

HEALTH AND SAFETY SPECIFICATION

CAPE TOWN INTERNATIONAL AIRPORT BULK SERVICES FOR PRECINCT 3 DEVELOPMENT PROJECT



AIRPORTS COMPANY
SOUTH AFRICA

FOREWORD

This Health and Safety specification has been compiled under the guidelines of the Occupational Health & Safety Act 85 of 1993 and amended Construction Regulations. Huge emphasis is placed on the requirements of Construction Regulations 2014 under the Occupational Health and Safety Act and the Baseline Risk Assessment that form the basis of this specification.

Contractors are encouraged to not read this document in isolation but must consider the By-Law Relating to Community Fire Safety and Relevant National Building Regulations, SANS Codes 10400 and all other applicable legislation. The Principal Contractor and their contractors shall comply with the Hazardous Biological Agents Regulations and provided control measures as needed.

Should there be any contradiction between then document and the Act; the Act must take preference except where explicitly stated.

Similarly, where this document is silent on a specific Health & Safety requirement, the Act must be used as the minimum requirement.

Government has published various notices, gazettes and amendments to existing legislation.

Should you be unclear about anything set out in this document, please contact this office.

Ensuring you of our best intentions and service always.

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1. INTRODUCTION AND BACKGROUND

1.1 Background to The Health and Safety Specification

The Construction Regulations (February 2014) place the onus on the Client to prepare a preconstruction Health and Safety Specification, highlighting all risks not successfully eliminated during design setting standards for Health and Safety during construction phase. The Health and Safety Specification will be based on the findings of the Baseline Risk Assessment.

1.2 Purpose of The Health and Safety Specification

To assist in achieving compliance with the Occupational Health and Safety Act 85/1993 and the promulgated Construction Regulations (February 2014) to reduce incidents and injuries. This specification shall act as the basis for the drafting of the construction phase Health and Safety plan by the Principal Contractor. The specification sets out the requirements to be followed by the Principal Contractor and their Contractors so that the Health and Safety of all persons potentially at risk may receive the same priority as other facets of the project e.g. Cost, programme, environment, quality etc.

2. PROJECT DIRECTORY

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3. HEALTH AND SAFETY SPECIFICATION

3.1 Scope

This specification covers the requirements for eliminating and mitigating incidents and injuries for the **Cape Town International Airport Bulk Services for Precinct 3 Development**.

The Principal Contractor must ensure compliance with the Civil Aviation Act 13 of 2009 and the Civil Aviation Regulation (CAR) 2011.

The scope also addresses legal compliance, hazard identification and risk assessment, risk control and promoting a Health and Safety culture amongst those working on the project. The specification also makes provision for the protection of those persons other than employees.

The health and safety specification will be made available to the relevant Designers and all designers shall take the prepared health and safety specification and health and safety into consideration during the design stages as per the duties of Designers defined in Construction Regulation 2014.

Note. this includes maintenance

In addition, Designers as part of their duties in terms of Construction Regulation 6 of the OHS Act 85/1993 shall ensure the following but not limited to,

(d) "inform the client in writing of any known or anticipated dangers or hazards relating to the construction work, and make available all relevant information required for the safe execution of the work upon being designed or when the design is subsequently altered;"

(e) "refrain from including anything in the design of the structure necessitating the use of dangerous procedures or materials hazardous to the health and safety of persons, which can be avoided by modifying the design or by substituting materials;"

(f) "take into account the hazards relating to any subsequent maintenance of the relevant structure and must make provision in the design for that work to be performed to minimize the risk;"

All Designers shall familiarise themselves with their duties as outlined and defined in Construction Regulation 2014

Recommendations to all Designers

- *Health and safety to be considered at all times when designing*
- *All designs to be in line with all relevant legislation and applicable standards*
- *Control measures with relevant signage required to prevent persons from entering the Pond areas.*
- *Ergonomic related hazards must be analysed, evaluated and addressed in a risk assessment and must be engineered as far as reasonably practicable*
- *Limit the use of Hazardous Chemical Agents (applicants, silica products) as far as reasonably practicable that may cause harm when inhaled and or absorbed through skin. Specify relevant PPE or control measures as needed when applicable*
- *Excavations shall be designed to allow sufficient access, angle of repose and control measures to prevent possible collapse. Civils Designer to provide safe methodology and guidance where applicable*
- *Sufficient space required for site offices, contractors camp, lay down areas and employee eating areas during construction*

- Guide lanes at dual carriage intersections or where reasonably practical
- Grids on side of street drains/catch pits to avoid unprotected openings
- Suitable drain covers to mitigate the risk of possible unprotected openings as a result of theft
- Avoid positioning Street lighting, Traffic Signals, drains etc. at universal access points/pedestrian crossings/walkways
- Obstruction free universal access points/pedestrian crossings/walkways
- Sufficient space for multiple pedestrians on medians at Universal Access points/pedestrian crossings
- Consider sequence/programming of works, as a result of street vendors, public safety and noise nuisance. Cognisance to be taken of applicable by-laws
- As built drawings to be considered. Cognisance to be taken of possible unknown services
- Correct placement of signage to avoid obstruction and line of sight
- Sufficient space to allow for works and activities close to traffic
- Lighting to be directed in way to avoid possible blinding of all users yet maintain lux levels as prescribed by legislation
- Control measures for persons who may be physically challenged with sufficient SANS compliant signage displayed
- Consider Engineering/mechanical methods and control measures as far as reasonably practicable
- All designers to consider the end user and maintenance at all times
- Traffic Impact Assessment to be considered by specialist
- All surveys to be considered
- Fall protection to be considered at all Culverts
- Cat ladders compliance with relevant legislation
- Control measures and provide design risk during construction when excavating deep excavations
- Ensure that not only competent contractors are appointed but that the competence of the actual persons on site are vetted by yourselves.
- Where Generators are installed consider noise levels, fumes/vapours, sufficient Ventilation, fire control and signage, safe access, exhaust regarding possible pollution and wind conditions

Scope Of Works as per the Employers Design Team:

The development will consist of an 8m wide asphalt road with barrier kerbs and sidewalks on either side. Bulk cut to fill earthworks will be required to shape the erven towards the stormwater detention ponds. These industrial erven will be serviced with sewer, water, stormwater, and electrical connection points.

On the external area of the development, a sewer line will be laid from the entrance of the development along Symphony Way and tie-into the municipality manhole along Hindle Road.

The external watermain will be laid from Stellenbosch Arterial Road connection point up to the entrance of the development.

Full construction works including but not limited to,

- ***New traffic signals and lane widening to be constructed at Symphony Way and Baleles Road intersection.***
- ***Directional drilling for the new 300mm water pipe along Symphony Way.***
- ***Gravity sewer to be laid along Symphony Way.***
- ***Civils Excavations***
- ***Possible Temporary Works***

The Principal Contractor shall liaise with the Professional Team and consider all Consultant reports especially where there is any uncertainty

Possible Design Risk as noted by the Design Team

- Working at heights
- Working amongst live traffic
- Working Airside of live airport (If Applicable)
- Airside traffic (busses, planes, special vehicles)
- Airside working conditions at live airport.

Additional Activities

- Site Establishment
- Civil Works
- Filling and compaction
- Possible Temporary Works
- Working at Heights
- Public Safety- Relevant precautions to be taken (Hoarding/Physical Barriers, signage etc.)
- Storage/control of Hazardous substances
- Possible Steel fixing
- Use of Temporary Access
- **Unforeseen activities**

The Principal Contractor must provide adequate control measures.

The scope also addresses legal compliance, hazard identification and risk assessment, risk control and promoting a Health and Safety culture amongst those working on the project. The specification also makes provision for the protection of those persons other than employees.

3.2 Provision for Health & Safety Cost

The Principal Contractor and their contractors shall make adequate provision for the cost of Health & Safety Measures during the construction process as required by the Construction Regulation 5(1)(g) and must allow for (but not limited to) adequate funds for at least **one Senior Full-Time** Safety Officer until all activities have been completed.

Equipment, scaffolds, signage, Training for all relevant personnel in line with all relevant Unit Standards where applicable, task specific Personal Protective Equipment & Clothing, Edge Protection, Safe Access, Emergency/Rescue Training and Equipment, on site monitoring, sufficient competent supervision, safe removal of rubble/hazardous waste, adequate and sufficient welfare facilities, Medicals, sufficient Security based on the risk, control measures and readiness for load shedding or possible emergencies, Traffic Management and accommodation, Sufficient Flagmen and Traffic Safety Officer/s.

IMPORTANT NOTE:

The Client/Client Representative and their appointed PR.CHSA will monitor site conditions and specifically how health and safety will be managed on site for the duration of the project. The Client therefore reserves the right to instruct the Principal Contractor to appoint additional safety officers should health and safety compliance not be met or maintained on site.

The Principal Contractor shall make provision for such possible changes

NOTE AT LEAST ONE COMPETENT SAFETY OFFICER MUST BE ON DUTY SHOULD NIGHT WORK BE REQUIRED

Note, The Principal Contractor shall make provision for possible costs of Permits that may be required by ACSA

4. INTERPRETATIONS

4.1 Application

This specification is a compliance document drawn up in terms of the South African legislation including all relevant South African Standards and where applicable, International Standards and is therefore binding. It must be read in conjunction with all relevant legislation, regulations and by-laws.

4.2 Definitions

The definitions as listed in the Occupational Health and Safety Act 85/1993 and Construction Regulations (February 2014) shall apply.

5. MINIMUM ADMINISTRATIVE REQUIREMENTS

5.1 Notification of Intention to Commence Construction Work

The appointed CHSA will inform the Provincial Director of the Department of Employment & Labour in writing as per the Annexure 1 in terms of CR 3. **The appointed Principal Contractor shall ensure that the Construction Work Permit is conspicuously displayed at the Site Entrance**

Should Direct Contractors be appointed (All Principal Contractors) they shall notify the Provincial Director of the Department of Labour in writing that construction work commences as per the Annexure 2 in terms of CR 4. A copy of the Notification must be placed in the Principal Contractor Health and Safety File on site and one copy shall be sent to the Client.

5.2 Assignment of Contractor's Responsible Persons to Manage and Supervise Health and Safety on Site.

The Principal Contractor shall submit management and supervisory appointments as well as any relevant Appointments in writing (as stipulated by the OHSA and Construction Regulations), prior to commencement of work. Proof of competency must be included.

All appointments shall be done by the Chief Executive Officer/Managing Director or his/her assistant in terms of Section 16 of the OHS Act 85/1993 with exception to the Construction Manager in terms of Construction Regulation 8.

The appointed Construction Manager shall be competent and have a minimum of a three year diploma in the Built Environment or any other relevant qualification as long as it is not short courses as required by the Department of Employment & Labour and in line with the definition of "Competence" The Construction Manager shall be full-time on site.

The Client/Client Representative reserves the right to comment and decline/approve such person

CV required with previous/similar projects

The Principal Contractor shall ensure that competent Construction Supervisors and where applicable that assistant construction supervisors are appointed in writing. Note: This shall apply to all contractors.

The Principal Contractor shall forward proof of competence of their Construction Manager/s and Site Supervision to the Client/Client Representative for assessment & approval prior to commencement of any activities

The Principal Contractor shall immediately inform the Client/Client Representative of their intent to replace any site management and shall follow due processes as above.

Section 8 (OHS Act 85/1993) General duties of employers to their employees

"ensuring that work is performed, and that plant or machinery is used under the general supervision of a person trained to understand the hazards associated with it and who have the authority to ensure that precautionary measures taken by the employer are implemented; and"

Management and supervision of construction work

8. (7) "A construction manager must in writing appoint construction supervisors responsible for construction activities and ensuring occupational health and safety compliance on the construction site"

(8) "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".

The Principal Contractor shall assess all work areas on a regular basis and ensure that sufficient Supervision is present at all work areas

5.3 Competency of Principal Contractor Responsible Persons

The Principal Contractor's competent persons for the various risk management portfolios shall fulfil the criteria as stipulated under the Definition of Competent in accordance with the Construction Regulations (February 2014). Proof of competence for the various appointments must be included prior to start of work. **The Principal Contractor shall ensure that all his/her employees including their contractors have the relevant competency and training for them to perform their duties and or carry out construction activities.**

The Principal Contractor and their contractors shall ensure that all Site Management and Site Supervision have at least training in Legal Liability & Hazard Identification and Risk Assessment (HIRA)

All certificates provided shall be issued by an accredited service provider as required by the National Qualification Framework Act 67/2000 & 2008 and the South African Qualifications Authority (SAQA)

5.4 Compensation for Occupational Injuries and Diseases Act (COIDA) 130 Of 1993

The Principal Contractor and their contractors shall submit a valid Letter of Good Standing from their Compensation Insurer-FEM or Compensation Commissioner to the Client's Representative as proof of registration before they commence work on site. Note: Contractors shall submit proof of registration to the Principal Contractor before they commence work on site. This requirement also applies for all Contractors.

Note:

A Client must ensure before any work commences on a site that every Principal Contractor is registered and in good standing with the compensation fund or with a licensed compensation insurer as contemplated in the Compensation for Occupational Injuries and Diseases Act, 1993 (Act No. 130 of 1993);

A Principal Contractor must ensure prior to work commencing on the site that every contractor is registered and in good standing with the compensation fund or with a licensed compensation insurer as contemplated in the Compensation for Occupational Injuries and Diseases Act, 1993;

5.5 Occupational Health and Safety Policy

The Contractor and their Contractors shall submit a Health and Safety Policy signed by their Chief Executive Officer. The Policy must outline objectives and how they will be achieved and implemented by the Company / Contractor.

5.6 Health and Safety Organogram

The Principal Contractor and their Contractors shall submit an organogram with contact numbers, outlining the Health and Safety Site Management Structure including the relevant appointments / competent persons. In cases where appointments have not been made, the organogram shall reflect the intended positions. The organogram shall be updated when there are any changes in the site Management Structure and must be site specific.

This requirement applies to all Contractors

5.7 Preliminary Hazard Identification and Risk Assessment

The Principal Contractor and their contractors shall develop Risk Assessments and Method Statements by a competent person for the risk that they foresee during construction. **Safe Work Procedures shall form part of hazard identification during the construction phase with control measures. Proof of communication must be provided.**

A Baseline Risk Assessment has been compiled and forms part of the Health and Specification, the appointed Contractor shall consider these risk assessments when compiling their own task specific risk assessments. The Principal Contractor must consult the health and safety committee regarding the monitoring and reviewing of risk assessments on the relevant site

The Principal Contractor shall ensure that a competent Risk Assessor is appointed in writing and shall be Full-Time on site for the duration of the project and have the competence in line with the SAQA Unit Standard 120330.

All Risk Assessments shall be conducted by the appointed Risk Assessor/Team PRIOR to start of any work.

This shall apply to all contractors. Furthermore, the Principal Contractor and their contractors shall ensure that Daily Safe Task Instructions are conducted prior to any activity with proof placed on file. **The DSTI's shall consist of Hazard Identification with control measures and must be task specific.**

The following is a site-specific source of risks that have been identified but is not limited to and must as a minimum, be appropriately addressed by the Principal Contractor in their Health & Safety Plan with Control Measures but is not limited to:

Site Establishment

- Hoarding Permits to be obtained from ACSA (If Applicable)
- Site needs to be adequately Secured as per Client requirements, Hoarding Specification or Drawings
- Offloading of containers/site office
- Secure / Safe Storage of Material, Plant & Equipment
- Ablution Facilities
- Adequate Eating & changing facilities
- Vehicle Access to Site
- Location of existing Services
- Dealing with existing structures and Traffic
- Provision for drinking water for all staff
- CoC for temporary electrical supply
- Safe Access i.e. Entry and Exit Points for all Deliveries with adequate control measures is required,
- Public Safety

The Principal Contractor shall ensure that designated routes with adequate control measures is provided for all delivery vehicles to allow for easy exits of the site.

It is recommended that the Principal Contractor inform their service providers and all contractors regarding the site limitations regarding deliveries and safe vehicle and pedestrian access to the site. *All Airside Activities must be taken into consideration (If Applicable)*

Hoarding & Access Control

- Hoarding/Fencing to be in line with approved Drawings and must be inspected daily and must adhere to ACSA standard hoarding requirements
- Public Liability / Access Control / Compliance to Section 9
- Site needs to be Adequately Secured
- Relevant Construction Warning Signage
- Daily inspections with proof placed on file
- Security to be placed on site as needed

The Principal Contractor shall provide adequate site hoarding (Physical Barriers), ensure that the hoarding is Fixed and are at least 1.8m in height or as per the Clients requirements. Continual liaising with Airside Ops and Apron Management regarding window period for major plant and material delivery times.

Contractor to be mindful of flight delays.

Note, when contracting security, the Principal Contractor shall liaise with ACSA first, as only National Key Point Guards are permitted in most areas

Note, some of the work areas due to its location and surrounding lends itself to crime and may lead to possible community unrest or criminal activities.

Considering the above, it is recommended that the Principal Contractor in consultation with their security service provider conduct a threat risk assessment and therefore allow sufficient funds for the duration of the project.

Relocation / Decanting of Staff (If Applicable)

- Contractor to provide suitable temporary relocation area as per instruction from Principal Agent and Client.

Public Liability

- Effect of Construction Work on members of the public and existing property e.g. Neighboring Property and roads
- Noise Control
- Dust Control
- Temporary lighting
- Relevant signage
- Hazardous Chemical Agents

Protecting of Persons Affected by Construction (Section 9 of the OHS Act 85/1993)

- Removal of material while working above/close to persons neighboring property/persons
- Risk Assessments and Method Statement to be provided and communicated to relevant parties.
- Construction Activities
- Crash Decks or any other suitable means of protection (If Applicable)

Principal Contractor and their Contractors to provide adequate control measures due to existing adjacent property, roads and walkways

Crane Management System (i.e. All Cranes)

- Competency and Medical Certificates of Operators
- Load Test Certificates
- Emergency Procedures Rescue Plan
- Crane Management Plan/System to be provided
- Emergency/Rescue Procedures
- CR 23 and Driven Machinery Regulations (2015) must be adhered to
- Relevant Inspections conducted by an LME/LMI as per DMR 18(2015)
- Cranes shall be fitted with wind meters/anemometers and must be in line with section 10 and 44 of the OHS Act 85/1993 and all relevant SANS codes

A lifting plan needs to be provided if the load exceeds stones. Should the crane be found not to be fitted with a gauge/anemometer due to its Design, then the Principal Contractor must provide alternative control measures e.g. the use of a handheld wind gauge/anemometers. The Principal Contractor, their contractors and service providers shall ensure that all vehicles and plant are adequately earthed especially when in close proximity of electrical cables. Ground conditions must also be assessed by a competent person.

Lifting and Installation Procedures

- Principal Contractor to submit Full Method Statements of their lifting and installation procedures e.g. manually or mechanically.
- All lifting equipment to comply with Driven Machinery Regulation (2015)
- Guide Ropes shall be used as far as reasonably practicable when busy with all lifting Operations to assist with possible uncontrolled loads especially during inclement weather and restricted areas.
- All work areas shall be adequately demarcated with spotters' present
- Competent Banksman/Riggers shall assist with lifting operations
- Public Safety to be taken into consideration at all times

Procedure for Over Under Head Work

- The appointed contractor shall provide adequate procedures and control measures to avoid any over/under head work activities

Working Near Existing Services

- Principal Contractor to provide control measures to protect the existing services
- Contractor to liaise with Client/Electrical Consultant prior to any electrical activities.
- Contractor to provide full method statement and risk assessment when working on live electrical Cables.
- Must be communicated to all staff prior to the activity.
- Identification and protection of existing services i.e. Electrical Cables, Telkom, Data etc. Principal Contractor to provide adequate control measures including cable detection for unknown services
- The Principal Contractor shall apply for and obtain the following permits but is not limited to, Civils Work Permit, Wayleaves
- Principal Contractor to work according to all approved drawings
- Lock-out/Tag-out Procedures required and must be issued by competent persons
- Identification and protection of **Unknown** services e.g. **the use of Cable Detection/Cable Detectors etc.**
- All Staff must be provided with the relevant Personal Protective Equipment (PPE)

Existing services are present and include but not limited to, underground, sewer water, electrical and active manholes. Overhead and underground services along Symphony Way and Stellenbosch Arterial Road.

NOTE, No person shall enter any live/existing manholes before ensuring that it's safe to do so, that the manhole has been declared safe to enter and free of toxins by a competent persons, that task specific risk assessments with sufficient control measures has been provided and communicated with proof placed on file. Gas Free certificates to be issued by competent persons

Where applicable, the Principal Contractor must ensure that a Biological Monitoring Plan is implemented and conducted should any employees be exposed to a sewer area or raw sewage. These employees must undergo a Hepatitis Antibody injection.

Where there is uncertainty the Principal Contractor shall consult an Occupational Medical Health Practitioner to determine what inoculation is required. All employees that may be exposed to sewage shall have received the relevant inoculation, be trained for the task, be in possession of the prescribed personal protective equipment.

Furthermore, the Principal Contractor shall provide task specific risk assessments with proof of training placed on file prior to any activity.

The Principal Contractor shall tie into the existing services with minimal disruption. Principal Contractor and their contractors to provide adequate control measures when working close to overhead lines including relevant permits/wayleaves. Adequate Earthing required for plant and material when close to High Voltage Cables.

The Principal Contractor to risk assess the work areas prior to commencement in these areas

Procedure to identify HV/Electrical Cables (Cable Detection)

- The Principal Contractor shall apply for and obtain the following permits but is not limited to, Civils Work Permit, Wayleaves (If Applicable)
- The appointed contractors shall provide procedures for the identification of all HV/Electrical Cables

Electrical Installations including working close to sub-stations

- A competent contractor must be appointed to install all specialized cables such as low/high/mega voltage cables in and around the site.
- Must be carried out under competent supervision.
- Lock out/Tag out procedures
- Excavations
- Cable laying/Stringing
- Working with live cables/live installations
- Working close to existing/ or installing new substations
- Tying in of new electrical lines onto existing lines
- Working on control and switch gears
- Switching process and Isolation operations
- Working with & in close proximity of live apparatus
- Compliance with SANS 10142 and all relevant legislation
- Relevant Permits to be obtained by authorized persons
- Diverting of existing cables
- Protecting of existing cables

Furthermore, the Principal Contractor and their appointed contractor shall inform the Electrical Consultant prior to any works. The Principal Contractor must communicate with the appropriate Consultant and Client if any amendments to the design relating is required to improve safety.

Safe Use of Portable Electrical Equipment

- Electrical Drilling Machine
- Angle Grinder
- Kango / Jack Hammer
- High Pressure Equipment
- Any Other Equipment used by Principal Contractor
- All portable electrical tools shall comply with all relevant legislation, regulations, standards and best practices

Civils Work

- Excavation & Compliance to Construction Regulation 12, 13 and 10, 23
- Compliance with the South African Road Traffic Signs Manual (SARTSM) Chapter 13
- Persons/Equipment falling into Excavations- Control measures required
- Edge Protection
- Traffic and Pedestrian Accommodation
- Heavy Construction Vehicles/Mobile Plant

- Road Cleaning to be maintained daily
- **Procedure to identify underground HV/Electrical Cables including unknown services**

The Principal Contractor shall use Cable Detectors or any other suitable methods to identify possible unknown services. The Principal Contractor shall tie into the existing services with minimal disruption as far possible

Note, The Principal Contractor shall study all surveys and reports e.g. Geotechnical and consult the relevant Engineers as needed

The Use of Troxler's: Contractors to ensure compliance

- License for use of Troxler and density material and equipment
- Leak Test Certificates
- Calibration Certificate
- Procedure when transporting with relevant signage displayed
- Risk Assessments
- Proof of Competency for operators
- Safe storage

Plant & Machinery

- Principal Contractor to provide designated area should any plant and machinery be parked at night. Plant to be fully secured to avoid possible unauthorized access. Adequate lighting required as and when needed
- Safe Access required for all operations including deliveries
- **All operators shall be in possession of a valid Drivers' License**

Traffic Management Plan to include but not limited to, (Deliveries)

- Traffic Plan and Layout to be approved and signed by Engineer/Client Representative and relevant local authorities
- Delivering of Material and Equipment
- Advance construction Signage, Competent Flagmen and Compliance with all relevant regulation and legislation including the South African Road Traffic Signs Manual (SARTSM) Chapter 13.
- Plan to be Monitored and Reviewed at least monthly (Every 30 Days) or as the building programme/activities changes
- Adequate barriers and delineators to be provided and placed strategically as needed
- Procedure for maintaining road signage
- All employees working in or close to the road to wear Hi-Viz vests at all times
- Flagmen shall be provided and readily available to assist with all Deliveries
- Flagmen shall not be on duty for a period longer than 8 (eight) hours per day. Flagmen to be rotated as needed.
- **Heat and Inclement weather to be considered for all Flag persons. Sufficient control measures required**

Principal Contractor and their contractors shall provide control measures when working close to public roads and consider safe drop off zones as needed. No road may be closed without the engineer's approval and traffic shall be accommodated as per the approved drawings/layout.

Pedestrian and vehicle access are of paramount importance with relevant signage displayed. The Principal Contractor shall provide adequate control measures for both internal, external roads and Haul Roads if applicable

Working at Heights including Scaffolding

- Principal Contractor and their contractors to compile a Site-Specific Fall Protection Plan in Line with CR 10.
- Process to Remove Equipment, Tools Scrap, Material etc. to and from Elevated Positions.
- System to Protect Persons / items or material falling from any elevated positions/areas.
- **Note, all employees working at heights shall be in possession of Working at Heights Training issued by a competent person and service provider and must be in line with all relevant Unit Standards**
- The Scaffolding must comply with CR 16 and SANS 10085:1-2004
- Design Drawings to be provided by a competent person
- Daily inspections to be conducted or prior to use and recorded at least weekly or as per SANS 10085
- **Note: No Trestle, Walkthrough and Aluminium Scaffolds may be used on site**

Temporary Works (Including possible bracing and shoring of excavations)

- The Principal Contractor shall comply with CR 11, CR 12, CR 10 and CR 13
- *Competent persons to be appointed in writing (Proof of competence shall be provided for all relevant appointments and shall include competence for all employees designing, inspecting, supervising and erecting temporary works) These employees shall be in possession of training for the relevant temporary works systems and or the preferred service provider. Where Unit Standards are available, the Principal Contractor shall ensure that all persons are in possession of such training*

All Temporary Works Designers and Inspectors shall have satisfied the definition of competence as required by the OHS Act 85/1993.

"An all-inclusive assessment should be on all four components knowledge, training and experience, and where appropriate qualifications exist in relation to the work to be performed."

"Temporary works designer(s) must be mandated by the contractor to perform any or all of the three functions." and ensure that all temporary works are erected as per the temporary works design

- Erecting and Stripping of Temporary Works to be done by competent persons
- Approved Design Drawings issued by a competent person to be done by competent persons
- Casting of Concrete
- Daily Inspections to be conducted by competent person
- Control measures should Drilling/ Cutting into Slab be required (If Applicable)
- Adequate Edge Protection- **No Danger Tape or shade cloth**
- Authorization to be provided in writing by a competent person (**Before Concrete Pour**) and
- Handover Certificates/Signed off by a Competent Person **before Stripping any temporary works structures**
- Authorization to be provided in writing by a competent person (Before Concrete Pour and stripping of temporary works structures)
- Handover Certificates/ Signed off by a Competent Person
- Safe Access required at all times

The Principal Contractor and their appointed contractor/temporary works team shall provide a procedure to ensure that edge protection is provided at all times especially when erecting or removing/stripping temporary works structures

The appointed contractor shall closely monitor and control all construction loads when on concrete slabs/decks. The contractor shall consult the appointed Structural Engineer and verify any specific requirements

Unplanned collapse of Material or Structures- Contractor to provide control measures

- Contractor to provide adequate protection to avoid falling objects e.g. Crash Decks or any other suitable protection as and where needed
- Principal Contractor to assess all work areas prior to start of work.
- Structures to be inspected by competent persons to render the structure safe.
- Principal Contractor to provide full method statement and risk assessment
- The structure to be maintained in such a manner so that it remains safe for continuous use.
- Records of inspections and maintenance are to be kept on file and must be made available on request to an inspector. **Principal Contractor and all contractors must comply with Construction Regulations (CR) 11**

Structural Steel (If Applicable)

- Principal Contractor to submit Task Specific Method Statements and Task Specific Risk Assessments of their lifting and installation procedures e.g. Manually or Mechanically.
- Full compliance with CR 9, 10, CR 23 and DMR 18 (2015)
- Guide Ropes shall be used as far as reasonably practicable when busy with all lifting operations to assist with possible uncontrolled loads especially during inclement weather and restricted areas.
- Only competent persons to conduct operations
- Task Specific Fall Protection & Rescue Plan
- All work areas shall be adequately demarcated with spotters' present

Hot Works

- Principal Contractor and their contractors to ensure that Fire Equipment and adequate precaution measures are in place when grinding, welding / hot works etc. including PPE and demarcation
- Hot work permits to be issued once the area has been inspected by a competent person and declared safe with proof placed on file. **(Note- All permits should not exceed one (1) working day)**
- Compliance with CR 25 & 29
- Trained fire personnel and fire control measures shall be readily available at all times when busy with hot works

Hot work permits to be obtained from ACSA Fire and Rescue. In addition, The Principal Contractor shall liaise with ACSA Fire & Rescue for any specifics related to hot works at the ADS unit locations.

Temporary Flammable Liquid/Material Storage

- Principal Contractor to compile a risk assessment
- Flammable to Store be provided
- Ensure that adequate ventilation with Relevant Signage and Fire Precautions are provided.
- Adequate Fire Equipment to be readily available.
- Comply with all relevant legislation and regulations including the Community Fire Safety
- By-law Compliance and CR 25 & 29
- Control measures to avoid possible spillage or contamination
- Drip Trays shall be provided and be used as and when needed

Emergency Preparedness

- **Compliance to ACSA Emergency Procedure**
- Emergency Evacuation Plan with Relevant Emergency Numbers
- Revision of Emergency Plan
- Principal Contractor to monitor site conditions and conduct Evacuation Drills as and when needed with proof placed on file (Roll call, report to be placed on file etc.)
- Sufficient workers are Trained and Competent in the use of Fire Extinguishing Equipment
- Sufficient Trained and competent emergency coordinators to **(Proof of training for all emergency coordinators to be provided and must be in line with the relevant Unit Standards)**
- Sufficient Emergency assembly point to be established with the relevant signage displayed.
- Sufficient Air horn/alarm/sirens to be provided on site and must be tested on a regular basis
- The Principal Contractor shall make provision and have procedures in place for possible sewer spillage
- Control measures, procedures and readiness for any community/civil unrest
- Multiple means of communication, e.g. Two radios etc.

Dust Control

- Principal Contractor to provide a procedure to control dust and ensure that this is maintained daily. **Contractors shall use Dustless Grinders when working in restricted areas or as prescribed by the Client/Client Representative and use suitable PPE especially the electrical contractor and or where dust is generated. Cognizance must be taken of members of the Public.**

Noise Control

- Principal Contractor to provide a procedure to control noise and shall comply with CR 9, Section 8 of the OHS Act 85/1993 and the Noise-induced Hearing Loss Regulation
- Hearing protection to be used where noise levels cannot be reduced below 85dBA and comply with the OHS Act 85/1993. **Cognizance must be taken of members of the Public.**

Manual and Mechanical Handling

- Principal Contractor to provide control measures
- **Ergonomics related hazards must be analysed, evaluated and addressed in a risk assessment.**

Possible Working Close to Water

Note, Existing Wetland area adjacent to the development.

When construction work is carried out over or near the water's edge, the following must be considered but is not limited to,

- The Principal Contractor shall comply with CR 26, CR 9 and Section 8 and 9 of the OH'S Act 85/1993
- Emergency Procedures with Rescue Plan
- Contractor to specify Safe Means of Access
- Contractor to provide what control measures will be provided for employees
- Prevent persons from falling into the water
- Control measures for rescuing persons in danger of possible drowning

Construction Regulation (CR) 26

(1) A contractor must ensure that where construction work is done over or in close proximity to water, provision is made for-

- (a) preventing persons from falling into water; and
- (b) the rescuing of persons in danger of drowning.

(2) A contractor must ensure that where a person is exposed to the risk of drowning by falling into the water, the person is provided with and wears a life jacket.

Protection of Storm Water System

- Principal Contractor to provide control measures and methodology to Prevent Run Off into Storm Water System

Health Hazards

- Possible Existing hazardous materials
- Contaminated land
- Polluted drinking water
- Working with cementitious material
- Dust
- Noise
- Vibration
- Working with fuel, lubrications and other chemicals
- Vermin
- Possible Hazardous Biological Agents

Environmental Management

- Contaminated Land/Water
- Air and Dust Pollution;
- Noise Pollution;
- Water Pollution;
- Possible Soil Pollution;
- Normal and abnormal operations;
- Waste Management practices;

Principal Contractor and their contractors to ensure that the risk assessments, as well as other risks identified by them, are updated and reviewed at least every 30 days, as the risk changes and after any incident and must be recorded and communicated to all relevant parties with proof placed on file- CR 9. Note: All reviews must be signed off by the appointed Risk Assessor.

All identified risks and hazards must be based on a documented method (method statements). Furthermore, the Principal Contractor and their contractors shall provide a Monitoring and a Review Plan including a Risk Register indicating all activities.

The Principal Contractor shall comply with the Occupational Health and Safety Act (OHS Act) 85/1993, Construction Regulations and all relevant Legislation. Note: Principal Contractor must ensure as far as is reasonably practicable, ergonomic related hazards are analysed, evaluated and addressed in a risk assessment. **The Principal Contractor shall comply with all relevant Environmental Requirements as and when needed**

5.8 Fall Protection Plan:

Working at heights includes any work that takes place from an elevated position. The Principal Contractor and their contractors must submit a risk/task-specific Fall Protection Plan in accordance with Construction Regulations 10. The Fall Protection Plan must be task specific, be reviewed at least every 30 Days, as the risk changes and after any incident. Contractors to ensure that medicals are provided for all persons exposed to elevated positions.

All employees working at heights must have a Medical Certificate issued by an Occupational Health Practitioner (OHP) in the form of an Annexure 3

A fall protection plan must include

- (a) a risk assessment of all work carried out from a fall risk position and the procedures and methods used to address all the risks identified per location;
- (b) the processes for the evaluation of the employees' medical fitness necessary to work at a fall risk position and the records thereof;
- (c) a programme for the training of employees working from a fall risk position and records thereof;
- (d) the procedure addressing the inspection, testing and maintenance of all fall protection equipment; and
- (e) a rescue plan detailing the necessary procedure, personnel and suitable equipment required to affect a rescue of a person in the event of a fall incident to ensure that the rescue procedure is implemented immediately following the incident.

5.9 Health and Safety Officer 8(5) (Full-Time)

The Principal Contractor and their contractors shall make adequate provision for the cost of Health & Safety Measures during the construction process as required by the Construction Regulation 5(1)(g) and must allow for (but not limited to) adequate funds for at **least one Senior Full-Time** Safety Officer until all activities has been completed. Proof of competency to be attached to each appointment.

All contractors appointed by the Principal Contractor on site shall appoint competent safety officers. The appointed Principal Contractor and their contractors may determine and agree on the frequency of their contractors' safety officers' visits to site but shall be at least weekly. All Site Visits shall include Physical and Administrative inspections and attend to all Health and Safety Requirements as needed

The Safety Officer shall be fully registered with the South African Council for the Project and Construction Management Professions (SACPCMP).

NOTE. NO CANDIDATES WILL BE ALLOWED TO MANAGE HEALTH AND SAFETY ON THIS PROJECT

The following health & safety officer related duties will be required and must be carried out but is not limited to.

- a) Health & safety audits and inspections including administrative and physical audits of all Contractors' health & safety plans, files and activities, and record findings in the form of audit reports to be kept in the health & safety file;
- b) Weekly inspection reports – site hazard survey findings recorded, and actions taken recorded;
- c) Assess, and finally approving Contractor H&S plans;
- d) Maintain and co-ordinate the Principal Contractor health & safety management plan and file;
- e) Investigate near misses, incidents and injuries;

- f) Co-ordinate the function of reviewing the hazard identifications and risk assessments;
- g) Assist with method statements and safe work procedures and checking whether the responsible persons follow these safe work procedures;
- h) Enforcing discipline on the site and checking on compliance with safety procedures, standards and rules;
- i) Implement and enforce the site hot work permit system;
- j) Ensure that public protection protocols are adequate and well maintained;
- k) Conduct planned job observations to check whether workers are carrying out activities in accordance with the safe work procedures;
- l) Fire risk assessments and enforcement;

Note: “No contractor may appoint a construction health and safety officer to assist in the control of health and safety related aspects on the site unless he or she is reasonably satisfied that the construction health and safety officer that he or she intends to appoint is registered with a statutory body approved by the Chief Inspector and has necessary competencies and resources to assist the contractor”.

Additional duties may be required as per SACPCMP requirements/scope of services

5.10 Medicals

The Principal Contractor to ensure that all his or her employees including all appointed contractors 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 an Annexure 3. **Failing to comply may result in the relevant employees being stopped without compensation to protect the Client in terms of CR 5.**

Furthermore, the Principal Contractor and their contractors must provide a tracking register clearly indicating the full names, surnames of employees.

Note: Expiry Dates of all medicals shall be clearly displayed on all induction cards

Only certified copies will be allowed where original certificates is not available

Where applicable, the Principal Contractor must ensure that a Biological Monitoring Plan is implemented and conducted should any employees be exposed to a sewer area or raw sewage. These employees must undergo a Hepatitis Antibody injection.

Where there is uncertainty the Principal Contractor shall consult an Occupational Medical Health Practitioner to determine what inoculation is required. All employees that may be exposed to sewage shall have received the relevant inoculation, be trained for the task, be in possession of the prescribed personal protective equipment.

Furthermore, the Principal Contractor shall provide task specific risk assessments with proof of training placed on file prior to any activity.

5.11 Health and Safety File (HSF)

The Principal Contractor and their contractors shall, in terms of CR 7(1), maintain the HSF on site always. The HSF is a file with permanent records containing information on aspects of the construction project - which will be necessary to ensure the health and safety of any persons who may be affected by the construction work.

The HSF must include all documentation required in terms of the OHS Act and Regulations and must also include a list of all Contractors on site that are accountable to the Principal Contractor and the agreements between the parties and details of work being done.

The Principal Contractor shall appoint a suitably qualified person to prepare the HSF and to keep it up to date for the duration of the contract.

The HSF Shall Include At Least The Following Information but is not limited to,

- 1 Principal Contractor Appointment 5(1)k
- 2 Notification of Construction Work & Construction Work Permit (CR 3 & CR 4)
- 3 Proof of Registration and good standing with a COIDA Insurer (CR 5(1)(j) (The Principal Contractor shall submit a letter of good standing with the compensation Insurer, at the tender stage).
- 4 SHE Policy
- 5 Contractors appointment & 37.2 Agreement: with contractors
- 6 Approved Health & Safety Plan in line with the H&S Specification
- 7 Fall protection Plan & Rescue Plan
- 8 Site safety rules
- 9 Evacuation plan & procedures
- 10 Risk assessments
- 11 Method Statements
- 12 Safe work procedures
- 13 Legal safety appointments with site specific Organogram and proof of competence (certificates)
- 14 Proof of training records with all staff
- 15 Induction Training and Records
- 16 Medical records in the form of an Annexure 3
- 17 Toolbox talks
- 18 Injury and incident procedure and forms including Incident Register
- 19 Accident and Incident Procedures and WCL2, Annexure 1 etc.
- 20 All Inspection Registers/Checklist specific to the project and must be signed by the appointed competent persons
- 21 Contractor Audits
- 22 Internal Weekly/Daily Site Inspections/Audits
- 23 H&S Committee Meeting agenda, minutes and attendance registers
- 24 Safety Data Sheets & proof of communication
- 25 H&S Specification and Baseline Risk Assessment
- 26 All Designs/drawings (including scaffolding and Temporary works if applicable)
- 27 Contractors List

The Latest Copy of the OHSA (GAR 4) must be readily available on site

Method Statements must be provided for all High-Risk activities and must be approved and signed by the Construction Manager. All high-risk method statement must be made available to the relevant Engineers for comment upon request. Note, all documentation must be readily available to the Client/Client Representatives for perusal or comment as needed

The consolidated HSF or electronic copy shall be handed over to the Client on completion of the contract. It must contain all the documentation as set out above, or as per the consolidate report provided by the appointed health and safety agent or as instructed by the Client/Client Representative, as well as any handed to the Principal Contractor by any subcontractors together with a record of all drawings, designs, materials used and other similar information concerning the completed project.

5.12 Health and Safety Representative(s)

The Principal Contractor and their Contractors shall ensure that competent Health and Safety Representative(s) are appointed under consultation and trained to carry out their functions as soon as the total workforce has reached a number of 20 employees or more. **Should the Principal Contractor and their contractors have less than 20 employees, then the accumulative number of employees working on site shall apply.**

The appointments must be in writing. The Health and Safety Representative shall carry out regular inspections at least monthly, keep records and report all findings to the Responsible Person forthwith and at Health and Safety meetings. **Note: The Principal Contractor and their contractors shall ensure that all certificates provided are issued by an accredited service provider as required by the National Qualification Framework Act 67/2008 and SAQA.**

The number of representatives for each contractor shall be as per Section 17 of the OHS Act 85/1993, but as a minimum, The Principal Contractor shall appoint at least one competent Health and Safety Representative on the project.

5.13 Health and Safety Committees

Principal Contractor shall organize **at least monthly** Health & Safety meetings. Minutes and records shall be kept. Principal Contractor Health & Safety representative and responsible person shall attend this meeting. Principal Contractor to ensure that all Contractor Representatives attend these meetings. **The Principal Contractor and their contractors site management must form part of these meetings. It is recommended that the Construction Manager or his assistant act as chairperson. These meetings shall be conducted regardless how many contractors are appointed or as soon as there are 20 or more employees on site.**

The Principal Contractor must consult the health and safety committee regarding the monitoring and reviewing of risk assessments on the relevant site

5.14 Health and Safety Training

5.14.1 Induction

Principal Contractor shall ensure that all (including site visitors etc.) undergo site- specific induction presented by a competent person and proof placed in the Safety File prior to start of work. Employees to carry proof of inductions. **Induction cards shall clearly indicate the full names, surnames (No Nick Names), picture of employees, including the expiry dates of all medical certificates of the relevant employee. Note, Visitors shall also have induction cards.**

The Principal Contractor shall ensure that the following documentation is communicated to all employees working on site prior to induction and shall include but is not limited to, Task Specific Risk Assessments, Method Statements, Safe Work Procedures, Fall protection Plan. All inductions must take place in a safe space/zone thus ensuring employees and visitors are not exposed to any immediate construction activities/hazards.

Contractor Personnel Access & Identification:

The Principal Contractor shall ensure that all personnel accessing the site are inducted as part of the general H&S requirements and that ID cards adopted as required by the Contractor and AVSEC. (i.e. Contractor personnel to wear 2 distinct access cards, an ACSA permit and a staff identification card).

The Principal Contractor shall make provision for ACSA Airside Permits & Training prior to commencing with activities if applicable

5.14.2 Awareness

The Principal Contractor shall ensure that, on site, toolbox talks take place at least weekly. These talks should deal with risks relevant to the construction work at hand. A record of attendance shall be kept in the Health and Safety file. All Principal Contractor have to comply with this minimum requirement. Contractors to ensure that the discussion is recorded on file (Topics with notes)

5.14.3 Health and Safety Site Rules

The Principal Contractor must develop a Set of Site-Specific Health and Safety Rules that will be applied to regulate the Health and Safety aspects on Site. Security and Access control must be included in the rules and those non-employees or visitors will not be allowed on site unaccompanied. **Note, the Principal Contractor shall consult the Client/Client Representative for any additional requirements**

Security Clearance and Protocols Required for Airside Access of all personnel (If Applicable). Note, when contracting security, the Principal Contractor shall liaise with ACSA first as only National Key Point Guards are permitted in most areas

General site / Client matters:

- Contractor staff to traverse via the dedicated routes only when accessing the construction site area during the various phases.
- Contractor will ensure vehicle management procedures are in place by way of flagmen control during contractor deliveries during scheduled times only.
- No contractor vehicles are to be left unattended during deliveries.
- Existing parking bays, other than what has been agreed for the use by the Contractor, are not for the contractor or construction vehicles.
- Decommission of Mechanical and Electrical (M&E) services in part involving CCTV cameras, fire detection services and signage to be closely coordinated with ACSA M&E Departments. Prior notification on the timing of this to be given to ACSA including AVSEC to ensure that no systems are compromised and that alternative measures, if required, can be arranged.
- Installation of hoarding panels as per specification description approved with the Client and Security.
- During peak periods consideration will be given to the reduction of noise levels where practically possible. The Project Manager may instruct the Contractor to use alternative means or consider after hours works for noisy activities that may impact on public comforts.
- Access to work areas beyond the controlled and established hoarding line (i.e. Airside) will be via security checkpoints including tools and materials.
- Existing ACSA Electronic equipment may need to be decommissioned and re-used in new areas as instructed by the Project Manager when needed.
- The Contractor will work within the confines of the hoarded areas during normal working hours and will need to work outside these enclosures after hours given the nature of the works.
- Removal of hoarding structure at completion stage will be coordinated with ACSA Security.

Note: Airside Access, General Movement of personnel, plant and vehicles, shall be discussed with ACSA with written approval prior to commencement. The Principal Contractor and their contractors shall comply with ALL the Rules, Requirements and Manuals and Procedures of ACSA especially when working on Airside with proof of communication to the relevant employees

All Public Relations shall be dealt with in the prescribed manner as prescribed by the Client/Client Representative and ACSA requirements

5.14.4 Competence

In accordance with the Construction Regulation the Principal Contractor shall appoint, in writing, competent persons (in addition to the Construction Managers – CR 8 (1)(2) & Construction Supervisor/s-8(7)(8) responsible for supervising construction work for the following work situations that may be expected on the site of the works, as applicable to the project. **The Principal Contractor shall ensure that all his/her employees including their contractors have the relevant competency and training for them to perform their duties and or to carry out construction activities.**

A competent person may be appointed for more than one part of the construction work with the understanding that the person must be suitably qualified and able to manage and supervise at the same time the construction work on all the work situations for which he/she has been appointed. The appointment of competent persons to supervise parts of the construction work does not relieve the Principal Contractor from any of his responsibilities to comply with all requirements of the Construction Regulations.

The Principal Contractor and their contractors shall ensure that all certificates provided are issued by an accredited service provider as required by the National Qualification Framework Act 67/2000 & 2008 and the South African Qualifications Authority (SAQA)

The Principal Contractor shall assess all work areas on a regular basis and ensure that sufficient Supervision is present at all work areas

The Principal Contractor shall use the guidelines provided by the Department of Employment & Labour regarding competence when appointing site management

Furthermore, the Principal Contractor and their contractors shall perform due diligence and verify the authenticity of all certificates of competence provided for the appointed persons where required, e.g. accreditation with relevant CETA's, that the service providers are in good standing and certified to perform the relevant training courses, all certificates are valid and in line with the applicable Unit Standards etc.

Note, where original documents are not available. The principal contractor and their contractors shall ensure that all relevant copies are certified as needed

5.15 Environmental

ACSA's Environmental terms and conditions are to be adhered to. The Contractor must ensure that all its Contractors, employees and all persons entering the site during construction are fully aware of the environmental issues and all relevant regulations. **It is the Contractor's responsibility to stay within the parameters of his/her activities and to execute said tasks within the applicable regulated Norms and Standards.**

Existing Wetland and conservation areas adjacent to the development. Principal Contractor to provide sufficient control measures.

ACSA Environment and Fire and Rescue to be notified where a spill occurs. Contractor to immediately mobilise 'mop-up' teams to address impact on Stakeholders

It is the responsibility of the Contractor to:

Report to the Client/Client Representative any environmental incidents, e.g. hazardous substances spillage, damage to vegetation, public complaints, etc.

6. GENERAL RECORD KEEPING

The Principal Contractor and their Contractors shall keep and maintain Health and Safety records to demonstrate compliance with this Specification, with the OHS Act 85/1993, and with the Construction Regulations (February 2014).

The Principal Contractor and their contractors shall ensure that all records of incidents / accidents, emergency procedures training, inspections, audits, etc. are kept in a Health and Safety file held in the site office. The Principal Contractor must ensure that every contractor keeps and maintains its own Health and Safety file and must be readily available at all times. (The file must include the Contractor's health and safety plan). These records are crucial for inclusion in the Principal Contractor consolidated health and safety file for handover to the Client on completion of construction work.

7. HEALTH AND SAFETY AUDITS, MONITORING AND REPORTING

The Client's Health & Safety Agent shall conduct Health and Safety audits/inspections as needed. Operations including a full audit of physical site activities as well as an audit of the administration Health and Safety. The Health and Safety Agent may conduct unannounced visits/inspections and audits as needed.

The Principal Contractor shall provide a Corrective Action Plan within 3 days for all non-compliances noted in the Audits conducted by the Client's Health and Safety Agent. This Plan shall include proof that all non-compliances have been rectified and an electronic copy shall be sent to the Client Representative including the appointed Health and Safety Agent as proof of items closed out

The Principal Contractor and their contractors are obligated to conduct similar audits on their Contractors. Detailed reports of the audit findings and results shall be reported on at all levels of project management meetings. Copies of the reports shall be kept on file and must be readily available for inspection. The Principal Contractor must audit their Contractors and keep records of these audits in their Health and Safety files and must be available on request. The Principal Contractor shall ensure that all contractors documentation is assessed and approved prior to start of work with proof placed on file.

The Principal Contractor shall conduct continuous audits where contractors fail to comply and not only every 30 days including a procedure for continuous monitoring of all contractors. Note: The Principal Contractor shall provide at least one Consolidated/Comprehensive Contractor Audit every 30 days with proof placed on file

7.1 Internal Audits/Inspections

The Principal Contractor safety manager/safety officer must conduct at least weekly inspections/audits with a detailed report. A copy of these inspections/audits must be placed on file for perusal by the Health and Safety Agent. **These reports shall include photographic evidence and must be closed out ASAP. Urgent/High Risk items to be rectified immediately or where there is an immediate threat to the health and safety of persons.**

8. EMERGENCY PROCEDURES

The Principal Contractor/s shall submit a detailed Emergency Procedure and Evacuation Plan with assembly point and contact details in the case of any emergency.

The procedure shall detail the response plan including the following key elements:

- List of key competent personnel;
- Details of emergency services;
- Actions or steps to be taken in the event of the specific types of emergencies;
- Information on hazardous material/situations.
- Emergency procedure(s) shall include, but shall not be limited to, fire, spills, accidents to employees, use of hazardous substances, bomb threats, major incidents/accidents, etc.
- Possible Fires
- Adequate Signage to be displayed for easy evacuation
- Clear and obstruction free access routes
- Emergency Contact numbers to be clearly displayed at all times
- Detailed drawings/ layout plans of evacuation routes and must be updated and be in line with all construction activities
- Sufficient emergency entry and exits points is of paramount importance
- Load Shedding (Day/Night)
- **Community/Civil Unrest**

Principal Contractor to provide a procedure to ensure that no access routes are closed without employees being aware of the new access routes. All access and emergency access routes must be safe and obstruction free at all times. Relevant signage shall be provided and displayed clearly indicating the escape routes.

Note, all signage and escape routes must be discussed with ACSA, the Client Representative and Fire Consultant (If Applicable)

The Principal Contractor shall inform and notify the Client, Client Representative and all relevant authorities forthwith, of any emergencies, together with a record of action taken. This shall be confirmed in writing as soon as possible after the incident. A contact list of all service providers (Fire Department, Ambulance, Police, Medical and Hospital, etc.) must be maintained and available to site personnel. These procedures shall form part of the OHSF. The Principal Contractor to ensure that the relevant staff is trained to perform such duties as required by the OHS Act. All emergency procedures must be monitored on a regular basis and must be in line with the building program. The Emergency/Evacuation plan and routes must be revised on a regular basis for all employees and contractor (including staff) should any unforeseen event take place during the implementation phase/s of the project. Evacuation Drills must be conducted as and when needed. Contractor to assess all activities to ensure this is implemented with proof placed on file. **Emergency Preparedness and Response plan shall include but is not limited to, First Aid, Fire and Explosions, Hazardous Chemical Agents and Flammable Substances spillage, Civil unrest and violence etc.**

Principal Contractor to Liaise with the Client/Client Representative for any additional procedures. All planned evacuation drills must be communicated to ACSA with written approval prior to any drills. Contractor to assess all activities to ensure this is implemented with proof placed on file. **In case of medical and/or fire emergency contact ACSA Fire & Rescue Services: (021) 937 1211 or 1249. All numbers to be tested on a regular basis**

Principal Contractor to liaise with ACSA responsible person and ensure that all Emergency and Rescue Procedures are in line with ACSA requirements/procedures.

9. FIRST AID BOXES AND FIRST AID EQUIPMENT

The Principal Contractor and their Contractors shall appoint in writing First Aider(s). The appointed First Aider(s) are to be sent for accredited first aid training. Valid certificates are to be kept on site. All Contractors with more than 5 employees shall supply their own first aid box. Principal Contractor with more than 10 employees shall have trained, certified first aider on site at all times & First aid Box stocked always.

10. ACCIDENT / INCIDENT REPORTING AND INVESTIGATION

Injuries are to be categorized into first aid, medical, disabling and fatal. The Principal Contractor and their contractors must stipulate in its construction phase Health and Safety plan how it will handle each of these categories. When reporting injuries to the Client, these categories shall be used. All contractors must investigate and report on the 4 categories of injuries to the Principal Contractor at least monthly.

Contractors must investigate injuries and accidents involving their employees within seven days of the incident in the form on Annexure 1 (General Administrative Regulations) and forward a copy on the investigation report to the Principal Contractor forthwith.

The Principal Contractor shall conduct a detailed investigation where their employees/visitors are involved in any incident. Note, The Principal Contractor shall ensure that their contractors conduct similar investigations where applicable.

These reports must be readily available for any duly authorised person and must include but not limited to, the Client, Client Representative, H&S Agent, Department of Employment & Labour. All incidents reportable in terms of the provision of Section 24 of the OHS Act 1993 must be reported to the local Department of Employment & Labour in the prescribed manner.

Should construction work be finished/completed within 3 days after any occurrence, the investigation shall be conducted before such construction work is completed.

The Principal Contractor and their contractors must report all injuries to the Client in the form of a spreadsheet, which includes all contractor injuries/incidents including near misses, property damage and man-hours worked for the month as well as the cumulative total. This report must be done on a monthly basis and must form part of the Principal Contractor' progress report.

Note: Principal Contractor must provide an Incident Register and must record all incidents when applicable.

The Principal Contractor shall immediately notify the Client, Client Representative and Client's Health & Safety Agent of any hazardous or potentially hazardous situations that may arise during the performance of construction activities immediately or before end of shift by means of a flash report. Furthermore, the contractor shall liaise with the Client/Client Representative prior to any communication with any source of Media

11. HAZARDS AND POTENTIAL SITUATIONS

The Principal Contractor shall immediately notify the Client, Client Representative and Client's Health & Safety Agent of any hazardous or potentially hazardous situations that may arise during the performance of construction activities.

12. PERSONAL PROTECTIVE EQUIPMENT (PPE) AND CLOTHING

The Principal Contractor shall ensure that all workers are issued and wear but is not limited to i.e. hard hats, protective footwear, Hi-Viz vests and overalls. The Principal Contractor and their Contractors shall make provision and keep sufficient quantities of SANS approved PPE on site at all times. **Contractors to provide control measures should employees continuously fail to use the prescribed PPE. Worn or tattered personal protective clothing will not be permitted on site.**

Note: The Principal Contractor and their contractors shall ensure that All Safety harnesses/Fall Protection Equipment are inspected by the user on a daily basis and kept on record. The fall protection plan developer / competent person is responsible to ensure that at least monthly inspections are undertaken with proof placed on file. The Principal Contractor and their contractors shall ensure that Double Lanyard Safety Harnesses with Scaffold/Pylon Hooks are used as a minimum requirement or as per the task specific risk assessment.

ACSA reserves the right to remove any person from the construction site who is working without the necessary personal protective equipment and/or clothing. Worn or tattered personal protective clothing will not be permitted on airport premises.

Note, The Principal Contractor shall ensure that all PPE aligns with the requirements of ACSA and when working on the Airside (If applicable). E.g. the ultra-high visibility vests

13. OCCUPATIONAL HEALTH AND SAFETY SIGNAGE

The Principal Contractor shall provide adequate on-site OHS signage. Including but not limited to: "no unauthorized entry", "report to site office", "site office", and "hard hat area". Signage shall be posted up at all entrances to site as well as on site in strategic locations e.g. Access routes, entrances to structures and buildings, scaffolding and other potential risk areas / operations. All Contractors to adhere. **Signage may not be erected in such a manner that it interferes with sight lines or pedestrian movement. Note, adequate signage required for e.g. Drinking/Not Drinking Water/Effluent Water etc.**

The Principal Contractor shall Limit the use of Laminated signage.

14. CONTRACTORS

The Principal Contractor shall ensure that all Contractors appointed by them comply with this Specification, the OHS Act 85/1993, and Construction Regulation (February 2014). The Principal Contractor may only appoint a contractor after approving the contractor's health & safety plan with proof placed on file. The Principal Contractor must audit each of its Contractors at least every 30 days, with audit reports filed in the health & safety file on site. The audit must include an administrative assessment as well as a physical inspection of the contractor's health & safety system.

The Principal Contractor must stop any Contractor from carrying out construction work that is not in accordance with the Principal Contractor or Contractor's Health & Safety Plan or if there is an immediate threat to the health and safety of persons.

Failing to comply may result in the relevant employees and activities being stopped without compensation to protect the Client in terms of CR 5

- The Principal Contractor shall take all reasonable steps necessary to ensure co-operation between all Contractors to enable each of those Contractors to comply with the provisions of these regulations;
- The Principal Contractor must ensure that their Contractors are registered and in good standing with a recognized compensation fund or with a licensed compensation insurer prior to work commencing on site;
- The Principal Contractor must ensure that potential Contractors submitting tenders have made provision for the cost of health and safety measures during the construction process; The Principal Contractor shall discuss and negotiate with their Contractor the contents of the health and safety Plan and shall finally approve that plan for implementation;

15. NO-GO AREAS

Principal Contractor and their contractors to avoid all no-go areas and ensure that all relevant parties/employees and visitors are informed. **Certain areas is operative, no employees of any contractors are allowed to enter any part of the user's environment unless permission is given in writing from the End User Department.**

Additional areas may be identified by the Client if applicable

16. PHYSICAL REQUIREMENTS

16.1 Existing Structures/Roads

Any adjacent structures/roads/walkways that may be affected by work must be considered in the planning process. Precautionary measures must be detailed and applied to prevent damage, uncontrolled collapse of existing structures and/or loss to property and persons during the entire construction phase. **Note: Adequate hoarding and control measures are required due to adjacent buildings, roads, pedestrians and walkways**

16.2 Edge Protection and Penetrations

The Principal Contractor and their contractors must ensure that all exposed edges and openings are guarded at all times until permanent protection has been erected. The Principal Contractor has the following options when contemplating the protection of openings, slabs and edges:

- A physical barrier at the edge of the opening, which must be strong enough to carry the weight of **any** person in the process of falling.
- External façade scaffold with fully boarded platform with a handrail.
- Any other suitable means of protection may be used that will prevent a fall.
- Timber to be nailed on all penetrations, alternatively any other means of protection may be used that will prevent a fall.
- Any person working on an unprotected slab/deck to wear fall arrest and prevention equipment devices, like safety harness, lifelines etc.

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he Principal Contractor risk assessment must include these items. E.g. all other openings and areas where a person may fall. **All Lifelines shall be certified as per the relevant standards and anchorage points shall be load/pull tested by a competent person.**

Note: Danger Tape and shade cloth shall not serve as edge protection. Furthermore, the Principal Contractor shall provide control measures to avoid Falling Objects especially at all walkways

16.3 Roof Work

All roof work must be conducted in accordance with Construction Regulation 10. A fall protection plan must be prepared by a competent person who should evaluate, revise and amend the plan at least monthly (30 Days) or after any change in activity or incident. Rescue Plan to be provided including methodology and key personnel to perform such rescue. ***The Principal Contractor shall ensure that persons are trained and readily available with rescue equipment to perform such rescue***

- (e) a rescue plan detailing the necessary procedure, personnel and suitable equipment required to affect a rescue of a person in the event of a fall incident to ensure that the rescue procedure is implemented immediately following the incident.

All employees shall be in possession of Working at Heights & Rescue Training conducted by an accredited service provider, competent Assessor/Facilitator and must be in line with the relevant Unit Standards and SAQA requirements (229998 & 229995)

Note, the Principal Contractor shall ensure that competent persons are available to conduct any rescues with proof of competence provided in line with the relevant Unit Standard 229995 and the relevant SAQA requirements

The plan must also include the following but is not limited to,

- How the roof work was planned/Method Statements
- That the roof workers are competent (trained, experienced, knowledgeable)
- Lifelines (Proof of Certification) and anchor points (Load/Pull Tested) are provided and installed by a competent person and with proof placed on file
- That no Roof work is carried during inclement weather or where conditions are hazardous to workers.
- That fragile material/areas are demarcated, and signs posted;
- That suitable platforms are provided where fragile materials exist;
- That there are suitable and sufficient guardrails or barriers and toe boards or other similar means of protection to prevent the fall of any person, material or equipment.
- Rescue Plan
- All employees exposed to heights must be declared medically fit by an Occupational Health Practitioner. (Annexure 3)

Note: The Principal Contractor and their contractors shall ensure that all lifelines, anchor points and Safety Harnesses are inspected daily by a competent person with proof of inspections placed on file. Furthermore, The Principal Contractor and their contractors shall assess the fall risk at all times and ensure that Double Lanyard with Scaffold/Pylon Hooks or any other suitable control measures are used to prevent persons from falling.

16.4 Working at Heights Including Rescue Plan (This Includes Scaffolds & Excavations)

Scaffolds

Scaffolding must comply with the requirements of SANS 10085-1:2004. Scaffolds are used extensively by Contractors and strict control measures must be in place to prevent unauthorised alterations to scaffolding such as removing ties and scaffold boards.

Competent persons to be appointed in writing to:

- erect scaffolding (Scaffold Erector/s)
- act as Scaffold Team Leaders
- inspect Scaffolding daily, alterations, and after inclement weather (Scaffold Inspector/s).
- **Written Proof of Competency of above appointees to be available on Site**

Note: No Trestle, Walkthrough or Aluminium Scaffolds may be used on site. Furthermore, the Contractor shall provide a site-specific Risk Assessment based on their Fall Risk.

Where scaffolding or work from scaffolding may negatively affect the public, it must include control measures to protect employees and members of the Public.

Should the scaffolding be adjacent to an existing pavement of similar public walkway, a pavement **gantry and crash deck** will be required or any other suitable control measures.

All employees working on heights must have a Medical Certificate issued by an Occupational Health Practitioner (OHP). A safe working platform is required at all times when performing any scaffold activities including erecting and or dismantling.

Where this is not possible, control measures must be provided. Safe Work Loads must be clearly indicated on all Loading bays. The Principal Contractor shall provide a programme for the training of employees working from a fall risk position and the records thereof.

The Principal Contractor and their contractors shall ensure compliance with Construction Regulation 10. A fall protection plan must be prepared by a competent person who should evaluate, revise and amend the plan at least monthly (30 Days) or after any change in activity or incident. Rescue Plan to be provided including methodology and key personnel to perform such rescue.

All employees shall be in possession of Working at Heights Training issued by a competent person who has at least proof of training as an Assessor/Facilitator and must be in line with the relevant Unit Standards and SAQA requirements

All employees exposed to heights must be declared medically fit by an Occupational Health Practitioner. (Annexure 3). **All Safety Harnesses shall be inspected daily by a competent person and recorded at least monthly with proof of inspections placed on file.**

16.5 Cranes (All) including a Crane Management Plan, Rescue Plan & (Emergency Procedures)

The Principal Contractor and all other Contractors shall ensure that lifting machinery and tackle is inspected before use and thereafter in accordance with the Amended Driven Machinery Regulations (2015) and 23. There must be competent lifting machinery and lifting tackle inspectors who must inspect the equipment daily or before use, taking into account that:

- Contractors to plan carefully when crane work is required.
- All lifting machinery and tackle must carry a load test certificate and must have an inspector register.
- All lifting machinery and tackle have a safe working load clearly indicated,

- Regular inspections and servicing are carried out
- There is proper supervision in terms of guiding the loads that includes a trained banksman/rigger to direct lifting operations and check lifting tackle,
- Rescue Plan to be provided
- Adequate control measures and procedures are required to determine the relevant loads when busy with lifting operations

The Principal Contractor to provide an updated Lifting Inventory and must include all lifting equipment and machinery with proof placed on file clearly indicating the inspection dates. Records are kept of inspections and of service certificates conducted by an approved LMI/LME. The operators are competent as well as physically and psychologically fit to work and in possession of a medical certificate of fitness to be available on site.

Sugar/sand/grit bags may not be used as lifting equipment and may only be used for its intended purpose or as per the manufacturer's specifications.

16.6 Confined Space Entry (If Applicable)

"confined space" means an enclosed, restricted, or limited space in which, because of its construction, location or contents, or any work activity carried on therein, a hazardous substance may accumulate or an oxygen-deficient atmosphere may occur, and includes any chamber, tunnel, pipe, pit, sewer, container, valve, pump, sump, or similar construction, equipment, machinery or object in which a dangerous liquid or dangerous concentration of gas, vapour, dust or fumes may be present;

The Principal Contractor to prepare a confined space procedure in line with General Safety Regulation (GSR) 5 OHS Act including the following but is not limited to,

- **Confined Space Training**
- The areas have been declared safe to use by a competent person in writing
- Task Specific Risk Assessments,
- Method Statements
- Emergency Procedures
- Adequate Supervision
- Permit to work in confine space (Including entry and exit)
- Adequate Lighting
- Safe Access
- Adequate Ventilation and with breathing apparatus available
- Buddy System with ropes to be implemented
- Proof that continuous Gas assessments are being conducted
- Duration of working hours when working inside confined spaces
- Competent person/s and equipment to be readily available to assist with resuscitation
- Two Way Radios
- Tank Guards
- Gas/Oxygen Detectors
- Gas Free Certificates

No breaks shall be taken in any confined spaces or when working in any restricted areas

16.7 Construction Vehicles

Construction Vehicles and Mobile Plant shall be inspected by the Principal Contractor prior to being allowed on site and suppliers of hired vehicles, plant and equipment will be required to comply with this specification as well as the OHS Act and Regulations. The Principal Contractor shall ensure that all such plant complies with the requirements of the OHS Act 85/1993 and Construction Regulations (February 2014).

Construction Vehicles and Mobile Plant (Construction Vehicles & MP) to be:

- of acceptable design and construction
- maintained in good working order
- used in accordance with their design and intention for which they were designed
- operated/driven by trained, licensed competent and authorised operators/drivers. no unauthorised persons to be allowed to drive or operate construction vehicles & mp
- operators and drivers of construction vehicles must be in possession of a valid medical certificate declaring the operator/driver physically and psychologically fit to operate or drive construction vehicles
- fitted with adequate signalling devices to make movement safe including reversing
- provided with roll-over protection, appropriate seat fitted which shall be used during construction vehicle operations.
- inspected daily before start-up by the driver/operator/user and the findings recorded in a register/log book
- construction vehicles to be fitted with two head and two taillights or as per the manufacturers design whilst operating under poor visibility conditions, in addition they shall be equipped with 'hazard warning' lights, which must be used whenever the construction vehicles is on site or as per the manufacturers specifications
- construction vehicles used for transporting persons must have seats firmly secured and sufficient for the number of persons being transported (**PDP required when transporting employees**)
- operators to be issued with personal protective equipment as required and identified by the risk assessments
- only licensed and road worthy vehicles will be allowed onto public roads
- Principal Contractor to provide designated area should any plant and machinery be parked at night. plant to be fully secured to avoid possible unauthorized access.
- adequate lighting required as and when needed

"CR 23. (2) A contractor must ensure that—

(c) the traffic routes are suitable for the persons, construction vehicles or mobile plant using them, are sufficient in number, in suitable positions and of sufficient size;

(d) every traffic route is, where necessary, indicated by suitable signs

No person may ride on a CV except in a safe place provided by the manufacturer for this purpose

The construction site must be organized to facilitate the movement of Construction Vehicles so that pedestrians and other vehicles are not endangered. Traffic routes are to be suitable, sufficient in number and adequately demarcated. Construction Vehicles left unattended after hours adjacent to roads and areas where there is traffic movement must be fitted with lights reflectors or barricades to prevent moving traffic encountering the parked Construction Vehicles.

In addition, Construction Vehicles left unattended after hours must be parked with all buckets, booms etc. fully lowered, the emergency brakes engaged and, where necessary, the wheels chocked, the transmission in neutral and the motor switched off and the ignition key removed and stored safely. Workers employed adjacent to, or on public roads must wear reflective safety vests. All Construction Vehicles inspection records must be kept in the OH&S File.

The Principal Contractor shall provide control measures with procedures to ensure that construction vehicles and pedestrians remain within a safe zone while mobile plant is operating on site. Should it be required that construction vehicles enter areas where heavy duty mobile plant is operating, the Principal Contractor shall ensure that these construction vehicles are clearly identifiable and are fitted with rotating amber lights and acoustic reversing alarms with sufficient control measures.

The Principal Contractor and their contractors shall ensure that adequate control measures are provided should they Refuel Mobile Plant, Construction Vehicles and or small plant on site. Furthermore, the Principal Contractor and their contractors shall provide task specific risk assessment for each individual mobile plant being used on site

Note, the Principal Contractor shall provide proof of the design specification and procedures for all relevant plant clearly indicating, safety precautions, signage requirements the inspection and maintenance frequency to comply with Section 8, 10 and Section 44 of the OHS Act 85/1993.

Transporting of Employees

The Principal Contractor and their contractors shall ensure that all vehicles are roadworthy and that all Drivers have the relevant licenses and permits E.g. Professional Driving Permit (Pr.DP) previously known as Public Drivers Permit (PDP) as needed. All employees shall be transported in a safe manner in line with CR 23 and the and the National Road Traffic Act, 93/1996.

16.8 Deliveries

The contractor will need to engage the Project Manager/Principal Agent and ACSA to agree delivery times during the day for various activities, preferably at least 24-hour notice. Delivery of materials and the safe movement of construction vehicles must be controlled by the Contractor to alleviate any congestion or interference in the roads leading to the construction site. Principal Contractor shall ensure vehicle management procedures are in place by way of flagmen control during contractor deliveries.

- No contractor vehicles are to be left unattended during deliveries.
- Adequate control measures are required for all Service Providers
- Avoid stacking of Delivery Vehicles

The Principal Contractor shall ensure that designated routes with adequate control measures are provided for all deliveries to allow for easy entry and exiting of the site. Furthermore, the Principal Contractor shall provide adequate control measures for both internal and external roads. Delivery of materials and the safe movement of construction vehicles shall be controlled by the Contractor at all times to alleviate any congestion

Airside Deliveries if applicable: The Principal Contractor and their contractors shall liaise with ACSA and provide adequate control measures prior to any deliveries.

The Principal contractor and their contractors shall take cognisance of Foreign Objects and Debris (FOD) risks and provide adequate control measures. All employees to be adequately informed

Airside Deliveries if applicable will occur at night after the last flight or as otherwise instructed by the Client/Client Representative

16.9 Hazardous Chemical Agents (HCA)

The Principal Contractor and their contractors working with Hazardous chemical agents shall comply with Regulations for Hazardous Chemical Agents. Copies of all Safety Data Sheets to be kept on site in the Health and Safety File. Risk Assessments to be compiled. First Aider to have copies of all safety Data Sheets.

All hazardous waste shall be disposed of at an authorised landfill site and proof of disposal shall be provided upon request. Employees shall be provided with suitable PPE including Respirators as and when needed. Control measures shall be provided to avoid exposure to employees and members of the Public.

16.10 Housekeeping & Stacking of Materials

Housekeeping

Housekeeping shall be maintained on a daily basis and all walkways and access routes shall be kept clear and obstruction free. The Principal Contractor shall comply with CR 27.

External and internal roads shall be kept clean at all times and there shall be safe walkways at all times. Demarcated rubble areas, etc.

Stacking & Storage

The Principal Contractor shall ensure that there are sufficient appointed stacking supervisors and all materials and equipment are stacked and stored safely. Double handling of material should be avoided and for this purpose, pallets and other stacking options should be used.

No stacking outside site hoarding area, blocking of entrance/ exists to site, walkways on site, etc. Stacking of materials shall be clearly demarcated.

16.11 Civil Works

Principal Contractor to ensure that they comply with Construction regulation 13 and 23 and that the following is undertaken during civil work:

- A competent site supervisor to be on site always.
- Plant and equipment inspected daily, and registers kept.
- All operators of plant and vehicles trained, competent and physically and psychologically fit. Certificates to be put in Health & Safety File.
- Workers that are working close to the traffic to be visible and wear reflective vests.
- Adequate safety signage to be posted ahead of any work area in the road.
- All signage, including delineators to be maintained and kept clean at all times.
- The required PPE must be worn always (Hard hats, safety shoes, overalls, etc.)
- Risk assessments to be conducted on all activities.
- Road Cleaning to be maintained daily

Laying of Pipes / Backfilling

- A competent site person to supervise lifting operations always.
- No employee to stand under any suspended load.
- Loads must not be slewed over personnel, plant, site huts or property.

- All lifting equipment and accessories must be marked with the Safe Working Load.
- Slings must not be placed on sharp edges.
- Work to be stopped when weather conditions prevent safe operations during trenching work or laying of pipes.
- Everyone to stand clear of area being backfilled by mobile plant.
- Method statement to be developed for connection to main sewer line and to water mains.

The Principal Contractor must ensure that the correct Lifting Machinery is used and must be used for its intended purpose as required by Section 10 and 44 of the OHS Act 85/1993 and Driven Machinery Regulation (DMR) 18(2015).

Excavators and Digger Loaders shall not be used as lifting machinery, for lifting pipes or any slewing of material. All machinery shall be used for its intended purpose

16.12 Excavations. Shoring. Dewatering/ Drainage

The Principal Contractor and any relevant Contractor shall make provision in their **tender (for bracing, shoring, dewatering and or drainage)** of any excavations as per this specification. **Principal Contractor to obtain a Civil Works Permit from the local authorities should any works be required close to any electrical kiosks**

Definition:

"excavation work" means the making of any man-made cavity, trench, pit or depression formed by cutting, digging or scooping;

Excavation

- 13. (1) A contractor must—**
- (a)** ensure that all excavation work is carried out under the supervision of a competent person who has been appointed in writing for that purpose; and
 - (b)** evaluate, as far as is reasonably practicable, the stability of the ground before excavation work begins.
- (2) A contractor who performs excavation work—**
- (a)** must take reasonable and sufficient steps in order to prevent, as far as is reasonably practicable, any person from being buried or trapped by a fall or dislodgement of material in an excavation;
 - (b)** may not require or permit any person to work in an excavation which has not been adequately shored or braced: Provided that shoring and bracing may not be necessary where—
 - (i)** the sides of the excavation are sloped to at least the maximum angle of repose measured relative to the horizontal plane; or
 - (ii)** such an excavation is in stable material: Provided that—
 - (aa)** permission has been given in writing by the appointed competent person contemplated in subregulation (1) upon evaluation by him or her of the site conditions; and
 - (bb)** where any uncertainty pertaining to the stability of the soil still exists, the decision from a professional engineer or a professional technologist competent in excavations is decisive and such a decision must be noted in writing and signed by both the competent person contemplated in subregulation (1) and the professional engineer or technologist, as the case may be;
 - (c)** must take steps to ensure that the shoring or bracing contemplated in paragraph (b) is designed and constructed in a manner that renders it strong enough to support the sides of the excavation in question;

The Principal Contractor shall ensure the following but is not limited to,

- Excavations/trenches are inspected before every shift, after blasting, after unexpected fall of ground, after substantial damage of supports, and after rain.
- A record of these inspections must be kept;
- The location and nature of all existing services must be established before trenching operation is undertaken.
- Safe work procedures have been communicated to the workers;
- The safe work procedures are enforced and maintained by the Principal Contractor and Contractors' Responsible Persons always;
- Safe access/egress is provided to all levels;
- No load, material, plant or equipment is placed or moved near the edge of any excavation or trench which may undermine the stability of the same unless adequate steps are taken to prevent the sides from collapsing;
- All excavations and trenches that are adjacent to public access routes must be barricaded and illuminated.
- All excavations next to any building to be carefully monitored during such an operation.
- The contractor shall comply with all the requirements as set out by legislation and shall include but is not limited to CR 10, CR 13, Section 8 and 9 of the OHS Act 85/1993
- **Permit/Authorisation in writing to be provided by competent person prior to any person entering the Excavation**

The Principal Contractor shall provide Emergency/Rescue Procedures and must include but is not limited to,

- Possible collapse of Excavation
- Persons Falling into Excavations
- Mobile Plant falling into Excavations

Should an HV cable be discovered, the Principal Contractor and their contractors shall cease all current works and activities, make the area safe and then immediately contact the Electrical Consultant/Client Representative to provide a method statement prior to re-commencement. Proof of Communication shall be provided.

Furthermore, the Principal Contractor and their contractors shall ensure that the excavated sides are battered and include considering dewatering/creating site run offs during winter. All deep excavations and high cut slopes should be battered back to a safe and stable angle during construction and as per the Client/Engineers requirements

Care must be taken to ensure that the excavated embankments are at the correct slope to remain stable.

Note, only competent persons with the relevant experience, knowledge, skill and proof of training in line with the National Qualifications Framework (NQF) 67/2000, NQF 67/2008, relevant Unit Standards and SAQA requirements shall be allowed to inspect and supervise excavation activities regardless the depth and once approved by the Engineer then only shall such persons be appointed in writing in line with Construction Regulation 13 of the OHS Act 85/1993.

The Principal Contractor shall forward such proof of competence to the Civil Engineer prior to commencement. The Client/Client Representative reserves the right to comment and approve/decline such person

16.13 Erosion and Sedimentation Control

The Contractor shall take all reasonable measures to limit erosion and sedimentation due to the construction activities and shall, in addition, comply with such detailed measures as may be required by the Scope of Work. Where erosion and/or sedimentation, whether on or off the Site, occurs, rectification shall be carried out in accordance with details specified by the Engineer. Where erosion and/or sedimentation occur due to the fault of the Contractor, rectification shall be carried out to the reasonable requirements of the Engineer, at the Contractor's cost. The Contractor shall ensure that the Municipality storm water system is kept free from sediment arising from the Works.

Any runnels/channels or erosion channels developed during the construction period or during the vegetation establishment period shall be backfilled and compacted, and the areas restored to a proper condition. Stabilisation of cleared areas to prevent and control erosion shall be pro-actively managed by the Contractor.

16.14 Possible Temporary Works

The Principal Contractor shall ensure that the provisions of Section 12 of Construction Regulations (February 2014) are adhered to. These provisions must include but not be limited to ensuring that all equipment used is examined for suitability before use, that all Temporary Works and support work is inspected by a competent person immediately before, during and after placement of concrete or any other imposed load and thereafter daily until the Temporary Works and support work has been removed. Records of all inspections must be kept in a register on site. Temporary Works Design Drawings shall be provided by a competent person for all Temporary Works Structures

Authorisation shall be provided in writing by a competent person before concrete is poured and before any temporary works structure is removed with proof placed on file.
Definition

"temporary works" means any falsework, formwork, support work, scaffold, shoring or other temporary structure designed to provide support or means of access during construction work;

Temporary works

12. (1) A contractor must appoint a temporary works designer in writing to design, inspect and approve the erected temporary works on site before use.
- (2) A contractor must ensure that all temporary works operations are carried out under the supervision of a competent person who has been appointed in writing for that purpose.
- (3) A contractor must ensure that—
- (a) all temporary works structures are adequately erected, supported, braced and maintained by a competent person so that they are capable of supporting all anticipated vertical and lateral loads that may be applied to them, and that no loads are imposed onto the structure that the structure is not designed to withstand;
 - (b) all temporary works structures are done with close reference to the structural design drawings, and where any uncertainty exists the structural designer should be consulted;
 - (c) detailed activity specific drawings pertaining to the design of temporary works structures are kept on the site and are available on request to an inspector, other contractors, the client, the client's agent or any employee;
 - (d) all persons required to erect, move or dismantle temporary works structures are provided with adequate training and instruction to perform those operations safely;
 - (e) all equipment used in temporary works structure are carefully examined and checked for suitability by a competent person, before being used;
 - (f) all temporary works structures are inspected by a competent person immediately before, during and after the placement of concrete, after inclement weather or any other imposed load and at least on a daily basis until the temporary works structure has been removed and the results have been recorded in a register and made available on site;

The Principal Contractor shall ensure that all employees erecting temporary works (False Work, Formwork, Support Work) are competent to perform such work, including the Temporary Works Designer, Temporary Works Supervisor and Temporary Works Inspector

The Principal Contractor shall forward proof of competence of their Temporary Works Designer, Supervisor and Inspector to the relevant Engineer for assessment & approval prior to commencement of any temporary works

16.15 High & Low Voltage Electrical Installations

The Principal Contractor and their contractors must ensure that prior notice is given to ACSA Electrical Department of any work involving electrical installation. ACSA Permits to be obtained as needed. Works will include but not limited to,

- ***Mini-substations & Switchgear***
- ***Streetlighting***
- ***Pump stations and other services will be supplied from the secondary networks via a metered supply kiosk.***
- ***New electrical cable to be laid from Air Franc substation to this development***

Should high voltage electrical lines/fencing be present on the site perimeter, the Contractor must take extra caution and demarcate as far as reasonably practicable. These demarcations must be maintained for the duration of the construction work. The minimum safety clearances as per Electrical Machinery Regulations must be adhered to.

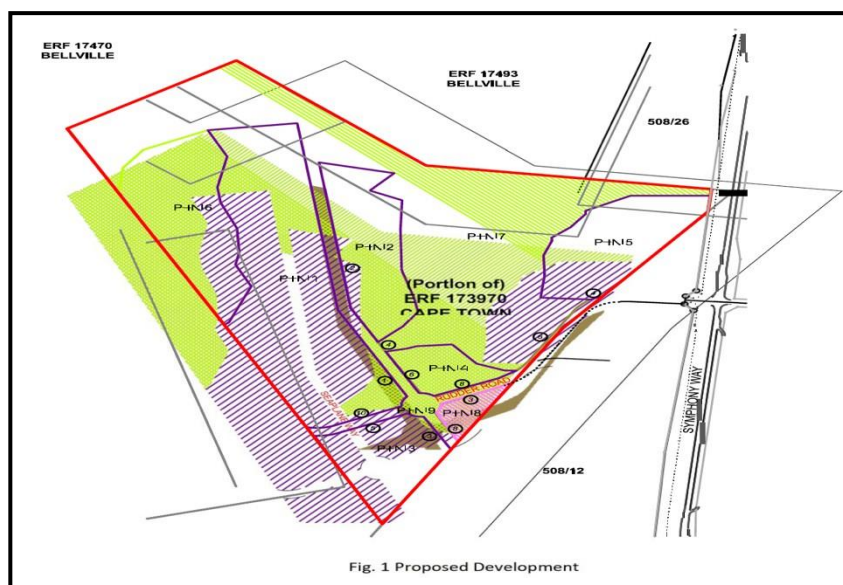
The Principal Contractor must ensure that a lock-out/tag-out procedure is provided and must be adhered to by his/her employees. The Principal Contractor must ensure that safety measures stipulated in the Electrical Installation Regulations, Machinery Regulations, General Machinery Regulations and Construction Regulations are adhered to at all times. All installations must comply with SANS 10142 & the regulations of the OHS Act 85/1993 and Construction Regulation 24.

The Principal Contractor and their contractors must ensure that prior notice is given to Local Authority Electrical Department of any work involving electrical installation. A lock-out certificate must be issued to the relevant Contractor. The Principal Contractor must ensure that safety measures stipulated in the Electrical Installation Regulations, Machinery Regulations, General Machinery Regulations and Construction Regulations are adhered to at all times. All installations must comply with SANS 10142 & the regulations of the OHS Act 85/1993 and Construction Regulation 24. All temporary electrical installations including **Ready Boards** must be inspected at least weekly with proof placed on file. A diagram to be provided for all DBs' **The Principal Contractor shall ensure that they tie / connect into existing electrical systems without interruption as far as reasonably practicable.**

Note, The Principal Contractor and their electrical contractor shall study all electrical reports provided by the Electrical Engineer and provide control measures as needed. The Principal Contractor and their electrical contractor shall ensure good communication with the appointed Electrical Engineer

Note, The Principal Contractor shall forward proof of competence of their Electrician who shall install and conduct inspections to the relevant Engineer for assessment & approval prior to commencement of any temporary Installations

The proposed development can be seen in Fig 1. It has not been subdivided. The proposed roads are indicated on the drawing and will serve as the services corridor.



16.16 Installation and commissioning of mechanical equipment

A contractor must, in addition to compliance with the Electrical Installation Regulations and the Electrical Machinery Regulations, ensure that –

- provide control measures when handling and storing of relevant gases
- avoid climbing into ducts without sufficient ventilation and oxygen
- task specific risk assessments to be compiled with proof of communication
- before construction commences and during the progress thereof, adequate steps are taken to ascertain the presence of and guard against danger to workers from any electrical cable or apparatus which is under, over or on the site;
- all parts of electrical installations and machinery are of adequate strength to withstand the working conditions on construction sites;
- the control of all temporary electrical installations on the construction site is designated to a competent person who has been appointed in writing for that purpose;
- 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; and
- all electrical machinery is inspected by the authorized operator or user on a daily basis using a relevant checklist prior to use and the inspection findings are recorded in a register kept on the construction site.
- Consult the relevant engineer where there is any doubt
- Control measures for Handling of gases
- Noise to comply with SANS10103, amongst other noise specifications.

16.17 Removal of Rubble & Debris

The Principal Contractor must ensure the safe removal of debris and rubble to comply with CR 27. A safe work procedure or method statement detailing the removal process and steps to be taken to contain the debris and rubble must be drafted and placed on File. Safe removal of rubble especially from elevated areas.

16.18 Permits

All relevant permits must be obtained from Local Authority (where needed) before any construction work commences. (Way leaves, Civils Work Permit, etc.) **All Hoarding shall be as per the approved Drawings or as agreed with the Client/Client Representative.**

The Principal Contractor shall ensure that all persons working at Airside if applicable has successfully undergone ACSAs' Airport Induction Training (AIT) training and (Airside Vehicle Operator Permit (AVOP) training where applicable, and are in possession of the relevant permits and vehicular permits where required. Note, the Principal Contractor to allow sufficient time for this training and processes.

16.19 Access Routes

On the Site and, if so required, within such distance of the Site as may be stated by the Client/Client Representative, the Contractor shall control the movement of all vehicles and construction equipment, including that of his suppliers, so that they remain on designated routes, are distributed so as not to cause an undue concentration of traffic, and that all relevant laws are complied with. In addition, the movement of such vehicles and construction equipment shall be planned and operated to minimise disruption to regular users of the routes.

As far as possible the Contractor shall use existing access routes. Damage to existing access roads because of construction activities shall be repaired to the satisfaction of the Engineer, using material like that originally used. The cost of the repairs shall be borne by the Contractor. Any directional signage required by the Contractor for the purposes of directing the movement of his own vehicles and construction equipment (or that of his contractors or suppliers) must be of a design and in a location approved by the Client/Client Representative. Directional signage may not be erected in such a manner that it interferes with sight lines or pedestrian movement.

16.20 Plant and Machinery

16.20.1 Pressure Equipment Regulations

The Principal Contractor and their contractors shall comply with the Pressure Equipment Regulations and SANS 10087, 10238 etc. including but is not limited to,

- Providing competency and awareness training to the operators,
- Providing PPE or clothing,
- Inspect Equipment regularly and keep record of inspections,
- Providing appropriate firefighting equipment (Fire Extinguishers) on hand.
- Correct storage of cylinders

16.20.2 Fire Extinguishers and Firefighting Equipment

The Principal Contractor shall provide adequate, regularly serviced fire-fighting equipment located at strategic points on site, specific to the classes of fire likely to occur. The appropriate notices and signs must be posted up as required. All fire extinguishers to be handled and inspected by competent persons in compliance with CR 25 & 29. **The Principal Contractor to provide a Fire Risk Assessment. Note: The Principal Contractor shall ensure that sufficient and suitable storage is provided for all flammable liquids. The Principal Contractor shall ensure that sufficient number of workers are trained in the use of Fire Equipment.**

It is recommended that ACSA fire department be consulted to determine if there are any additional requirements

16.20.3 Hired Plant and Machinery

The Principal Contractor shall ensure that any hired plant and machinery used on site is safe for use. The necessary requirements as stipulated by the OHS Act 85/1993 and Construction Regulations (February 2014) shall apply. The Contractor shall ensure that operators hired with machinery are competent and that certificates are kept on site in the Health and Safety file. All relevant Contractors must ensure the same.

16.20.4 General Machinery

The Principal Contractor shall ensure compliance with the OHS Act 85/1993, which include inspecting machinery regularly, appointing a competent person to inspect and ensure maintenance, issuing PPE or clothing, and training those who operate machinery.

16.20.5 Possible Installation of Generator and Bulk Diesel Storage Installation

The installation of the Diesel-fueled Standby Generator

The correct size and capacity of the generator and bulk diesel fuel tank:

The generator and diesel fuel installation shall apply to the following standards and regulations and shall include but not limited to,

Generator & bulk diesel fuel: Applicable standards and regulations
• Electricity Supply and Municipal By-Law
• Occupational Health and Safety Act, No. 85 of 1993, as amended
• SABS ISO 8628 (Parts 1–8) : 1993 – Reciprocating internal combustion engine driven alternating current sets
• SANS 342, SANS 10089 – Petroleum and diesel fuel
• SANS 10131:2004 – Above ground storage tanks for petroleum products
• SANS 10142-1, The Wiring of Premises Part 1. A completed copy of the Certificate of Compliance for the complete electrical installation must be submitted prior to reconnection of the supply to the premises after installation work that specify the electrical and mechanical break, before make interlock that prevents paralleled operation with City of Cape Town electrical network.
• SANS 60034 : Rotating electrical machines

Additional Requirements

- Principal Contractor to ensure that adequate ventilation with Relevant Signage and Fire Precautions are provided
- Comply with CR 25, CR 29 and the local Community Fire Safety by-laws and relevant SANS codes
- Relevant SANS approved Signage to be Displayed,
- Adequate Fire Equipment to be provided in close proximity
- All openings to be secured/closed,
- Adequate Drainage
- Control Measures for spillage and overflow
- Safe and Controlled Access shall be provided and implemented
- Control measures for refueling
- Moving machinery – restrict access for authorised persons only
- Bunded area and ramps – to be designed for easy access with signage and floor markings
- Combustible materials – Easy access for firefighting equipment
- Fire risk – Mechanical fire triggered cut-off valve for diesel fuel supply line

Furthermore, the Principal Contractor must ensure that a Permit/Certificate is issued by the local authorities prior to commissioning this bulk storage.

Note, The Principal Contractor to liaise with the relevant Engineer and or specialist contractor

16.21 Portable Electrical Tools

The Principal Contractor and their contractors shall ensure that the use of all portable electrical tools follows relevant legislation. The Contractor shall ensure that all electrical tools, electrical distribution boards, extension leads, and plugs are kept in safe working order. Regular inspections and toolbox talks must be conducted to make workers aware of the dangers and control measures to be implemented e.g. Personal protection equipment, guards, etc.

A competent person to undertake routine/daily inspections and records are kept. Only authorized trained persons to use the tools, the safe work procedures to apply. Awareness training to be carried out and compliance enforced always, and PPE and clothing are provided and maintained. **Note: All power tools shall be inspected by the Authorised Operator daily with proof placed on file**

16.22 Welding Equipment (If Applicable)

- Only authorized / competent persons to use the equipment. **(Proof of training to be provided)**
- Welder using correct PPE - eye/ face/foot/body/respirator.
- Flashback arrestors fitted when using gas welding equipment.
- Fire prevention methods to be applied.
- Where electric arc welders are used, equipment only to be used in a dry area, protected from wetness.
- All welding to be carried out in designated area, where not applicable welding screens to be used.
- Demarcation and signage
- Task Specific Risk Assessments and Method Statements Required
- Hot Work Permits to be issued

17. PUBLIC AND SITE VISITOR'S HEALTH AND SAFETY

Both the Client and the Principal Contractor have a duty in terms of the OHS Act 85/1993 to do all that is reasonably practicable to prevent members of the public and site visitors from being affected by the construction activities. Site visitors must be briefed on the hazards and risks they may be exposed to and what measures are in place or should be taken to control these hazards and risks. A record of these inductions must be kept on site in accordance with the Construction Regulations. Hoarding, Fencing or any other suitable measures must be provided to protect members of the public and their vehicles passing / entering the site, in accordance with Construction Regulation 27. Sufficient Safety, direction Signage and Flagmen to be placed to direct traffic near the site. **Fixed and adequate site hoarding (Physical Barriers) must be provided and must be at least 1.8m in height.**

The Principal Contractor shall consider all wind conditions. Principal Contractor to ensure that no unauthorized persons enter the construction area by implementing access control measures / registers. No trucks shall be parked outside the hoarding areas unless Authorised by the Client/Client Representative

18. NIGHT WORK (If Applicable)

Where work is required to be done during the night, and approved by the Client/Client Representative, the Contractor shall make adequate provision for additional lighting to ensure that the equipment and the areas where work is to be done are lighted.

The Contractor shall also make sure that this additional lighting is provided such that it does not interfere with the general traffic. Adequate lighting/illumination to be provided where required with backup generators. **Security to be provided as needed.** All emergency procedures to be in place. Adequate PPE to be provided for all employees e.g. Hi-Viz Vests. **Principal Contractor to ensure that Adequate Supervision is provided including Health and Safety. No work shall be done outside working hours unless the Client/Client Representative has been informed with prior approval to works being executed by the Principal Contractor. Note, approval must be in writing. Working hours to be discussed and confirmed in writing by the Client**

19. OCCUPATIONAL HEALTH

The Risk to be looked at includes:

19.1 Occupational Hygiene

Exposure of workers to occupational health hazards and risks is very common in any work environment, especially in construction. Occupational exposure is a major problem and Principal Contractor must ensure that proper health and hygiene measures are put in place to prevent exposure to these hazards.

19.2 Ventilation

Adequate ventilation / extraction in hazardous areas e.g. chemicals/ adhesives / welding / petrol or diesel/ motors running and in confined spaces.

19.3 Noise

Tasks identified where noise exceeds 85 dBA. All reasonable steps to be taken to reduce noise levels at the source. Hearing protection to be used where noise levels cannot be reduced below 85dBA. The contractors shall comply with CR 9, Section 8 of the OHS Act 85/1993 and the Noise-induced Hearing Loss Regulation.

19.4 Dust

Principal Contractor to ensure that employees working with grinders, drills, civil works, etc. are issued with dust masks and dust exposure to be minimized at all times. Suitable measures to be implemented by the Principal Contractor to ensure that members of the public are not detrimentally affected by such activities. Working Area to be fully cladded with a Hundred Percent Shade Cloth or any other suitable equivalent or as per the Client requirements. **Note, all contractors shall use Dustless Grinders when working in restricted areas. Furthermore, the Principal Contractor shall provide adequate dust control measures when busy with excavations, deliveries, and civil works. *Note, the facility will be operational. The Principal contractor and their contractors shall provide adequate control measures***

19.5 Welfare Facilities

The Principal Contractor shall provide at least one sanitary facility for every 30 employees on site, including changing and hand washing facilities. Safe and adequate eating areas must be provided for all employees including contractors.

Waste bins must be strategically placed and emptied regularly. Safe and clean storage areas must be provided for workers to store personal belongings and personal protective equipment.

The Principal Contractor shall provide sufficient sheltered areas guarding against the weather elements with sufficient seating and tables to eat. Contractors shall ensure that employees are segregated from Building Material, Tools etc. when using the same stores/containers etc.

Principal Contractor and their contractors shall familiarise themselves with the local municipalities requirements and provide control measures to avoid water wastage

19.6 Waste Management

Principal Contractor must implement their waste management in line with Environmental **within the applicable regulated Norms and Standards** and shall include but is not limited to,

- Rubble to be stored neatly in bags/bins and collected as needed.
- Principal Contractor to provide sufficient Bins / Bags at all times and must be removed on a regular basis or as and when needed.
- All hazardous material to be stored separately and must be disposed of at an authorized landfill site. Proof of Disposal to be provided
- Rubble shall not be allowed to accumulate on site and shall be removed at regular intervals
- Adequate storage is required for all Cement Bags and Hazardous Substances
- Spill Kits to be readily available
- The Principal Contractor shall implement a Recycling Program and shall recycle all material as far as reasonably practicable including separation of material and general waste.

19.7 Alcohol and Other Drugs

The Principal Contractor and their contractors to ensure that no alcohol and other drugs are allowed on site. No person may be under the influence of alcohol or any other drugs while on the construction site. Any person on prescription drugs must inform his/her superior, who shall in turn report this to the Contractor forthwith. Any person suffering from any illness / condition that may have a negative effect on his/her safety performance must report this to his/her superior, who shall in turn report this to the Principal Contractor forthwith.

Any person suspected of being under the influence of alcohol or other drugs must be sent home immediately, to report back the next day for a preliminary inquiry.

The Contractor concerned must follow a full disciplinary procedure and a copy of the disciplinary action must be forwarded to the Principal Contractor for his records. No Smoking is allowed on site.

19.8 Hazardous Biological Agents

Covid-19 directives have since been repealed. However the virus is still prevalent, it is for this reason that all contractors like any other Employer is expected to comply with Hazardous Biological Agent Regulations promulgated under the OHS Act 85/1993 and provide control measures as needed.

The Principal Contractor and their contractors must therefore determine mitigation measures to minimize risk as far as reasonably practicable, allowing work to continue safely and without harm to all relevant stakeholders, including Clients, Employees, Contractors, Suppliers, Manufacturers and all interested and affected parties.

20. ANNEXURE A- ACKNOWLEDGEMENT OF H&S SPECIFICATION

Acknowledgement of Receipt of the Health and Safety Specifications:

I, _____ representing

_____ Contractor

Have satisfied myself with the content of the construction Health and Safety Specification and shall ensure that the Contractor and its personnel comply with all obligations / requirements in respect thereof.

Signature of Principal Contractor

DATE

Signature of Client Agent

DATE

COMMENTS:

21. ANNEXURE B: APPOINTMENT OF PRINCIPAL CONTRACTOR

Appointment of Principal Contractor

IN TERMS, OF

OCCUPATIONAL HEALTH AND SAFETY ACT, ACT 85 OF 1993 & CONSTRUCTION
REGULATIONS 2014

CONSTRUCTION REGULATION 5(1)(k)

I, Client Responsible Person,

for do hereby appoint:

.....as the Principal Contractor

ofProject

Responsibilities:

- *Prepare a Health and Safety Plan to comply with the requirements of the Construction Regulation 5(1)(b), and in compliance with the Health and Safety Specification for the Project.*
- *Ensure co-operation between all contractors to enable each of those contractors to comply with the provisions of these regulations.*
- *Provide all contractors with the required safety specification for their area of responsibility.*
- *Appoint each contractor in writing in accordance with Construction Regulations.*
- *Ensure implementation of the contractor's health and safety plan*
- *Stop contractors from working if not in accordance with the client specification*
- *Provide health and safety information to contractors should their design change*
- *Ensure all contractors are registered and in good standing with the compensation commissioner*
- *Ensure contractors submitting tenders have made provision for health and safety during construction*
- *Ensure risk assessments are conducted & the identified controls are communicated to all employees and visitors.*
- *Ensure Compliance to Occupational Health and Safety Act 85/1993, Construction Regulations 2014, Community Fire Safety Bylaw and Relevant Sans Codes.*

Signature:
Client / Client Representative

Date:

Acceptance

I, hereby accept and acknowledge that I understand
the requirements of this appointment.

Signature:

Date:

22. ANNEXURE C BASELINE RISK ASSESSMENT

BASELINE RISK ASSESSMENT FOR HEALTH AND SAFETY SPECIFICATION: CAPE TOWN INTERNATIONAL AIRPORT BULK SERVICES FOR PRECINCT 3 DEVELOPMENT

Activity	Risk Rating	Hazard	Control Measure	Responsible Person
1. Off-loading of Material/ deliveries	H	<ul style="list-style-type: none"> Possible fatalities/ injuries Possible load falling Public Safety-potential injuries to workers and members of the public 	<ul style="list-style-type: none"> All work areas to be adequately demarcated-All Activities to be done under supervision Ensure a spotter is available if and when needed. Once site has been secured it must be maintained to avoid unauthorised. Site security to be available. Relevant construction signage to be displayed Contractors to be aware of live services e.g. electrical cables. 	CR 8.1
	M	<ul style="list-style-type: none"> Possible Collision/contact with property or stationary vehicles, workers and members of the public 	<ul style="list-style-type: none"> Driver to be in possession of a valid driver's licence. All notices and signs to be obeyed. Driver to adhere to the speed limits. Employer and Driver to ensure that he is not intoxicated and must be of sober habits. 	CR 8.1
2. Site Establishment Carrying of material	M	<ul style="list-style-type: none"> Possible Contact with fellow employees and results into possible injuries. 	<ul style="list-style-type: none"> Employees to take caution when walking on site Employees to keep material as close to themselves or structure as possible to avoid possible contact with persons Ensure your vision is not obstructed. Watch your blind spots and get assistance when carrying heavy and large objects 	CR 8.1
	L	<ul style="list-style-type: none"> Possible Falling material and possible foot and body injuries 	<ul style="list-style-type: none"> Operatives to ensure that all material are adequately secured. Appropriate PPE to be worn at all times. Don't carry material in precarious (dangerous) positions so as to obstruct your vision etc. 	CR 8.1
	L	<ul style="list-style-type: none"> Possible Ergonomics /Possible back injuries 	<ul style="list-style-type: none"> Employees to ensure that they use correct bending techniques. Please get assistance when lifting heavy objects. 	CR 8.1
3. Off-loading of containers by means of Cranes	H	<ul style="list-style-type: none"> Possible fatalities/ injuries Possible Uncontrolled release of Container and material 	<ul style="list-style-type: none"> All work areas to be adequately demarcated with relevant signage displayed. Competent flagman and riggers to be present Only competent person to execute lifting operations All operators to have relevant documentation as per CR 23 and DMR 18(2015) Task Specific Risk Assessments and Method Statement must be readily available and communicated to all relevant persons with proof placed on file Load test certificates for all lifting equipment and lifting Machinery. All Contractors to be informed of live services e.g. electrical cables. Only certified and load tested Lifting Equipment and Machinery shall be used. Lifting equipment shall be of good standard with correct latches etc. 	CR 8.1
		<ul style="list-style-type: none"> Possible Collision with property or stationary vehicles, workers and members of the public 	<ul style="list-style-type: none"> All work areas to be adequately demarcated with relevant signage displayed. Competent flagman and riggers to be present Only competent person to execute lifting operations. All deliveries shall take place in the designated areas 	CR 8.1
		<ul style="list-style-type: none"> Possible Fall of persons while placing or removing chains from containers 	<ul style="list-style-type: none"> Safe Access to be provided 	CR 8.1

4. Working Close to Public	H	<ul style="list-style-type: none"> Possible Fatalities/Injuries Falling of Persons into man holes Possible Injuries/ Fatalities 	<ul style="list-style-type: none"> Adequate Site Hoarding and relevant signage required. Adequate demarcation and signage required at all work areas. Principal Contractor to comply with CR 9 and Section 8 and 9 of the OHS Act 85/1993. Spotters to be present 	
5. Operating of Mobile plant	H	<ul style="list-style-type: none"> Possible fatalities/ injuries Possible Colliding with employees, public, possibly fatal. Damage to property 	<ul style="list-style-type: none"> Only Competent Persons to conduct Activities. Task Specific Risk Assessments to be provided. All operators to comply with CR 13 and CR 23. Valid Drivers' License required for All operators Competent person who is medically fit must operate mobile plant. This is also required from hiring companies. Always be aware of other plant in your area and if the plant comes too close or in your working area rather stop operating and be safe. Never reverse without checking behind you to ensure that it is safe to do so. Operator must be on the lookout for fellow employees and members of the Public coming onto site unnoticed. All plant shall a fully functional reverse buzzer. 	CR 8.1
		<ul style="list-style-type: none"> Vibration of plant can lead to falling objects from bucket 	<ul style="list-style-type: none"> Do not operate loader if there is anyone in the working area. Don't overload loading bucket and ensure that material is adequately secured 	CR 8.1
		<ul style="list-style-type: none"> Possible Risks when plant is stationary - People driving into plant. 	<ul style="list-style-type: none"> Mobile plant must have appropriate lighting and reflectors to identify the location of the plant. Park in designated areas with boom lowered or raised 	CR 8.1
		<ul style="list-style-type: none"> Damage to structure or plant. Loss of Machine 	<ul style="list-style-type: none"> Machine must be locked, and keys taken with operator or given to supervisor to prevent unauthorized person operating machine. 	CR 8.1
6. Working with Hazardous Chemical Agents	L	<ul style="list-style-type: none"> Possible Respiratory problems. 	<ul style="list-style-type: none"> Respirators to be used when spending even short periods of time. Adequate ventilation required. Ensure that all containers are clearly identified when decanting 	CR 8.1
		<ul style="list-style-type: none"> Dermatitis, Skin burns, Skin sensitization 	<ul style="list-style-type: none"> Avoid contact with the skin as far as reasonably practicable. Use barrier cream if possible. 	CR 8.1
		<ul style="list-style-type: none"> Possible Eye injuries 	<ul style="list-style-type: none"> Remove clothing that has been contaminated by wet hazardous substances. 	CR 8.1
			<ul style="list-style-type: none"> Wear suitable PPE as listed below. Wash hands thoroughly after contact and use a barrier cream. 	CR 8.1
			<ul style="list-style-type: none"> Follow Safety instructions (MSDS) as indicated by the MSDS. 	CR 8.1
7. Handling and Storage of Flammable material	H	<ul style="list-style-type: none"> Possible fatalities/ injuries Possible Explosion/fires Possible 	<ul style="list-style-type: none"> Principal Contractor shall comply with all relevant legislation and regulations and shall include but is not limited to i.e., CR 9, 25, 29 General Safety Regulation 2B and Section 8 & 9 of the OHS Act. Task Specific Method Statements and Risk Assessments. Hot work system to be implemented as per the Specification Store all Hazardous Substances in the correct categories. Store all flammable material separately. Ensure relevant signage is clearly displayed. Adequate fire extinguishers to be readily available. Fire Risk Assessment to be conducted by a competent person. Hazardous bins to be provided 	CR 8.1
		<ul style="list-style-type: none"> Possible burns to body 	<ul style="list-style-type: none"> Only competent persons to conduct all activities. PPE shall be used as the last resort Adequate Fire Control Required 	
8. Electrical Installations	H	<ul style="list-style-type: none"> Possible fatalities/ injuries Possible Electrocution, even fatal. Damage to equipment 	<ul style="list-style-type: none"> Task Specific Method statements and Risk Assessments required as per CR 9 Competent contractor to be appointed if necessary. Equipment to be used to detect live/high voltage cables. 	CR 8.1

			<ul style="list-style-type: none"> • Restricted areas to be identified. • All installations must comply with SANS 10142 & the regulations of the OHS Act 85/1993 CR 24 and Electrical Installation Regulations • Toolbox Talks to be conducted on Risk Assessments with declarations / acknowledgement signed daily. • Relevant PPE to be used. Lockout procedures to be provided. Only competent persons to be used with proof of competency to be provided. 	
			<ul style="list-style-type: none"> • CoC must be issued for all electrical installations. • All temporary electrical installations to be inspected at least weekly and prior to use. All cables to be treated as live • Suitable PPE shall be used 	CR 8.1
9. Working with Portable Electrical Tools	H	<ul style="list-style-type: none"> • Possible Contact with moving parts. 	<ul style="list-style-type: none"> • Task Specific Risk Assessments required as per CR 9. Compliance to CR 24. • Only competent personnel should operate these tools. 	CR 8.1
			<ul style="list-style-type: none"> • Machines to be checked before use, guards are correctly fitted and work properly. 	CR 8.1
		<ul style="list-style-type: none"> • Noise above 85dBA 	<ul style="list-style-type: none"> • Employees to be issued with relevant PPE including hearing protection. 	CR 8.1
		<ul style="list-style-type: none"> • Possible Malfunction of Blade 	<ul style="list-style-type: none"> • Blades should be regularly inspected to ensure they are sharp/good condition 	CR 8.1
		<ul style="list-style-type: none"> • Possible Back Injuries 	<ul style="list-style-type: none"> • Employees to be trained on proper lifting and bending techniques. 	CR 8.1
10. Working with Hand Tools	M	<ul style="list-style-type: none"> • Possible Eye injury 	<ul style="list-style-type: none"> • Visual checks must be completed by operatives on tools prior to their use. • Eye protection is to be provided and used whenever work is done using cold chisels or other tools where there is risk of flying particles or other pieces of the tool breaking off. 	CR 8.1
		<ul style="list-style-type: none"> • Possible Injury to hands, feet and body 	<ul style="list-style-type: none"> • Tools are required to be suitable for the purpose for which they to be used. • Open bladed knives, screwdrivers, and other sharp tools are to be carried and used so as not to cause injury to the user or others. 	CR 8.1
		<ul style="list-style-type: none"> • Possible Tripping over tools 	<ul style="list-style-type: none"> • Tools should not be left lying around, they constitute a severe tripping hazard and they are liable to get damaged. 	CR 8.1
11. Lifting Operations	M	<ul style="list-style-type: none"> • Uncontrolled release of material 	<ul style="list-style-type: none"> • Task Specific Method Statements and Risk Assessments required with proof of communication. • Rescue Plan and task specific Fall Protection Plan required, to be compiled by competent person. • Competent Banksman/Rigger to be readily available 	CR 8.1
		<ul style="list-style-type: none"> • Malfunction of lifts and lifting equipment 	<ul style="list-style-type: none"> • Banksman/Rigger to have signalling device • No person to be under suspended load • No Crane operations when banksman/Rigger is not available or present. Only appointed banksman/rigger to assist with lifting operations. 	CR 8.1
			<ul style="list-style-type: none"> • Load test certificates to be obtained. Competent contractor to be appointed. 	
12. Working in Confined Space (If Applicable)	H	<ul style="list-style-type: none"> • Possible Body Injuries, Property Damage, Possible 	<ul style="list-style-type: none"> • Task Specific Method Statements and Risk Assessments required with proof of communication. • The Principal Contractor to prepare a confined space procedure in line with General Safety Regulation (5) OHS Act including Task Specific Risk Assessments, Method Statements and Emergency Procedures. Ensure that all work areas are adequately demarcated • Ensure that all ducts are adequately secured and that it can take the relevant loads 	CR 8.1

		<ul style="list-style-type: none"> • Respiratory complication due to Lack of Ventilation • Hazardous Material being used e.g. Sealants etc. 	<ul style="list-style-type: none"> • Safe Access Required at all times. Adequate Ventilation and supervision required at all times • All hazardous substances to be assessed and ensure that MSDS are provided, all employees to be informed and First Aider has copies. • Permit to enter required. Constant Oxygen Monitoring. Area to be declared Gas free 	CR 8.1
13. Working at Heights including but is not limited to, to Structural Steel, Roof work, Scaffolds and Ladders	H	<ul style="list-style-type: none"> • Possible fatalities/injuries • Fall of persons, Possible Death 	<ul style="list-style-type: none"> • Task Specific Fall Protection Plan, Risk Assessments required. • PC shall comply with relevant legislation but not limited to, CR 9, CR 10, GSR 6, GSR 13A. • All employees shall be in possession of Working at Heights Training issued by an Accredited Service Provider • All work to be done under supervision. • Compliance with Fall Protection & Rescue Plan. • Rescue kit to be available on site. • PPE to be worn at all times. • Buddy system to be implemented as needed • All employees exposed to heights must be declared medically fit by an Occupational Health Practitioner. (Annexure 3) • Lifelines to be installed and must be secured to a fixed structure. • Lifelines (Proof of Certification) and anchor points (Load Tested) are provided and installed by a competent person and with proof placed on file • Note: The Principal Contractor and their contractors shall ensure that all lifelines are load tested and all Safety Harnesses shall be inspected on a Daily basis by a competent person with proof of inspections placed on file. • Suitable means of protection to prevent the fall of any person, material or equipment. • How the roof work was planned/Method Statements. • That the roof workers are competent (trained, experienced, knowledgeable) • Ensure no Roof work is carried out during inclement weather or where conditions are hazardous to workers. • That fragile material/areas are demarcated, and signs posted. • That suitable platforms are provided where fragile materials exist. • That there are suitable and sufficient guardrails or barriers and toe boards or other similar means of protection to prevent the fall of any person, material or equipment. • As far as reasonably possible, all equipment to be tied to rope. • No Items to be thrown from roof, but to be safely lowered. • No persons to work underneath overhead work area or ground. • No work on open structures at heights in wet weather. • No work on scaffolding during wet conditions. 	CR 8.1

14. Scaffold erecting & dismantling	H	<ul style="list-style-type: none"> • Possible fall or persons/ injuries /material • Possible Falling of persons, Collapse of Scaffold structures and damage property and employees. 	<ul style="list-style-type: none"> • Design Drawings required. Work on scaffolds to be coordinated by appointed scaffold supervisor. • Lanyard to be used when erecting & dismantling scaffolding. (Scaffold erectors) Compliance with SANS 10085-1:2004 and CR 16 • All scaffolding to be inspected daily and after inclement weather and findings recorded in a register. • Fully boarded platforms must be provided at all times • Only those employees who are authorised may be on the scaffold. • Where safe platforms cannot be erected, safety harnesses are compulsory. 	CR 8.1
	H	<ul style="list-style-type: none"> • Possible fall or persons/ injuries /material • Falling/slipping 	<ul style="list-style-type: none"> • As far as reasonably possible, all equipment to be tied to rope. • No Items to be thrown , but to be safely lowered. • No persons to work underneath overhead work area or ground. 	CR 8.1
15. Work at Heights	H	<ul style="list-style-type: none"> • Possible Fall of persons and material 	<ul style="list-style-type: none"> • Task Specific Fall Protection Plan, Risk Assessments and Method Statements required • PC shall comply with CR 9 and CR 10. • All employees shall be in possession of Working at Heights Training issued by an Accredited Service Provider • All work to be done under supervision. • Compliance with Fall Protection Plan. • Rescue kit to be available on site. • PPE to be worn at all times. • Lifelines to be installed as and when needed and must be secured to a fixed structure • Suitable means of protection to prevent the fall of any person, material or equipment. • Rescue Plan. All employees exposed to heights must be declared medically fit by an Occupational Health Practitioner. (Annexure 3) 	CR 8.1
16. Excavations/ trenches with Plant and Manually	H	<ul style="list-style-type: none"> • Possible fatalities/ injuries • Possible Electrocution due to unknown electrical cables 	<ul style="list-style-type: none"> • Only Competent Persons to conduct Activities. Task Specific Risk Assessments and method statements to be provided. All contractors to comply with CR 9, CR 10, CR 12, 13 and CR 23. • Way leaves or drawings to be obtained from the Client. Where wayleaves are not available adequate control measures must be implemented e.g. using a Cable Detector to determine the presence of possible services especially electrical cables. • All work to be conducted under competent supervision 	CR 8.1
		<ul style="list-style-type: none"> • Possible Damage to existing services 	<ul style="list-style-type: none"> • Way leaves or drawings to be obtained from the Client. Where way-leaves are not available adequate control measures must be implemented e.g. using a Cable Detector to determine the presence of possible services especially electrical cables. • Only competent persons to excavate. • Compliance with CR 13. • All work to be conducted under supervision 	CR 8.1
		<ul style="list-style-type: none"> • Possible Excavation collapse 	<ul style="list-style-type: none"> • Competent persons and contractor to be appointed in writing to supervise excavations. • Daily inspections to be conducted • Adequate bracing and shoring required as and when needed. Plant to stay at least 1m clear of Embankment or clear of area of exclusion • Temporary Works Design Drawings required as and when needed and compliance with CR 12 	CR 8.1
			<ul style="list-style-type: none"> • Excavation inspected daily (as per legal requirements) (register completed). 	CR 8.1

			<ul style="list-style-type: none"> • Access provided at least every 6 meters. 	CR 8.1
		<ul style="list-style-type: none"> • 	<ul style="list-style-type: none"> • Shoring and bracing whenever necessary in opinion of competent person. • Contractor to consult and communicate with the relevant Engineers 	CR 8.1
		<ul style="list-style-type: none"> • 	<ul style="list-style-type: none"> • Backfilling done as soon as practicable. 	CR 8.1
		<ul style="list-style-type: none"> • 	<ul style="list-style-type: none"> • Appropriate personal protective equipment issued. 	CR 8.1
		<ul style="list-style-type: none"> • 	<ul style="list-style-type: none"> • Relevant Signage to be provided and displayed 	CR 8.1
		<ul style="list-style-type: none"> • Possible falling of Persons and plant into excavation 	<ul style="list-style-type: none"> • Task Specific FPP by competent person. • Safe Access required for all mobile plant and persons • Designated walkways 	CR 8.1
		<ul style="list-style-type: none"> • 	<ul style="list-style-type: none"> • Physical barrier of at least 1-meter-high must be provided with relevant signage displayed 	CR 8.1
17. Temporary Works	H	<ul style="list-style-type: none"> • Possible fall or persons/ injuries /material • Possible Collapse of Structure 	<ul style="list-style-type: none"> • Task Specific Risk Assessment s and Method Statement Required prior to activity • Compliance with CR 12. • Competent Contractor to be appointed • Temporary Works designer to be appointed • Design drawings to be approved by engineer and must be current 	CR 8.1
		<ul style="list-style-type: none"> • 	<ul style="list-style-type: none"> • Handover Certificates required Before Concrete Pours and Before Stripping any Temporary Works material (Proof to be placed on file) • Task specific risk assessment to be compiled and Formwork to be inspected daily by competent person with proof placed on file 	CR 8.1
	H	<ul style="list-style-type: none"> • Possible Falling of Persons/Material/Equip ment 	<ul style="list-style-type: none"> • All material to be adequately secured • Task Specific Fall Protection Plan • Adequate Signage and Demarcation required. • Only Authorised persons to enter these areas- erecting and stripping. Area must be declared safe prior to any person entering decks • All RISK assessments and method statements to be communicated with relevant persons (Proof placed on file.) 	CR 8.1
18. Bulk Diesel Installation		<ul style="list-style-type: none"> • Possible fire • Possible spillage • Possible Noise • Possible pollution 	<ul style="list-style-type: none"> • Adequate ventilation • Fire Precautions with relevant signage to be provided and displayed • The correct size and capacity of the generator and bulk diesel fuel tank • Adequate Drainage • Control Measures for spillage and overflow • Safe and Controlled Access shall be provided and implemented • Control measures for refuelling • Combustible materials – Easy access for firefighting equipment 	CR 8.1

Note:

The above list is by no means exhaustive and should not be limited to these activities but must cover all activities that forms part of the said construction work. Each activity must be split down to individual tasks and all associated hazards identified and listed in the risk assessment. This ensures that the critical tasks and subsequent critical hazards are not missed. All Activities are to be re-assessed by the Principal Contractor and their contractors prior to start of work and must be communicated with all relevant employees with proof placed on file.

Although some of the work related to health and safety work is mentioned /noted in certain measured items in the bill of quantities it remains the contractor's responsibility to allow in his tender price for all work related to health and safety and the requirements as per this Health and Safety Specification and the OHS Act 85/1993.

Additional Information

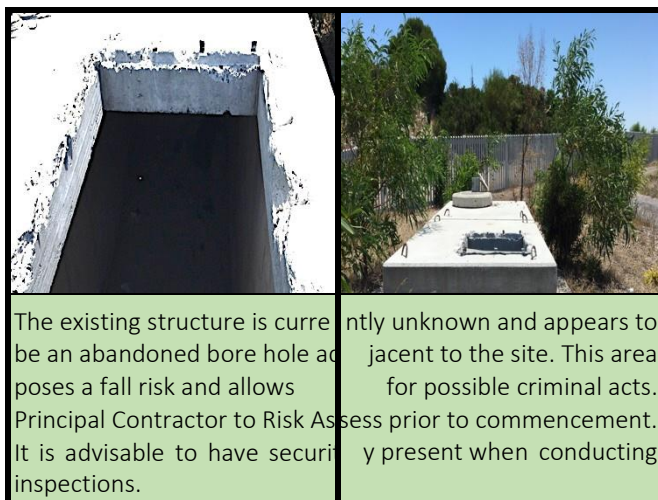
The Precinct is enclosed with concrete palisade fence. However, the site is remote and exposed to Vagrants and possible criminal acts. Controlled Access, safety & security of employees & members of Public is of paramount importance. Principal Contractor to Risk Assess all work areas and ensure that sufficient cost, personnel and control measures are provided at all times. It is advisable to have security present when conducting inspections.



Access to site is obstructed with debris and waste. Light vehicles are not recommended until grub and clearing has commenced. Due to the remoteness of the site. Principal Contractor to Risk Assess all work areas & activities and be escorted by security



Civil Works will be required along Symphony Way. Principal Contractor to Risk Assess all work areas. Traffic & Pedestrian Management including safety and security of all employees, visitors and members of Public to be taken into consideration.



The existing structure is currently unknown and appears to be an abandoned bore hole adjacent to the site. This area poses a fall risk and allows for possible criminal acts. Principal Contractor to Risk Assess prior to commencement. It is advisable to have security present when conducting inspections.



Contractors will be required to access controlled areas with the Precinct. Principal Contractor to ensure compliance with all ACSA requirements. Additional information will be provided when attending ACSA induction training



Principal Contractor to take cognizance of live Electrified fencing

1. The proposed site is located at Symphony Way and Baleles Road, Delft (intersection), Cape Town.
2. Due to Airport being operational. The Principal Contractor and their contractors shall co-ordinate their activities including deliveries in a safe manner and so far as reasonably practicable to reduce traffic congestion. Cognizance must be taken of all pedestrians
3. Airside activities are envisaged for this project. The Principal Contractor shall obtain authorization and all relevant Permits from ACSA, AVSEC and the Project Managers prior to accessing these areas. **Note, an Airside Safety Plan will be required for all works being conducted on Airside**
4. Hoarding and Signage shall be maintained on a daily basis and shall be erected within the construction zone and or as needed
5. Traffic shall be accommodated with the least delay and discomfort to the public and staff.
6. All work operations shall be limited within the site Boundaries unless otherwise stipulated by the Client/Principal Agent
7. The Roads shall be kept clean at all times and safe access shall be of paramount importance.
8. Where unidentified services are located on site the contractor is to report this immediately to the Client/ Client Representative and is to adequately protect these services until identified and the necessary instruction issued by the Client Representative
9. Principal Contractor and their Contractors to only use access routes that has been identified by the Client
10. Avoid loitering
11. Control for possible Community/Civil Unrest
12. The Principal Contractor and their contractors shall avoid using any of the facilities, unless authorization has been granted in writing from the Client/Client Representative

13. No Asbestos has been identified nor are there asbestos activities envisaged for this project. However, the Principal Contractor and their contractors shall immediately contact the Client and the Principal Agent upon discovering any Asbestos containing material and shall comply with Asbestos Abatement Regulations 2020.
14. No demolition activities are envisaged for this project. However, the Principal Contractor and their contractors shall immediately contact the Client and the Principal Agent should any demolition work be required and shall comply with all applicable legislation and requirements but not limited to ACSA Requirements, Possible Permits, CR 9, CR 14
15. **Principal Contractor and their Contractors to monitor wind conditions when erecting site camp and or outside fencing/hoarding. Note this includes deliveries and any other activities**

SITE SPECIFIC RISK ASSESSMENT

- 1) Risk Assessment: No Activity will commence before a site-specific Risk Assessment is compiled by the Principal Contractor and it must include the subject matter expert, Risk Assessor/Safety Officer and Supervisor. The Risk Assessment must be signed off by the 8.1 appointee (Construction Manager) and controls must be communicated to the relevant staff.**
- 2) Principal Contractor to provide 14-day look-ahead Risk Assessment in line with their project programme.**

Note: The principal Contractor must ensure that they comply to all ACSA's additional Health and Safety requirements

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