



public works

Department:
Public Works
REPUBLIC OF SOUTH AFRICA

NATIONAL DEPARTMENT OF PUBLIC WORKS

ELECTRICAL ENGINEERING SERVICES

SPECIFICATION FOR THE DESIGN, SUPPLY, INSTALLATION AND COMMISSIONING OF LIFTS AND ESCALATORS

Date: July 2018

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Table of Contents

1. SPECIFICATION FOR THE INSTALLATION OF LIFTS AND ESCALATORS	1
SECTION 1 – GENERAL	1
1. Intent of Specification	1
2. Standards and Codes	1
3. Compliance with Regulations	2
4. Scope of Work	3
5. Co-ordinating	3
6. Submittals	3
7. Samples	3
8. Tests Certificates and Inspections.....	3
9. Application to Department of Labour	4
10. Operating and Maintenance Manuals.....	4
11. Guarantee	4
12. Materials and Workmanship	5
13. Brochures	6
2. SPECIFICATION FOR THE INSTALLATION OF LIFTS AND ESCALATORS	7
SECTION 2 – SPECIFIC LIFT REQUIREMENTS	7
1. Detail lift requirement.....	7
2. Lift detail design information	7
3. Electrical supply requirements.....	11
4. Lift car requirements	11
5. Group Automatic Operation – Two or More Lifts in a Group	12
3. SPECIFICATION FOR THE INSTALLATION OF LIFTS AND ESCALATORS	14
SECTION 3 – SCHEDULE OF TECHNICAL INFORMATION	14
1. General	14
2. Technical information schedule	14
3. Deviations from specification as alternative offer	18
4. SPECIFICATION FOR THE INSTALLATION OF LIFTS AND ESCALATORS	19
SECTION 4 - OPERATING AND MAINTENANCE MANUALS	19
1. Scope.....	19
2. Procedure for submission of manuals	19
3. Format of operating and maintenance manuals	19
4. Contents	20

1. SPECIFICATION FOR THE INSTALLATION OF LIFTS AND ESCALATORS

SECTION 1 – GENERAL

1. Intent of Specification

This specification is intended to cover the regulations and standards to be followed when specifying lifts and escalators. Excluded are the details of design and construction which are recognised as being the exclusive responsibility of the contractor. It is hereby acknowledged that neither the Principal Agent nor the Consulting Engineer invented or developed any part of the system, but have only made selections of materials and finishes, as well as specified performance and installation criteria as may be applicable.

For the purposes of this document the following applies:

- Lift/Escalator Contractor shall be referred to as the Lift Contractor or simply Contractor;
- The masculine includes the feminine;
- The singular includes the plural.

2. Standards and Codes

All standards referenced shall be the latest editions.

2.1. All lifts shall be in accordance with **SANS 1545** under the general title *Safety Rules for the construction and installation of lifts* as follows:

- 1545-1 Part 1: Electric lifts
- 1545-2 Part 2: Hydraulic lifts
- 1545-3 Part 3: Lifts for persons with disabilities (stair lifting platforms)
- 1545-4 Part 4: Lifts for persons with disabilities (vertical lifting platforms)
- 1545-5 Part 5: Electric and hydraulic access, goods only lifts
- 1545-6 Part 6: Rack-and-pinion lifts
- 1545-7 Part 7: Electric and hydraulic service lifts (dumb waiters)
- 1545-9 Part 9: Lift landing doors – Fire resistance testing

and with **SANS 50081** which incorporates the European standards (**EN**) under the general title *Safety Rules for the construction and installation of lifts* as follows:

- 50081-1 Part 1: Electric lifts
- 50081-2 Part 2: Hydraulic lifts
- 50081-3 Part 3: Electric and hydraulic service lifts
- 50081-20 Lifts for the transport of persons and goods – Part 20: Passenger and goods passenger lifts
- 50081-21 Lifts for the transport of persons and goods – Part 21: New passenger and goods passenger lifts in existing building
- 50081-22 Lifts for the transport of persons and goods – Part 22: Electric lifts with inclined path
- 50081-31 Special lifts for the transport of persons and goods – Part 31: accessible goods only lifts
- 50081-41 Special lifts for the transport of persons and goods – Part 41: Vertical lifting platforms intended for use by persons with impaired mobility
- 50081-50 Examinations and tests – Part 50: Design rules, calculations, examinations and tests of lift components
- 50081-70 Particular applications for passenger and goods lifts – Part 70: Accessibility to lifts for persons including persons with disability
- 50081-72 Particular applications for passenger and goods lifts – Part 72: Firefighters lifts
- 50081-80 Existing lifts – Part 80: Rules for the improvement of safety of existing passenger and goods lifts

Escalators shall be in accordance with the following:

- SANS 21-1 Safety of escalators and moving walks Part 1: Construction and installation
- SANS 21-2 Safety of escalators and moving walks Part 2: Rules for the improvement of safety of existing escalators and moving walks
- SANS 1543 Escalators and passenger conveyors

2.2. All lifts/escalators to comply in accordance to **SANS 61508** for the functional safety of electrical/programmable electronic safety related systems.

- 61508-0 Functional safety of electrical/electronic/programmable electronic safety-related systems Part 0: Functional safety and IEC 61508.
- 61508-1 Functional safety of electrical/electronic/programmable electronic safety-related systems Part 1: General requirements
- 61508-2 Functional safety of electrical/electronic/programmable electronic safety-related systems Part 2: Requirements for electrical/electronic/programmable electronic safety-related systems
- 61508-3 Functional safety of electrical/electronic/programmable electronic safety-related systems Part 3: Software requirements
- 61508-4 Functional safety of electrical/electronic/programmable electronic safety-related systems Part 4: Definitions and abbreviations
- 61508-5 Functional safety of electrical/electronic/programmable electronic safety-related systems Part 5: Examples of methods for the determination of safety integrity levels
- 61508-6 Functional safety of electrical/electronic/programmable electronic safety-related systems - Part 6: Guidelines on the application of IEC 61508-2 and IEC 61508-3
- 61508-7 Functional safety of electrical/electronic/programmable electronic safety-related systems Part 7: Overview of techniques and measures.

2.3. All electrical work shall be in accordance with the relevant SANS standards, in particular SANS 10142-1 The Wiring of Premises Part 1: Low-voltage installations

3. Compliance with Regulations

The installation shall be erected and tested in accordance with the following Acts and regulations:

- a) The Occupational Health and Safety Act, 1993 (Act 85 of 1993) as amended,
- b) Department of Labour: Lift, Escalator and Passenger Conveyor Regulations, 2009 as amended,
- c) The Local Government Ordinance 1939 (Ordinance 17 of 1939) as amended and the municipal by-laws and any special requirements of the local supply authority,
- d) The Fire Brigade services Act 1987 (Act 99 of 1987) as amended,
- e) The National Building Regulations and Building Standards Act 1977 (Act 103 of 1977) as amended,
- f) The Electricity Act 1984 (Act 41 of 1984) as amended.

4. Scope of Work

Included in this Lift and Escalator Specification

Supply and install all labour, materials, equipment and services and perform all operations required as indicated on the specification and drawings.

5. Co-ordinating

The Lift Contractor shall familiarise himself with the requirements of the other professional disciplines and shall examine the plans and specifications covering each of these sections.

The lift space requirements shall be carefully checked with other professional disciplines to ensure that the equipment can be installed in the proper sequence in the space allotted.

6. Submittals

Layout and Shop Drawings

Layout drawings are required for all work, including car enclosure and landing entrance co-ordinating drawings.

Shop drawings are required in hard and electronic copies for car enclosure, landing entrances and signal fixture work showing construction, finish and fastening details. Furthermore, shop drawings shall show shaft construction detail including all the required internal supporting beams, pit dividing walls for multi-lift shafts and pit sump pump drains. Composite shop drawings shall be submitted for areas which require close co-ordination with the work of the different trades.

All special equipment and fixture faceplates shall be submitted for approval. Drawings and samples or brochures shall be submitted for each type of fixture and shall be co-ordinated with the architectural drawings. Final design and material proposed for fixture faceplates and special equipment shall be approved by the Representative/Agent.

7. Samples

All exposed materials and finishes shall be submitted to Representative/Agent for approval in sample form.

The Lift Contractor shall furnish such samples as may be called for and the Representative/Agent may reject all materials or workmanship not corresponding with the samples. All approved samples shall be held in safe-keeping until such time as the work to which they apply has been completed.

8. Tests Certificates and Inspections

The Lift Contractor shall carry out all the tests and checks required and issue the necessary Certificate of Compliance prior to final completion

Upon completion of the installation of all equipment and once being in full operation the Lift Contractor shall completely test the lift equipment to demonstrate that the equipment is provided in compliance with the specification. The total costs for these test shall be included in the tendered amount.

The Lift Contractor shall make arrangements for such tests and shall give at least 72 hours written notice to the Representative/Agent, before commencing the test.

In the event of the plant, equipment or installation not passing the test, the Representative/Agent shall be at liberty to deduct from the Contract amount all reasonable expenses incurred by the Employer and/or the Representative/Agent attending the test.

Whenever any installation or equipment is operated for testing or adjusting as provided for above, the Contractor shall operate the entire system for as long a period as may be required to prove satisfactory performance at all times in the occupied space served by that system until the system is handed over.

The Contractor shall provide all labour and supervision required for such operation and the Department may assign operating personnel as observers, but such observation time shall not be counted as instruction time.

After completing the installation or system, all equipment shall be tested, adjusted and readjusted until they operate to the satisfaction and approval of the Representative/Agent.

The Contractor shall submit certificates of tests carried out to prove the efficiency of all equipment, as well as certificates to be obtained from all relevant authorities, statutory bodies, etc.

9. Application to Department of Labour

The Lift Contractor shall submit all the necessary drawings and information to the Regional Director of the Department of Labour and shall submit the necessary application for the erection and use of the lifts and escalators.

10. Operating and Maintenance Manuals

The Contractor shall be responsible for the compilation of a complete set of Operating and Maintenance manuals.

This shall be done in accordance with the Annexure A – Operating and Maintenance manuals.

All information shall be recorded and reproduced in electronic format as well as supplying the Representative/Agent with three sets of hard copies.

Approval of the final Operating and Maintenance Manuals shall be a prerequisite for issuing of a Certificate of Practical Completion of the installation.

11. Guarantee

After works completion of the installation have been achieved, there will follow a 12-month free maintenance period.

During this period the lift contractor shall maintain the lift installation as per the requirements of the Occupational Health and Safety Act. This maintenance shall include systematic examinations, adjustments and lubrication of all lift equipment. Electrical and mechanical parts shall be repaired or replaced whenever it is required to maintain optimum performance without additional cost to the Department, unless the condition was caused by misuse or vandalism of the lift equipment or natural hazards/force majeure.

The work under this section shall be performed by competent, qualified personnel under the supervision and in the direct employment of the Lift Contractor and shall not be transferred to any non-affiliated agent. Contract maintenance and repair work shall be done during normal working hours and shall further provide emergency call-back service twenty-four (24) hours a day, seven (7) days a week.

During the guarantee period the Department will invite tenders for the comprehensive maintenance of the lift installation, which will commence after the final completion has

taken place, i.e. after the twelfth month guarantee period is over and all defects are corrected.

12. Materials and Workmanship

- (a) The work throughout shall be executed to the highest standards and to the entire satisfaction of the Representative/Agent who shall interpret the meaning of the Contract Document and shall have the authority to reject any work and materials, which, in his judgement, are not in full accordance therewith. All condemned material and workmanship shall be replaced or rectified as directed and approved by the Representative/Agent.
- (b) All work shall be executed in a first-class manner by qualified tradesman.
- (c) The Contractor shall be fully responsible for his work and shall replace any of the work which may be damaged, lost or stolen. The Contractor shall protect the building and its contents against damage by him, his employees or sub-contractors and shall make good any damage thereto.
- (d) The Contractor shall indemnify the Employer of all liability for damages arising from injuries or disabilities to persons or damage to property occasioned by any act or omission of the Contractor or any of his sub-contractors, including any and all expenses, legal or otherwise, which may be incurred by the Employer or Representative/Agent in the defence of any claim, action or suit.
- (e) The Contractor shall warrant that the materials and workmanship shall be of the highest grade, that the equipment shall be installed in a practical and first-class manner in accordance with the best practices and ready and complete for full operation. It is specifically intended that all material or labour which is usually provided as part of such equipment as is called for and which is necessary for its proper completion and operation shall be provided without additional cost whether or not shown or described in the Contract Document.
- (f) The Contractor shall thoroughly acquaint himself with the work involved and shall verify on site all measurements necessary for proper installation work. The Contractor shall also be prepared to promptly furnish any information relating to his own work as may be necessary for the proper installation work and shall co-operate with and co-ordinate the work of others as may be applicable.
- (g) The Contractor shall inspect and verify that the existing power feeder system is compatible with the equipment offered and any changes or upgrading of the electrical supply shall be brought to the attention of the Representative/Agent.
- (h) Material and equipment damaged in transit shall be replaced with undamaged material.
- (i) All components and their respective adjustment, which do not form part of the equipment installation work, but influence the optimum and safe operation of the equipment shall be considered to form part of, and shall be included in the Contractor's scope of works.
- (j) All control equipment and serviceable items shall be installed and positioned such that they will be accessible and maintainable.
- (k) The Contractor shall make sure that all safety regulations and measures are applied and enforced during the installation and guarantee periods to ensure the safety of the public and the User Client.
- (l) The Contractor is to include cost for all scaffolding required to complete the work required.

13. Brochures

Detailed brochures of all equipment offered, including the control, drive, door operator, call buttons and signals, remote monitoring station, intercoms and emergency dial-out system shall be presented together with the tender documents.

2.2. Technical Requirements for Group

(a) General

<u>Item</u>	<u>Description</u>	<u>Detail Requirements</u>
(a)	Number of Units	
(b)	Type of Lift	
(c)	Load	
(d)	Speed	
(e)	Lift Numbers	
(f)	Total Number of Travel (m)	
(g)	Number of Stops	
(h)	No of Openings	
(i)	Car Entrances	
(j)	Floor Designation	
(k)	Pit Depth	
(l)	Machine Room Dimension	
(m)	Pit Service Platform	
(n)	Extended Buffers	
(o)	Access below Pit	
(p)	Counterweight Safeties	

(b) Machine

<u>Item</u>	<u>Description</u>	<u>Detail Requirements</u>
(a)	Drive	
(b)	Machine	
(c)	Roping	
(d)	Automatic Self-Levelling	
(e)	Compensation	

(c) Control Operation

<u>Item</u>	<u>Description</u>	<u>Detail Requirements</u>
(a)	Operation	
(b)	Up/Down Peaks	
(c)	Fire Control	
(d)	Fireman's Floor	
(e)	Emergency Power Control	
(f)	Evacuation Floor	
(g)	Independent Control	
(h)	Load Measuring	

(d) Landing Equipment

<u>Item</u>	<u>Description</u>	<u>Detail Requirements</u>
(a)	Landing Doors Opening	
(b)	Door Operation	
(c)	Door Control	
(d)	Position Indicator	
(e)	Waiting Lanterns	Yes
(f)	Gongs	Yes
(g)	Call Buttons	<i>Approved vandal proof mechanical micro push button</i>
(h)	Direction Arrows	<i>Yes-above all landing entrances</i>

(e) Car Equipment

<u>Item</u>	<u>Description</u>	<u>Detail Requirements</u>
(a)	Number of COP's	
(b)	Protection Drapes	
(c)	Position Indicators	
(d)	Direction Arrows	
(e)	Intercom	Yes
(f)	Call Buttons	<i>Approved vandal proof mechanical micro push buttons</i>
(g)	Door Detectors	
(h)	Signage	Yes
(i)	Emergency Light	Yes
(j)	Braille Call Buttons	Yes

(f) Shaft Dimensions and Equipment

<u>Item</u>	<u>Description</u>	<u>Detail Requirements</u>
(a)	Shaft Dimensions	
(b)	Head Room Dimension	
(c)	Pit Sump	
(d)	Shaft Lighting	
(e)	Pit sump dimension	
(f)	Ground to first floor dimensions	
(g)	First floor top to shaft top dimensions	

(g) Car Enclosure

<u>Item</u>	<u>Description</u>	<u>Detail Requirements</u>
(a)	Car Dimensions	
(b)	Car Clear Internal Height	
(c)	Clear Door Opening	

(h) Finishes

<u>Item</u>	<u>Description</u>	<u>Detail Requirements</u>
(a)	Fixture Faceplates	<i>Minimum 3mm thick Stainless Steel (SST) with bevelled edges and a brushed finish</i>
(b)	Car COP Faceplates	<i>Full height next to car door SST with brushed finish</i>
(c)	Car Side Walls	<i>SST-brushed finish</i>
(d)	Car Rear Wall	<i>SST-brushed finish</i>
(e)	Car Front	<i>SST-brushed finish</i>
(f)	Car Floor	<i>Ornament-Principal agent to specify colour</i>
(g)	Car Ceiling	<i>High Quality suspended ceiling with recessed luminaires</i>
(h)	Hand Rails	<i>At a height of 900mm above car floor sides and rear of car</i>
(i)	Car Doors	<i>SST-brushed finish</i>
(j)	Landing Doors	<i>SST-brushed finish</i>
(k)	Landing Frames	<i>SST-brushed finish</i>
(l)	Landing Signals	<i>Fitted above landing entrances</i>

3. ELECTRICAL SUPPLY REQUIREMENTS

Provision of a 3-phase, 4-wire, 50Hz 400/231V accessible permanent power supply to a distribution board shall be provided in the position shown on the drawings. The distribution board will be equipped with a separate circuit breaker for the shaft and car lighting as well as a separate circuit breaker with earth leakage protection for the socket outlet in the pit and on top of the lift car with a separate circuit suitable for the pit sump pump as designed by the lift contractor.

If applicable, the machine shall be provided with sufficient lighting, ventilation, etc. by the lift contractor.

If applicable, the standby power supply will be sized to run a predetermined number of lifts simultaneously.

A suitable pit sump pump supply must be designed, supplied and installed.

4. LIFT CAR REQUIREMENTS

- 4.1. A continuous lighting system shall be provided along each side of the car. The lighting system shall consist of concealed, surface mounted, latest technology energy efficient luminaires.
- 4.2. Silent running squirrel cage, centrifugal flow exhaust blowers for passenger and goods/passenger lifts shall be mounted to draw air into car enclosure when doors are open and through door side clearances when doors are closed. The blower shall be mounted on the car top, draw air from the car through the perimeter of the suspended ceiling and exhaust the air into the lift shaft. The fan shall be switched via a toggle switch mounted in the car operating panel.
- 4.3. Lift car finishes
 - (a) A robust handrail must be provided across the rear and side walls of the lift car. The spacer blocks to which the hand and bumper rails are secured shall be fixed to the panels.
 - (b) Goods/Passenger lift car inner panels shall be stainless steel for general buildings.
 - (c) The fixture faceplates in the lift car and at the landings shall be mounted with concealed security fastenings or fastenings requiring special tools to remove them, as approved by the Representative/Agent. Exposed fastenings shall match the material and finish of the faceplate.
 - (d) The following fixture face plates shall be located and sized in accordance with dimensions approved by the Representative/Agent:
 - Car operating panels.
 - Car position indicators.
 - Car direction indicators.
 - Landing push button stations.
 - Landing position indicators and signals.
 - Blanking-off plates
 - (e) Without exception the Representative/Agent shall approve the final design of the fixture faceplates before placing the order or manufacturing of this equipment.
 - (f) Floor type of covering and colour to suit the environment where lift is installed and to be specified by consultant.

5. Group Automatic Operation – Two or More Lifts in a Group

5.1. Automatic Operation

The consultant to indicate if the lifts are working in a group. If the lifts are working in a group the following needs to be considered in the design of the lifts.

- (a) The operation of passenger lifts shall be group automatic operation arranged, dispatched and controlled by a group supervisory system.
- (b) Each lift shall be arranged for automatic operation without attendant through the car and landing buttons in conjunction with a group supervisory system or machine room fixed wiring.
- (c) Whenever a lift is returned to group automatic operation after being operated on for inspection, independent, or firemen service, the lift shall immediately take its place in the group.

5.2. Group Control Dispatching System

The dispatching system or group control system shall be de-centralised and the lifts shall not be dependent on a central control system for its effective group operation. Each lift control shall be capable of taking over the function of the group control.

5.3. Group Control Up Peak Mode

The Up Peak Mode shall be initiated automatically by recognising or anticipating traffic patterns or when a pre-determined number of cars with a loading above a predetermined weight level leave the main landing in the up direction. Cars shall be permitted to depart from the main landing without predetermined timing. During the Up Peak, down calls shall be served by cars not immediately needed to serve up traffic.

The Up Peak shall be discontinued once a predetermined number of cars with a loading below a predetermined level leave the main landing in the up direction. To suit individual building requirements, it shall be possible to alter the variables, which activate and deactivate the Up Peak without making changes to prints, hardware, the main program or fixed wiring.

5.4. Group Control Down Peak Mode

The Down Peak condition shall be detected by monitoring the number of down landing calls, down boarding rates and down lobby arrival loadings. Under heavy Down Peak traffic, landing calls shall be grouped in sequence of registration and assigned to be served in this sequence in an approximate "first in / first out" pattern. To suit individual building requirements, it shall be possible to alter the variables, which activate and deactivate the Down Peak without making changes to prints, hardware, the main program or fixed wiring.

5.5. Group Control Distribution of Free Cars

If no car call has been assigned after the lift has answered the last call, the car and landing doors shall close and the lift shall park at this landing awaiting a further assignment of a landing call or assignment to another zone or parking floor. Cars having completed service shall be dispatched after a software adjustable time period to designated floors so that possible future calls shall not keep passengers waiting for long periods of time. The free cars shall not open their car doors when arriving at a parking floor and the doors shall remain closed until required to respond to an assigned call. The distribution of free cars shall take into account additional main landings and priority floors in the following order of priority, unless otherwise specified:

- Main lobby: Priority 1

- Additional main landings: Priority 2
- Executive floors: Priority 3
- Restaurant floors: Priority 4

The main landing / lobby shall have the highest priority when distributing free cars. If two or more free cars are parked on the main landing, only the available free car/master, shall park with its doors open.

5.6. Automatic Landing By-pass

When a car load exceeds a predetermined weight level, it shall automatically bypass all landing calls in the direction of service and shall respond only to car calls. The default setting for this predetermined level shall be 65% of rated load.

5.7. Car Held Up at a Landing

Should a lift be delayed at a typical floor beyond a pre-set software adjustable time period initially set at **thirty (30) seconds**, the lift shall be disconnected from the group automatic operation and the assigned landing calls shall be re-assigned to an alternative operational lift.

5.8. Car Call Cancellation

When the car has responded to the last call in the up or down direction, the car calls shall automatically be cleared from the system to maintain optimum efficiency.

3. SPECIFICATION FOR THE INSTALLATION OF LIFTS AND ESCALATORS

SECTION 3 – SCHEDULE OF TECHNICAL INFORMATION

1. GENERAL

Tenderers are required to complete the following Schedule of Technical Information and shall in addition, under separate cover, give full particulars of the equipment and installations offered as well as detailed descriptions of the various methods of control and operation.

2. TECHNICAL INFORMATION SCHEDULE

Item	Description	Details
1.	Manufacturer's name	
2.	Country of origin	
3.	% South African manufactured parts	
4.	Performance	
a)	Car speed in m/s	
b)	Average round trip time	
c)	Maximum carrying capacity of each lift car	
d)	Average waiting time after registration of a landing call	
5.	Main Hoist Motor	
a)	Maker's name	
b)	Type	
c)	Rated output (kW)	
d)	Time rating (starts/hr)	
e)	Manufacturing standard and safety codes	
f)	Maximum speed (RPM)	
g)	Rated voltage (Volts)	
h)	Full load current (Amps)	
i)	Starting current (Amps)	
j)	Type of bearings	
k)	Maximum line current with lift starting with full contract load (Amps)	
6.	Type of Brake	
7.	Gearing (If Applicable)	
a)	Material of worm	
b)	Material of worm-wheel	

Item	Description	Details
c)	Type of thrust bearings	
d)	Ratio of gearing	
e)	Type of worm-shaft bearings	
f)	Worm above or below wheel	
8.	Drive	
a)	Diameter of traction sheave (rope centres)	
b)	Type of grooving used on traction sheave	
c)	Type of bearing for sheave shaft	
d)	Diameter of smallest deflector pulley used	
e)	Type of grooves provided on deflector pulleys	
f)	Type of bearings for deflector pulleys	
g)	Means provided for absorption of vibration	
9.	Switch gear and Control System	
a)	Make of main circuit breaker	
b)	Rupturing capacity of main circuit breaker (kA)	
c)	Type of control system	
d)	Control voltage	
e)	Make of contactors	
f)	Make of control relays	
g)	Contact materials used for auxiliary and main contacts of controller switch gear	
h)	Type of selector	
10.	Car and Doors	
a)	Mass of complete car with doors and operating gear (kg)	
b)	Net inside dimensions(width x depth x height) in mm	
c)	Thickness of material of car and landing doors	
d)	Finish of car and landing doors	
e)	Clear width and height of car and landing entrances	
f)	Type of door drive mechanism offered	
g)	Type of suspension used for car and landing doors	
h)	Type of proximity detectors	
(I)	For passengers approaching from landing	
(II)	For passengers leaving lift car	
i)	Type of material used for inside finishes of car (i.e.	

Item	Description	Details
	panels, ceiling trim)	
j)	Thickness and type of floorboards and floor covering	
k)	How is car and platform isolated from supporting structure?	
l)	Are car panels treated externally for sound absorption?	
m)	Door speed:	
(I)	Normal (m/min)	
(II)	On force closing (m/min)	
11.	Ropes	
a)	Maker's name	
b)	Diameter of ropes (mm)	
c)	Number of main ropes	
d)	Breaking load of each rope (kN)	
e)	Maximum working load of each rope	
f)	Factor of safety	
g)	Tensile strength of steel used (MPa)	
h)	Number of strands in rope	
i)	Number of wires per strand	
j)	Construction and lay of rope	
k)	Type of rope fastening used	
l)	System of roping (i.e. 2:1 or 1:1, single or double wrap)	
12.	Counterweight	
a)	Total mass (kg)	
b)	Percentage of live load counter balanced (%)	
13.	Guide Rails	
a)	Type and section	
b)	Mass per metre-length (kg) for:	
(I)	Car	
(II)	Counterweight	
14.	Roller Shoes	
a)	Type	
b)	Material of tyres for roller type guides	
15.	Buffers	

Item	Description	Details
a)	Type	
b)	Length of stroke	
c)	Reactions on pit floor when buffers are hit at 115% of contract speed whilst car is carrying contract load	
(I)	Car buffers	
(II)	Counterweight buffers	
16.	Safety Gear	
a)	Type	
b)	Type of governor	
c)	Stopping distance at over speed with:	
(I)	Car empty (mm)	
(II)	With contract load (mm)	
d)	Percentage over-contract speed when governor trips safety (%)	
e)	Percentage over-contract speed at which governor trips motor supply	
f)	Is safety still effective if governor rope breaks after application of safety device?	
17.	Steelwork at Top of Shaft	
a)	Number and type of sections used	
b)	Reactions on structure must be submitted with tender by indicating position, magnitude and direction of all reactions on a drawing	
18.	Levelling	
a)	Levelling speed (m/s)	
b)	Levelling tolerance guaranteed (Maximum) (mm)	
c)	Will car and landing doors be fully open when car reaches floor level?	
d)	What is distance of levelling zone above and below floor level?	
19.	Selector Type	
20.	Deviations from Specification as an Alternative Offer: Does the equipment offered comply strictly with the specification (Yes/No)	

3. DEVIATIONS FROM SPECIFICATION AS ALTERNATIVE OFFER

If answer to 20 above is NO, tenderers shall give full details of all deviations between the alternative offered and specified equipment hereunder:

.....
.....
.....
.....
.....
.....
.....
.....

TENDERER'S NAME AND ADDRESS

.....
.....
.....

.....
Signature of Tenderer's
Authorised Signatory

TEL NO.

DATE:

4. SPECIFICATION FOR THE INSTALLATION OF LIFTS AND ESCALATORS

SECTION 4 - OPERATING AND MAINTENANCE MANUALS

1. SCOPE

The Contractor shall be responsible for the compilation of complete sets of Operating and Maintenance Manuals. A separate Operating and Maintenance Manual shall be supplied for each installation.

2. PROCEDURE FOR SUBMISSION OF MANUALS

2.1. Submission of Draft Manuals

A draft copy of each Operating and Maintenance Manual shall be submitted to the Representative/Agent prior to safety inspection of the installation. Approval of the draft Operating and Maintenance Manuals shall be a prerequisite for commencement of the safety inspection in terms of the Occupational Health and Safety Act, 1993 (Act No. 85 of 1993)

The manuals will be reviewed and checked by the Representative/Agent and returned to the Contractor with comments, where necessary. The Contractor shall make the necessary changes and amendments to the manuals to incorporate the Representative/Agent's comments.

2.2. Development of Final Manuals

A final draft copy of each Operating and Maintenance Manual shall be submitted to the Representative/Agent at least one week prior to commencement of Day 1 tests on commissioning. This set of manuals will not be accepted without the Contractor's verification of the information contained in the manuals and the professional language editing thereof. The Representative/Agent shall return the manuals to the Contractor, who shall make the final corrections. The Representative/Agent will, however, not be responsible for the quality control on manuals. Approval of final Operating and Maintenance Manuals shall be a prerequisite for issuing of a Certificate of Practical Completion for repair of the installation.

After the Representative/Agent has approved the final Operating and Maintenance Manuals, the Contractor shall provide the Representative/Agent with seven (7) sets of the manuals. Approval of the final Operating and Maintenance Manuals shall be a prerequisite for issuing of a Certificate of Completion.

3. FORMAT OF OPERATING AND MAINTENANCE MANUALS

- (a) Manuals shall be bound in hardcover lever-arch files with plastic coatings. The files shall be clearly labelled on the front cover, as well as on the back band, with the following information:
 - (i) The title "Operating and Maintenance Manuals"
 - (ii) Name of the contract and contract number
 - (iii) The Contractor's name, email address and contact telephone number and fax (logo optional)
 - (iv) Month and year in which the manuals are finally handed over to the Employer
 - (v) Name of the User Client.
- (b) Pamphlets and bound leaflets/booklets from suppliers or manufacturers shall be placed in plastic pockets.
- (c) Drawings and diagrams larger than A3 shall be folded and placed in plastic pockets to be easily removed or stored.
- (d) The sections of the manuals specified below shall be clearly partitioned.
- (e) Cross-referencing between drawings/diagrams and text shall be in a clear and consequent format.
- (g) The Operating and Maintenance Manuals shall be supplied in English.

4. CONTENTS

4.1 Table of Contents

The table of contents shall appear on the second page and shall consist of the headings of the various sections in the manual and the relevant page numbers.

The table of contents shall essentially contain at least the following:

1. Introduction
 - 1.1 Scope of the manual
 - 1.2 General arrangement of the manual
 - 1.3 Description of installation
 - 1.4 Specifications
2. List of drawings and diagrams
3. Parts and components
4. Operating procedures
5. Maintenance
 - 5.1 Purpose of maintenance
 - 5.2 Preventative maintenance
 - 5.3 Trouble-shooting
6. Breakdown maintenance and repair
7. List of Appendices.

4.2 Introduction

The introduction shall contain at least the following:

4.2.1. Scope of the manual

A summary shall explain the scope of the contents.

4.2.2. General arrangement of the manual

A brief description shall explain the way in which the manual is arranged.

4.2.3. Description of installation

This section shall give a functional description of the complete installation covered by the manual, including all systems and/or functional units deemed to form part thereof.

4.2.4. Specifications

A summary shall be given of the specifications applicable to the particular part of the Contract.

4.3 Drawings and Diagrams

4.3.1 Mechanical flow diagrams (MFDs) and single line diagrams

Mechanical flow diagrams (for mechanical systems) or single line diagrams (for electrical systems) of the system and/or functional unit shall be included in the Operating and Maintenance Manuals for easy reference by the operators of the installation. Diagrams shall be drawn not only for parts of an installation that have been repaired, but also for the complete installation, including all the components.

4.4 Parts and Components

4.4.1. Equipment data sheets

A data sheet shall be drawn up for each piece of equipment and/or machine forming part of the installation and shall contain the following information:

- (a) Equipment tag number
- (b) Equipment description
- (c) Model/make/manufacture
- (d) Supplier/Reconditioning details
- (e) Ordering details
- (f) Details of fixed components
- (g) Details of lubrication
- (h) Maintenance references (refer to supplier/reconditioning technical manual).

4.4.2. Technical equipment manuals

For each piece of equipment and/or machine forming part of the installation the following information shall be included in this section of the Operating and Maintenance Manuals:

- (a) The supplier or reconditioning manual and/or standards of operating and maintenance instructions;
- (b) Illustrated parts breakdown and/or group assembly drawings as agreed with the Representative/Agent;
- (c) Parts lists and data sheets, including all characteristic curves for machines indicating operation point, efficiency, power consumption, etc;
- (d) Calibration charts, and
- (e) Test certificates for hydraulic pressure tests, flame-proof grading, materials, non-destructive examinations, coating and lining details, etc.

Each detailed description shall be accompanied by a set of engineering drawings. From the drawings the functionality of each part or component used, as well as the special characteristics associated with the part or component shall be very clear.

4.4.3. Parts and components list

A detailed description shall specify all the parts and components used for the duration of the Contract. This description shall include new parts and components, as well as existing parts and components that have either been reconditioned or used as specified in the Contract.

The description shall state at least the part or component number, part or component name, the size of the part or component, an explanatory description, the quantity used, the material of which the part or component is made, the coating (if any), date of purchase, as well as any relevant remarks as to the application thereof.

Details of the manufacturer of the part or component shall also be listed. This shall at least state the name, address, telephone number, fax number and name of a contact person.

The supplier of the part or component shall also be stated and shall include at least the name, address, telephone number, email address, fax number, email, name of a contact person and an alternative supplier (if available).

4.4.4. Drawings

Drawings shall contain a descriptive heading, an explanatory key and relevant comments. Drawings shall be done on a computer-aided design package approved by the Representative/Agent and the electronic copies of all drawings shall be submitted together with the manuals.

A compound drawing for all subassemblies shall clearly indicate how and where the various parts fit in the subassembly. The compound drawing shall be linked to the equipment data sheets and parts and components list and shall clearly specify the parts or components used, their model numbers, their sizes and the quantities used. The compound drawings shall also be accompanied by a short description explaining the workings of the subassembly, as well as the assembly of the parts or components to complete the subassembly.

4.5 Operating Procedures

The operating instructions shall be a step by step description of the manual start-up and shut-down procedure for every piece of equipment and/or process reconditioned, repaired or supplied with references to the MFDs. For automatic operation the operators shall be referred to the automatic control manual (if applicable).

The functioning of the installation shall be clearly described, using a flow diagram depicting the interrelationships among the various subassemblies. The subassemblies shall be described by descriptive drawings.

Each mechanical or process flow diagram shall contain at least a heading, relevant comments and a key.

Every subassembly shall also have its own flow diagram explaining the operation of the subassembly, as well as the application of each part and component. The application of the subassembly shall also be very clear. The flow diagram shall consist of at least a heading, relevant comments and an explanatory key.

A detailed description shall be given of all operational systems forming part of the installation, explaining the operation and functioning of the system and the number of operations personnel required for performing the operation successfully.

The preparations, which are required before the system can be operational, shall be clearly stated and explained.

The operation tasks shall be clearly explained with reference to dangerous situations that might occur. Hazardous operations shall be explained in great detail and cover all the applicable safety precautions.

4.6 Maintenance

4.6.1 Purpose of maintenance

The maintenance process shall be explained and the main responsibilities described.

4.6.2 Preventative maintenance

A preventative maintenance and lubrication schedule shall be included in this section. This schedule shall be in table format and shall include a summary of all the maintenance actions required for each different system and/or functional unit covered by this manual, in order to give a single summary of all routine preventative maintenance actions required for the complete installation.

The schedule shall indicate daily, weekly, fortnightly, monthly and yearly maintenance actions. A lubrication schedule summary shall also be included under this section.

The frequency of routine preventative maintenance actions shall be indicated very clearly.

The Contractor shall provide the maintenance requirements as prescribed by the manufacturer. The type of maintenance shall be clearly indicated. The description of the maintenance to be performed shall include at least the part name, location of the part in either the assembly or subassembly, the model number, the quantity of the particular part or component to be maintained, the type of maintenance, and notes on the maintenance procedure.

A brief description shall accompany the maintenance schedule, indicating special tools to be used, maintenance and test equipment required for the test procedures. Any special tools necessary for maintenance shall be specified in terms of name, model, size, manufacturer, supplier (name, telephone number, fax number, contact person), coating (if any) and notes on the use of the equipment.

Remarks on the system readiness checks of each subassembly shall be explained in detail. Routine inspection and maintenance processes shall be described. It shall be very clear what needs to be done, how to perform the necessary task and any dangers that are present.

4.6.3 Trouble-shooting

An explanation shall be given to assist the maintenance personnel in analysing and resolving malfunctions that might occur. Various scenarios with possible causes and rectification procedures shall be explained.

The scenarios shall be accompanied by drawings indicating the position of the part that is faulty. Each of these drawings shall have a heading, comments and an explanatory key.

4.7 **Breakdown Maintenance and Repair**

The Contractor shall describe the complete procedure to be followed in the event of a breakdown. It shall be very clear what the operating personnel should look for, how to eliminate any dangers due to the breakdown (e.g. electricity must be shut off in the event of problems with the wiring) and who should be contacted. The Contractor shall supply the names and telephone numbers of at least two contact persons who may be contacted in the event of a breakdown.

Repair instructions shall provide the maintenance personnel with detailed instructions for the removal and/or replacement of any item requiring replacement due to malfunctioning. Contact numbers shall also be given to assist maintenance personnel, should a breakdown occur.

The Contractor shall specify the actions expected of maintenance personnel in the event of a breakdown.

The Contractor shall also specify the testing procedures to be followed before the system can be put into operation again. Every procedure shall be described clearly and all the potential dangers pointed out, as well as the precautions that have to be taken.

The testing procedures shall be accompanied by drawings illustrating the process to be performed. Every drawing shall have a heading, comments and an explanatory key.

FACILITIES MANAGEMENT

CONDITIONS OF CONTRACT (DPW)

SEPT. 2005 VERSION 1



PA-10 (FM): CONDITIONS OF CONTRACT

CONTENTS

No.	CLAUSES	PAGES
1.	Definitions	3
2.	Interpretation	4
3.	Duration	5
4.	Rights and Obligations of the Employer	5
5.	Rights and Obligations of the Service Provider	5
6.	Service Manager	6
7.	Security	6
8.	Security Clearance	6
9.	Confidentiality	6
10.	Ambiguity in documents	7
11.	Insurances	7
12.	Access to the facilities and commencement of the Services	7
13.	Programme	7
14.	Subcontracting	8
15.	Intellectual Property Rights indemnity	8
16.	Compliance with Legislation	8
17.	Reporting on incidents	8
18.	Nuisance	9
19.	Materials, workmanship and equipment	9
20.	Urgent Works	9
21.	Indemnifications	9
22.	Variations	10
23.	Identified Projects	10
24.	Suspension of the Services	12
25.	Penalty for Non-Performance	12
26.	Payments	13
27.	Release of Security	14
28.	Overpayments	14
29.	Completion	14
30.	Assignment	15
31.	Indulgences	15
32.	Ownership and Publication of Documents	15
33.	Breach of Contract	15
34.	Stoppage and/or termination of Contract	16
35.	Dispute Resolution	17
36.	General	17
37.	<i>Domicilium Citandi et Executandi</i>	17



1. DEFINITIONS

- 1.1. The following words and expressions shall have the meanings hereby assigned to them except where the context otherwise requires:
- 1.1.1. "Additional Services" are increases in the quantity of the routine Services detailed in the Scope of Works.
- 1.1.2. "Bill of Quantities" means the document so designated in the Pricing Data that describes the Services and indicates the quantities and rates associated with each item which the Employer agrees to pay the Service Provider for the Services completed;
- 1.1.3. "Certificate of Completion" means the certificate issued by the Service Manager signifying that the Contract has expired;
- 1.1.4. "Commencement Date" means the date on when the Service Provider is notified of the Employer's acceptance of its offer;
- 1.1.5. "Contract" means the Contract signed by the Parties and of which these Conditions of Contract form part of, and such amendments and additions to the Contract as may be agreed in writing between the Parties;
- 1.1.6. "Contract Data" means the specific data, which together with these Conditions of Contract, Scope of Works and Pricing Data collectively describe the risks, liabilities and obligations of the contracting Parties and the procedures for the administration of the Contract;
- 1.1.7. "Contract Period" is from Commencement Date for the period stated in the Contract Data;
- 1.1.8. "Contract Price" means the price to be paid for the Services in accordance with the Pricing Data, subject to such additions thereto or deductions there from as may be made from time to time under the provisions of the Contract;
- 1.1.9. "Contract Sum" refers to the amount stated by the Service Provider in the Form of Offer and Acceptance;
- 1.1.10. "CPAP" means contract price adjustment provisions used for the adjustment of fluctuations in the cost of labour, plant and materials and goods as stated in the Contract Data;
- 1.1.11. "Day" means a calendar day;
- 1.1.12. "Drawings" means all drawings, calculations and technical information which are made available to the Service Provider for inspection at a venue and time to be announced by the Service Manager and any modifications thereof or additions thereto from time to time approved in writing by the Employer or delivered to the Service Provider by the Employer;
- 1.1.13. "Employer" means the contracting Party named in the Contract Data who appoints the Service Provider;
- 1.1.14. "Equipment" includes all appliances, tools implements, machinery, articles and things of whatsoever nature required in or for the rendering, completion or defects correction of the Services but does not include materials;
- 1.1.15. "Facilities" means the land and buildings, detailed in the Scope of Works, and any additions, or omission thereto, made available by the Employer for the purposes of the Contract, on, under, over, in or through which the Services are to be rendered or carried out;
- 1.1.16. "Form of Offer and Acceptance" means the written communication by the Employer to the Service Provider recording the acceptance of the Service Provider's offer;
- 1.1.17. "Identified Projects" means any projects, other than routine Services, identified and agreed to by the Parties during the Contract period or any extensions thereto, to be completed in terms of the Contract.

- 1.1.18. "Materials" includes all materials, commodities, articles and things required to be furnished under the Contract for the execution of the Services;
- 1.1.19. "Month" refers to the period commencing on a certain day of a month to the day preceding the corresponding day of the next month;
- 1.1.20. "Parties" means the Employer and the Service Provider;
- 1.1.21. "Pricing Data" means the document that contains the Bill of Quantities and provides the criteria and assumptions, which it will be assumed in the Contract were taken into account by the Service Provider when developing his prices;
- 1.1.22. "Services" means all the work to be performed by the Service Provider during the Contract Period in accordance with the Contract, as more fully set out in the Scope of Works, as amended from time to time by written agreement between the Parties;
- 1.1.23. "Service Provider" means the Tenderer, as named in the Contract Data, whose offer has been accepted by or on behalf of the Employer and, where applicable, includes the Service Provider's heirs, executors, administrators, trustees, judicial managers or liquidators, as the case may be, but not, except with the written consent of the Employer, any assignee of the Service Provider;
- 1.1.24. "Service Manager" means the representative of the Employer named as the Service Manager in the Contract Data. The Employer reserves the right to replace the said Service Manager, by written notice to the Service Provider, without the need to furnish reasons therefor;
- 1.1.25. "Scope of Work" refers to the document which defines the Employer's objectives and requirements and specifications and any other requirements and constraints relating to the manner in which the Services must, or may, be provided or performed;
- 1.1.26. "Service Period" refers to the period indicated in the Contract Data during which the Service Provider shall render the Services required in terms of the Contract;
- 1.1.27. "Transitional Stage" refers to the period indicated in the Contract Data, which commences immediately on the expiry of the Service Period, and during which the Services to be provided by the Service Provider shall include, inter alia, the provision and transfer to the incoming service provider of managerial support and information, as detailed in the Scope of Works.

2. INTERPRETATION

- 2.1. In this Contract, except where the context otherwise requires:
- 2.1.1 The masculine includes the feminine and the neuter, vice versa;
- 2.1.2 The singular includes the plural; and vice versa
- 2.1.3 Any reference to a natural person includes a body corporate, firm, association or consortium/joint venture/partnership, vice versa.
- 2.2. The headings to the clauses of this Contract are included for reference purposes only and shall not affect the interpretation of the provisions to which they relate.
- 2.3. Words and phrases defined in any clause shall bear the meanings assigned thereto.
- 2.4. The various parts of the Contract are severable and may be interpreted as such.
- 2.5. The expressions listed in clause 1 bear the meanings as assigned thereto and cognate expressions bear corresponding meanings.
- 2.6. If any provision in a definition clause is a substantive provision conferring rights or imposing obligations on any Party, effect shall be given to it as if it were a substantive clause in the body of the Contract, notwithstanding that it is only contained in the interpretation clause.

**DURATION**

- 3.1. The rights and obligations of the Parties to this Contract shall commence on the Commencement Date.
- 3.2. Subject to the terms of clauses 33 and 34 relating to breach and termination respectively, the Contract will commence on the Commencement Date and terminate on the expiry of the Contract Period, unless it is extended in terms of clause 3.3.
- 3.3. The terms or duration of the Contract may be extended as a result of bona fide negotiations between the Parties. No extension of term or duration of the Contract shall however be valid unless the terms and conditions of such extension has been reduced to writing and signed by the authorised representatives of both Parties.

4. RIGHTS AND OBLIGATIONS OF THE EMPLOYER

- 4.1. The Employer shall give access to or supply the Service Provider with:
 - 4.1.1 All relevant, available data and information required and requested by the Service Provider for the proper execution of the Services; and
 - 4.1.2 Such assistance as shall reasonably be required by the Service Provider for the execution of its duties under the Contract.

5. RIGHTS AND OBLIGATIONS OF THE SERVICE PROVIDER

- 5.1. The Service Provider shall, in executing his obligations, comply with the Service Manager's written instructions on any matter relating to the Services.
- 5.2. The Service Provider shall take instructions only from the Service Manager or other persons authorised by the Service Manager in terms of Clause 6.
- 5.3. The Service Provider shall not have the power of attorney or authority to enter into any contract or to otherwise bind or incur liability on behalf of the Employer, save where prior written authorisation has been obtained.
- 5.4. The Service Provider shall ensure that it, its employees, agents and representatives have the relevant experience and capacity necessary for rendering of the Services with the reasonable degree of skill, care and diligence that may be expected of professionals providing services similar to the Services.
- 5.5. Should any member of the Service Provider's team, in the opinion of the Service Manager or occupants of the Facilities, misconduct himself or is incompetent or negligent in the delivery of the Services, or whose presence on the Facilities is otherwise considered by the Service Manager, or occupants of the Facilities, on reasonable grounds, to be undesirable, the Employer may, in writing and together with reasons therefor, request that such person be removed. Such person shall not again be employed on the Services without the prior written consent of the Employer.
- 5.6. The Service Provider undertakes to effect such removal, as referred to in 5.5 above, within a day of receipt of the Employer's written request.
- 5.7. The Service Provider shall ensure that reasonable levels of care and responsibility are exercised when using items belonging to the Employer in the delivery of the Services.
- 5.8. During the ongoing provision of the Services the Service Provider shall at all times keep the Facilities clean and in a safe condition.
- 5.9. Notwithstanding anything herein contained to the contrary, it is specifically agreed that the appointment of the Service Provider shall not create an employment contract or relationship between the Parties and the Service Provider or his employees shall therefore not be entitled to any benefits to which the employees of the Employer may be entitled.



SERVICE MANAGER

- 6.1. The Service Manager shall administer the Contract on behalf of the Employer in accordance with the provisions of the Contract.
- 6.2. The Service Manager may delegate any of his powers and authority and may cancel such delegation, on the prior written notification thereof to the Service Provider.
- 6.3. Such delegation shall continue in force until the Service Manager notifies the Service Provider in writing that the delegation is terminated.
- 6.4. The Service Provider may at any time, prior to giving effect thereto, refer any written order or instruction of the Service Manager's delegatee to the Service Manager who shall confirm, reverse or vary such order or instruction.

7. SECURITY

- 7.1. The Service Provider shall provide to the Employer security in the amount and in the form set out in the Contract Data and any expenditure incurred in doing so shall be borne by the Service Provider.
- 7.2. Should the Service Provider fail to select the security to be provided or should the Service Provider fail to provide the Employer with the selected security within 21 days from Commencement Date, it shall be deemed that the Service Provider has selected a security in the form of a retention of 2.5 % of the Contract Sum (excl. VAT).

8. SECURITY CLEARANCE

- 8.1. In the event of security clearance becoming necessary, the Service Provider, any subcontractors and all human resources utilized by the Service Provider undertake to undergo security clearance, for which purpose the necessary forms will be made available to the Service Provider at the relevant time by the Employer. The Service Provider accepts that if he or any of his human resources refuses to undergo the required security clearance, they will not be allowed on the Facilities to render the Services.
- 8.2. It is required that all persons engaged in the rendering of the Services shall be easily identifiable and where required, security cleared.

9. CONFIDENTIALITY

- 9.1. The Service Provider undertakes to keep any and all information, of whatever nature, relating to the Contract or which he becomes privy to due to his presence at the Facilities, strictly confidential and such shall not be sold, traded, published or otherwise disclosed to anyone in any manner whatsoever, including by means of photocopy or other reproduction, without the Employer's prior written consent. As disclosure or improper use of the confidential information, without the Employer's prior written consent, will cause the Employer harm:
 - 9.1.1 the Service Provider shall be liable for any loss or damages suffered by the Employer and shall indemnify the Employer against any claims by third parties as a result of such unauthorised disclosure or use thereof, either in whole or in part; and/or
 - 9.2.1 the Employer shall be entitled to cancel the Contract
- 9.2. The Service Provider shall be entitled to disclose such confidential information to the following persons, who have a clear need to know interest, in order to assist with the rendering of the Services on the Contract:
 - 9.2.1 employees, officers and directors of the Service Provider; and
 - 9.2.2 any professional consultant or agent retained by the Service Provider for the purpose of rendering the Services, provided that the identity of such consultant or agent is made known to the Employer in writing and the Employer acknowledges in writing that the confidential information may be disclosed to such person.



- 9.3. The Service Provider shall be responsible for ensuring that all persons to whom the confidential information is disclosed under this Contract shall keep such information confidential and shall not disclose or divulge the same to any unauthorised person.
- 9.4. The confidential information shall remain the property of the Employer and the Employer may demand the return or destruction thereof, at the cost of the Service Provider, at any time upon giving written notice to the Service Provider. Within ten (10) days of receipt of such notice, the Service Provider shall return all of the original confidential information and shall destroy all copies and reproductions (both written and electronic) in its possession or in the possession of persons to whom it was disclosed and furnish a certificate to the Employer stating as much.

10. AMBIGUITY IN DOCUMENTS

- 10.1. The several documents forming the Contract are to be taken as mutually explanatory of one another and any ambiguity in or discrepancy between them shall be explained and, if necessary, rectified by the Service Manager who shall thereupon issue to the Service Provider a written explanation giving details of the adjustments, if any, and a written instruction directing what Service, if any, is to be delivered.

11. INSURANCES

- 11.1. It is the responsibility of the Service Provider to assess his risks on this project and to ensure that he obtains and maintains the adequate insurances to cover such risks.

12. ACCESS TO THE FACILITIES AND COMMENCEMENT OF THE SERVICES

- 12.1. The Service Provider shall provide the Employer, within 21 days of the Commencement Date, with an acceptable health and safety plan and such other information required in terms of the Occupational Health and Safety Act (85 of 1993).
- 12.2. The Service Period shall commence 30 days from Commencement date, or on such other date as maybe specified in the Contract Data
- 12.3. Notwithstanding the provision of 12.2, the Service Provider shall be given access to the Facilities or portions thereof, only after the provision by the Service Provider of an acceptable health and safety plan and of security clearance being obtained in terms of Clauses 12.1 and 8.1 respectively.
- 12.4. The Service Provider shall be given access to the Facilities or portions thereof and shall render the Services in accordance with its programme, referred to in clause 13 or after the receipt by him of a written instruction to this effect.
- 12.5. If the Employer fails to give the Service Provider access to the facility or any portion thereof for any reason other than default by the Service Provider and the Service Provider suffers additional costs as a result thereof, the Service Provider shall be entitled to make a claim therefor provided that the Service Provider is able to prove his claim and that he has taken all reasonable steps to mitigate the additional costs.

13. PROGRAMME

- 13.1. The Service Provider shall deliver to the Service Manager within 14 days from Commencement Date, a realistic programme and a cash flow for the delivery of the Services. The programme shall describe and detail the order in which the Services are to be rendered and shall be subject to the approval of the Service Manager, which written approval shall not be unreasonably withheld.
- 13.2. The Service Provider shall, on receipt of a written request from the Service Manager, furnish the Employer with any documents or information, of whatever nature, in support of the programme and/or in relation to the manner in which the Services are to be rendered and/or the resources to be supplied and used in the rendering of the Services and/or progress of the various parts of the Contract; and/or a detailed cash flow forecast.
- 13.3. A programme and the cash flow forecast will be submitted in terms of 13.1 and reviewed quarterly or as circumstances may require.



- 13.4. Agreement to the programme by the Service Manager or any adjustment thereto will not alter the responsibilities of the Service Provider in terms of this Contract.

14. SUBCONTRACTING

- 14.1. The Service Provider may subcontract any part of the Services at its discretion. The subcontracts shall incorporate the applicable terms, conditions and requirements of this Contract.
- 14.2. Subcontracting by the Service Provider shall not be construed as relieving the Service Provider from any obligations under the Contract or imposing any liability on the Employer.

15. INTELLECTUAL PROPERTY RIGHTS INDEMNITY

- 15.1. The Service Provider undertakes to obtain the necessary consent from the proprietors or their licensees should the Service Provider make use of the intellectual property of any other person.
- 15.2. The Service Provider further indemnifies the Employer against any claim or action (including costs on an attorney and client scale) caused by or arising from the failure to obtain such consent.

16. COMPLIANCE WITH LEGISLATION

- 16.1. This clause applies to legislation emanating from national and provincial government as well as that of any local authorities in whose area of jurisdiction the Facilities fall and which have a bearing on the delivery of the Services and Facilities under this Contract.
- 16.2. All the applicable legislation, which does not specifically allow discretion in respect of compliance by the Employer, shall be followed exactly as intended by such legislation regardless of any instructions, verbal or in writing, to the contrary.
- 16.3. Should any applicable legislation allow discretion in respect of compliance by the Employer it shall be followed exactly as intended by the relevant legislation as if no discretion is allowed until such time as specific instructions in writing are issued to the Service Provider by the Service Manager.
- 16.4. The Service Provider shall in the provision of the Services comply with the provisions of, and give all notices and pay all fees, taxes, levies and other charges required to be given or paid in terms of any legislation or imposed by any other body or person. The Service Provider hereby indemnifies the Employer against any liability for any breach of the provision of this clause.
- 16.5. It is the responsibility of the Service Provider to obtain the consents, permissions and/or permits, referred to in Clause 16.4, in the provision of the Services.
- 16.6. The Service Provider shall not have a claim against the Employer, and the Employer shall not be liable to refund the Service Provider for any of the fees, taxes, levies and other charges referred to Clause 16.4.

17. REPORTING OF INCIDENTS

- 17.1. In addition to the above, the Service Provider shall, as soon as possible, notify the Employer in writing of any incidents at the Facilities, which resulted or could have resulted in damage to property or injury or death to persons.
- 17.2. The Service Provider shall verbally notify the Service Manager of any of the incidents referred to in 17.1 immediately after the occurrence thereof.
- 17.3. The Service Provider shall follow up the verbal notification referred to in 17.2 with a detailed written report on such incidents to the Service Manager within the time frame indicated by the Service Manager, but in any event within 48 hours of the incident.
- 17.4. The written report referred to in 17.3 shall provide for all incidents, which resulted in injury, death or damage to property.



- 17.5. The Service Provider shall notify the Employer immediately, on becoming aware of the Contract requiring him to undertake anything that is illegal or impossible

18. NUISANCE

- 18.1. The Service Provider shall deliver the Services in a manner that shall not cause unnecessary noise, nuisance, or hinder the normal activities in the Facilities.
- 18.2. The Service Provider hereby indemnifies the Employer against any liability arising out of the Service Provider's non-compliance with his obligations in terms of Clause 18.1.

19. MATERIALS, WORKMANSHIP AND EQUIPMENT

- 19.1. All Services delivered, and materials and workmanship shall comply with the requirements of this Contract, the manufacturer's specification; good industry practice and the Service Manager's written instructions and shall be suitable for the purpose intended.
- 19.2. The Service Provider shall, in accordance with the Scope of Works or if instructed by the Service Manager, carry out tests demonstrating the acceptability of the relevant Services provided, or the suitability of materials or equipment to be used.
- 19.3. The Service Provider shall provide all necessary assistance, labour, materials, testing equipment and instruments for the purpose of such tests to be performed by himself or, if so instructed by the Service Manager, for the purposes of tests to be performed by any other person.
- 19.4. All costs for tests carried out shall be deemed to be included in the Service Provider's prices
- 19.5. Copies of the reports on the tests referred to in Clause 19.2 shall be forwarded by the Service Provider to the Employer within 10 days of the tests being completed.

20. URGENT WORK

- 20.1. The Employer may, by itself or through another service provider, effect any remedial or other repair work which becomes necessary due to an act or omission on the part of the Service Provider.
- 20.2. If the remedial or repair work became necessary due to an act or omission on the part of the Service Provider, its employees, agents or representatives, the Service Provider shall effect such remedial or repair work at its own cost.
- 20.3. If the remedial or repair work is urgently necessary due to an act or omission on the part of the Service Provider, its employees, agents or representatives and the Service Provider refuses to or is not available or able to effect such remedial or repair work, the Employer may effect such remedial or repair work either by itself or through another service provider.
- 20.4. If the Employer effects the remedial or repair work in terms of 20.3, then the Employer may recover such costs, losses or damages from the Service Provider or by deducting the same from any amount still due under this Contract or under any other contract presently or hereafter existing between the Employer and the Service Provider and for this purpose all these contracts shall be considered one indivisible whole.

21. INDEMNIFICATIONS

- 21.1. The Service Provider shall be liable for and hereby indemnifies the Employer against any liability, claim, demand, loss, cost, damage, action, suits or legal proceedings whether arising in common law or by statute consequent upon:
- 21.1.1 personal injuries to or the death of any person arising out of, related to, occasioned by, attributed to, or in the cause of or caused by the rendering of the Services;
- 21.1.2 loss of or damage to any movable or immovable or personal property or property contiguous to the Facilities whether belonging to or under the control of the Employer or any other body or person arising out of, related to, occasioned by, attributed to, or in the cause of or caused by reason of the rendering of the Services;



21.1.3 any liens, attachments, charges or other encumbrances or claims upon or in respect of any materials parts, work-in-process or finished work furnished to, or in respect of which any payment has been made by the Employer.

21.2. The Employer accepts liability for all acts or omissions of its employees, agents or representatives.

22. VARIATIONS

22.1. The Employer may at any time during the Contract Period, vary the Services by way of additions, omissions, or substitutions.

22.2. No variation by the Employer of whatever nature shall vitiate the Contract.

22.3. Any Services required by the Employer outside of the Services as referred to in the Scope of Works will be regarded as being Identified Projects and shall be dealt with under clause 23 and shall be executed as a variation order.

22.4. The Service Provider shall inform the Employer of any instructions that are deemed to be Additional Services prior to such instructions being executed.

22.5. Additional Services will only be executed by the Service Provider after receipt by him of a written instruction from the Service Manager.

22.6. If no prior written authorisation, as required in 22.5 above, has been obtained, the Employer shall not reimburse the Service Provider for the Additional Services so executed, and the Service Provider agrees that it shall not have a claim for payment for such Additional Services.

22.7. The Additional Services will be valued at the rates in the Pricing Data.

23. IDENTIFIED PROJECTS

23.1. The Service Provider shall inform the Employer of any instructions that are deemed to be Identified Projects prior to such instructions being executed.

23.2. The Employer is not obliged to engage the services of the Service Provider on Identified Projects. The Employer may, by itself, through another service provider or through the Service Provider effect the services/works under Identified Projects.

23.3. Identified Projects will only be executed by the Service Provider after receipt by him of a written instruction from the Service Manager.

23.4. If no prior written authorisation, as required in 23.3 above, has been obtained, the Employer shall not reimburse the Service Provider for the Identified Projects so executed, and the Service Provider agrees that it shall not have a claim for payment for such Identified Projects.

23.5 In respect of the Identified Projects, the written instruction referred to in 23.3 shall:

- (a) describe the services/works required to be executed by the Service Provider under the Identified Project;
- (b) state the due commencement and completion dates of the relevant Identified Project;
- (c) state the total cost of the relevant Identified Project as agreed to between the Parties; and
- (d) any additional requirements, conditions of contract and/or restrictions, other than those already stated in the Contract, that will be applicable.

23.6 Within 14 days of receipt of the written instruction referred to in 23.5, the Service Provider shall furnish the Employer with a realistic programme and a cash flow for the relevant Identified Project as required in 13.



- 23.7 Where an Identified Project comprises services/works that are of the same or similar character executed under the same or similar conditions as those to which the rates in the Pricing Data apply, it shall be valued at such rates.
- 23.8 Where an Identified Project comprises services/works that are not of the same or similar character executed under the same or similar conditions as those to which the rates in the Pricing Data apply, it shall be valued at market related rates to be agreed to in writing between the Employer and the Service Provider and in advance of executing the Identified Project. Failing agreement, the rates applicable shall be as determined by the Employer.
- 23.9 If the Service Provider fails to complete the Identified Project by the completion date specified in the written instruction referred to in 23.3, then the Service Provider will be liable for a penalty, at the rate stated in the Contract Data, for every day that lapses from the due completion date of the relevant Identified Project to the date of the actual completion of such Identified Project.
- 23.10 If the Identified Projects are delayed by variations, omissions, additions, substitutions or organised work stoppages by any workman not due to any action on the part of the Service Provider, exceptionally inclement weather, any substantial increase in provisional quantities or any other cause beyond the Service Provider's control, including delays caused by the Employer, then the Service Provider shall be entitled to apply in writing within 21 days of the cause of delay arising to the Service Manager for extension of the due completion date of the relevant Identified Project stating the cause of delay and period of extension applied for.
- 23.11 If during the period for completion of the Identified Project or any extension thereof abnormal rainfall or wet conditions occur, the formula below shall be used to calculate separately the delay for each calendar month or part thereof. It shall be calculated each month during the period referred to herein above, or until the issue date of the certificate of completion for the relevant Identified Project, whichever is the shorter period. The delay calculated for a given month shall be used to determine the interim extension of time granted for the month. At the end of the applicable period referred to above, the aggregate of the monthly delays will be taken into account for the final determination of the total extension of time for the Contract:

$$V = \frac{(Nw - Nn) + (Rw - Rn)}{X}$$

- V = Delays due to rain in calendar days in respect of the calendar month under consideration.
- Nw = Actual number of days during the calendar month on which a rainfall of Y mm or more per day has been recorded
- Rw = Actual rainfall in mm for the calendar month under consideration.
- Nn = Average number of days in the relevant calendar month (as derived from existing rainfall records provided in the project specifications) on which a rainfall of Y mm or more per day has been recorded.
- Rn = Average rainfall in mm for the calendar month, as derived from the rainfall records supplied in the project specifications.
- X = 20, unless otherwise provided in the project specifications.
- Y = 10, unless otherwise provided in the project specifications.

The total delay that will be taken into account for the determination of the total extension of time for the Contract shall be the algebraic sum of the monthly totals for the period under consideration. But if the grand total is negative, the time for completion shall not be reduced on account of abnormal rainfall. The total extension of time for any calendar month shall not exceed (Nc - Nn) calendar days, where Nc = number of days calendar days in the month under consideration

The factor (Nw - Nn) shall be considered to represent a fair allowance for variations from the average number of days during which rainfall equals or exceeds Y mm per day.



The factor $(Rw - Rn) \div X$ shall be considered to represent a fair allowance for variations from the average for the number of days during which rainfall does not equal or exceed Y mm per day, but when wet conditions prevent or disrupt work.

This formula does not take into account any flood damage, which could cause further or concurrent delays and which should be treated separately in so far as extension of time is concerned.

Accurate rain gaugings shall be taken at a suitable point on the site daily at 08:00 unless otherwise agreed to by the Service Manager, and the Contractor shall, at his own expense, take all necessary precautions to ensure that the rain gauges cannot be interfered with by unauthorized persons.

Information regarding existing rainfall records, if available from a suitable rainfall station near the site, will be supplied in the project specifications, together with calculations of rain delays for previous years in accordance with the above formula. The average of these delays will be regarded as normal rain delays which the Contractor shall accommodate in his programme, and for which no extension of time will be considered.

- 23.12 Upon receipt of such written application, referred to in 23.10, the Employer may in writing extend the due completion date of the relevant Identified Project by a period to be determined by the Employer or may refuse to extend the due completion date of the relevant Identified Project. The due completion date of an Identified Project may not be extended beyond the end of the Contract Period stated in the Contract Data.
- 23.13 Any decision given by the Employer, in terms of 23.12, shall be final and binding on the Parties.
- 23.14 Should the Service Provider fail to apply in writing for an extension of the due completion date of the relevant Identified Projects within the 21 days referred to in 23.10, or should the Employer not grant an extension of the due completion date then the due completion date stipulated in the relevant written instruction referred to in 23.5 shall not be extended nor the Service Provider exonerated from liability to pay the penalty stipulated in 23.9 or from specific performance of the service/works within the period in the relevant written instruction.

24. SUSPENSION OF THE SERVICES

- 24.1 The Service Provider shall, on the written order of the Service Manager, suspend the provision of the Services or any part thereof for such time or times and in such manner as the Service Manager shall order and shall, during such suspension, properly protect the Services so far as is necessary.
- 24.2 If the Service Provider is instructed in writing by the Service Manager to suspend any or all of the Services, the Service Provider shall re-schedule the relevant Services. For the duration of such suspension all penalties applicable to that Service will be waived. Should the Service Provider suffer any additional costs resulting from such suspension, the Service Provider shall be entitled to make a claim therefor provided that the Service Provider shall prove his claim and that he has taken all reasonable steps to mitigate the additional costs.
- 24.3 If the Service Provider is unable to render any of the Services for any reason other than an instruction by the Employer to suspend the Services in terms of clause 24.1, the Employer shall not be liable for any claim of whatever nature, including a claim for costs, by the Service Provider.

25. PENALTY FOR NON-PERFORMANCE

- 25.1 The Service Provider shall be liable for a performance deduction, if the Service Provider in rendering any of the Services required under the Scope of Works, as amended from time to time,
- 25.1.1 delays in performing any of the Services;
- 25.1.2 fails to perform any of the Services;
- 25.1.3 fails to perform any of the Services to the standard required in the Scope of Works, as amended from time to time.
- 25.2 The performance deduction shall be calculated in accordance with the formula detailed in the Scope of Works.



- 25.3 The Service Provider shall not be liable for a performance deduction, if the Service Provider is unable to perform due to no fault of his own, his employees, agents or representatives.
- 26. PAYMENTS**
- 26.1 The Service Manager will evaluate the Service Provider's performance on a monthly basis.
- 26.2 The Service Provider shall submit a monthly certificate taking into account the following:
- 26.2.1 the assessment of the Services rendered during the assessment month, including routine services, management fees, and services using call down rates;
 - 26.2.2 adjustments in terms of the pricing data;
 - 26.2.3 additional work rendered by the Service Provider;
 - 26.2.4 CPAP adjustment where stated in the Contract Data; and
 - 26.2.5 VAT. Vat will be indicated separately in all documents.
- 26.3 If the Service Provider elects a security of 2,5% retention, or a 1,25% cash and 1,25% retention, then 5% of all moneys (excl. VAT) in the monthly certificate assessed by the Service Manager as being due to the Service Provider will be retained until such time as the amount retained equals 2.5% or 1,25%, whichever is applicable, of the Contract Sum (excl. VAT)
- 26.4 The monthly certificate shall be supported by a detailed report substantiating the Services rendered at each Facility during the month under assessment.
- 26.5 The monthly certificate shall be assessed by the Service Manager. If the Service Manager agrees with the certificate, he will issue a statement within 14 days of the receipt of the certificate, taking into account inter alia the following:
- (1) deductions for penalties;
 - (2) deductions for overpayments;
 - (3) deductions for retention
 - (4) deductions for damages.
- 26.6 The Service Provider shall, on receipt of the statement referred to in 26.5, issue to the Employer a tax invoice in the amount reflected in the statement. The Employer shall effect payment to the Service Provider within 16 days of receipt of the tax invoice.
- 26.7 If the Service Manager does not agree with the certificate issued by the Service Provider in terms of Clause 26.2, the Service Manager shall within 14 days of receipt of the certificate, issue a statement in the amount to which the Service Manager agrees and shall give reasons for rejecting the balance of the claim indicated in the statement.
- 26.8 The Service Provider shall furnish the Employer with a tax invoice in the amount indicated in the statement referred to in Clause 26.7.
- 26.9 With regards to the claim in dispute, the Service Provider may, within 14 days of the Service Manager issuing the statement referred to in 26.7, submit a revised certificate or a justification for his claim or declare a dispute in terms of 34.
- 26.10 If it is later resolved that the amount in dispute or any part thereof is owing to the Service Provider, the Employer shall be liable for interest thereon from 30 days after the issue of the relevant monthly certificate referred to in 26.2 until the date of payment at the interest rate determined from time to time, by the Minister of Finance in terms of section 80 (1)(b) of the Public Finance Management Act, 1999 (Act 1 of 1999), as amended.
- 26.11 All the work shall be evaluated in accordance with the provisions of the Pricing Data.



26.12 In assessing the quality of the work presented by the Service Provider, the Employer may enlist the assistance of third persons. In assessing the work the third person shall act reasonably. The selection of such third persons shall be in the absolute discretion of the Employer and the Service Provider shall abide by such selection.

26.13 Any and all extra costs incurred by the Service Provider, resulting from the Service Provider having to address and/or rectify queries arising from a claim submitted in respect of work done, shall be for the account of the Service Provider.

27. RELEASE OF SECURITY

27.1 If the Service Provider has furnished a security by way of a variable guarantee of 2.5% of the Contract Sum (excl. VAT), the security will be reduced and be released in accordance with the provisions of such variable guarantee.

27.2 If the Service Provider elects to furnish a security by way of a cash deposit of 2.5% of the Contract Sum (excl. VAT), then the security will be released as follows:

27.2.1 annually in equal portions, subject to 27.2.2 and 27.2.3;

27.2.2 95% of the last annual portion of retention shall be released within 30 days of the expiry of the Service Period;

27.2.3 the remaining retention shall be released within 30 days of the issue of the Certificate of Completion.

27.3 If the form of security selected is:

(a) a retention of 2.5% of the Contract Sum (excl. VAT); or

(b) a 1,25% cash deposit and a 1,25% retention of the Contract Sum (excl. VAT),

then security will only be released after the 2,5% or 1,25% retention respectively has been accumulated, as follows:

27.3.1 annually in equal portions, subject to 27.3.2 and 27.3.3;

27.3.2 95% of the last annual portion of retention shall be released within 30 days of the expiry of the Service Period;

27.3.3 the remaining retention shall be released within 30 days of the issue of the Certificate of Completion.

28. OVERPAYMENTS

28.1 If any overpayment of whatever nature is made to the Service Provider, the Service Provider shall be obliged to repay such amount to the Employer and the Employer shall be entitled to deduct such over payment from any amount due to the Service Provider, in respect of this Contract or any other contract, which the Employer may have with the Service Provider. The Employer shall be entitled to claim interest on any and all overpayments made to the Service Provider at the rate prescribed, from time to time, by the Minister of Finance in terms of section 80 (1)(b) of the Public Finance Management Act, 1999 (Act 1 of 1999), as amended.

29. COMPLETION

28.1 At the expiry of the Service Period the Service Manager shall furnish the Service Provider with a written list of Employer's Assets and Data handed over at commencement of the Contract and accumulated during the Contract Period.

29.2 At the expiry of the Contract Period, the Service Manager shall issue to the Service Provider a Certificate of Completion.

29.3 Upon the issue of a Certificate of Completion, unless otherwise provided in the Contract:

29.3.1 The Guarantee shall be returned, if applicable.

29.3.2 The final cash deposit or retention, whichever is applicable, shall be reduced to zero.

30. ASSIGNMENT

30.1 The rights and obligations of the Parties in terms of this Contract shall not be ceded, assigned, delegated, or otherwise transferred, by either Party to any person outside of the Service Provider and the Employer, save with the prior written consent of the other Party.

30.2 Each Party warrants that he is acting as a principal and not as an agent of an undisclosed principal.

31. INDULGENCES

31.2 No extension of time, latitude or other indulgences which may be given or allowed by either Party to the other shall constitute a waiver or alteration of this Contract, or affect such Party's rights, or prevent such Party from strictly enforcing due compliance with each and every provision of this Contract.

32. OWNERSHIP AND PUBLICATION OF DOCUMENTS

32.1 The Employer will become the owner of the information, documents, advice, recommendations and reports collected, furnished and/or compiled by the Service Provider during the course of, and for the purposes of executing this Contract, all of which will be handed over to the Employer, unless otherwise stipulated in the Contract, within ten (10) days of request therefor, but in any event on the termination and/or cancellation of this Contract for whatever reason. The Service Provider relinquishes its retention or any other rights to which it may be entitled.

32.2 The copyright of all documents, recommendations and reports compiled by the Service Provider during the course of and for the purposes of finalising Services, and the Contract as a whole, will vest in the Employer, and may not be reproduced or distributed or made available to any person outside the Employer's service, or to any institution in any way, without the prior written consent of the Employer. The Employer shall have the right to use such material for any other purpose without the approval of, notification to or payment to the Service Provider.

32.3 The copyright of all electronic aids, software programmes etc. prepared or developed in terms of this Contract shall be vested in the Employer, who shall have the right to use such material for any other purpose without the approval of, information or payment to the Service Provider.

32.4 In case of the Service Provider providing documents or material to the Employer, the development of which has not been at the expense of the Employer, copyright shall not be vested in the Employer. The Service Provider shall be required to indicate to which documents and/or materials this provision applies.

32.5 The Service Provider hereby indemnifies the Employer against any action or claim that may be instituted against the Employer and for any damages suffered or legal costs (including costs on an attorney and client scale) incurred on the grounds of an alleged infringement of any copyright or any other intellectual property right in connection with the work outlined in this Contract.

32.6 All information, documents, recommendations, programmes and reports collected or compiled must be regarded as confidential and may not be communicated or made available to any person outside the Employer's service and may not be published either during the currency of this Contract or after termination thereof without the prior written consent of the Employer.

33. BREACH OF CONTRACT

33.1 In the event of a breach by the Service Provider of any of the terms and conditions of this Contract, the Employer shall issue a notice of non-compliance requiring compliance within 10 (ten) days. In the event that the Service Provider fails to remedy such breach on expiry of the notice period, then the Employer shall without prejudice to any other rights that it may have, be entitled to exercise any or all of the following rights:

33.1.1 Enforce strict compliance with the terms and conditions of the Contract;



- 33.1.2 To terminate this Contract without prejudice to any other rights it may have;
- 33.1.3 To suspend further payments to the Service Provider;
- 33.1.4 To appoint other service providers to complete the execution of the Services, in which event the Service Provider shall be held liable for costs incurred in connection with and arising from the appointment of such a service provider as well as damages suffered.
- 33.2 The Service Provider agrees to, within ten (10) days of written request from the Employer, give access to and to make available all information, documents, programmes, advice, recommendations and reports collected, furnished and/or compiled by them to enable the Employer to assume responsibility for and the benefit of the project as a whole.
- 33.3 In the event of breach by the Employer of the terms and conditions of this Contract, and in the event of the Employer remaining in breach after ten (10) days' written notice calling for rectification of the breach, the Service Provider shall be entitled to:
- 33.3.1 enforce strict compliance with the terms and conditions of the Contract; or
- 33.3.2 terminate the Contract by delivering written notice to the Employer to that effect to the extent that such breach is of a material term of this Contract.
- 34. STOPPAGE AND/OR TERMINATION OF CONTRACT**
- 34.1 The Employer reserves the right to terminate this Contract or temporarily stop the Services, or any part thereof, at any stage of completion.
- 34.2 The Employer shall have the right to terminate this Contract without prejudice to any of its rights upon the occurrence of any of the following acts:
- 34.2.1 on breach of this Contract by the Service Provider as stipulated in Clause 33;
- 34.2.2 on commencement of any action for the dissolution and/or liquidation of the Service Provider, except for purposes of an amalgamation or restructuring approved in advance by the Employer in writing;
- 34.2.3 if the Service Provider receives a court order to be placed under judicial management or to commence liquidation proceedings that is not withdrawn or struck out within five (5) days;
- 34.2.4 if the Service Provider informs the Employer that it intends to cease performing its obligations in terms of this Contract;
- 34.2.5 if the Service Provider informs the Employer that it is incapable of completing the Services as described; or
- 34.2.6 if in the opinion of the Employer the Service Provider acted dishonestly;
- 34.3 The Employer reserves the right to, even in the absence of breach or the events referred to in 34, terminate this Contract at any time, by giving one (1) calendar month written notice to the Service Provider.
- 34.4 Further, the Contract shall be considered as having been terminated:
- 34.4.1 where the Employer stops the Contract and/or the Project and instructions to resume or reinstate the Services are not issued within twelve (12) months of the instruction; or
- 34.4.2 if instructions, necessary for the Service Provider to continue with the Services after a stoppage instruction, are not received from the Employer within three (3) months after such instructions were requested by the Service Provider.
- 34.5 Should the Contract between the Employer and the Service Provider, or any part thereof, be terminated by either of the Parties due to reasons not attributed to the Service Provider:



- 34.5.1 The Service Provider will be remunerated for the appropriate portion of the Services satisfactorily completed, calculated in accordance with the agreed rates.
- 34.5.2 Invoices for work done shall be submitted to the Employer within three (3) months after the termination of the Contract, failing which the Employer will not be obliged to pay same.
- 34.5.3 The Service Provider shall not be entitled to advance a right of retention or any similar right if this Contract is terminated and specifically agrees to, within ten (10) days of written request from the Employer, give access to and to make available all information, documents, programmes, advice, recommendations and reports collected, furnished and/or compiled by them to enable the Employer to assume responsibility for and the benefit of the Contract as a whole.

35. DISPUTE RESOLUTION

- 35.1 In the event of a dispute, the Parties shall endeavour to resolve such dispute through negotiation, in good faith.
- 35.2 If the Parties fail to resolve a dispute through negotiation as mentioned in 35.1, within 14 days of a dispute being declared, the Parties may by written agreement refer the matter to mediation.
- 35.3 The mediator shall be a person agreed to by the Parties, failing agreement, the President: South African Facilities Management Institute shall nominate the mediator.
- 35.4 Whether or not mediation resolves the dispute and irrespective of the outcome of thereof, the Parties shall bear their own costs arising from the mediation and shall equally share the costs of the mediator and related costs. The mediator and the Parties shall, before the commencement of the mediation, agree on a scale of fees on which the mediator's fees will be based.
- 35.5 The Parties shall appoint the mediator within 21 days of agreeing to mediate.
- 35.6 On appointment of the mediator, the Parties shall jointly with the mediator decide on the procedure to be followed, representation, dates and venue for the mediation.
- 35.7 If the dispute or any part thereof is settled, the agreement shall be recorded by the mediator and signed by both Parties. The agreement shall be binding on the Parties to the extent that it correctly records the issues agreed upon between the Parties.
- 35.8 If the dispute or any part thereof remains unresolved, it may be resolved by litigation proceedings.
- 35.9 If the mediator or any Party, at any time during the mediation process, is of the opinion that the mediation will not resolve the dispute, then he may in writing stop the mediation process. The dispute may then be dealt with in terms of 35.8.
- 35.10 Notwithstanding anything else herein contained to the contrary, it is agreed that irrespective of the fact that the dispute is referred to negotiation, mediation or litigation in court, the decision of the Employer on the dispute involved will immediately be given effect to by the Service Provider and the Service Provider shall proceed with the Services with all diligence unless the Parties agree otherwise in writing.

36. GENERAL

- 36.1 This is the entire Contract between the Parties and may only be amended if reduced to writing and signed by the duly authorised representatives of both Parties, whereafter such amendments will take effect.
- 36.2 The Contract shall be governed by, construed and interpreted according to the law of the Republic of South Africa.

37. DOMICILIUM CITANDI ET EXECUTANDI



- 37.1 The domicilium citandi et executandi of the Parties for all purposes arising from this Contract for the service of notices and legal process shall be as specified by the Parties in the Contract Data.
- 37.2 Each of the Parties shall be entitled at any time by way of written notice to the other Party, to change its domicilium citandi et executandi to another physical address.
- 37.3 Any notice in terms of the conditions of the Agreement must either be:
- 37.3.1 delivered by hand during normal business hours of the recipient; or
 - 37.3.2 sent by prepaid registered post to the address chosen by the addressee.
- 37.4 A notice in terms of the provisions of this Agreement shall be considered to be duly received:
- 37.4.1 if hand-delivered on the date of delivery;
 - 37.4.2 if sent by registered post as indicated in clause 37.3.2 above, ten (10) days after the date it was posted, unless the contrary is proved.
- 37.5 Notwithstanding anything to the contrary contained or implied in this Agreement, the written notice or communication actually received by one of the Parties from the other, including by way of facsimile transmission, shall be adequate written notice or communication to such Party.
- 37.6 Any notice, request, consent, or other communication made between the Parties pursuant to the Contract shall be in writing and shall be deemed to have been made when delivered in person to an authorized representative of the Party to whom the communication is addressed, or one day after being sent by facsimile to such Party at the number specified in the Contract Data or one week after being sent by registered post to the addressee specified in the Contract Data.



public works

Department:
Public Works
REPUBLIC OF SOUTH AFRICA

OCCUPATIONAL HEALTH AND SAFETY

GENERIC GUIDELINES FOR SAFETY, HEALTH AND ENVIRONMENTAL SPECIFICATIONS

IN

CONSTRUCTION PROJECTS, REPAIRS,

RENOVATIONS & MAINTENANCE

MANAGED BY

**THE DEPARTMENT OF
PUBLIC WORKS**

TABLE OF CONTENT

1. Preamble	3
2. Scope of health & safety specification document.....	5
3. Purpose	5
4. Definitions.....	6
5. Occupational health & safety management.....	8
5.1 Structure and organization of OHS responsibilities.....	8
5.1.1 Overall supervision and responsibilities OHS.....	8
5.1.2 Required appointment as per the construction regulation.....	10
5.2 Communication, participation & consultation.....	11
6. Interpretation.....	11
7. Responsibilities.....	12
7.1 Client.....	12
7.2 Principal contractor.....	13
7.3 Contractor.....	14
7.4 Responsibilities of Construction Health & Safety Agent (SACPCMP).....	15
8. Scope of work.....	16
9. Preparing Health & Safety Plan.....	16
10. Health & Safety File.....	19
11. OH&S Goals & Objective & Arrangements for Monitoring & Reviewing OH&S Performance..	19
11.1 Identification of Hazards & development of Risk Assessment, Standard working Procedures (SWP) & Method Statement.....	19
11.1.1. Monthly audit by client and/or its agent.....	19
11.1.2 Health & Safety incident/accident reporting and investigation.....	19
12. Review.....	21
12.1 Site Rules & other Restrictions.....	22
12.1.1 Appointment of Health & Safety Reps.....	23
12.1.2 Duties and functions of the Health & Safety Reps.....	23
12.1.3 Establishment of Health & Safety Committee.....	23
12.1.4 Training & Awareness.....	24
13. Project Site Specific Requirements.....	25
14. Outlined Data References & information on Certain & Specific Obligatory Requirements to ensure compliance.....	26
15. Principal Contractor General duties.....	30
16. The Principal Contractor Specific Duties.....	31
17. The Principal Contractor Specific Responsibilities with regard to hazardous activities.....	31
18. General Notes to the Principal Contractor.....	32
19. House Keeping.....	33
20. Lockout System.....	36
21. Important Lists & Records to be kept.....	36

1. PREAMBLE

In terms of Construction Regulation 4(1)(a) of the Occupational Health and Safety Act, 1993 (Act 85 of 1993), and 5(1) construction regulation of 2014, the Department of Public Works, as the Client and/or its Agent on its behalf, shall be responsible to prepare Health & Safety Specifications for any intended construction project and provide any Principal Contractor who is making a bid or appointed to perform construction work for the Client and/or its Agent on its behalf with the same.

The Client's further duties are as described in The Act and the Regulations made thereunder. The Principal Contractor shall be responsible for the Health & Safety Policy for the site in terms of Section 7 of the Act and in line with Construction Regulation 5 as well as the Health and Safety Plan for the project.

This 'Health and Safety Specifications' document is governed by the "Occupational Health and Safety Act, 1993 (Act No. 85 of 1993), hereinafter referred to as 'The Act'. Notwithstanding this, cognizance should be taken of the fact that no single Act or its set of Regulations can be read in isolation. Furthermore, although the definition of Health and Safety Specifications stipulates 'a documented specification of all health and safety requirements pertaining to associated works on a construction site, so as to ensure the health and safety of persons', it is required that the entire scope of the Labour legislation, including the Basic Conditions of Employment Act be considered as part of the legal compliance system. With reference to this specification document this requirement is limited to all health, safety and environmental issues pertaining to the site of the project as referred to here-in. Despite the foregoing it is reiterated that environmental management shall receive due attention.

Due to the wide scope and definition of construction work, every construction activity and site will be different, and circumstances and conditions may change even on a daily basis. Therefore, due caution is to be taken by the Principal Contractor when drafting the Health and Safety Plan based on these Health and Safety Specifications. Prior to drafting the Health and Safety Plan, and in consideration of the information contained here-in, the contractor shall set up a Risk Assessment Program to identify and determine the scope

and details of any risk associated with any hazard at the construction site, in order to identify the steps needed to be taken to remove, reduce or control such hazard. *This Risk Assessment and the steps identified will be the basis or point of departure for the Health and Safety Plan.* The Health and Safety Plan shall include documented 'Methods of Statement' (see definitions under Construction Regulations) detailing the key activities to be performed in order to reduce as far as practicable, the hazards identified in the Risk Assessment.

The Department of Public Works is tasked to provide accommodation and operational facilities to a very large proportion of the approximate 35 National Departments responsible for the governance of the Department of Public Works. A very large number of State employees and public users of the facilities and the services provided there-in directly interacts with the facilities provided by the well-being, health and safety of a great number of people. This Department thus has directly or indirectly, an impact on the Republic of South Africa as well as the National Parliament.

In this a high premium is to be placed on the health and safety of the most valuable assets of the Department of Public Works. These are its personnel, the personnel of its Clients and the physical assets of which it is the custodian and may also include the public as well. The responsibilities the Department and relevant stakeholders have toward its employees and other people present in the facilities or on the sites are captured further in this specification document. These responsibilities stem from both moral, civil and a variety of legal obligations. The Principal Contractor is to take due cognisance of the above statement.

Every effort has been made to ensure that this specification document is accurate and adequate in all respects. Should it however, contain any errors or omissions they may not be considered as grounds for claims under the contract for additional reimbursement or extension of time, or relieve the Principal Contractor from his responsibilities and accountability in respect of the project to which this specification document pertains. Any such inaccuracies, inconsistencies and/or inadequacies must immediately be brought to the attention of the Agent and/or Client.

2. SCOPE OF HEALTH AND SAFETY SPECIFICATION DOCUMENT

These Specifications should be read in conjunction with the Act, the Construction Regulations and all other Regulations and Safety Standards which were or will be promulgated under the Act or incorporated into the Act and be in force or come into force during the effective duration of the project. The stipulations in this specification, as well as those contained in all other documentation pertaining to the project, including contract documentation and technical specifications shall not be interpreted, in any way whatsoever, to countermand or nullify any stipulation of the Act, Regulations and Safety Standards which are promulgated under, or incorporated into the Act.

3. PURPOSE

The Department is obligated to implement measures to ensure the health and safety of all people and properties affected under its custodianship or contractual commitments, and is further obligated to monitor that these measures are structured and applied according to the requirements of these Health and Safety Specifications.

The purpose of this specification document is to provide the relevant Principal Contractor (and his /her contractor) with any information other than the standard conditions pertaining to construction sites which might affect the health and safety of persons at work and the health and safety of persons in connection with the use of plant and machinery; and to protect persons other than persons at work against hazards to health and safety arising out of or in connection with the activities of persons at work during the carrying out of construction work for the Department of Public Works. The Principal Contractor (and his /her contractor) is to be briefed on the significant health and safety aspects of the project and to be provided with information and requirements on inter alia:

- a) Safety considerations affecting the site of the project and its environment;
- b) Health and safety aspects of the associated structures and equipment;
- c) submissions on health and safety matters required from the Principal Contractor (and his /her contractor); and
- d) the Principal Contractor's (and his /her contractor) health & safety plan.

To serve to ensure that the Principal Contractor (and his /her contractor) is fully aware of what is expected from him/her with regard to the Occupational Health and Safety Act, 1993 (Act No. 85 of 1993) and the Regulations made there-under including the applicable safety standards, and in particular in terms of Section 6,7 and 8 of the construction regulation (2014).

To inform the Principal Contractor that the Occupational Health and Safety Act, 1993 (Act 85 of 1993) in its entirety shall apply to the contract to which this specification document applies. The Construction Regulations promulgated on 07 February 2014.

4. DEFINITIONS - The most important definitions in the Act and Regulations pertaining to this specification document are hereby extracted.

“Purpose of the Act” – To provide for the health and safety of persons at work and the health and safety of persons in connection with the use of plant and machinery; the protection of persons other than persons at work against hazards to health and safety arising out of or in connection with the activities of persons at work; to establish an advisory council for occupational health and safety; and to provide for matters connected therewith.

“Health & Safety Specification” – means a document that includes information required under the construction regulation and obtained from the clients & designers during the early planning & design stage for a specific project on a specific site for use by the contractors when preparing their tenders or bids to clients.

“Health & Safety Plan” – means a document which is site specific and includes all identified hazards, safe work procedures to mitigate, reduce & control the hazards identified in a project.;

“Agent” – means any person who acts as a representative for a client;

“Client” – means any person for whom construction work is performed;

‘ Construction Health & Safety Agent (SACPCMP)’ – The person or entity appointed by the client through the Agent and who has a full authority and obligation to act on the clients behalf in terms of the construction regulations;

“Construction Work” is defined as any work in connection with –

- (a) the erection, maintenance, alteration, renovation, repair, demolition or dismantling of or addition to a building or any similar structure;
- (b) the installation, erection, dismantling or maintenance of a fixed plant where such work includes the risk of a person falling;
- (c) the construction, maintenance, demolition or dismantling of any bridge, dam, canal, road, railway, runway, sewer or water reticulation system or any similar civil engineering structure; or
- (d) the moving of earth, clearing of land, the making of an excavation, piling, or any similar type of work;

“Contractor” – means an employer, as defined in Section 1 of the Act, who performs construction work and includes Principal Contractors;

“Contract Amount” Financial value of the contract at the time of the award of the contract, exclusive of all allowance and any value added tax or sales tax which the law requires the employer to pay to the contractor.

“Practical Completion Certificates” A certificates issued in terms of a contract by the employer, signifying that the whole of the construction works have reached a state of readiness for occupation or use for the purposes intended, although some minor work may be outstanding.

“Accident” – means unplanned occurrence that happens due to the unsafe condition and may cause injury to a person, damage to the property, material, plant, equipment and the environment;

“Hazard” – means anything including work activities and practices with the potential to cause harm;

“Risk” – means the likelihood that harm will occur and the subsequent consequences.

“Risk assessment” – means a process to determine any risk associated with any hazard at a construction site in order to identify the steps needed to be taken to mitigate, reduce or control such hazards.

Health and Safety File” – means a file, or other record in permanent form, containing the information required a contemplated in the regulations;

5. OCCUPATIONAL HEALTH & SAFETY MANAGEMENT

5.1 Structure and Organization of OH&S Responsibilities

5.1.1. Overall Supervision and Responsibility for OH&S

- a) The Client and/or its Agent on its behalf to ensure that the Principal Contractor, appointed in terms of Construction Regulation 4(1)(c), implements and maintains the agreed and approved H&S Plan. Failure on the part of the Client or Agent to comply with this requirement will not relieve the Principal Contractor from any one or more of his/her duties under the Act and Regulations.
- b) The Chief Executive Officer of the Principal Contractor in terms of Section 16 (1) of the Act to ensure that the Employer (as defined in the Act) complies with the Act. The pro forma Legal Compliance Audit may be used for this purpose by the Principal Contractor or his/her appointed contractor.
- c) All OH&S Act (85 /1993), Section 16 (2) appointee/s as detailed in his/her/their respective appointment forms to regularly, in writing, report to their principals on matters of health and safety per routine and ad hoc inspections and on any deviations as soon as observed, regardless of whether the observation was made during any routine or ad hoc inspection and to ensure that the reports are made

available to the principal Contractor to become part of site records (Health & Safety File).

- d) The Construction Supervisor and Assistant Construction Supervisor/s appointed in terms of Construction Regulation 6 to regularly, in writing, report to their principals on matters of health and safety per routine and ad hoc inspections and on any deviations as soon as observed, regardless of whether the observation was made during any routine or ad hoc inspection and to ensure that the reports are made available to the principal Contractor to become part of site records (Health & Safety File).
- e) All Health and Safety Representatives (SHE-Reps) shall act and report as per Section 18 of the Act.

J.12 Required appointments as per the Construction Regulations:-

Item	Regulation	Appointment	Responsible Person
1.	3.	Application Construction work permit	Client
2.	5(1)(k)	Principal contractor for each phase or project	Client
3.	5(6)	Construction Health & Safety Agent	Client
4.	7.(1)(c)	Contractor	Principal Contractor
5.	7(3)	Contractor	Contractor
6.	8(1)	Construction manager	Contractor
7.	8(2)	Assistance Construction manager	Contractor
8.	6(1)	Construction supervisor	Contractor
9.	6(2)	Construction supervisor sub-ordinates	Contractor
10.	8(5)	Construction Safety Officer	Contractor
11.	8(8)	Responsible employee	
12.	9(1)	Person to carry out risk assessment	Contractor
13.	10(1)	Fall protection planner	Contractor
14.	12(1)	Temporal work designer	
15.	12(2)	Supervisor of temporal work operation	
16.	13(1)	Excavation supervisor	Contractor
17.	13(2)(k)	Competent person in the use of explosive for excavations	Contractor
18.	14(11)	Explosives expert	Contractor
19.	14(1)	Supervisor demolition work	Contractor
20.	14(2)	Scaffold supervisor	Contractor
21.	16(1)	Suspended platform supervisor	Contractor
22.	18(1)a	Rope access	Contractor
23.	19(8)(a)	Material hoist inspector	Contractor
24.	20(1)	Bulk mixing plant supervisor	Contractor
25.	21(2)	Explosive actuated fastening device inspector	Contractor
26.	21(2)(g)	Explosive actuated fastening device cartridge, nails and studs: issuer & collector	Contractor
27.	23 (1)	Operator : construction vehicle and mobile plant	Contractor
28.	28 (a)	Stacking and storage supervisor	Contractor
29.	29 (h)	Fire equipment inspector	Contractor

5.2 *Communication, Participation & Consultation*

- 5.2.1 Occupational Health & Safety matters/issues shall be communicated between the Employer, the Principal Contractor, the other Contractors, the Designer and other concerned parties shall be through the H&S Committee or other means determined by the client.
- 5.2.2 In addition to the above, communication may be directly to the Client or his appointed Agent, verbally or in writing, as and when the need arises.
- 5.2.3 Consultation with the workforce on OH&S matters will be through their Supervisors and H&S Representatives ('SHE – Reps')
- 5.2.4 The Principal Contractor will be responsible for the dissemination of all relevant OH&S information to the other Contractors e.g. design changes agreed with the Client and/or its Agent on its behalf and the Designer, instructions by the Client and/or his/her agent, exchange of information between Contractors, the reporting of hazardous/dangerous conditions/situations etc.

6. INTERPRETATION

- a) The Occupational Health and Safety Act and all its Regulations, with the exception of the Construction Regulations, distinguish between the roles, responsibilities and functions of employers and employees respectively. It views consultants and contractors as employees of the "owner" of a construction or operational project, the "owner" being regarded as the employer.
- b) (The position taken by the Construction Regulations is that the "owner", in terms of its instructions, operates (has to operate) in the role of client as per relevant definition. The contractors working for the "client" are seen to be in two categories, i.e. the Principal Contractor and Contractors.

- c) The Principal Contractor has to take full responsibility for the health and safety on the site of the relevant project / contract. This includes monitoring health and safety conditions and overseeing administrative measures required by the Construction Regulations from all contractors on the project site.

7. RESPONSIBILITIES

7.1 Client

- a) The Client or his appointed Agent on his behalf will appoint each Principal Contractor for this project or phase/section of the project in writing for assuming the role of Principal Contractor as intended by the Construction Regulations.
- b) The Client or his appointed Agent on his behalf shall discuss and negotiate with the Principal Contractor the contents of the health and safety plan of the both Principal Contractor and Contractor for approval.
- c) The Client or his appointed Agent on his behalf will take reasonable steps to ensure that the health and safety plan of both the Principal Contractor and Contractor is implemented and maintained. The steps taken will include periodic audits at intervals of at least once every month.
- d) The Client or his appointed Agent on his behalf, will prevent the Principal Contractor and/or the Contractor from commencing or continuing with construction work should the Principal Contractor and/or the Contractor at any stage in the execution of the works be found to:
- have failed to have complied with any of the administrative measures required by the Construction Regulations in preparation for the construction project or any physical preparations necessary in terms of the Act;
 - have failed to implement or maintain their health and safety plan;
 - have executed construction work which is not in accordance with their health and safety plan; or

- act in any way which may pose a threat to the health and safety of any person(s) present on the site of the works or in its vicinity, irrespective of him/them being employed or legitimately on the site of the works or in its vicinity.

7.2 Principal Contractor

- a) The Principal Contractor shall accept the appointment under the terms and Conditions of Contract. The Principal Contractor shall sign and agree to those terms and conditions and shall, before commencing work, notify the Department of Labour of the intended construction. Annexure 2 of this construction regulation contains a "Notification of Construction Work" form. The Principal Contractor shall submit the notification in writing prior to commencement of work and inform the Client or his Agent accordingly.
- b) The Principal Contractor shall ensure that he is fully conversant with the requirements of this Specification and all relevant health and safety legislation.
- c) The Principal Contractor will in no manner or means be absolved from the responsibility to comply with all applicable sections of the Act, the Construction Regulations or any Regulations proclaimed under the Act or which may perceivable be applicable to this contract.
- d) The Principal Contractor shall provide and demonstrate to the Client a suitable and sufficiently documented health and safety plan based on this Specification, the Act and the Construction Regulations, which shall be applied from the date of commencement of and for the duration of execution of the works. This plan shall, as appendices, include the health and safety plans of all Sub-contractors for which he has to take responsibility in terms of this contract.
- e) The Principal Contractor shall provide proof of his registration and good standing with the Compensation Fund or with a licensed compensation insurer prior to commencement with the works.
- f) The Potential Principal Contractor shall, in submitting his tender, demonstrate that he has made provision for the cost of compliance with the specified health and safety

requirements, the Act and Construction Regulations. (Note: This shall have to be contained in the conditions of tender upon which a tenderer's offer is based.)

- g) The Principal Contractor shall consistently demonstrate his competence and the adequacy of his resources to perform the duties imposed on the Principal Contractor in terms of this Specification, the Act and the Construction Regulations.
- h) The Principal Contractor shall ensure that a copy of his health and safety plan is available on site and is presented upon request to the Client, an Inspector, Employee or Sub-contractor.
- i) The Principal Contractor shall ensure that a health and safety file, which shall include all documentation required in terms of the provisions of this Specification, the Act and the Construction Regulations, is opened and kept on site and made available to the Client or Inspector upon request. Upon completion of the works, the Principal Contractor shall hand over a consolidated health and safety file to the Client.
- j) The Principal Contractor shall, throughout execution of the contract, ensure that all conditions imposed on his Sub-contractors in terms of the Act and the Construction Regulations are complied with as if they were the Principal Contractor.
- k) The Principal Contractor shall from time to time evaluate the relevance of the Health and Safety Plan and revise the same as required, following which revised plan shall be submitted to the Client and/or his/her Agent for approval.

7.3 Contractor

The contractor must demonstrate to the Principal Contractor that he has the Necessary competencies and resources to perform the construction work safely.

7.4 Responsibilities of Construction Health & Safety Agent (SACPCMP)

The construction Health & Safety Agent act as a link between the client, Principal Contractor and the project team members with respect to health & Safety, They are Required to ensure that the client carry out its H&S responsibilities in terms of Legislation as well as to co-ordinate and ensure good H&S practices are maintained Throughout the duration of the project. In many cases this role starts from project Initiation to project close-out.

- a) **H&S competence:** In the event that the client is unable to satisfy the requirements of the Construction Regulations for whatever reasons, the construction H&S agent may be appointed to perform these functions on behalf of the client. Given the need to appoint a registered construction H&S agent that is competent and adequately resourced with respect to H&S matters.
- b) **H&S goals:** It is important that the construction H&S agents demonstrate clearly to clients how they are going to contribute to the achievement of any client H&S goals and objectives. They should also set their own H&S goals.
- c) **H&S responsibilities:** Prior to accepting the H&S agent appointment from clients, H&S agents need to ensure that they brief clients fully on the client's particular responsibilities in terms of the OH&SA of 1993 and Construction Regulations as amended from time to time. In the absence of acceptance by clients of these responsibilities, H&S agents will not be able to adequately meet their own H&S responsibilities and duties.
- d) **H&S information:** H&S agents must provide the designer or design team with all H&S information to enable them to conduct a design HIRA to identify the significant hazards that need to be included in the H&S specification. This information may be gathered from multiple sources such as, for example, discussion with the client, previous historical use of the site or facility, previous surveys and investigations and past H&S files.

8. SCOPE OF WORK

These specifications are applicable to the specific scope of work pertaining to the above-mentioned project as detailed in the tender documents, this amongst all includes for example:

- a) Construction, erecting, alteration, renovations, refurbishment, repairs, demolishing or dismantling of building and structures.
 - Site clearance
 - Site hoarding, demarcation and demolition works
 - excavations, filling, compaction, evening surface
 - Piling (by drilling, excavating,)
 - Temporal works

- b) Construction, erecting, alteration, renovations, refurbishment, repairs, demolishing or dismantling of any bridge, dam, canal, road, railway, runaway, sewer, or water reticulation system or any civil engineering structure or type of work

- c) Construction of a new two storied Administration building.
 - Preparation of site by leveling, compaction etc.
 - Excavations for parking areas/services

9. PREPARING A HEALTH & SAFETY PLAN

- (a) The level of detail required for a H&S plan will depend on how complex the workplace is (in particular, the number of contractors at the workplace at any one time) and the risks involved in the work. The plan must be easily accessible in a construction site and it must be clearly understood by management, supervisors & workers on construction site.

- (b) The plan must be implemented, maintained and kept up to date during the construction of the project.

- (c) The principal contractor should prepare a H&S plan that includes
 - project information;
 - client requirements for H&S management on the project;
 - Environmental restrictions and existing on-site risks arrangements, imposed

by others or developed by the principal contractor, to control significant site H&S risks; H&S file & project H&S review.

(d) The H&S plan should include the following information:

- details of the client, that is the person commissioning the construction work, for example their name, representative and contact details;
- details of the principal contractor;
- details of the construction project, for example address of the workplace, anticipated start and end date and a brief description of the type of construction work that the H&S plan will cover;
- details on how subcontractors will be managed and monitored, including how the principal contractor intends to implement and ensure compliance with the H&S plan such as checking on the performance of subcontractors and how non-compliance will be handled; and
- details on how the risks associated with falls, falling objects, moving plant, electrical work and all high risk construction work that will take place on a construction project will be managed.

(e) The H&S plan should also include information on:

- the provision and maintenance of a hazardous chemicals register, safety data sheets and hazardous chemicals storage;
- the safe use and storage of plant;
- the development of a construction project traffic management plan;
- obtaining and providing essential services information – electrical, gas, telecom, water and similar services;
- workplace security and public safety; and
- ensuring workers have appropriate licences and training to undertake the construction work.

(f) The H&S plan must contain:

- a general description of the type of work activities involved in the project and not just a description of the facility to be constructed;
- the project program or schedule details, including start and finish dates, showing principal activities;
- details of client, design team, principal contractor, subcontractors, and major suppliers; and
- extent and location of relevant existing records, surveys, site investigation and geotechnical reports, 'as-built' plans, H&S files.

10. HEALTH AND SAFETY FILE

- a) The H&S file is a document prepared by the principal contractor containing important project H&S information for use by the owner of the completed structure after construction has been completed.
- b) The principal contractor is responsible for producing an H&S file. It contains important project H&S information for use by the owner of the completed structure after construction has been completed. It is essential that the process of compiling the file commences as early as possible to ensure sufficient time to gather the required information.
- c) The Principal Contractor must, in terms of Construction Regulation 7(7), keep a Health & Safety File on site at all times that must include all documentation required in terms of the 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. A more detailed list of documents and other legal requirements that must be kept in the Health & Safety File.
- d) The contractor must ensure that the client's format and layout of the H&S file is adhered to. The contractor must identify the responsible person that will prepare the H&S file and who will be responsible for the drafting of as-built drawings. The contractor must establish procedures:
- e) The Health and Safety File will remain the property of the Client and/or its Agent on its behalf throughout the period of the project and shall be consolidated and handed over to the Client and/or its Agent on its behalf at the time of completion of the project.

11. OH&S GOALS AND OBJECTIVES AND ARRANGEMENTS FOR MONITORING AND REVIEWING OH&S PERFORMANCE

The Principal Contractor is required to maintain an acceptable disabling incident frequency rate (DIFR) and report on this to the Client and/or its Agent on its behalf on a monthly basis.

11.1 IDENTIFICATION OF HAZARDS AND DEVELOPMENT OF RISK ASSESSMENTS, STANDARD WORKING PROCEDURES (SWP) AND METHOD STATEMENTS

The Principal Contractor is required to develop Risk Assessments, Standard Working Procedures (SWP) and Method Statements for each activity executed in the contract or project.

The identification of hazards is over and above the hazards identification programme and those hazards identified during the drafting of the Health and Safety Plan.

11.1.1 Monthly Audit by Client and/or its Agent.

The Client and/or its Agent on its behalf will be conducting Periodic Audits at times agreed with the Principal Contractor Audit to comply with Construction Regulation 4(1)(d) to ensure that the principal Contractor has implemented, is adhering to and is maintaining the agreed and approved OH&S Plan.

- a) A representative of the Principal Contractor and the relevant Health and Safety Representative(s) (SHE-Reps) must accompany the Client and/or its Agent on its behalf on all Audits and Inspections and may conduct their own audit/inspection at the same time. Each party will, however, take responsibility for the results of his/her own audit/inspection results. The Client and/or its Agent on its behalf may require to be handed a copy of the minutes of the previous Health and Safety Committee meeting reflecting possible recommendations made by that committee to the Employer for reference purposes.

11.1.2 Health & Safety incident/accident reporting & investigations

- a) The Principal Contractor shall report all incidents where an employee is injured on duty to the extent that he/she:
 - i. dies
 - ii. becomes unconscious
 - iii. loses a limb or part of a limb
 - iv. is injured or becomes ill to such a degree that he/she is likely either to die or to suffer a permanent physical defect or likely to be unable for a period of at

least 14 days either to work or continue with the activity for which he/she was usually employed

OR where:

- i. a major incident occurred
 - ii. the health or safety of any person was endangered
 - iii. where a dangerous substance was spilled
 - iv. the uncontrolled release of any substance under pressure took place
 - v. machinery or any part of machinery fractured or failed resulting in flying, falling or uncontrolled moving objects
 - vi. Machinery ran out of control, to the Provincial Director of the Department of Labour within seven days and at the same time to the Client and/or its Agent on its behalf.
- b) The Principal Contractor is required to provide the Client and/or its Agent on its behalf with copies of all statutory reports required in terms of the Act and the Regulations.
- c) The Principal Contractor is required to provide the Client and/or its Agent on its behalf with a monthly "SHE Risk Management Report".
- d) The Principal Contractor is required to provide a.s.a.p. the Client and/or its Agent on its behalf with copies of all internal and external accident/incident investigation reports.
- The Principal Contractor is responsible to oversee the investigation of all accidents/incidents where employees and non-employees were injured to the extent that he/she/they had to receive first aid or be referred for medical treatment by a doctor, hospital or clinic. (General Administrative Regulation 9)
- (e) The results of the investigation to be entered into the Accident/Incident Register listed above. (General Administrative Regulation 9)

- (f) The Principal Contractor is responsible for the investigation of all non-injury incidents as described in Section 24 (1) (b) & (c) of the Act and keeping a record of the results of such investigations including the steps taken to prevent similar incidents in future.
- (g) The Principal Contractor is responsible for the investigation of all accidents relating to the construction site and keeping a record of the results of such investigations including the steps taken to prevent similar accidents in future.
- (h) Notwithstanding the requirements of Section 24 of the Act, ALL incidents shall be investigated and reported on in writing, irrespective of whether such incident gave rise to injury or damage.
- Determine the underlying H&S deficiencies and other contributory factors
 - Identification of corrective/preventative actions and continual improvement
 - Communicating the outcome/results and documenting the events of the investigation.
- (i) **Reporting Of Near-Misses**
- Department of Public Works views the reporting of near misses as a critical component in creating a positive health and safety awareness culture on site.
 - Department of Public Works retains the right to enforce the reporting of near misses within 24 hours of occurrence.

12. Review

The Principal Contractor is to review the Hazard Identification, Risk Assessments and Standard Work Processes at each Production Planning and Progress Report meeting as the construction work develops and progresses and each time changes are made to the designs, plans and construction methods and processes.

The Principal Contractor must provide the Client and/or its Agent on its behalf, other Contractors and all other concerned parties with copies of any changes, alterations or amendments as contemplated in the above paragraph.

12.1 Site Rules and other Restrictions

a) *Site OH&S Rules*

The Principal Contractor must develop a set of site-specific OH&S rules that will be applied to regulate the Health and Safety Plan and associated aspects of the construction. When required for a site by law, visitors and non-employees upon entering the site shall be issued with the proper Personal Protective Equipment (PPE) as and when necessary.

b) *Security Arrangements*

The Principal Contractor must establish site access rules and implement and maintain these throughout the construction period. Access control must include the rule that non-employees shall at all times be provided with fulltime supervision while on site. The Principal Contractor must develop a set of Security rules and procedures and maintain these throughout the construction period.

If not already tasked to the H&S Officer appointed in terms of Construction Regulation, the Principal Contractor must appoint a competent person who must develop contingency plans for any emergency that may arise on site as indicated by the risk assessments.

12.1.1 Appointment of Health & Safety Representatives

a) *H&S Representatives('SHE – Reps')*

Where the Principal Contractor employs more than 20 persons (including the employees of other Contractors (sub-contractors) he has to appoint one H&S Representatives for every 50 employees or part thereof. (Section 17 of the Act and General Administrative Regulation 6. & 7.)

H&S Representatives must be appointed in writing and the designation shall be in accordance with the Collective Agreement as concluded between the parties as is required in terms of General Administration Regulation 6.

12.1.2 Duties and Functions of the H&S Representatives

- The Principal Contractor must ensure that the designated H&S Representatives conduct at least a weekly inspection of their respective areas of responsibility using a checklist developed by a Principal Contractor.
- The report must be consolidated and submitted to the Health & Safety Committee.
- H&S Representatives must form part of the incident/accident investigating team.

12.1.3 Establishment of H&S Committee(s)

- The Principal Contractor must establish H&S Committees consisting of designated H&S Representatives together with a number of Employers Representatives appointed as per Section 19(3) that are not allowed to exceed the number of H&S Representatives on the committee.
- The persons nominated by the employer on a H&S Committee must be designated in writing for such period as may be determined by him. The H&S Committee shall co-opt advisory (temporary) members and determine the procedures of the meetings including the chairmanship.
- The H&S Committee must meet minimum monthly and consider, at least, an agreed Agenda for the first meeting. Thereafter the H&S Committee shall determine its own procedures.

12.1.4 Training & Awareness

The contents and syllabi of all training required by the Act and Regulations including any other related or relevant training as required must be included in the Principal Contractor's Health and Safety Plan and Health and Safety File.

a) *Training & Induction*

All employees performing work or task on site that potentially impact on H&S must be competent & have the necessary appropriate education, training & experience.

All the training must be closely aligned with the risk profile of the project; procedures must be put in place to ensure that all workers are aware of the consequences of their work activities & benefits of improved H&S performance.

All employees of the Principal and other Contractors must be in possession of proof of General Induction training

b) *Site Specific Induction Training*

All employees of the Principal and other Contractors must be in possession of Site Specific Occupational Health and Safety Induction or other qualifying training.

c) *Other Training*

All operators, drivers and users of construction vehicles, mobile plant and other equipment must be in possession of valid proof of training.

13. PROJECT/SITE SPECIFIC REQUIREMENTS

The following is a list of specific activities and considerations that have been identified for the project and site and for which Risk Assessments, Standard Working Procedures (SWP), management and control measures and Method Statements (where necessary) have to be developed by the Principal Contractor:

- a) Clearing & grubbing the area/site
- b) Site establishment
- c) Dealing with existing structures
- d) Location of existing services
- e) Boundary & Access control/Public liability exposures
- f) Protection against heat exhaustion, dehydration, wet & cold conditions
- g) Dealing with HIV & aids other related diseases
- h) Use of portable electrical & explosive tools
- i) Any Excavation work
- j) Any welding work
- k) Loading & offloading of trucks
- l) Driving & operations of Construction vehicles & mobile plant
- m) Temporal works and
- n) Construction work as defined in the construction regulation 2014

14. OUTLINED DATA, REFERENCES AND INFORMATION ON CERTAIN AND/OR SPECIFIC OBLIGATORY REQUIREMENTS TO ENSURE COMPLIANCE

Administrative & Legal Requirements

OHS Act Section/ Regulation	Subject	Requirements
Construction. Regulation	Notice of carrying out Construction work	<ul style="list-style-type: none"> • Department of Labour notified • Copy of Notice available on Site
General Admin. Regulation 4	Copy of OH&S Act (Act 85 of 1993)	<ul style="list-style-type: none"> • Updated copy of Act & Regulations on site. • Readily available for perusal by employees.
COID Act Section 80	Registration with Compensation Insurer.	<ul style="list-style-type: none"> • Written proof of registration/Letter of good standing available on Site
Construction. Regulation 4 & 5(1)	H&S Specification & Programme	<ul style="list-style-type: none"> • H&S Spec received from Client and/or its Agent on its behalf • OH&S programme developed & Updated regularly
Section 8(2)(d) Construction. Regulation 7	Hazard Identification & Risk Assessment	<ul style="list-style-type: none"> • Hazard Identification carried out/Recorded • Risk Assessment and – Plan drawn up/Updated • RA Plan available on Site • Employees/Sub-Contractors informed/trained
Section 16(2)	Assigned duties (Managers)	<ul style="list-style-type: none"> • Responsibility of complying with the OH&S Act assigned to other person/s by CEO.
Construction. Regulation 6(1)	Designation of Person Responsible on Site	<ul style="list-style-type: none"> • Competent person appointed in writing as Construction Supervisor with job description
Construction. Regulation 6(2)	Designation of Assistant for above	<ul style="list-style-type: none"> • Competent person appointed in writing as Assistant Construction Supervisor with job description
Section 17 & 18 General Administrative Regulations 6 & 7	Designation of Health & Safety Representatives	<ul style="list-style-type: none"> • More than 20 employees - one H&S Representative, one additional H&S Rep. for each 50 employees or part thereof. • Designation in writing, period and area of responsibility specified in terms of GAR 6 & 7 • Meaningful H&S Rep. reports. • Reports actioned by Management.

<p>Section 19 & 20 General Administrative Regulations 5</p>	<p>Health & Safety Committee/s</p>	<ul style="list-style-type: none"> • H&S Committee/s established. • All H&S Reps shall be members of H&S Committees • Additional members are appointed in writing. • Meetings held monthly, Minutes kept. • Actioned by Management.
<p>Section 37(1) & (2)</p>	<p>Agreement with Mandatories/ (Sub-)Contractors</p>	<ul style="list-style-type: none"> • Written agreement with (Sub-)Contractors • List of SubContractors displayed. • Proof of Registration with Compensation Insurer/Letter of Good Standing • Construction Supervisor designated • Written arrangements re. • H&S Reps & H&S Committee • Written arrangements re. First Aid
<p>Section 24 & General Admin. Regulation 8 COID Act Sect.38, 39 & 41</p>	<p>Reporting of Incidents (Dept. of Labour)</p>	<ul style="list-style-type: none"> • Incident Reporting Procedure displayed. • All incidents in terms of Sect. 24 reported to the Provincial Director, Department of Labour, within 3 days. (Annexure 1)(WCL 1 or 2) and to the Client and/or its Agent on its behalf • Cases of Occupational Disease Reported • Copies of Reports available on Site • Record of First Aid injuries kept
<p>General Admin. Regulation 9</p>	<p>Investigation and Recording of Incidents</p>	<ul style="list-style-type: none"> • All injuries which resulted in the person receiving medical treatment other than first aid, recorded and investigated by investigator designated in writing. • Copies of Reports (Annexure 1) available on Site • Tabled at H&S Committee meeting • Action taken by Site Management.
<p>Construction. Regulation 8</p>	<p>Fall Prevention & Protection</p>	<ul style="list-style-type: none"> • Competent person appointed to draw up the Fall Protection Plan • Proof of appointees competence available on Site • Risk Assessment carried out for work at heights • Fall Protection Plan drawn up/updated • Available on Site
<p>Construction. Regulation Driven Machinery Regulations 18 & 19</p>	<p>Cranes & Lifting Machines Equipment</p>	<ul style="list-style-type: none"> • Competent person appointed in writing to inspect Cranes, Lifting Machines & Equipment • Written Proof of Competence of above appointee available on Site. • Cranes & Lifting tackle identified/numbered

General Safety Regulation 8(1)(a)		<ul style="list-style-type: none"> • Register kept for Lifting Tackle • Log Book kept for each individual Crane • Inspection: - All cranes - daily by operator <ul style="list-style-type: none"> - Tower Cranes/s - after erection/6monthly - Other cranes - annually by comp. person • - Lifting tackle(slings/ropes/chain slings etc.) - daily or before every new application
Construction. Regulation Environmental Regulation 9	<p>Designation of Stacking & Storage Supervisor.</p> <p>Designation of a Person to Co-ordinate Emergency Planning And Fire Protection</p>	<ul style="list-style-type: none"> • Competent Person/s with specific knowledge and experience designated to supervise all Stacking & Storage • Written Proof of Competence of above appointee available on Site • Person/s with specific knowledge and experience designated to co-ordinate emergency contingency planning and execution and fire prevention measures • Emergency Evacuation Plan developed: • Drilled/Practiced • Plan & Records of Drills/Practices available on Site • Fire Risk Assessment carried out • All Fire Extinguishing Equipment identified and on register. • Inspected weekly. Inspection Register kept • Serviced annually
General Safety Regulation 3	First Aid	<ul style="list-style-type: none"> • Every workplace provided with sufficient number of First Aid boxes. (Required where 5 persons or more are employed) • First Aid freely available • Equipment as per the list in the OH&S Act. • One qualified First Aider appointed for every 50 employees. (Required where more than 10 persons are employed) • List of First Aid Officials and Certificates • Name of person/s in charge of First Aid box/es displayed. • Location of First Aid box/es clearly indicated. • Signs instructing employees to report all Injuries/illness including first aid injuries • PSE Risk Assessment carried out • Items of PSE prescribed/use enforced
General Safety Regulation 2	Personal Safety Equipment (PSE)	

General Safety Regulation 9	Inspection & Use of Welding/Flame Cutting Equipment	<ul style="list-style-type: none"> • Records of Issue kept • Undertaking by Employee to use/wear PSE • PSE remain property of Employer, not to be removed from premises GSR 2(4)
General Safety Regulation 13A	Inspection of Ladders	<ul style="list-style-type: none"> • Competent Person/s with specific knowledge and experience designated to Inspect Electric Arc, Gas Welding and Flame Cutting Equipment • Written Proof of Competence of above appointee available on Site • All new vessels checked for leaks, leaking vessels NOT taken into stock but returned to supplier immediately • Equipment identified/numbered and entered into a register • Equipment inspected weekly. Inspection Register kept • Separate, purpose made storage available for full and empty vessels
General Safety regulation 13B	Ramps	<ul style="list-style-type: none"> • Competent person appointed in writing to inspect Ladders • Ladders inspected at arrival on site and weekly thereafter. Inspections register kept • Application of the types of ladders (wooden, aluminium etc.) regulated by training and inspections and noted in register • Competent person appointed in writing to supervise the erection & inspection of Ramps. Inspection register kept. • Daily inspected and noted in register

15. THE PRINCIPAL CONTRACTOR'S GENERAL DUTIES

- The Principal Contractor shall at all times ensure his status of an “employer” as referred to in the Act, and will abide by his/her responsibilities, duties and functions as per the requirements of the Act and Regulations with specific reference to Section 8 of the Act.
- The Principal Contractor shall keep, and on demand make available, a copy of the Act on site at all times and in addition to that he/she will introduce and maintain a file titled “Health and Safety File”, or other record in permanent form, which shall contain all relevant aspects and information as contemplated in the Construction Regulations. He/she will make this file available to the client or his representative whenever necessary or on request to an interested party.
- The project under control of the Principal Contractor shall be subject to periodic health and safety audits that will be conducted by the client at intervals agreed upon between the Principal Contractor and the client, provided such intervals will not exceed periods of one month.
- The Principal Contractor is to ensure that he/she and all persons under his control on the construction site shall adhere to the above specifications.
- The Principal Contractor should note that he/she shall be held liable for any anomalies including costs and resulting deficiencies due to delays caused by non-conformance and/or non-compliance to the above Health and Safety Specifications and the Health and Safety Plan based on these specifications.

16. THE PRINCIPAL CONTRACTOR'S SPECIFIC DUTIES

Rev H&S Spec Guideline Oct 2015

The Principal Contractor's specific duties in terms of these specifications are detailed in the Construction Regulations as published under government notice 07 August 2014, stipulated in Section 7.

17. THE PRINCIPAL CONTRACTOR'S SPECIFIC RESPONSIBILITIES WITH REGARD TO HAZARDOUS ACTIVITIES

The following examples of activities are identifiable as hazardous in terms of the Construction Regulations. The contractor shall execute the activities in accordance with the following Construction Regulations and other applicable regulations of the Act:

- Fall protection
- Structures
- Excavation work
- Demolition work
- Scaffolding
- Construction vehicles & mobile plant.
- Water environments
- Housekeeping on construction sites
- Fire precautions on construction sites.

This list must not be taken to be exclusive or exhaustive! All of the above requirements will be read in conjunction with the relevant regulations and health and safety standards as required by the Act. All documents and records required by the Construction Regulations will be kept in the Health and Safety File and will be made available at any time when required by the client or his representative, or on request to an interested party.

18. GENERAL NOTES TO THE PRINCIPAL CONTRACTOR

Legal Framework

Part of legal obligations

The more important Acts and relevant subordinate/secondary legislation as well as other (inter alia Local Government) legislation that also apply to the State as well as to State owned buildings and premises: -

- a. The latest issue of SABS 0142: "Code of Practice for the Wiring of Premises"
- b. The Local Government Ordinance 1939 (Ordinance 17 of 1939) as amended and the municipal by-laws and any special requirements of the local supply authority
- c. The Fire Brigade Services Act 1987, Act 99 of 1987 as amended
- d. The National Building Regulations and Building Standards Act 1977 (Act 103 of 1977) as amended and relevant proclaimed Regulations (SABS 0400)
- e. The Post Office Act 1958 (Act 44 of 1958) as amended
- f. The Electricity Act 1984, Act 41 of 1984
- g. The Regulations of Local Gas Board(s), including Publications of the SABS Standards and Codes of Practice, with specific reference to GNR 17468 dated 4th October 1997
- h. Legislation pertaining to water usage and the environment
- i. Legislation governing the use of equipment, which may emit radiation (e.g. X-Rays etc.)
- j. Common Law

19. HOUSE KEEPING

Good housekeeping will be maintained at all times as per Construction Regulation No. 25. Poor housekeeping contributes to three major problems, namely, costly or

increased accidents, fire or fire hazards and reduction in production. Good housekeeping will enhance production time.

In promotion of environmental control all waste, rubble, scrap etc, will be disposed of at a registered dump site and records will be maintained. Where it is found to be impractical to use a registered dump site or it is not available, the Principal Contractor will ensure that the matter is brought to record with the client or his representative, after which suitable, acceptable alternatives will be sought and applied.

Dross and refuse from metals, and waste matters or by-products whose nature is such that they are poisonous or capable of fermentation, putrefaction or constituting a nuisance shall be treated or disposed of by methods approved of by an inspector.

NOTE: No employer (Principal Contractor) shall require or permit any person to work at night or after hours unless there is adequate, suitable artificial lighting including support services in respect of Health and Safety.

a) Facilities

The site establishment plan shall make provision for:

b) Dining room facilities

The contractor shall make provision for adequate dining room facilities for his employees on site.

c) Change rooms

The contractor shall make provision for adequate change rooms for his employees on site.

d) Ablution facilities

The contractor shall make provision for adequate ablution facilities for his employees on site.

These facilities shall be maintained by the contractor.

e) Smoking Areas

Designated smoking areas shall be established by Department of Public Works.

f) Drinking Water Facilities

The provision of drinking water facilities shall be negotiated between the Contractor and Department of Public Works.

g) Equipment Compliance Certificates

Before equipment is brought on site valid certificates of compliance issued by a competent person shall be presented. The equipment includes but shall not be limited to:

- i. lifting equipment and lifting tackle
- ii. power driven machinery
- iii. electrical equipment
- iv. testing and monitoring equipment

h) Barricading

All barricading shall be of the rigid type unless the use of non-rigid barricading has been approved in writing by the Department of Public Works Project Manager. The contractors' barricading standard shall be included in the Health and Safety Plan.

Where more than one contractor is working on a site, the fixed barricading shall be clearly marked with the company's name, site contact person as well as the contact number/s.

i) Erection of Structures for Logistic Support

Prior to site establishment Department of Public Works shall approve the contractor's site plan.

Department of Public Works shall approve all structures erected for logistical support by the contractor. These structures include fences, workshops, tool sheds, offices, ablution facilities, etc.

j) Salvage Yard Management

Depending on the site specific arrangements and procedures, Department of Public Works may provide the salvage yard and the resources to manage it.

The salvage yard management shall conform to safety, health and environmental requirements. The contractors are required to move the equipment from the place of work to the salvage yard.

k) Fall Arrest and Prevention Equipment

Approved fall prevention equipment shall be used at heights of less than 2.0 metres. Above heights of 2.0 metres fall prevention equipment shall include fall arrest Equipment. Users of fall arrest equipment shall, amongst other things be trained in what an appropriate load bearing point is for connecting fall prevention equipment. Any deviation from this requirement shall be negotiated and agreed with Department of Public Works in writing.

l) Hazardous Chemical Substances Waste Removal

Department of Public Works shall provide a facility to collect all hazardous chemical waste material.

The contractor shall provide adequately marked and sealable containers to transport The hazardous chemical waste from the source to the approved Department of Public Works disposal point.

m) Personal Protective Equipment (PPE)

Personal protective equipment issued shall be specific to the risks associated with the work to be performed and specific to conditions on site and shall comply with South African National Standards (SANS) or similar.

20. LOCKOUT SYSTEMS

A system of control shall be established in order that no unauthorized person can energize a circuit, open a valve, or activate a machine on which people are working or doing maintenance, even if equipment, plant or machinery is out of commission for any period, thus eliminating injuries and damage to people and equipment as far as is reasonably practicable.

Physical/mechanical lock-out systems shall be part of the safety system and included in training. Lockouts shall be tagged and the system tested before commencing with any work or repairs.

21. IMPORTANT LISTS AND RECORDS TO BE KEPT

The following are lists of several records that are to be kept in terms of the Construction Regulations. The lists are:

- i. List of appointments
- ii. List of record keeping responsibilities
- iii. Inspection checklist

a) Contractor Risk Assessment Process

The risk assessment process shall include:

- 1) an evaluation of the method of the work to be conducted
- 2) the method statement on the procedure to be followed in performing the task shall be developed
- 3) the risk assessment will also include activities like:
 - i. Transportation of passengers and goods to and from site
 - ii. Site establishment
 - iii. Physical and mental capabilities of employees
 - iv. Others as may be specified.
- 4) the hazards as listed in the paragraph – Site Specific Health and Safety Hazards

5) a review plan for risk assessments shall provide for:

- i. the quarterly review of all applicable risk assessments
- ii. the review of an assessment if there is reason to believe that the previous assessment is no longer valid, or there has been a change in a process, work methods, equipment or procedures and working conditions
- iii. Risk assessment/s to be reviewed if the outcome of incident investigations and audits etc. requires such action.

A pre - task risk assessment shall be conducted in writing on every task and be facilitated by the team leader. All risk assessments and pre-task risk assessments shall be filed and be available on site.

b) Risk Profile

All contractors shall submit a risk profile of the work to be conducted with their Health and Safety Plan.

c) Risk Based Inspection Program

The inspection programme shall be risk based. The inspection plan shall form part of the Health and Safety Plan.

IMPORTANT CONTACT DETAILS

(FOR HEALTH & SAFETY ASPECTS ONLY)

The contractor is to add all the important contact information about essentials services, support and assistance.



SERVICE	NUMBER	CONTACT PERSON
Hospital		



Ambulance		



Water		
Electricity		



Police		



Fire Brigade		



Engineer		

ADD OTHER IMPORTANT HEALTH & SAFETY CONTACT DETAILS AS MAY BE FOUND NECESSARY.

**SECTION 37(2) AGREEMENTS
CONCLUDED BETWEEN
DEPARTMENT OF PUBLIC WORKS
(Hereinafter referred to as Department of Public Works)**

AND

.....
(Name of contractor/supplier/Agent/)

I, [Insert name of contractor/supplier], do hereby acknowledge that [insert name of contractor/supplier] is an employer in his/her own right, with duties as prescribed in the Occupational Health and Safety Act No. 85 of 1993 ("the Act"), as amended, and agree to ensure that all work will be performed and/or machinery or plant used in accordance with the provisions of the Act.

I undertake that [insert name of contractor/supplier] shall strictly adhere to, and ensure that his/her employees adhere to, the provisions of the Occupational Health and Safety Act, 1993 (Act 85 of 1993).

I have been provided with SHE specifications for project/service [insert brief details of project/service, for example, name, contract/project number] and will comply with the requirements set out in these.

I accept and agree that the SHE specifications constitute arrangements and procedures between [Insert name of contractor/supplier/Agent Safety Manager/Safety Officer] and Department of Public Works, which will ensure compliance by [Insert name of contractor/supplier] with the provisions of the Act, as contemplated in section 37(2) of the Act.

This agreement constitutes the sole agreement between the parties, and no variation, modification, or waiver of any of the provisions of this agreement or consent to any departure from these shall, in any manner, be of any force or effect, unless confirmed in writing and signed by both parties, and such variation, modification, waiver, or consent shall be effective only in the specific instance and for the specific purpose and to the extent for which it was made or given.

This agreement is signed on behalf of the parties, each signatory to this warranting that he/she has the requisite authority to do so.

Signed this day of 20 at

..... (Place)

(Full name)..... (Signature)on

behalf of (Supplier/contractor/Agent)

Contractor Responsible Manager (responsible for signing the Department of Public Works' contract on behalf of the contractor)

Witnesses

1.

2.

Signed this day of20.....

at (Place)

(Full name..... (Signature).....on

Behalf of Department of Public Works.

(Contracts and/or Project Manager or Department of Public Works representative)

Witnesses

1.

2.



Additions to health and safety specifications for all construction sites to include COVID 19

1. Introduction
2. References
3. Special appointments
4. Workers transport
5. Security/access control/control of visitors onsite
6. Pre-construction evaluation of medical requirements, screening and training
7. Facilities, resources and action required by principal contractor where applicable contractor onsite
8. Required procedures, documentation development and updates
9. Procedures at start during and at end of shift
10. Managing and controlling flammable hazardous chemicals
11. Contractor management
12. Compliance monitoring and discipline
13. Additional resources and recourse management

1. Introduction

COVID 19 Novel Corona virus has changed the world we live in and how we will conduct business activities and life in the future. Due to this it has become necessary to take special precautions, to plan and implement control measures, to prevent further spread of this disease.

These specifications are based on the prevention of persons, objects/tools being contaminated with the virus, infection transmission and specific occupational hygiene practices that focus on the need for employers to implement measures to mitigate or eliminate the transmission of the virus in the workplace.

This document is an addendum to the original project health and safety specification to assist the principal contractor and contractors to protect their workers, and to comply with the interim Regulations that has been gazetted

2. References

The Department of Employment and Labour has appealed to employers to use the prescriptions of the Occupational Health and Safety (OHS) Act of 1993 in governing workplaces in relation to Coronavirus Disease 2019 COVID19 under the National Disaster Act

Department of labour, notice no. 479, 29 April 2020, covid-19, Occupational health and safety measures in workplaces Covid-19 (c19 ohs), directive by the minister of employment and labour in terms of regulation 10 (8) of the regulations issued by the minister of cooperative governance



and .. additional affairs in terms of section 27 (2) of the disaster management act, 2002 (act no. 57 of 2002)

The OHS Act read with the Hazardous Biological Agents Regulations requires the employer to provide and maintain as far as is reasonably practicable a working environment that is safe and without risks to the health of employees

Section 8(2)(b) of OHS act requires steps such as may be reasonably practicable to eliminate or mitigate any hazard or potential hazard before resorting to personal protective equipment (PPE). However, in the case of COVID19, a combination of controls is required, although the main principle is to follow the hierarchy of controls

However, before the implementation of control measures, current risk assessments need to be reviewed and updated, considering the new hazards posed by exposure to COVID-19 in the workplace. The risk assessment should take the Risk Assessment Guides published online by the National Department of Health into account

3. Special appointments

- a. The employer must appoint a manager (from within the existing structure) to address the concerns of employees and workplace representatives concerning COVID 19
- b. Appointment and training of security personnel and adequate personnel to conduct procedures of screening, isolating, conducting questionnaire and further actions required if person presents positive COVID 19 symptoms

4. Workers transport

- a. Where possible the contractors must arrange transport of their employees in line with the travel rules of not more than 70% occupancy and social distancing
- b. Where not possible to avoid the use of public transport provide employees with information on the virus and precautions to take during public transport travel:
 - i. Frequent sanitising
 - ii. Maintain social distancing (at least 2 m)
 - iii. Always wear a mask
 - iv. Coughing, sneezing safe practice and spitting
 - v. When being coughed or sneezed on, turn face away and do not touch face before hands have been sanitised
 - vi. Do not travel if experiencing symptoms of infection
 - vii. Provide employees with CIPC travel certificate

5. Security/access control/control of visitors onsite



- a. **Only 1 access point allowed on site during the Phase lockdown period.**
- b. **A policy of lockdown inside site for the whole shift must be maintained which will mean that employees will not be allowed to exit and re-enter the site during working hours. This will prevent employees from bringing contaminated food or articles onto site and will have to bring food from home**
- c. **The principal contractor must enforce strict access control and no person may enter the site except those who have undergone induction training and who is listed on the employee list**
- d. **The only exceptions are persons who have pre-arranged official appointment which has been approved by the project construction manager. This person may not enter the site before they have passed the screening procedure (fever and questionnaire) and thereafter must be escorted by a person designated by the construction manager**
- e. **Biometric or any form of touch access entry is prohibited**
- f. **Delivery vehicle drivers must undergo and pass the full COVID 19 screening procedure or may not leave the cab of the vehicle and wear a face mask**
- g. **Where more than one Principal Contractor operates on site. A meeting must be held with all the Principal Contractors where an access plan must be formulated and agreed to in writing, which incorporates the sharing of expenses and other resources.**

6. Pre-construction evaluation, screening and training

Principal contractor and contractor's pre-construction requirements:

It is critical that the principal contractor conduct the following preparatory actions before going to site. These actions must be documented and each employee must sign that he/she has undergone this screening and training and understands and procedures

a. Evaluation:

- i. **Employees medical evaluation, ensuring annual medical is valid**

ii. Screening:

1. **Fever screening**
2. **Health questionnaire (signs and symptoms)**
3. **Questionnaire of travel during shut down level 4 and exposure**
4. **Employee practical understanding of:**

- a. **the risks of the virus**



- b. how do you get contaminated?
- c. how do you get infected?
- d. signs and symptoms
- e. prevention

b. Training program

It is important to understand that workers have been on site for an extended period and which requires that the principal contractor and contractors develop a full risk based induction training and awareness program, policies and procedure for COVID 19 and communicate it with management, employees and contractors which include the following:

- i. Employees responsibility to look after their own health and safety and preventing from being infected or infecting other persons
- ii. What is COVID 19
- iii. How are you infected
- iv. Explanation of symptoms and signs (fever, cough, sore throat, redness of eyes or shortness of breath or difficulty in breathing, body aches, loss of smell or loss of taste, nausea, vomiting, diarrhoea, fatigue, weakness or tiredness
- v. Incubation period
- vi. Explain the risk of underlying conditions, i.e.:
 - 1. People 60 years and older
 - 2. People with chronic lung disease or moderate to severe asthma
 - 3. People who have serious heart conditions
 - 4. People who are immunocompromised
 - 5. People with diabetes
 - 6. People with chronic kidney disease undergoing dialysis
 - 7. People with liver disease
- vii. Self-monitoring and reporting of symptoms, possible exposure or infection to company
- viii. The importance of being aware of who you have been in contact with during work and after hours to assist with tracking in case of being infected
- ix. How to self-isolate
- x. Company COVID sick leave and Temporary Employer Relief Scheme under regulation 10(8) of the Regulations promulgated in terms of section 27(2) of the Disaster Management Act
- x. How to prevent infection:
 - 1. Correct methods of sanitising
 - f. Hands
 - g. Personal hygiene
 - h. Site facilities
 - 2. Social distancing
 - 3. Not touching face



4. The correct way to cough or sneeze
 5. Correct use, limitations of and disposal of PPE
 6. How to protect yourself and family after hours
- xi. What to do if employee is not feeling well and are presenting with the symptoms when already at the work-place or before arrival onsite include:
1. Employees
 - a. If already onsite
 - i. Immediate reporting to employer
 - ii. Social distancing and other preventative actions
 - b. When not onsite yet
 - i. Do not go to work
 - ii. Who to contact at your company?
 - iii. Relevant company contact numbers
 2. Principal contractor and contractors
 - a. Procedures and PPE required when employee presents with symptoms at the site screening and needs to be isolated and tracking of persons in contact with that employee
 - b. Procedures and care of persons who are in self isolation or being treated at hospital or COVID 19 facility
 - c. Company and employee return to work after recovery procedures
- xii. Updated company COVID 19:
1. SHE plan and risk assessment
 2. Policies
 3. PPE requirements
 4. Method statements & risk assessment
 5. Stay at home policy and sick leave
 6. Employee assistance/care program
- iii. Include COVID awareness in every day DSTI/permit to work system
- 7. Facilities, resources and action required by principal contractor where applicable contractor onsite**
- a. Provide these employees with appropriate PPE for their tasks
 - b. Prevention of employees having to come into close-proximity (Queuing or bundling together)
 - c. Method/procedure of providing drinking water that cannot be contaminated with the virus
 - d. Adequate and appropriate risk-based:



- i. PPE
- ii. Sanitising/hand washing facilities at entrance, eating areas, offices, kitchens, toilets (Foot pedal hand sanitisers is the preferable option)
- iii. Awareness signage and posters

- e. Procedures for sanitising site, offices, toilets, eating areas, meeting rooms communal kitchen appliances, printers and telephones
- f. Procedures and rules to minimise exposure during:
 - i. Meetings (Alternates to close contact meetings)
 - ii. Duration and maximum number of delegates at close contact meetings
 - iii. Induction, Toolbox talk, DSTI
 - iv. Sanitising of areas, offices, boardrooms and furniture
 - v. Communal drinking facility use
 - vi. Housekeeping and garbage removal
- g. Provide an isolation area/tent/room where person can be interviewed and remain until instructions have been received from the COVID 19 control centre on next step to be taken

CORONA 24 Hour HOTLINE 0800029999

8. Required procedures, documentation development and updates

The contractor must develop new and update existing plans, policies, documentation and procedures to include COVID 19

- a. She plan and policy
- b. Company COVID 19 plans, policies, procedures and programs to include:
 - i. Prevention, exposure, infection
 - ii. Social distancing during entering and exiting site, meetings, training
 - iii. Creating different areas for and staggering start of work and lunch-times, training sessions and effective planning of required staff compliments
 - iv. Cooperation with local police, clinic, emergency services and notifying them of the project and developing beneficial relationships
 - v. Engaging with CLO and communities and establish a trust relationship by providing relevant information and possible assistance where possible
 - vi. Emergencies (mass infections)
 - iii. Post-infection return to work guideline, which include:
 1. minimum medical and practical criteria for return to work
 2. medical evaluation by occupational health practitioner
 - ii. Employee emotional care and assistance during and post infection
 - x. Management and disposal of contaminated PPE and equipment



- x. Planning to maximise social distancing
- xi. Planning of production and progress to optimise the work-force to minimise the amount of persons onsite at one-time
- xii. Managing and disposal of biological (Virus) contaminated PPE and other personal waste
- xiii. Daily reporting to management of screening results and of persons who were isolated, taken for testing and follow-up
- xiv. Reporting of persons who have been confirmed to be infected to company management, department of labour and Health
- xv. Contact-tracing of persons who were in contact with a person who have been isolated or who has been confirmed as being infected
- xvi. Updated risk assessment to include COVID 19 hazards and risks
- xvii. Evaluation of daily screening, reporting to management and if required update procedure and training
- xviii. Company policy related to paid sick leave in terms of section 22 of the BCEA illness benefit in terms of clause 4 of the Directive issued on 25 March 2020 on the COVID-19 Temporary Employer Relief Scheme under regulation 10(8) of the Regulations promulgated in terms of section 27(2) of the Disaster Management Act;
- xix. Also revise the permit to work where required.

9. Procedures at start during and at end of shift

a. Include conducting and recording information of:

i. Sanitisation

1. At start of shift all persons must sanitise with sanitiser that contains at least 70% alcohol with foot pedal or automatic detection and spray device, no hand contact
2. Site facilities, offices, boardrooms, toilets, eating areas, surfaces
3. Hand and power tools, and other communal equipment to be wiped down

ii. Fever screening and procedure when person has fever

1. Re-do fever screen and if high fever

- a. Isolate and questionnaire
- b. Procedure if evidence points at infection
- c. Contact call centre and follow instructions
- d. Also follow company procedure for reporting to management, client and authorities

10. Managing and controlling flammable hazardous chemicals

- a. The type of sanitiser used for COVID 19 must have a minimum of 70% alcohol and it is important that adequate stock is held onsite
- b. Due to its high alcohol content it poses a fire risk as well as a possible risk of being used by workers for intoxicating purposes which can lead to poisoning
- c. It is therefore particularly important to include these risks into account when the risk assessments is updated



- d. The principal contractor and contractors must ensure that they provide a flammable liquid storage facility, considering the quantities they will be storing onsite which conforms with local government fire regulations and GSR 4
- e. The storage area must be lockable and issuing and stock levels must be controlled by an appointed competent hazardous chemical substance controller
- f. Records of stock levels, issuing and usage must be updated daily and any discrepancies must be reported to management and investigated
- g. Decanting procedures must be developed which includes spillage control. Bottles into which it has been decanted into must be marked to clearly show the contents
- h. Appropriate and adequate signage must be posted
- i. Adequate Alcohol resistant foam or Carbon dioxide (CO₂) fire extinguishers must be appropriately positioned. Inspections of the flammable hazardous chemicals store must be conducted at least monthly
- j. Inspections of the flammable hazardous chemicals store must be conducted at least monthly
- k. First aiders should be trained on the first aid measures as set out in the MSDS

11. Contractor management

It is the responsibility of the principal contractors to ensure that all contractors comply with the requirements of the addition to the original project health and safety specifications

12. Compliance monitoring and discipline

- a. Monitoring of compliance is critical to the prevention program and there may be no tolerance of non-compliance
- b. Strict appropriate disciplinary action must be instituted against employees, contractors, consultants or any person
- c. found in breach of the requirements
- d. The client will be responsible for compliance through audits and inspections and evaluation of principal contractors' reports
- e. The principal contractor must monitor compliance through inspections and COVID 19 specific audit of:
 - i. Available equipment
 - ii. Sanitiser/washing facilities
 - iii. Sanitising of site facilities
 - iv. Employee screening
 - v. Access control
 - vi. Availability of isolation facilities
 - vii. Separation and procedures followed when employees present with symptoms
 - viii. Continuous awareness training
 - ix. Recordkeeping
 - x. Sub-contractor training and screening records, risk assessments and monitoring
- f. Any suspected or confirmed infection or noncompliance with the COVID 19 requirements must be reported to the client health and safety agent with immediate effect



- g. A written incident report must be supplied within 24 hours after the incident. If the risk assessment or procedures are required to be reviewed, same will be done within 36 hours.

13. Additional resources and recourse management

- a. It is a fact that finance and budgets of active projects that were shut down due to COVID 19 have approved budgets and available capital projects that are currently running have already been allocated and approved and Therefore funds should be available from the client to pay Principal Contractors/Contractors
- b. It is therefore critical that the principal contractor ensure that their payment certificates and related documents are correct and is submitted before deadline dates with their invoices. Many delays in payment from clients are due to incorrect or insufficient documentation that has been submitted late.
- c. It is important to understand that the COVID 19 virus has affected all parties and cooperation will increase the probability of completing the project successful
- d. It is critical that the client and principal contractor re-negotiate and discuss the project deadlines and budget and agree on solutions to the benefit of all. The impact of screening, site access, delayed delivery of long lead items due to manufacturing constraints and restrictions due to COVID19 legislation must be considered when negotiating the program and deadlines specifically.
- e. Clients must not delay payment to principal contractors and principal contractors must do the same with their contractors. Delaying payments will have a snowball effect all the way down to the workers who have in some case already not received salaries or has only received partial payment
- f. Businesses must do their utmost to protect the workers who are the most crucial asset of construction
- g. Although SMME are businesses in their own right, many of these companies were already struggling financially before lockdown started and the principal contractor could use the assistance of the project CLO to ensure that workers are being paid and if not report it to the principal contractor.
- h. Contractor must assist employees with UIF claims.
- i. **All the above requirement and information must be filtered down to the contractors onsite**

“Health and safety is not negotiable”