissions resulting in decline of hearing ability (Noise induced hearing loss) | | 9 | |
| | Operator operating portable electrical equipment without or with wrong PPE. | Injury to eyes, hands and feet | | 9 | |
| | Drilling in hard to reach (narrow, high) places requiring crouching or stretching | Excessive repetitive crouching and stretching resulting in permanent back muscle injury | | 8 | |
| | Flammable liquid, oil & paint storage areas | Inadequate access control into flammable storage areas | Fire risk, injury to people & damage to property | | 6 |
| Storage and transportation of flammable/hazardous chemicals & products | | Fire risk, injury to people & damage to property | | 8 | |
| Accumulation of waste and debris in areas | | Waste generation & disposal | 4 | | |
| Provision of inadequate ventilation system | | Fire risk, injury to people & damage to property | | 9 | |
| Inadequate Symbolic safety signs & notices | | Ensure adequate symbolic safety signs & notices are displayed | | 8 | |
| Fire fighting equipment, systems, etc. not inspected and maintained | | Fire fighting equipment, systems, etc. not inspected and maintained | | 10 | |
| Spillages from paints, chemicals & wastes | | Surface water pollution | | 8 | |
| Chemical gas and fume emissions from chemicals, oils & paints | | Injury to people | | 8 | |
| Incorrect usage of Personal Protective Equipment. No MSDS. | | Injury to people | | 9 | |
| Poor housekeeping practices in area | | Fire risk, injury to people & damage to property | | 6 | |
| No provision made to prevent any means of fire, flame or naked light or anything which may generate static electricity or anything which may ignite a flammable liquid or its vapour, to be used or taken into such room | | Fire risk, injury to people & damage to property | | 10 | |

Project Baseline Risk Assessment

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|--|--|--|--|----|----|
| | No prevention of smoking in areas where flammable liquids are stored | Fire risk, injury to people & damage to property | | 9 | |
| | No provision made for the prevention of the accumulation of combustible materials | Fire risk, injury to people & damage to property | | 8 | |
| | All containers and drums containing flammable liquids are not tightly sealed when not in use | Fire risk, injury to people & damage to property | | 6 | |
| | | | | | |
| Welding operations | Operating of welding machinery by untrained personnel | Injury to people, damage to property | | 6 | |
| | Welding machinery not inspected and maintained | Injury to people, damage to property | | 8 | |
| | Operator not in visual contact with welding equipment at all times | Electrocution, fire, injury to people & damage to property | | 9 | |
| | Usage of unapproved/insulated welding cables | Burns, injury to people | | 10 | |
| | Welding machinery not earthed | Shocks | | | 12 |
| | Welding area not secured and well ventilated | Exposure to gases and fumes, exposure to other workers resulting in injuries | | 9 | |
| | No use or use of inadequate/wrong PPE | Injury to people | | 6 | |
| | Welding machinery not manned while in operation | Explosions, deaths, injury to people & excessive damage to property | | 8 | |
| | | | | | |
| Lifting equipment. | Failure in lifting equipment due to poor maintenance and inspections | Failure in equipment resulting in injury to people and damage to property | | | 16 |
| | Wrong lifting equipment used | Injury to people, damage to property | | 8 | |
| | Rigger not competent | Injury to people, damage to property | | 10 | |
| | Not wearing correct P PE | Injury to people. | | 6 | |
| Deliver, Off load, Installation and moving of Geo membranes on site | Un roadworthy delivery vehicle | Injury to people, damage to property | | 8 | |
| | No Induction | Injury to people | | 10 | |
| | No Proper P PE | Injury to people | | 6 | |
| | Wrong lifting equipment used | Damage to property, injury to people | | 8 | |
| | Wrong stacking of material | Damage to property, injury to people | | 8 | |
| | Wrong roll out method | Injury to people | | 10 | |
| | Cut membrane to suit shape | Injury to people, damage to property | | 6 | |
| | Dragged or crimped membrane during operations | Damage to property, injury to people | | 10 | |
| | Work area not fenced in | Injury to people | | 9 | |
| | Weld overlap membranes | Injury to people | | 10 | |
| | No QC samples of welding | Poor quality, cost implications | | 9 | |
| | Sowing membrane together with defective sowing machine | Injury to people | | 9 | |
| | Defective electrical cables | Electrocution | | | 20 |
| | Needles of sowing attachment | Injury to people | | 9 | |
| | Stanley knife | Cuts, injury to people | | 8 | |
| | | | | | |
| Surveying | Wrong Co-ordinates | Cost implications | | 5 | |
| | Equipment not calibrated | Cost implications | | 5 | |
| | Not wearing proper P PE | Injury to people | | 8 | |
| | Run over by vehicles or plant | Fatality, injury to people | | | 16 |
| | Slip, trip and fall (uneven surfaces) and holes in tall grass. | Injury to people | | 10 | |
| | Snakes, Spiders etc. In tall grass. | Fatality, injury to people | | 10 | |
| | Asst. knocking peg in ground with large hammer | Injury to people | | 5 | |
| | Standing in sun | Sun burn | | 6 | |
| | Drop surveying equipment | Damage to equipment | | 6 | |
| | Tri - Pod falling over | Damage to equipment | | 2 | |
| | Pegs not barricaded or marked | Injury to people | | 5 | |
| | | | | | |
| Fabricate and modifying | Nip points. | Injury to people | | 5 | |

Project Baseline Risk Assessment

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|---|--|--|---|----|----|
| pipng | Incorrect and unsafe material handling. | Damage to property, injuries to people | | 6 | |
| | Poor communication. | Damage to property, injuries to people | 5 | | |
| | Restricted access. | Damage to property, injuries to people | | 8 | |
| | Substandard house keeping, tripping and slipping hazard. | Injury to people | 5 | | |
| | Unsafe stacking of material. | Injury to people | 5 | | |
| | No pipe supports (Trestles) | Damage to property, injuries to people | | 6 | |
| | | | | | |
| Welding of pipes. | Manhandling equipment and material. | Injury to people | | 6 | |
| | Defective machines | Damage to property, injury to people | | 8 | |
| | No safe weld fitted. | Injury to people | | 10 | |
| | Defective cables. | Injury to people | | 9 | |
| | Incompetent employees | Damage to property, injury to people | | 9 | |
| | Not wearing proper P PE. | Injury to people | | 8 | |
| | | | | | |
| Use of angle grinders. | Inadequate inspection on grinder. | Damage to equipment, injury to people | | 10 | |
| | Incompetent employee | Damage to equipment, injury to people | | | 12 |
| | Incorrect disc | Injury to people | | | 15 |
| | Defective or inadequate tools / guards. | Injury to people | | | 15 |
| | No dead man switch | Injury to people | | 10 | |
| | Not wearing proper PPE. | Injury to people | | 10 | |
| | No screens. | Radiation | | 9 | |
| | Electric cables not routed correctly. | Injury to people | | 8 | |
| | Sub-standard working conditions - Wet, slippery, windy, dusty work conditions. | Injury to people | | 9 | |
| | Poor lighting. | Injury to people | | 6 | |
| | | | | | |
| Thread cutting machine (Rigid machine) | No proper P PE | Injury to people | | 6 | |
| | Incompetent operator | Injury to people | | 8 | |
| | No dead man switch fitted | Injury to people | | 8 | |
| | No drip tray | Environmental | | 6 | |
| | Sharp edges and shavings | Injury to people | | 8 | |
| | Sub-standard equipment | Injury to people | | 6 | |
| | Rotating parts | Injury to people | | 10 | |
| | | | | | |
| Rigging and lifting of steel work, piping etc. | Task area not barricaded (Unauthorized persons in task area). | Injury to people | | 10 | |
| | Overhead lifting. | Injury to people | | 10 | |
| | No guide ropes. | Damage to property, injury to people | | 8 | |
| | Sub - standard working conditions - Wet, slippery, windy, dusty work conditions. | Damage to property, injury to people | | 8 | |
| | Poor lighting. | Damage to property, injury to people | | 6 | |
| | Rigger not competent. | Damage to property, injury to people | | 10 | |
| | Wrong or defective rigging equipment used. (Not inspected and on register) | Damage to property, injury to people | | | 12 |
| | | | | | |
| Install piping | Unsafe material handling practices. | Damage to property, injury to people | | 6 | |
| | Nip points | Injury to people | 5 | | |
| | Poor communication between workers. | Damage to property, injury to people | | 8 | |
| | Pipes falling from position (not secured) | Damage to property, injury to people | | 9 | |
| | Overhead work | Damage to property, injury to people | | 9 | |
| | Substandard, incorrect and faulty lifting tackle and equipment. | Damage to property, injury to people | | 10 | |
| | Incorrect use of lifting tackle and equipment | Damage to property, injury to people | | 10 | |
| | Incompetent people performing task | Damage to property, injury to people | | 8 | |
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Project Baseline Risk Assessment

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| | Unsafe lifting practices. | Damage to property, injury to people | | 10 | |
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Project Baseline Risk Assessment

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| Tie into existing services | No permit to work | Damage to property, injury to people | | 10 | |
| | No lock out procedures followed | Damage to property, injury to people | | | 12 |
| | Unsafe material handling practices | Damage to property, injury to people | | 6 | |
| | Nip Points | Injury to people | | 6 | |
| | Poor communication between workers. | Damage to property, injury to people | | 8 | |
| | Pipes falling from position (not secured) | Damage to property, injury to people | | 9 | |
| | Contaminating liquid leaks out of existing (old) services Lines not perched | Injury to people, environmental | | 8 | |
| | Tie in into wrong services | Damage to property, injury to people | | 8 | |
| | Not wearing proper P PE | Injury to people | | 6 | |
| Management of change: Engineering process, Operating and design, Quality, Operating personnel, External personnel, Regulations, Standards, COP's, Organizational structures, Suppliers, Community, Client/users or Other. | Not informing relevant people of any changes on project. | Damage to property, injuries to people and fatalities | | | 16 |
| Water Management | Incompetent person to identify potential drowning areas (No Plan) | Drowning | | 10 | |
| | Working in water without assistance | Drowning | | 8 | |
| | People working in water that can not swim | Drowning | | | 15 |
| | Slip, trip and fall on slippery surfaces when working in or near water | Drowning | | 6 | |
| | Confined spaces containing water | Drowning | | | 15 |
| | Vehicle accidents into water | Drowning | | 8 | |
| | No life savings equipment, life jackets etc. | Drowning | | 9 | |
| | Wrong PPE | Drowning | | 10 | |
| | Storms, floods | Drowning | | 10 | |
| | Mud/Slurry | Suffocate | | 8 | |
| | In rushes | Drowning, Suffocate | | 10 | |
| | Electricity | Electrocution | | | 15 |
| | | | | | |
| | | | | | |
| Demolition | Incompetent workers | Fatalities, injuries to people | | | 20 |
| | Sub-standard equipment | Fatalities, injuries to people | | | 15 |
| | Working at heights | Fatalities, injuries to people | | | 15 |
| | No barriers to keep unauthorized people out | Fatalities, injuries to people | | 10 | |
| | No signs | Fatalities, injuries to people | | | 12 |
| | No permit to work | Fatalities, injuries to people | | 10 | |
| | No method statement | Fatalities, injuries to people | | | 15 |
| | Not checking the structural integrity at intervals | Fatalities, injuries to people | | | 16 |
| | Floor, roof and other parts of structure is overload with debris or material | Collapse, Fatalities, injuries to people | | | 16 |
| | No adequate shoring or such other means to prevent the collapse of adjoining structure | Collapse, Fatalities, injuries to people | | | 16 |
| | Services not isolated | Fatalities, injuries to people | | | 20 |
| | Substandard chutes for removing debris or material from floor level to ground level | Collapse, Fatalities, injuries to people | | 10 | |

Project Baseline Risk Assessment

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| Roof work, repairs and alterations | No permit to work | Fall from height, Fatal | | | 12 | |
| | Incompetent workers and roof erectors | Fall from height, Fatal | | | 15 | |
| | No safe access and egress | Fall from height, Fatal | | | 16 | |
| | Not checking roof structural integrity | Fall from height, Fatal | | | 20 | |
| | No installation of static lines, engineered anchorage points and handrails | Fall from height, Fatal | | | 20 | |
| | Environmental conditions at the work site, rain, wind, lightning, gas, dust, housekeeping etc. | Slip and fall, Fatal | | 10 | | |
| | Distance to walk to or work near an unprotected edge | Fall from height, Fatal | | | 16 | |
| | No emergency response and rescue capabilities | Fatalities | | | 16 | |
| | No barriers and signs to control access | Fall from height, Fatal | | | 16 | |
| | Sheeting not secured to stop them falling | Blown off, injury to people | | | 16 | |
| | Tools not secured to structure or hand | Fall from height, Fatal, injury to people | | | 12 | |
| | Failure to verify the structural integrity of certain section of the roof including the underside for hazards such as brittle, unstable roof material, poor condition of roof trusses | Fall from height, Fatal, injury to people | | | 15 | |
| | Unintentional roof collapse | Fall from height, Fatal, injury to people | | | 12 | |
| | Roof work risk assessment not undertaken | Fall from height, Fatal, injury to people | | | 20 | |
| | Loose roof tiles | Fall from height, Fatal, injury to people | | | 16 | |
| | Fragile roof sections not clearly identified and no warning signage displayed | Fall from height, Fatal, injury to people | | | 16 | |
| | No secure walkways made available on high pitch roofs where the slope exceeds 1:6 | Fall from height, Fatal, injury to people | | | 15 | |
| | Temporary roof access not available or roof ladders for steep roofs in excess of 35 degrees | Fall from height, Fatal, injury to people | | | 12 | |
| | Incorrect methods of lowering material, equipment and roofing material | Fall from height, Fatal, injury to people | | 10 | | |
| | Area below not demarcated and enclosed with fencing | Fall from height, Fatal, injury to people | | | 20 | |
| | Close proximity to electrical power lines | Fall from height, Fatal, injury to people | | | 12 | |
| | Members of the public, neighbouring properties, tenants and parents not notified of roofing activities | Fall from height, Fatal, injury to people | | 10 | | |
| | Traffic management plan not implemented in proximity to roofing activities | Fall from height, Fatal, injury to people | | 10 | | |
| | | | | | | |
| Pressure vessels / Compressors | Incompetent workers | Injury to people | | 10 | | |
| | Not wearing proper P PE | Injury to people | | 10 | | |
| | No valid test certificate | Explosion, Fatalities | | 10 | | |
| | Max pressure not marked on gauge | Explosion, Fatalities | | | 15 | |
| | Hoses/Pipes in poor condition | Burst, injury to people | | 8 | | |
| | No fire extinguisher | Fire, injury to people | | 8 | | |
| | Substandard equipment | Injury to people | | 8 | | |
| | Vibration | Injury to people | 5 | | | |
| | Ergonomics / wrong body position | Injury to people | | 6 | | |
| | Noise | Possible deaf | | 8 | | |
| | No per-use inspection | Injury to people | | | 12 | |
| | No whiplash slings attached to hoses | Injury to people | | | | |
| | Cherry Picker | Incompetent operator | Damage to property, injuries to people and fatalities | | | 15 |
| | | Maximum mass load exceeded | Damage to property, injuries to people and fatalities | | | 16 |
| No inspections | | Damage to property, injuries to people and fatalities | | 10 | | |
| Ground conditions poor | | Damage to property, injuries to people and fatalities | | 10 | | |
| Not wearing proper P PE | | Injuries to people | | 10 | | |
| Loose tools and equipment on platform | | Injuries to people | | 10 | | |
| No dead man switch | | Damage to property, injuries to people and fatalities | | 10 | | |
| Not considering headroom space when working in building or under structure | | Damage to property, injuries to people and fatalities | | | 15 | |

Project Baseline Risk Assessment

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|---|--|--|---|----|----|
| | Work area not barricaded | Injuries to people | | | 12 |
| | Not isolated after completion of shift | Damage to property, injuries to people and fatalities | | | 12 |
| Teleporter | Oil diesel spillages | Environmental | 5 | | |
| | No proper P PE | Injuries to people | | 6 | |
| | Incompetent operator | Damage to property, injuries to people and fatalities | | | 12 |
| | Maximum mass load exceeded | Damage to property, injuries to people and fatalities | | | 12 |
| | No pre-inspections | Damage to property, injuries to people and fatalities | | | 12 |
| | Poor ground conditions | Damage to property, injuries to people and fatalities | | 10 | |
| | Not considering pedestrians in vicinity | Injuries to people and fatalities | | | 15 |
| | Not considering headroom space when working in building or under structure | Damage to property, injuries to people and fatalities | | | 15 |
| | Not isolated after completion of shift | Damage to property, injuries to people and fatalities | | | 12 |
| | Left engine running while unattended | Damage to property, injuries to people and fatalities | | | 12 |
| | | | | | |
| Install glass | Incompetent people | Injury to people | | 10 | |
| | Breaking glass | Injury to people | | 8 | |
| | Falling material | Injury to people | | | 12 |
| | Unsecured material | Injury to people | | | 12 |
| | Poor housekeeping | Injury to people | | 6 | |
| | | | | | |
| Contractor interface | No communication | Damage to property, injuries to people and fatalities | | 6 | |
| | Overhead work | Damage to property, injuries to people and fatalities | | 6 | |
| | No safety documentation submitted for approval prior to work commencing | Injury to people | | 10 | |
| | Lifting and slewing | Damage to property, injuries to people and fatalities | | | 12 |
| | Portable electric equipment | Electrocution | | | 12 |
| | No handover and acceptance documentation in place | Damage to property, injuries to people and fatalities | | 6 | |
| | | | | | |
| Post-Tensioning and Pre-Stressing | Incompetent people | Injury to people | | | |
| | Sub-standard crane | Damage to property, injuries to people and fatalities | | | |
| | Substandard lifting equipment | Damage to property, injuries to people and fatalities | | | |
| | Poor ground conditions | Damage to property, injuries to people and fatalities | | | |
| | No proper P PE | Injury to people | | | |
| | Defective equipment (Jacks) | Damage to property, injuries to people and fatalities | | | |
| | Wedges not positioned the correct way around | Damage to property, injuries to people and fatalities | | | |
| | Unauthorized people in vicinity during tensioning/stressing operation | Damage to property, injuries to people and fatalities | | | |
| | Sudden release of cables | Damage to property, injuries to people and fatalities | | | |
| | | | | | |
| Premix - Chip and spray | Not wearing proper P PE | Burns | | | |
| | Fumes | Inhaling fumes | | | |
| | Contact with burners and tack coat | Burns | | | |
| | Run over by vehicle | Fatality | | | |
| | Entering area between the two units of plant may be struck down and run over | Fatality | | | |
| | Moving parts not guarded | Injury to people | | | |
| | Hot material | Burns | | | |
| | Incompetent workers | Injury to people | | | |
| | | | | | |
| Transporting of employees with company vehicles i.e. Buses and LDV's | Unroadworthy vehicle | Damage to property, injuries to people and multiple fatalities | | 10 | |
| | Driver driving under the influence | Damage to property, injuries to people and multiple fatalities | | 10 | |
| | Driver driving negligently | Damage to property, injuries to people and multiple fatalities | | 10 | |
| | Driver speeding | Damage to property, injuries to people and multiple fatalities | | 10 | |

Project Baseline Risk Assessment

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|--|--|---|--|----|----|
| | Accident with third party | Damage to property, injuries to people and multiple fatalities | | 10 | |
| | Unauthorized use of vehicle | Damage to property, injuries to people and multiple fatalities | | 10 | |
| | Driver fatigue | Damage to property, injuries to people and multiple fatalities | | | |
| | | | | | |
| Stacking & Storage of materials | Base is not level and not capable of sustaining the weight exerted on it by the load | Unbalanced materials could fall onto employees | | 6 | |
| | Pallets and containers are in a poor condition that the weight of the load is exerted on | Unbalanced and materials stacked to high could fall onto employees | | 6 | |
| | Employees climbing onto an unstable stack | Employees falling from heights and incurring serious injuries | | 10 | |
| | Stacks that are in danger of collapsing are not dismantled immediately | Unbalanced and materials stacked to high could fall onto employees | | 10 | |
| | Stacks are placed in the direct travel path of vehicles and plant and are not placed within a demarcated area | Damage to property, injuries to people and fatalities | | 8 | |
| | The height of the stack exceeds three times the width of the base | Loads falling over and falling onto employees, serious injuries and fatalities | | 10 | |
| | | | | | |
| Use of step ladders and extension ladders | Ladders not constructed of sound material and not suitable for the purpose it is to be used | Serious injuries to people and fatalities | | 10 | |
| | Ladders are not lashed, held or secured whilst being used to ensure the stability of the ladder | Serious injuries to people and fatalities | | 10 | |
| | Ladders not fitted with non skid devices at the bottom ends and hooks at the upper ends | Serious injuries to people and fatalities | | 8 | |
| | Utilizing ladders in excess of 9 meters which is leaned against a structure or object | Serious injuries to people and fatalities | | | 12 |
| | Wooden ladders are painted, obscuring possible defects and damage | Serious injuries to people and fatalities | | 8 | |
| | A ladder in excess of 5 meters is set up against a vertical structure with an inclination to the horizontal level of 75 degrees has its rungs placed less than 150mm away from the structure | Serious injuries to people and fatalities | | | 12 |
| | Does not protrude 900 mm above a landing and is not suitably fixed to ensure stability | Serious injuries to people and fatalities | | 10 | |
| Flame Cutting | Unauthorized, incompetent employee conducting flame cutting | Employees may be seriously injured by conducting work they have no knowledge and experience of – property damage and fatalities Sparks may cause burns and injury to employees | | 10 | |
| | No flash back arrestors fitted to torches and cylinders ends | Fire and possible explosion resulting in serious injuries, property damage and fatalities | | | 15 |
| | | | | | |
| | Cylinder valve left open after work activity is completed | Leakage of gas, build up of gas fumes resulting in fire and explosion | | | 15 |
| | Working at heights and above other employees | Serious injuries, property damage and fatalities | | | 16 |
| | Inadequate ventilation and working in confined spaces | Build up of gas fumes resulting in fire and explosion. Serious injuries, property damage and fatalities | | | 20 |
| | Hoses are exposed to unnecessary damage and abuse | Leakage of gas, build up of gas fumes resulting in fire and explosion. Serious injuries, property damage and fatalities | | 10 | |
| | No Fire extinguisher available during cutting operation | Fires raging out of control resulting in serious injuries, property damage and fatalities | | 10 | |
| | Cutting in sealed containers and vessels under pressure | Explosions causing serious injuries, property damage and fatalities | | | 20 |
| | User of equipment not wearing requisite PPE | Burns and serious injuries to the user | | 8 | |
| | Different gas cylinders stored together | Fire and explosion, property damage, serious disabling injuries and potential fatalities | | | 15 |
| | Cylinders stored in a horizontal position on the ground | Leak of gas causing fires, explosions causing serious injuries, property damage and fatalities | | | 12 |
| | Persons smoking in close proximity to working operations | Property damage, serious disabling injuries and potential fatalities | | 10 | |
| | No pre inspection conducted on gas cutting equipment | Property damage, serious disabling injuries and potential fatalities | | 10 | |

Project Baseline Risk Assessment

| Temporary Work | | | | | |
|----------------|---|--|--|--|----|
| | Temporary work design not available and designer not appointed | Serious injuries to people, fatalities and property damage | | | 12 |
| | Temporary work not constructed in accordance with design | Serious injuries to people, fatalities and property damage | | | 12 |
| | Temporary structures not inspected by a competent person, immediately before, during and after the placement of concrete, after inclement weather or any other imposed load | Serious injuries to people, fatalities and property damage | | | 16 |
| | Casting concrete or removing temporary work support without written authorisation | Serious injuries to people, fatalities and property damage | | | 16 |
| | Damaged temporary work components | Serious injuries to people, fatalities and property damage | | | 12 |
| | Unstable foundations, not suitable to withstand loads | Serious injuries to people, fatalities and property damage | | | 16 |
| | Temporary work supervisor and inspector not appointed | Serious injuries to people, fatalities and property damage | | | 12 |
| | | | | | |

Project Baseline Risk Assessment

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|---|--|---|--|----|----|
| Exposure to SARS-CoV-2/HBA | SARS-CoV-2/HBA risk assessment not available and implemented | Serious illness, fatalities, work stoppages and widespread infection and transmission | | | 15 |
| | No SARS-CoV-2/HBA management plan which addresses limiting infection and transmission in the workplace | Serious illness, fatalities, work stoppages and widespread infection and transmission | | 10 | |
| | Non reporting of symptoms by employees diagnosed with SARS-CoV-2 | Serious illness, fatalities, work stoppages and widespread infection and transmission | | | 15 |
| | Lack of issue, use and enforcement of SARS-CoV-2 personal protective equipment | Serious illness, fatalities, work stoppages and widespread infection and transmission | | | 12 |
| | Inadequate ventilation made available in enclosed areas | Serious illness, fatalities, work stoppages and widespread infection and transmission | | 10 | |
| | Inadequate social distancing measures implemented in the workplace, lack of staggered working hours, shift and remote working arrangements (not limited to eating areas, welfare facilities, vehicles and meeting rooms). | Serious illness, fatalities, work stoppages and widespread infection and transmission | | | 12 |
| | Inadequate sanitizing arrangements and cleaning arrangements of surfaces (not limited to eating areas, welfare facilities, vehicles and meeting rooms). | Serious illness, fatalities, work stoppages and widespread infection and transmission | | 10 | |
| | Employees not made aware of the SARS-CoV-2 regulation, dangers related to SARS-CoV-2, manner of transmission, personal hygiene, social distancing measures, use of personal protective equipment, cough etiquette, symptoms, benefits of the vaccine and its possible side effects | Serious illness, fatalities, work stoppages and widespread infection and transmission | | 10 | |
| Lifting and Rigging | Use of defective and inappropriate lifting equipment | Serious injuries to people, fatalities and property damage | | | 16 |
| | Inadequate training of operator and rigging personnel | Serious injuries to people, fatalities and property damage | | | 16 |
| | Overloading - Exceeding the safe working load | Serious injuries to people, fatalities and property damage | | | 20 |
| | Mechanical failure of rigging equipment and machine | Serious injuries to people, fatalities and property damage | | | 20 |
| | Poor ground and soil conditions | Serious injuries to people, fatalities and property damage | | | 15 |
| | Adverse weather impacting lifting operations | Serious injuries to people, fatalities and property damage | | | 15 |
| | Incomplete or inaccurate documentation i.e. lifting and rigging plan | | | | |
| | Incorrect load calculation and uneven weight distribution | Serious injuries to people, fatalities and property damage | | | 16 |
| Exposure to Hazardous Biological Agent | Exposure to Hazardous Biological Agents through inhalation, contact, absorption i.e.: Sewerage from pipelines and drains | Occupational illness and diseases i.e. Hepatitis A & B, spreading of viruses and bacteria, potential fatality and compensation claims | | 10 | |
| | No Hepatitis A/B vaccine administered for employees | Occupational illness and diseases i.e. hepatitis A & B, spreading of viruses and bacteria and potential fatality | | 10 | |