



Site Specific Health and Safety Specification in terms of 2014  
Construction Regulations 5.1(b)

Document Title	HSS 40.10.22 Site Specific Health and Safety Specification
Client	eThekwini Municipality Road Provision
Project Name	Peter Road - Gravel to Surface - Ward 37, Phase 1
Contract Number	1R-22030
Revision	n/a
Date	12/10/2022
Compiled by:	Name: Siziwe Chiliza  signature
Approved BY:	Name: Arty Zondi signature 

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## 1. PROJECT DESCRIPTION AND SITE ACCESS

- The site is located within Ward 37, Off Inanda Road, Springfield Flats

This contract entails the realignment and widening of portion of Peter Road. Peter Road is currently highly commercialised and industrialised with numerous businesses in operation along the road length. A number of illegal operations are occupying the road reserve at numerous locations. The **Transnet / Sasol Pipeline** runs along Peter Road within close proximity to the works. No work on the pipeline is envisaged however there may be restrictions put into place when working near the infrastructure. Numerous other critical services traverse the site. Contractor shall exercise reasonable skill and care when working in the vicinity and providing existing services.

## 2. LIMITATIONS OF LIABILITY

The Principal Contractor shall enter into a Mandatory Agreement with the Client, as defined in Section 37(2) of the Occupational Health and Safety ACT.

The Principal Contractor shall ensure that each contractor appointed by the principal Contractor and each sub-contractor appointed by a contractor also into a Mandatory Agreement with the Principal Contractor, as defined in Section 37(2) of the Occupational Health and Safety ACT. These agreements shall be included in the Principal Contractor's H&S File on site and be valid for the duration of the contractors' work on the construction site.

## 3. PURPOSE OF THE CONSTRUCTION SPECIFICATION

This document defines the minimum management requirement that is to be implemented by the Principal Contractor/ Contractor for the management of Health and Safety on any eThekweni Municipality project.

The aim of this document is to present the health and safety aspects that need to be controlled and managed on the project.

This Health and Safety specification identifies and encompasses the working behaviors and safe work practices that are expected of all employees, Vendors and Contractors, Sub-Contractors and Visitors, engaged on construction site.

Providing a guideline to comply with best Health & Safety practices and the Occupational Health and Safety Act 85/1993 as amended, including reference to applicable legislative requirement.

## 4. PROJECT HEALTH AND SAFETY COST

The Client must ensure that potential Principal Contractor submitting tenders have made adequate provision for the cost of health and safety measures.

The Principal Contractor shall allow in their cost provision for complying with the requirements of this Construction Health and Safety Specification; resources for the following Health and Safety controls shall be in place.

NO.	H&S cost item	Description
1.	Construction Health and Safety Officer	A part-time Construction health and safety officer is required to ensure that the health and safety plan is implemented on site.
2	Medical certificate of fitness	Medical examination of all employees and certification of fitness by an Occupational Medicine Practitioner
3	Personal Protective Equipment	Personal Protective Equipment to be provided as per risk exposure, including but not limited to hands protection, and face protection
4	Public protection	To reduce risk exposure to the employees and members of the public
5	Employee facilities	Drinking water, ablution toilet etc..
6	Trainings and competency	Electrician, Risk assessor, Incident Investigator and Firefighter, first aider, Fall protection
7	Safety file	Full completed with all documents
8	Health and safety signage	All signatures must be displayed

## 5. SCOPE OF WORK

The cooperation with other service providers is required and interaction with them will need to take place. Construction of retaining walls (of standard and special dimensions) / brick walls / Loffelstein walls and ancillary works, shoring / embankment protection, associated traffic accommodation, temporary new jersey barriers, temporary and permanent works, relocation, lowering of services, imported fill, removal of trees and shrubs, new stormwater and associated manholes, abandoning or repair of existing stormwater / sewer, clearing and cleaning of existing manholes and pipes by jetting, road layer works, Graded G4 crushed stone with asphalt surfacing, kerbing and haunching, asphalt sidewalk construction, access construction, minor road rehabilitation, brick paved / G-Block or industrial standard scoops and sidewalks , lane marking, premarking temporary and permanent. The works also include for the as built preparation and submission. Access to all businesses must be maintained at all times.

## 6. COMPENSATION FOR OCCUPATIONAL INJURIES AND DISEASES ACT

The Principal Contractor, each contractor and each sub-contractor shall submit proof of

Good Standing with CODA Commissioner or a Mutual Association licensed in terms of

Section 30 of COIDA, prior to starting any work on site. A copy of the Letter of Good Standing with COIDA Commissioner must be included in the H&S Plan of each contractor working on the site and must remain updated for the duration of the construction work.

## 7. NOTIFICATION OF CONSTRUCTION WORK

The Principal Contractor must at least 7 days before that work is to be carried out notify the provincial director in writing in a form similar to Annexure 2 if the intended construction work will—

Include excavation work.

Include working at a height where there is risk of falling.

Include the demolition of a structure; or

Include the use of explosives to perform construction work.

A contractor who intends to carry out construction work that involves construction of a single-story dwelling for a client who is going to reside in such dwelling upon completion, must at least 7 days before that work is to be carried out notify the provincial director in writing in a form similar to Annexure

## 8. MANAGEMENT AND SUPERVISION OF CONSTRUCTION WORK

During the submission of your health and safety file for approval, please ensure that at least the following appointments are submitted with the file:

- Construction manager CR8(1)
- Construction work supervisor CR8(7)
- Construction health and safety officer CR8(5) — part-time
- Risk assessor CR9(1)
- Incident investigator GAR9(2)
- Electrical installation controller EIR5(4) and proof of registration with DOL as an electrical installer or contractor • Fall protection planner

### 8.1 Construction Manager

The Principal Contractor shall appoint in writing a full-time competent person as the construction manager with the duty of managing all construction on the site including the duty of ensuring occupational health and safety compliance. The Construction Manager must demonstrate competency in relation to work being performed and the ability to manage construction work which may include making all statutory appointments in terms of health and safety.

### 8.2 Construction health and safety officer

The Principal Contractor shall appoint a part-time competent Construction Health and Safety Officer for the construction work, with at least 1 years in the construction industry as a construction health and safety officer.

### 8.3 Construction supervisor

A Construction Manager must in writing appoint construction supervisors responsible for construction activities and ensuring occupational health and safety compliance on the construction site. A contractor must, upon having considered the size of the project, in writing appoint one or more competent employees for different sections thereof to assist the construction supervisor contemplated in sub regulation (7), and every such employee has, to the extent clearly defined by the contractor in the letter of appointment, the same duties as the construction supervisor: Provided that the designation of any such employee does not relieve the construction supervisor of any personal accountability for failing in his or her supervisory duties in terms of this Regulation.

## 9. PRINCIPAL CONTRACTOR'S HEALTH AND SAFETY PLAN

The Principal Contractor shall submit a suitable, sufficiently documented and coherent specific health and safety plan based on the Client documented Health and Safety Specification. The health and safety plan shall include but not limited to the following:

- Objectives
- Scope of work
- Management of construction and supervision
- Monitoring and review plan
- Sub-contractor management
- CODA
  - Risk Assessment & Safe Working Procedures
  - Incident Management
  - First Aid
  - Emergency procedures
  - Fire Prevention & Protection
  - Public Health and Safety
  - PPE provision
  - Health & Safety Signage
  - Construction Vehicles and Mobile Plants
  - Hand tools management
  - Electrical Tool Management
  - Electrical installation on construction site
  - Construction Employees Facilities
  - Health & Safety Policies
  - Health and Safety Training & Competencies
  - Housekeeping
  - Inductions
  - Medicals
  - Stacking and Storage
  - Internal and external Audit
  - Inspection Registers
  - Toolbox Talks
  - Carrying out construction work in a residential place
  - Fall protection

## 10. HAZARD IDENTIFICATION AND RISK ASSESSMENT

The Principal Contractor shall before commencement of any construction and during such construction works have risk assessments performed by appointed competent person in writing which forms part of the health and safety plan to be applied.

The provisions of Regulation 9 of the Construction Regulations shall be followed in every detail.

## 11. HEALTH AND SAFETY FILE

The Client must discuss and negotiate with a Principal Contractor the content of the Health and Safety Plan and thereafter finally approve the Health and Safety plan for implementation. The recommended Health and Safety file shall include the following:

- SHE Policy
- PPE Policy
- Notification of Construction work
- Client Health & Safety Specification and Baseline
- Principal Contractor Health & Safety Plan
- Letter of good standing
- Section 37.2 Mandatory Agreement
- Contractor appointment letter in terms of CR 5.1 (k)
- Legal appointments and competencies
- Risk Assessments as per scope of work
- Safe Working Procedures for each task
- Incident/Accident Management Procedures
- LOA from SCM
- Organogram as per appointments
- Copy of OHS Act and Construction Regulations 2014
- Health and Safety Induction program me
- Emergency Procedures
- Medical Certificate of fitness
- Toolbox Talks Program me/ Plan • Fall protection plan

## 12. CLOSE- OUT CONSOLIDATED HEALTH AND SAFETY FILE

The Principal Contractor shall compile a consolidated H&S file and hand over to eThekweni municipality, Human settlements Unit (project manager responsible for the project). OHS Unit will conduct a project close out using the appropriate checklist before the completion of the project. The closeout file forms part of the project completion requirements for the retention payment.

## 13. HEALTH AND SAFETY TRAINING

The Principal Contractor shall ensure that employees are trained on health and safety measures this shall include but not limited to:

- Written Safe Working Procedures
- Risk Assessments

- Health and Safety Plan and other policies
- Fall protection plan
- Emergency Procedures/ Plan
- Incident management procedures
- Induction
- Toolbox Talks

#### 14. INCIDENTS MANAGEMENT & FIRST AID

All incidents and accidents as per Section of the Act must be reported, recorded and investigated as per General Administration Regulation 8 & 9. Where a fatality or permanent disabling injury or incident occurs on the Construction site, the Client must ensure that the Principal Contractor provides the Provincial Director with a report contemplated in Section 24 of the Act and the report includes the measures that the Principal Contractor intends to implement to ensure a safe construction site.

#### 15. HEALTH AND SAFETY AUDITS

The Client must ensure that periodic health and safety audits are conducted at intervals mutually agreed upon between the Principal Contractor and the Client at least every 30 days, the copy of the health and safety audit report must be provided to the Principal Contractor within seven days after the audit.

#### 16. FIRE PRECAUTIONS ON CONSTRUCTION SITE

The Principal Contractor shall provide suitable fire extinguishers which shall be serviced regularly in accordance with the manufacture's recommendations. Safety signage shall be prominently displayed in all areas where fire extinguishers are located. The Principal Contractor shall arrange for training of the relevant personnel, in the use of fire extinguishers.

The provisions of Regulation 29 of the Construction Regulations as well as Regulation 9 of Environmental Regulation for Workplaces shall be followed in every detail.

#### 17. ELECTRICAL INSTALLATIONS AND MACHINERY ON CONSTRUCTION SITE.

The Principal Contractor shall designate a competent electrician in writing who shall control all electrical installations. All temporary electrical installations used by the contractor are inspected at least once a week by a competent person and the inspection findings are recorded in a register kept on the construction site. All Electrical machinery is inspected by the authorized operator or user on daily basis using a relevant checklist prior to use and the inspection findings are recorded in a register kept on the construction site.

The provisions of Regulation 5, 6 & 9 of the Electrical Installation Regulations shall be followed in every detail.

#### 18. PERSONAL PROTECTIVE EQUIPMENT AND CLOTHING.

The Principal Contractor shall ensure that every employee is issued with, and wears SANS-approved P.P.E. as per the conducted risk assessment. Failure to use protective equipment as per the risk assessment shall require disciplinary intervention and this process shall be documented in the induction. No employer shall in respect of anything which he is in terms of this Act required to provide or to do in the interest of health or safety of an employee make any deductions from any employee's remuneration or require or permit any employee to make any payment to him or to any other person.

The provisions of Regulation 2 of the General Safety Regulations shall be followed in every detail.

#### 19. OCCUPATIONAL HEALTH AND SAFETY SIGNAGE

The Principal Contractor shall erect and maintain quality safety signage. The signage shall include but is not limited to:

- The construction work permit number displayed at the entrance (if applicable)
  - Access restrictions
- A sign indicating that all visitors must report to the site office and must be accompanied by the Principal Contractor when accessing the site
- The name and telephone number of the responsible person(s)
- Emergency telephone number(s)
- PPE to be worn at the site
- When falling objects may occur, relevant barricading and warning signs must be erected
- Excavations, heights structures, temporary structures and all risk areas must be indicated as per the specific methods defined in the H&S Plan.

#### 20. DUTIES OF PRINCIPAL CONTRACTORS AND CONTRACTORS

Contractors and sub-contractors must be given a copy of the H&S specification and any additional specification issued by the Client and shall comply with these specifications integrally. All employers working on the site shall conform to the standard in the CHSS. All the duties of the Principal Contractor in this CHSS equally apply, in full, to contractors of such Principal Contractor and to sub-contractors of such contractors. The Principal Contractor shall ensure that the comprehensive and updated list of all the contractors and sub-contractors on site includes:

- A reference to the agreements between the parties, including all contractors
- Section 37(2) agreements with the Principal Contractor
- The type of work being done
- The date of the approval of the H&S Plan
- The date of expiry of the COIDA certificate of good standing
- The date of the last monthly audit

The provisions of Regulation 7 of the Construction Regulations shall be followed in every detail.

## 21. PUBLIC HEALTH AND SAFETY

The site shall always be secured to prevent the unauthorized access of persons to construction risk areas. Appropriate health and safety signage shall be posted and access control to site must be exercised via a single access point. All members entering the site must indicate in what capacity they are visiting the site. The access point must be designed and constructed to allow for temporary parking, entry of construction vehicles, entry of personnel transport vehicles and entry of individual workers and other persons. The principal Contractor shall ensure that each person visiting the site shall be inducted to the site and such abridged induction shall outline the hazards from on-site activities and the precautions to be observed to avoid or minimize those risks. Visitors must only enter when accompanied by a responsible person designated by the Principal Contractor.

## 22. CONSTRUCTION EMPLOYEES FACILITIES

The Principal Contractor shall provide at or within reasonable access of every construction site, the following clean, hygienic and maintained facilities: (a) Shower facilities after consultation with the employees or employees representatives, or at least one shower facility for every 15 persons; (b) at least one sanitary facility for each sex and for every 30 workers; (c) changing facilities for each sex; and (d) sheltered eating areas.

The provisions of Regulation 2, 3, 4, 6, 7, 9 of the Facilities Regulations shall be followed in every detail.

## 23. HOUSEKEEPING AND GENERAL SAFEGUARDING ON CONSTRUCTION SITE

The Principal Contractor shall appoint a person responsible for general housekeeping and stacking and storage of materials and equipment on the entire site.

The provisions of Regulation 27 of the Construction Regulations shall be followed in every detail.

## 24. CONSTRUCTION MEDICALS

A Principal Contractor must ensure that all his or her employees have a valid medical certificate of fitness specific to the construction work to be performed and issued by an Occupational Health Practitioner in the form of Annexure 3.

## 25. HEALTH AND SAFETY REPRESENTATIVE AND SHE COMMITTEE

Health and Safety Representatives

- The Principal Contractor shall ensure that Health and Safety Representatives are appointed in writing and exercise their functions as defined in OHSA.
- The Principal Contractor shall elect and appoint a health and safety representative regardless of the number of employees on the site.

- The H&S representative shall always be on site and report to the Health and Safety Officer and Construction Manager.

#### Health and Safety Committee

- The Principal Contractor shall ensure that the H&S committee meets monthly
- The Principal Contractor's management and each contractor shall be represented at the H&S committee meeting; contractors with more than 20 employees shall have an H&S representative at each committee meeting and each contractor shall have a management member attending each H&S committee meeting.

#### 26. STACKING AND STORAGE ON CONSTRUCTION SITE

A Principal Contractor must, in addition to compliance with the provisions for the stacking of articles in the General Safety Regulations, 2003, ensure that—

A competent person is appointed in writing with the duty of supervising all stacking and storage on a construction site; Adequate storage areas are provided; are demarcated storage areas; and storage areas are kept neat and under control.

#### 27. EMERGENCY PROCEDURES/ PLAN

Principal contractor shall submit a detailed Emergency Procedures/ Plan for approval by the client prior to commencement of work on site. The procedures shall detail the response plan including the following:

List of key competent personnel  
 Details of emergency services  
 Action or steps to be taken in the event of emergencies  
 Information on hazardous material  
 Emergency events relevant to the project

#### 28. INDUCTION AND TOOLBOX PROGRAMME

No contractor may allow or permit any employee or person to enter any site unless that employee or person has undergone health and safety induction training pertaining to the hazards prevalent on the site at the time of entry.

A contractor must ensure that all visitors to a construction site undergo health and safety induction pertaining to the hazards prevalent on the site and must ensure that such visitors have the necessary personal protective equipment.

A contractor must at all times keep on his or her construction site records of the health and safety induction training contemplated in sub-regulation (6) and such records must be made available on request to an inspector, the client, the client's agent or the principal contractor; The Principal Contractor must ensure that the toolbox talks are conducted on weekly basis and the training records kept on the safety file.

#### 29. CONSTRUCTION VEHICLES AND MOBILE PLANTS

For any use of construction vehicle and mobile plant in the construction site, contractor must comply with all the provisions of Construction Regulation 23.

#### 30. ORGANOGRAM

Contractor shall submit an organogram outlining the site safety, health and environmental management structure as per appointment. The organogram must reflect the project and the company name and must have legal references.

#### 31. CARRYING OUT CONSTRUCTION WORK IN A RESIDENTIAL PLACE

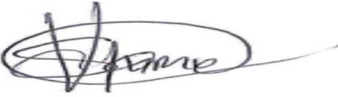
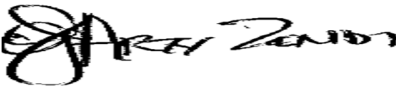
The contractor must highlight the approach on how he/ she will ensure cooperation with other affected parties in the area e.g., Residents, Local businesses ect.

# ETHEKWINI MUNICIPALITY

## Occupational Health & Safety Unit



### Baseline Risk Assessment in terms of Construction Regulation 5.1(a)

Document Title	Baseline Risk Assessment in terms of Construction Regulation 5.1(a)
Client	eThekweni Municipality – road provision
Project Name	Peter Road - Gravel to Surface - Ward 37, Phase 1
Contract Number	1R-22030
Revision	01
Date	12/10/2022
Internal Reference no.	BRA 40/10/2022
Compiled by (Safety officer)	Siziwe Chiliza  Signature:
Reviewed by (Manager: Safety& Risk)	Arty Zondi  Signature:

MAIN ACTIVITY	Site Establishment					
REF NO	SUB ACTIVITY	SAFETYRISKS	HEALTH RISK	ENVIROMENTAL RISK	PUBLIC RISK	RECOMMENDED RISK CONTROL MEASURE
1.1	Travel to site	<ul style="list-style-type: none"><li>• Potholes</li><li>• Undulating roads</li><li>• Poor visibility</li></ul>	<ul style="list-style-type: none"><li>• Fatigue</li></ul>	<ul style="list-style-type: none"><li>• Oil/diesel spillages</li></ul>	<ul style="list-style-type: none"><li>• Community livestock</li><li>• Other vehicles driving recklessly</li><li>• Pedestrians</li><li>• Construction works on public road</li></ul>	<ul style="list-style-type: none"><li>• All drivers to be deemed competent</li><li>• No staff to travel in rear of vehicles with equipment</li><li>• All equipment to be secured during transport</li><li>• All vehicles to be road worthy</li><li>• No drivers/Operators to be under the influence of alcohol or drugs of any kind.</li><li>• Inspection Records must be kept for all vehicles and plant.</li></ul>

REF NO	SUB ACTIVITY	SAFETY RISKS	HEALTH RISK	ENVIROMENTAL RISK	PUBLIC RISK	RECOMMENDED RISK CONTROL MEASURE
1.2	Site clearance and de-vegetation	<ul style="list-style-type: none"> <li>• Poor traffic control</li> <li>• Incompetent drivers</li> <li>• inadequate signage's</li> <li>• Moving of construction vehicles and vehicle colliding</li> <li>• Snakes insect bites &amp; stings</li> </ul>	<ul style="list-style-type: none"> <li>• Back strain</li> <li>• cuts,</li> <li>• Abrasion</li> <li>• heat exhaustion</li> <li>• noise exposure</li> <li>• dust inhalation</li> </ul>	<ul style="list-style-type: none"> <li>• Spilling of oil diesel, petrol</li> <li>• Contamination of ground</li> </ul>	<ul style="list-style-type: none"> <li>• Tripping hazard</li> <li>• dust inhalation</li> <li>• intermittent noise level</li> </ul>	<ul style="list-style-type: none"> <li>• All staff to have medicals done by an occupational medical practitioner prior to commencement of work. All workers to have valid medicals with annexure 3 documents signed and stamped by Occupational Medical Practitioner with records in file.</li> <li>• All staff to work under supervision</li> <li>• Dust suppression is to be maintained</li> <li>• Responsible 8.1 to ensure Instructions are given on Manual handling using Safe Work Procedure (SWP) for Manual Handling.</li> <li>• Only Licensed and Appointed Mechanical Aids Operators (i.e. Crane Operators, TLB operators, Bobcat Operators, etc.) to operate plant on site.</li> <li>• Inspection &amp; Maintenance records must be maintained for all mechanical aids on site.</li> </ul>

REF NO	SUB ACTIVITY	SAFETY RISKS	HEALTH RISK	ENVIROMENTAL RISK	PUBLIC RISK	RECOMMENDED RISK CONTROL MEASURE
1.3	Site fencing	<ul style="list-style-type: none"> <li>• Pinch points from manual handling</li> <li>• Trip hazards</li> <li>• Underground services</li> </ul>	<ul style="list-style-type: none"> <li>• Heat exposure</li> <li>• Dust</li> <li>• Noise</li> <li>• Chemical burns/contact dermatitis from cement and eye injuries from cement splashes</li> </ul>	Hydrocarbon spills	<ul style="list-style-type: none"> <li>• Unauthorised persons entering site</li> <li>• School learners entering site</li> <li>• Damage to underground services</li> </ul>	<ul style="list-style-type: none"> <li>• All contractor staff and local labour to be inducted of all “no go” areas</li> <li>• All staff have company logo PPE with name tags</li> <li>• Contractor staff to work within designated areas only</li> <li>• Contractor to conduct DSTI’s (Daily Safety Task Instruction) and communicated at the beginning of the shift daily. DSTI close out to be conducted and attendance registered signed by all staff.</li> <li>• Flagman to be provided to ensure vehicles are guided onto site.</li> <li>• Wear hand protection (PVC Gloves), safety glasses and face shield always by the operator of the concrete chute.</li> <li>• Concrete spillages to be cleaned up and concrete truck chute to be cleaned in concrete wash area.</li> <li>• Stacking &amp; Storage Supervisor to be appointed to control lay down areas.</li> </ul>

REF NO	SUB ACTIVITY	SAFETY RISKS	HEALTH RISK	ENVIROMENTAL RISK	PUBLIC RISK	RECOMMENDED RISK CONTROL MEASURE
1.4	Placing of mobile offices	<ul style="list-style-type: none"> <li>• Use of mechanical aids for offloading</li> <li>• Failure of lifting equipment</li> <li>• Fall from heights</li> <li>• Manual handling</li> <li>• Mechanical aids overturning</li> <li>• Overhead power lines</li> </ul>	<ul style="list-style-type: none"> <li>• Noise</li> <li>• Hand and body injuries</li> <li>• Heat exposure</li> <li>• Dust exposure</li> </ul>	Hydrocarbon spills	<ul style="list-style-type: none"> <li>• Exposure to dust</li> <li>• Interaction of machinery and learners</li> </ul>	<ul style="list-style-type: none"> <li>• All operators to be deemed competent</li> <li>• All riggers to be deemed competent</li> <li>• All lifting equipment to be. load tested</li> <li>• Flagman/banksman to be present on-site during movement of plant</li> <li>• Access control to be managed on site</li> <li>• All staff to have the required PPE</li> <li>• Staff working at heights to be trained for heights safety</li> <li>• Contractor to conduct DSTI's (Daily Safety Task Instruction) and communicated at the beginning of the shift on a daily basis. DSTI close out to be conducted and attendance registered signed by all staff.</li> <li>• Ensure Offloading area is clear, level, secure and free from slip trip and falling hazards.</li> <li>• Mechanical Aids must be operated in accordance with the operators training and manufacturers guidelines</li> </ul>

REF NO	SUB ACTIVITY	SAFETY RISKS	HEALTH RISK	ENVIROMENTAL RISK	PUBLIC RISK	RECOMMENDED RISK CONTROL MEASURE
1.5	Connection of power supply	Electrocution Hand injuries	Heat exhaustion	None	Interruption of power supply	<ul style="list-style-type: none"> <li>• Only authorised person to do electrical connection</li> <li>• A COC is to be provided for all electrical works done</li> <li>• Monthly inspections to be done for all temporary electrical connections</li> <li>• Contractor is to be responsible for power consumption</li> <li>• Required agreements to be in file for electrical usage</li> </ul>
1.6	Water supply	Injuries during the laying of water pipes	Drinking water which is not safe for human consumption	None	Theft of water by residents	<ul style="list-style-type: none"> <li>• All drinking water is to be labelled/sign posted</li> <li>• Water use is to be managed on site</li> <li>• The location of standpipes to be correctly positioned to mitigate theft of water from site</li> </ul>

1.8	Construction of staff facilities: eat area/toilets/ change area	<ul style="list-style-type: none"> <li>• Manual handling</li> <li>• Fall from heights</li> <li>• Hand injuries</li> <li>• Use of portable electrical power tools</li> </ul>	<ul style="list-style-type: none"> <li>• Electrocutation</li> <li>• Dust exposure</li> <li>• Heat exposure</li> </ul>	None	None	<ul style="list-style-type: none"> <li>• Separate facilities for both male and female</li> <li>• Drinking water to be provided for staff on site</li> <li>• If portable toilets are to be used required service slips are to be maintained on site</li> <li>• Staff facilities area to be suitable for staff use</li> </ul>
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MAIN ACTIVITY	Construction Works					
REF NO	SUB ACTIVITY	SAFETY RISKS	HEALTH RISK	ENVIROMENTAL RISK	PUBLIC RISK	RECOMMENDED RISK CONTROL MEASURE
2.1	Site survey	<ul style="list-style-type: none"> <li>• Trips and falls</li> <li>• Injuries from use of hand tools</li> </ul>	<ul style="list-style-type: none"> <li>• Heat exhaustion</li> <li>• Dust exposure</li> </ul>	Use of cement for markings contamination	<ul style="list-style-type: none"> <li>• Trips and falls</li> <li>• Unauthorised entrance</li> </ul>	<ul style="list-style-type: none"> <li>• Works to be supervised</li> <li>• DSTI to be done</li> <li>• Lime to be used for ground markings</li> <li>• Required PPE to be used</li> <li>• All survey pegs to be made visible</li> <li>• If steel is to be used rebar caps are to be fitted onto them</li> </ul>
2.2	Mechanical excavations	<ul style="list-style-type: none"> <li>• Machinery collides with people</li> <li>• Collision with machinery</li> <li>• Fall into open excavation</li> <li>• Collapse of side walls</li> </ul>	<ul style="list-style-type: none"> <li>• Dust exposure</li> <li>• Back injuries</li> <li>• Noise exposure</li> </ul>	Hydrocarbon spills	<ul style="list-style-type: none"> <li>• Dust exposure</li> <li>• Collision with machinery</li> </ul>	<ul style="list-style-type: none"> <li>• DSTI to be done</li> <li>• All staff to have the required PPE</li> <li>• All plant to be inspected before use</li> <li>• All open excavations to be netted off and sign posted</li> <li>• Excavated spoil to be 500mm away from edge of excavation</li> <li>• Nil staff to be in any excavation when machinery in use</li> </ul>
2.3	Manual excavations	<ul style="list-style-type: none"> <li>• Slips and falls</li> <li>• Fall into open excavations</li> <li>• Collapse of side walls</li> </ul>	<ul style="list-style-type: none"> <li>• Dust exposure</li> <li>• Back injuries</li> <li>• Heat exhaustion</li> </ul>	None	Fall into open excavations	<ul style="list-style-type: none"> <li>• All staff to be trained in safe works procedure</li> <li>• All spoil to be away from edge of excavation</li> <li>• Ladders to be provided for access and egress from excavations</li> </ul>

REF NO	SUB ACTIVITY	SAFETY RISKS	HEALTH RISK	ENVIROMENTAL RISK	PUBLIC RISK	RECOMMENDED RISK CONTROL MEASURE
2.4	Unsafe stacking and storage practices	<ul style="list-style-type: none"> <li>• Manual handling injuries</li> <li>• Pinch points</li> <li>• Slips and trips</li> </ul>	Back injuries	None	None	<ul style="list-style-type: none"> <li>• Required PPE to be used</li> <li>• DSTI to be done</li> <li>• All works to be supervised</li> <li>• All steel to be stacked within a designated area</li> </ul>
2.5	Installation of Temporary Electrical Installations	<ul style="list-style-type: none"> <li>• Use of hand tools injuries</li> <li>• Trips and falls</li> <li>• Collapse of excavation side walls</li> <li>• Contact with machinery</li> </ul>	<ul style="list-style-type: none"> <li>• Chemical burns from concrete</li> <li>• Heat exhaustion</li> <li>• Dust exposure</li> </ul>	Ground contamination	Collision with pedestrians	<ul style="list-style-type: none"> <li>• DSTI to be done</li> <li>• Flagman to direct all trucks to site</li> <li>• All staff to have the required PPE when handling concrete</li> <li>• Nil staff to be in foundation during discharge of concrete into excavation</li> <li>• Delivery trucks to use designated access</li> <li>• Washing of truck chutes to be done within a concrete wash area</li> </ul>
2.6	Housekeeping	<ul style="list-style-type: none"> <li>• Manual handling injuries</li> <li>• Trips and falls</li> </ul>	<ul style="list-style-type: none"> <li>• Dust exposure</li> <li>• Back strains</li> <li>• Ergonomically injuries</li> </ul>	Ground contamination due to mixing of mortar on natural ground	Unauthorised access to site	<ul style="list-style-type: none"> <li>• Proper stacking of bricks to be done</li> <li>• Movement of bricks to be done with proper wheelbarrows</li> <li>• All staff to have required PPE</li> <li>• A platform to be created for mixing of mortar</li> <li>• Housekeeping to be maintained on site</li> </ul>

REF NO	SUB ACTIVITY	SAFETY RISKS	HEALTH RISK	ENVIROMENTAL RISK	PUBLIC RISK	RECOMMENDED RISK CONTROL MEASURE
2.7	Site Induction	<ul style="list-style-type: none"> <li>• Struck by machinery</li> <li>• Manual handling injuries</li> <li>• Fires</li> </ul>	<ul style="list-style-type: none"> <li>• Dust exposure</li> <li>• Heat exhaustion</li> <li>• HAVS</li> <li>• Noise</li> </ul>	Hydrocarbon spills	Unauthorised access	<ul style="list-style-type: none"> <li>• All staff to have required PPE</li> <li>• DSTI to be done</li> <li>• All works to be supervised</li> <li>• Safe works procedure to be done and communicated to staff</li> <li>• Risk assessments to be communicated by means of training</li> </ul>
2.8	Setting up of temporary road works signage	<ul style="list-style-type: none"> <li>• Struck by machinery</li> <li>• Placing of incorrect signage at locations</li> </ul>	incident Damage to property	Environmental degradation	None	<p>The Contract</p> <ul style="list-style-type: none"> <li>• Manager must ensure that a suitable site-specific Traffic Management Plan is developed and implemented and a competent Traffic Safety Officer</li> </ul>
2.9	Public vehicular and pedestrian traffic travelling on the public road during construction work	<ul style="list-style-type: none"> <li>• injuries</li> <li>• car collision</li> </ul>	?? incident Damage to property	None	None	<ul style="list-style-type: none"> <li>• All works to be supervised</li> </ul> <p>All All temporary road traffic signage must comply with the</p> <ul style="list-style-type: none"> <li>• SARTSM</li> <li>• Flagman to direct all vehicles to site</li> </ul>

2.10	Layer works (asphalt layer)	<ul style="list-style-type: none"> <li>• Use of hand tools injuries</li> <li>• Trips and falls</li> <li>• Contact with machinery</li> <li>Respiratory failure</li> <li>• Burns</li> </ul>	<ul style="list-style-type: none"> <li>• Chemical burns from asphalt</li> <li>• Heat exhaustion</li> <li>• High temperature of product</li> </ul>	Ground contamination	none	<ul style="list-style-type: none"> <li>• Flagman to direct all vehicles</li> <li>• All staff to have the required PPE when handling asphalt</li> <li>• Delivery trucks to use designated access</li> <li>• All spills to be cleaned and disposed</li> <li>• Enforced reverse alarms to be fitted Application of dust masks</li> </ul>
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REF NO	SUB ACTIVITY	SAFETY RISKS	HEALTH RISK	ENVIROMENTAL RISK	PUBLIC RISK	RECOMMENDED RISK CONTROL MEASURE
2.11	Backfilling	<ul style="list-style-type: none"> <li>• Manual handling injuries</li> <li>• Trips and falls</li> </ul>	<ul style="list-style-type: none"> <li>• Dust exposure</li> <li>• Back strains</li> <li>• Ergonomically injuries</li> <li>• Heat exhaustion</li> </ul>	Ground contamination due to mixing of mortar on natural ground	Unauthorised access to site	<ul style="list-style-type: none"> <li>• All staff to have required PPE</li> <li>• A platform to be created for mixing of mortar</li> <li>• Waste skips to be provided on site</li> <li>• All asphalt waste to be properly disposed on site</li> <li>• Housekeeping to be maintained on site</li> </ul>

2.12	Refuelling plant and equipment	Extremely flammable, high hazard. The liquid can release vapours at temperature below ambient which forms flammable mixtures	Heat exhaustion	Ground contamination due to mixing of mortar on natural ground	Unauthorised access to site	<ul style="list-style-type: none"> <li>• Required appointments to be in file</li> <li>• All works to be supervised</li> </ul> Remove all sources of ignition. Contain and <ul style="list-style-type: none"> <li>• collect spillage with non-combustible absorbent materials. Place in a suitable container for disposal in accordance with waste regulations</li> </ul>
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REF NO	SUB ACTIVITY	SAFETY RISKS	HEALTH RISK	ENVIROMENTAL RISK	PUBLIC RISK	RECOMMENDED RISK CONTROL MEASURE
2.13	Excavator Plate compactor, Bomag roller, Front end loader, Mobile crane  TLB, milling machine, paver, excavator, skid steer(bobcat), rollers (steel drum/ rubber tyre) grader, insist recycler,	<ul style="list-style-type: none"> <li>• Collapse of scaffolding</li> <li>• Slips and falls</li> <li>• Fall from heights/ elevated positions</li> </ul>	Heat exhaustion	None	Unauthorised access to site	<ul style="list-style-type: none"> <li>• All staff will be deemed fit for work with medicals records in file</li> <li>• Required PPE will be provided for staff</li> <li>• All works to be supervised</li> <li>•</li> </ul>

	chip spreader, bitumen distributor(tan ker)					
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REF NO	SUB ACTIVITY	SAFETYRISKS	HEALTH RISK	ENVIROMENTAL RISK	PUBLIC RISK	RECOMMENDED RISK CONTROL MEASURE
2.15	Employees working in close proximity to moving machinery Exposure to noise	noise	noise	none	No unauthorised access	<ul style="list-style-type: none"><li>• All power tools to be inspected before use. Records to be in file</li><li>• Housekeeping to be maintained on site</li><li>• 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</li></ul>
2.16	<ul style="list-style-type: none"><li>• Hazardous chemical substances</li></ul>	<div>injuries Contact with skin/ eyes</div> <div>Inhalation or indigestion</div>	Skin irritation, burns or infections Could cause loss in eyesight		<ul style="list-style-type: none"><li>• Required PPE to be used</li><li>• DSTI to be done</li><li>• All works to be supervised</li><li>• All steel to be stacked within a designated area</li><li>• Exposed rebar to be fitted with rebar caps</li><li>• All power tools to be inspected before use.</li></ul>	

2.17	Neighbouring business and public exposed to the nature of the construction activities	<ul style="list-style-type: none"> <li>Dust exposure</li> <li>Heat exhaustion</li> </ul>	Dust pollution	Unauthorised access to site	<p>Communication with neighbouring business is critical. Health risk must be communicated to all</p> <ul style="list-style-type: none"> <li>employees' dust, noise generated out of the construction work must be managed</li> <li>Fence constructed to approved standard</li> </ul>
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REF NO	SUB ACTIVITY	SAFETY RISKS	HEALTH RISK	ENVIROMENTAL RISK	PUBLIC RISK	RECOMMENDED RISK CONTROL MEASURE
2.18	Emergency Preparedness, Emergency Drill & Evacuation	No training No implementation Planning done Failure to have a basic site-specific Emergency Management Plan	Person/s unprepared to respond to the emergency at hand	none	none	The Construction Manager must ensure that a site specific Emergency Management Plan is developed for implementation. Adequate number of employees trained in the use of fire equipment

2.17	Utilizing incompetent Sub-Contractors	<ul style="list-style-type: none"> <li>• Use of hand tools injuries</li> <li>• Trips and falls</li> <li>• Contact with machinery</li> </ul>	<ul style="list-style-type: none"> <li>• Chemical burns from concrete</li> <li>• Heat exhaustion</li> <li>• Dust exposure</li> </ul>	Ground contamination	Collision with pedestrians	The Construction Manager must be reasonably satisfied that the Sub Contractors intended to be appointed have the necessary competencies and resources to carry out the work safely
2.18	Brickwork at manholes	<ul style="list-style-type: none"> <li>• Manual handling injuries</li> <li>• Use hand tools injuries</li> </ul>	<ul style="list-style-type: none"> <li>• Ergonomical injuries</li> <li>• Heat exhaustion</li> </ul>	None	None	<ul style="list-style-type: none"> <li>• DSTI to be done</li> <li>• Risk assessment and SWP to be communicated to all staff</li> <li>• All power tools to be inspected before use</li> <li>• Fall arrest equipment to be used at all heights</li> </ul>

REF NO	SUB ACTIVITY	SAFETY RISKS	HEALTH RISK	ENVIROMENTAL RISK	PUBLIC RISK	RECOMMENDED RISK CONTROL MEASURE
2.19	Mixing mortar	<ul style="list-style-type: none"> <li>• Unsafe</li> <li>• electrocution</li> <li>• loading strain</li> </ul>	Loading / unloading material	none	none	<p>The Construction Manager must ensure that a SWP is developed implemented about safe lifting and loading procedures</p> <p>All work needs to be supervised</p>

REF NO	SUB ACTIVITY	SAFETY RISKS	HEALTH RISK	ENVIROMENTAL RISK	PUBLIC RISK	RECOMMENDED RISK CONTROL MEASURE
2.20	Install Geosynthetic layer	Poor Ergonomics may result in muscular skeletal injuries	<ul style="list-style-type: none"> <li>• Ergonomical injuries</li> <li>• Heat exhaustion</li> </ul>	None	None	The Construction Manager must ensure that workers are trained in the risk of ergonomically injuries and methods to mitigate the risks

MAIN ACTIVITY						
REF NO	SUB ACTIVITY	SAFETY RISKS	HEALTH RISK	ENVIROMENTAL RISK	PUBLIC RISK	RECOMMENDED RISK CONTROL MEASURE
3.3	Construction of drains	<ul style="list-style-type: none"> <li>• Trips and falls</li> <li>• Manual handling injuries</li> <li>• Underground services</li> <li>• Open excavations</li> </ul>	<ul style="list-style-type: none"> <li>• Dust exposure</li> <li>• Heat exposure</li> <li>• Ergonomical injuries</li> <li>• Noise exposure</li> </ul>	None	None	<ul style="list-style-type: none"> <li>• All works to be supervised</li> <li>• DSTI to be done</li> <li>• Risk assessments &amp; SWP to be done</li> <li>• All open excavations to be netted off</li> <li>• Access and egress to be provided for all open excavations</li> <li>• All spoil to be away from excavation side wall</li> </ul>

MAIN ACTIVITY						
REF NO	SUB ACTIVITY	SAFETY RISKS	HEALTH RISK	ENVIROMENTAL RISK	PUBLIC RISK	RECOMMENDED RISK CONTROL MEASURE
3.4	Pouring Ready Mix concrete	<ul style="list-style-type: none"> <li>• Noise</li> <li>• Dust</li> <li>• Bumping against,</li> </ul>	<ul style="list-style-type: none"> <li>• noise induced hearing loss</li> </ul>	None	None	<ul style="list-style-type: none"> <li>• flag person required and Visual check required</li> <li>• Wearing required PPE</li> </ul>

		<ul style="list-style-type: none"> <li>• Concrete truck tipping over</li> <li>•</li> </ul>				
3.5	Waste removal	<ul style="list-style-type: none"> <li>• Noise</li> <li>• Dust</li> <li>• Bumping against,</li> <li>• Struck by flying items</li> </ul>	<ul style="list-style-type: none"> <li>• cuts and abrasions</li> <li>• dust inhalation</li> <li>• noise induced hearing loss</li> </ul>	None	None	<ul style="list-style-type: none"> <li>• Safe &amp; proper use of hand tools</li> <li>• Wearing required PPE</li> <li>• practise of proper manual lifting of material</li> </ul>

MAIN ACTIVITY						
REF NO	SUB ACTIVITY	SAFETY RISKS	HEALTH RISK	ENVIROMENTAL RISK	PUBLIC RISK	RECOMMENDED RISK CONTROL MEASURE
3.9	Inlet and outlet structures	<ul style="list-style-type: none"> <li>• Use of hand tools injuries</li> <li>• Trips and falls</li> <li>• Contact with machinery</li> <li>• Working in a restricted area</li> <li>• Manual handling</li> </ul>	<ul style="list-style-type: none"> <li>• Dust exposure</li> <li>• Ergonomical injuries</li> <li>• Chemical burns</li> </ul>	None	None	<ul style="list-style-type: none"> <li>• Safe &amp; proper use of hand tools</li> <li>• Wearing required PPE</li> <li>• practise of proper manual lifting of material</li> <li>• Supervise the works by a competent supervisor</li> </ul>
3.10	Working with hot asphalt	<ul style="list-style-type: none"> <li>• lack of proper access / working platform</li> </ul>	☒ Heat exhaustion	None	None	<ul style="list-style-type: none"> <li>• DSTI to be done</li> <li>• Risk assessment and SWP to be communicated to all staff</li> <li>• Scaffold to be erected by competent person</li> <li>• Scaffold to be erected as per SANS 10085</li> <li>• Supervise the works by a competent supervisor</li> <li>• Staff to be trained for work at heights</li> <li>• Fall arrest equipment to be used at all heights</li> <li>• Adequate lighting to be provided</li> </ul>

REF NO	SUB ACTIVITY	SAFETY RISKS	HEALTH RISK	ENVIROMENTAL RISK	PUBLIC RISK	RECOMMENDED RISK CONTROL MEASURE
6.3	Cleaning tools with solvent	<ul style="list-style-type: none"> <li>• Use of power tool – electrocution</li> <li>• Manual handling</li> <li>• Work in restricted area</li> </ul>	☒ Dust exposure	None	None	<ul style="list-style-type: none"> <li>• All power tools to be inspected before use</li> <li>• DSTI to be done</li> <li>• Risk assessment/SWP to be done and in file</li> <li>• All staff to have required PPE</li> </ul>
6.5	Manual lifting of tool	<ul style="list-style-type: none"> <li>• Fall from heights</li> <li>• Fall of equipment from heights</li> </ul>	<ul style="list-style-type: none"> <li>• Dust exposure</li> <li>• Heat exhaustion</li> <li>• Manual exertion</li> </ul>	None	None	<ul style="list-style-type: none"> <li>• Work platform to be inspected</li> <li>• Full supervision at all times</li> <li>• Staff to have fall arrest equipment in use</li> <li>• Manual lifting techniques to be practiced at all times</li> </ul>
	Welding, flame cutting, soldering and similar operations	<ul style="list-style-type: none"> <li>• Fumes inhalation</li> <li>• Eye injury</li> </ul>	<ul style="list-style-type: none"> <li>• Chest pain</li> <li>• heat</li> </ul>	none	none	<ul style="list-style-type: none"> <li>• Proper PPE required</li> <li>• Close supervision</li> </ul>

MAIN ACTIVITY						
REF NO	SUB ACTIVITY	SAFETY RISKS	HEALTH RISK	ENVIROMENTAL RISK	PUBLIC RISK	RECOMMENDED RISK CONTROL MEASURE
7.1	Inlet and outlet structures	Struck by vehicle	heat	none	none	Traffic management plan required
7.2	Applying tack	Eye injury	contamination	none	none	Close supervision all the time

MAIN ACTIVITY						
REF NO	SUB ACTIVITY	SAFETY RISKS	HEALTH RISK	ENVIROMENTAL RISK	PUBLIC RISK	RECOMMENDED RISK CONTROL MEASURE
8.1	Site levelling using excavator/ bob cat	<ul style="list-style-type: none"> <li>• Trips and falls</li> <li>• Exposed survey pegs</li> <li>• Use of hand tools</li> </ul>	<ul style="list-style-type: none"> <li>• Heat exposure</li> <li>• Noise exposure</li> </ul>	Hydrocarbon spills	<ul style="list-style-type: none"> <li>• Pedestrians exposed to machinery</li> <li>• Accidents</li> </ul>	<ul style="list-style-type: none"> <li>• Works to be supervised</li> <li>• Staff to use required PPE</li> <li>• Dust suppression to be maintained</li> <li>• Refuelling to be done in designated areas</li> <li>• Rebar caps to be fitted on exposed pegs</li> <li>• Risk assessments and SWP to be done for staff</li> <li>• All plant operators to be deemed competent</li> <li>• Flagman to be present on site</li> </ul>
8.2	Backfill and compaction of other layers	<ul style="list-style-type: none"> <li>• Manual handling</li> <li>• Trips and falls</li> <li>• Use of mobile plant accidents</li> </ul>	<ul style="list-style-type: none"> <li>• Heat exhaustion</li> <li>• Dust exposure</li> <li>• Noise exposure</li> </ul>	Hydrocarbon spills	<ul style="list-style-type: none"> <li>• Pedestrians exposed to machinery</li> <li>• Accidents</li> </ul>	<ul style="list-style-type: none"> <li>• Works to be supervised</li> <li>• Staff to use required PPE</li> <li>• Dust suppression to be maintained</li> <li>• Refuelling to be done in designated areas</li> <li>• Rebar caps to be fitted on exposed pegs</li> <li>• Risk assessments and SWP to be done for staff</li> <li>• All plant operators to be deemed competent</li> <li>• Flagman to be present on site</li> </ul>

REF NO	SUB ACTIVITY	SAFETY RISKS	HEALTH RISK	ENVIROMENTAL RISK	PUBLIC RISK	RECOMMENDED RISK CONTROL MEASURE
8.4	Concreting of walkways/ driveway	<ul style="list-style-type: none"> <li>• Use of hand tools injuries</li> <li>• Trips and falls</li> <li>• Collapse of excavation side walls</li> <li>• Contact with machinery</li> </ul>	<ul style="list-style-type: none"> <li>• Chemical burns from concrete</li> <li>• Heat exhaustion</li> <li>• Dust exposure</li> </ul>	Ground contamination	Collision with pedestrians	<ul style="list-style-type: none"> <li>• DSTI to be done</li> <li>• Flagman to direct all trucks to site</li> <li>• All staff to have the required PPE when handling concrete</li> <li>• Nil staff to be in foundation during discharge of concrete into excavation</li> <li>• Delivery trucks to use designated access</li> <li>• All spills to be cleaned and disposed</li> </ul>

MAIN ACTIVITY		COVID 19				
REF NO	SUB ACTIVITY	SAFETY RISKS	HEALTH RISK	ENVIROMENTAL RISK	PUBLIC RISK	RECOMMENDED RISK CONTROL MEASURE
9.1	Travel to site Deliveries -use of public transport	<ul style="list-style-type: none"> <li>• Nil decontamination of public transport</li> <li>• Passengers in public transport not using face masks</li> <li>• Nil social distancing in public transport</li> <li>• Nil decontamination of supplies and deliveries</li> </ul>	<ul style="list-style-type: none"> <li>• Staff contracting the virus during use of public transport</li> <li>• Staff contracting virus during handling of contaminated supplies</li> </ul>	None	None	<ul style="list-style-type: none"> <li>• All staff to ensure that they use a face mask and sanitise when using the public transport</li> <li>• Contractor could arrange for a dedicated transport for all staff to and from work.</li> <li>• Staff are not to use their work PPE when travelling on public transport.</li> <li>• All staff to follow decontamination procedures when entering work site</li> </ul>
9.2	Management to prepare site before construction works commence	<ul style="list-style-type: none"> <li>• Nil decontamination of offices and facilities</li> <li>• Failure to align policies and procedures to COVID 19 virus</li> </ul>	<ul style="list-style-type: none"> <li>• Returning staff not provided with COVID related PPE and disinfectants</li> <li>• Possible contamination to staff</li> </ul>	none	Unauthorised persons entering site	<ul style="list-style-type: none"> <li>• Management to ensure all offices, facilities are disinfected with proper disinfectants</li> <li>• Overgrown vegetation to be cut before any staff can return to site</li> <li>• Required COVID 19 PPE is to be purchased and made available for staff when project commences</li> </ul>

	SUB ACTIVITY	SAFETY RISKS	HEALTH RISK	ENVIROMENTAL RISK	PUBLIC RISK	RECOMMENDED RISK CONTROL MEASURE
	Site preparation	<ul style="list-style-type: none"> <li>• Failure to display related signage's for site access due to COVID virus.</li> <li>• Nil PPE and sanitisers (COVID related) for staff to return to work</li> <li>• Management not inducted/educated on COVID 19</li> </ul>	Staff returning to work are not educated on policy changes Management unable to provide correct information to staff on COVID 19 issues	none	none	<ul style="list-style-type: none"> <li>• Required access control signage's (COVID related) to be displayed at main entrance</li> <li>• Management to rearrange facilities area to ensure social distancing</li> <li>• Policies and procedures (COVID related) to be amended and approved before site can reopen. This is to be communicated to all staff</li> <li>• An induction program (COVID 19) is to be prepared which is to be communicated to all staff when project commences</li> <li>• Required sanitisers and disinfectants to be purchased and made available before project commences</li> <li>• Contractor to ensure required staff information form pertaining to COVID 19 is available which is to be filled out by each staff</li> <li>• Adequate hazardous waste bins to be made available on site</li> </ul>
9.3	Entering of construction work site	Staff fail to use required PPE	Staff may be infected with the virus	none		<p>☑ All staff to follow the required social distancing when at main entrance</p>

REF NO	SUB ACTIVITY	SAFETY RISKS	HEALTH RISK	ENVIROMENTAL RISK	PUBLIC RISK	RECOMMENDED RISK CONTROL MEASURE
	Entering construction work	<ul style="list-style-type: none"> <li>• Congestion of staff at main entrance to site</li> <li>• Failure of contractor to screen staff entering site</li> <li>• Staff not maintaining social distancing</li> </ul>	☒ Staff spreading of the virus to other staff	none	none	<ul style="list-style-type: none"> <li>• Due to lockdown, staff are to declare their movement, medical history during lockdown. These records are to be kept on site for record/tracing purposes</li> <li>• All staff are to be tested as per contractor's protocol to enter the site. Taking of staff temperature and desensitising of entire staff. An infrared thermometer is to be used.</li> <li>• Contractor to ensure all staff conducting the required testing is provided with the required PPE and is supervised by management.</li> <li>• Staff are not permitted to enter the site with their work PPE. Work PPE is to be left on site when leaving site to prevent possible contamination of work PPE</li> <li>• Any staff tested with a high temperature or signs of COVID is to follow the quarantine procedure until staff can be tested by the DOH for possible COVID 19 infection.</li> </ul>

9.4	Work tasks	<ul style="list-style-type: none"> <li>• Nil social distancing on site</li> <li>• Staff socialising on site</li> <li>• Staff not using their required PPE to prevent COVID infections</li> </ul>	<ul style="list-style-type: none"> <li>• Spreading of the virus to other staff</li> <li>• Possible infections</li> </ul>	none	Possible closure of site due to infection	<ul style="list-style-type: none"> <li>• Identified tasks are to be evaluated to encourage social distancing</li> <li>• All staff to have the required PPE when on site</li> <li>• Staff to decontaminate all tools and workspace prior to any activity</li> <li>• Monitoring to be done by management</li> <li>• Inductions to be done for all staff on social distancing whilst at work.</li> <li>• Failure of staff to comply with COVID control measures are to be removed off site.</li> </ul>
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REF NO	SUB ACTIVITY	SAFETY RISKS	HEALTH RISK	ENVIROMENTAL RISK	PUBLIC RISK	RECOMMENDED RISK CONTROL MEASURE
9.5	Use of facilities during break intervals	<ul style="list-style-type: none"> <li>• Nil social distancing</li> <li>• Nil hygiene been maintained at break intervals</li> <li>• Nil paper towel provided for staff at wash facilities</li> <li>• Lack of chairs for staff at facilities area</li> </ul>	<ul style="list-style-type: none"> <li>• Possible contamination of staff</li> <li>• Staff not practising adequate hygiene control measures</li> <li>• Possible spread of virus</li> <li>• Inadequate provision of hand wash /sanitisers for staff</li> </ul>	none	none	<ul style="list-style-type: none"> <li>• Breaks are to be staggered to allow social distancing of staff</li> <li>• All staff are to take their breaks at the identified facilities area</li> <li>• Layout of facilities area to be planned to encourage social distancing</li> <li>• Table and chairs to be disinfected before and after all break intervals</li> <li>• Toilets to be disinfected at frequent interval.</li> <li>• Adequate hand wash and sanitisers are to be provided for staff to frequently wash their hands</li> <li>• Paper towels to be provided for staff use</li> <li>• Labelled bins to be provided for all hazardous waste</li> <li>• Staff are not to share any meals or utensils</li> <li>• Staff are not to leave the site to purchase any meals</li> </ul>

9.6	Use of jackhammer	<ul style="list-style-type: none"> <li>• Injuries</li> <li>• Noise</li> <li>• Loss limb</li> </ul>	<ul style="list-style-type: none"> <li>• vibration</li> </ul>	none	none	<ul style="list-style-type: none"> <li>• Tools need to be inspected</li> <li>• Safety team supervisor</li> </ul>
9.10	Ground water	<ul style="list-style-type: none"> <li>• Injuries</li> <li>• Wet soil</li> <li>• Soil erosion</li> </ul>	<ul style="list-style-type: none"> <li>• Ground seepage</li> </ul>	Rock formations Water Wet soil	none	<ul style="list-style-type: none"> <li>• Proper PPE required</li> <li>• Close supervision</li> </ul>
9.11	Slope stability	<ul style="list-style-type: none"> <li>• Multiple injuries</li> <li>• Cracks caused by compacting</li> <li>• fatality</li> </ul>	<ul style="list-style-type: none"> <li>• Excavation collapsed</li> </ul>	Rock formation		<ul style="list-style-type: none"> <li>• Racking back required</li> <li>• Close supervision</li> <li>• PPE required</li> </ul>
9.12	excavation	<ul style="list-style-type: none"> <li>• Collapsed and cause multiple injury</li> <li>• fatality</li> </ul>	<ul style="list-style-type: none"> <li>• vibration</li> </ul>			<ul style="list-style-type: none"> <li>• Competent person to check on excavation</li> <li>• Close supervision on blasting</li> <li>• Notification for blasting</li> </ul>

