



ETHEKWINI MUNICIPALITY

Occupational Health & Safety Unit



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

Document Title	Site Specific Health and Safety Specification
Client	eThekweni Municipality – Water and Sanitation
Project Name	EMONA SUNHILLS PUMPSTATION AND RISING MAIN PHASE 2B
Contract Number	30717- 5W
Compiled by (Safety Officer)	Name and Surname: Hlengiwe Njapha Signature:  Date: 04/10/2024
Approved by (Safety and Risk Manager)	Name and Surname: Arty Zondi Signature:  Date: 04/10/2024
Reference Number	SSHSS 321/10/2024

PROJECT LOCALITY

Nil

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1.PROJECT DESCRIPTION

EMONA SUNHILLS PUMPSTATION AND RISING MAIN PHASE 2B

2. LIMITATIONS OF LIABILITY

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

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

3. PURPOSE OF THE CONSTRUCTION H&S SPECIFICATION

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

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

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

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

4. PROJECT HEALTH AND SAFETY COST

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

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

	H&S cost item	Description
1.	Full time/ Part time safety officer	Full time/Part time attendance on site of a SACPCMP registered safety officer from the start of construction until the end of project handover
2.	First Aiders	First Aid training
3.	Competent inspectors (trained, certified, competent)	Statutory inspections of excavations, temporary works, fire extinguishers, lifting equipment, lifting machinery, construction vehicles and mobile plant, portable electrical equipment, Electrical Installation Controller etc.
4	Medical certificate of fitness	Medical examination of all employees and certification of fitness by an Occupational Medicine Practitioner Pre- employment and annual
5	PPE	Standards set for all employees Including community and environment
6	Dust mitigation	To reduce dust exposure to the employees and the public
7	Public protection and barricading	Barricading, shoring and notices
8	Employee facilities	Refer to the Facilities Regulations (drinking water, change facility, personal lockers, and wash facilities, eating facilities, ablution toilets)
9	Traffic management	Traffic controller's training and traffic signage
10	Signage	All construction safety signage required for the project
11	Other	

5. SCOPE OF WORK

The works will broadly include but not limited to:

The civil portion of this Contract comprises the construction of a DN110 HDPE pipeline approximately 0,52 km long and the construction of a reinforced concrete pump station structure with brick walls and includes the following:

Pipeline

- Supplying, laying, bedding, backfilling, testing and disinfecting approximately 520m of DN110 continuously welded HDPE pipe from the pump station to the terminal manhole.
- Fabrication of fittings, specials and bends
- Trenching for approximately 520m of DN110 pipe.
- Construction of precast concrete chambers for air valves.

Pump Station

- Bulk earthworks for the structure
- Construction of an access road and stormwater drainage.
- Disposal of surplus spoil material by means of extending the fill embankment.
- Underdrainage system beneath the structure.
- All construction work associated with the construction of the pump station and the waterproofing the roof.
- Piling
- Trenching, bedding and backfilling for pipelines.
- Supplying, laying, jointing, testing and disinfecting of short sections of drains with manholes and head walls.
- Lightning protection to the pump station structure.
- Grouting up plant and equipment supplied and installed by the Employer's mechanical and electrical contractor.
- Environmental compliance.

The M&E portion of this Contract covers the supply, factory testing, insurance, delivery, transport, handling, storing, erection, site welding and making good coatings, aligning, fixing, supporting, connecting, adjusting, drilling for and grouting in and caulking up all holding down bolts, bedplates and pipework, balancing, guaranteeing, site testing, painting, commissioning, handing over in complete working order, providing drawings, operating and maintenance instructions in quadruplicate, instructing staff and maintaining for 12 months after completion, the mechanical and

electrical plant and equipment, pipework, valves and other plant all as described in greater detail elsewhere in this document and/or shown on the drawings and set out in the Bills of Quantities and as described below:

Mechanical Plant and Equipment

This section of the Contract covers the supply, installation, testing, and commissioning of the following all as described elsewhere and as shown on the drawings:

Pumping Plant

- a) Two (one duty plus one standby) 40 kW pumpsets **(each with a duty point of 40 l/s x 14 m)**.
- b) DN110 suction and delivery pipework and associated valves

Electrical Plant and Equipment

This section of the Contract covers the supply, installation, testing, and commissioning of the following all as described elsewhere and as shown on the drawings:

- a) A LV 400 V main distribution board (MDB)
- b) Two 40 kW (estimated rating) premium efficiency motors
- c) 400/230 V power cabling and supports
- d) Earthing and bonding to the main earth bar.

Radio Telemetry and Instrumentation Plant and Equipment

This section of the Contract covers the supply, installation, testing, and commissioning of the following all as described elsewhere and as shown on the drawings:

- a) Control and instrumentation cabling.
- b) Pump Station Control PLC.
- c) Pump Station Human Machine Interface (HMI).
- d) Flow metering equipment for pump control.

e) Fluid level sensing equipment in the pump station wet well

NOTE: The Contractor under this Contract is to be responsible for the supply and installation of all of the mechanical, electrical, and electronic plant, pipework and valves, and electric cabling, and for providing all information pertaining to the civil/building work such as the requirements for plinths and pockets and any drilling and fixing of bolts for bedplates and grouting up that are required for the proper installation and operation of all of the plant in accordance with this Contract.

Such other work as may have deemed necessary by the Engineer for the completion of the project.

6. COMPENSATION FOR OCCUPATIONAL INJURIES AND DISEASES ACT

The Principal Contractor, each contractor and each sub-contractor shall submit proof of Good Standing with COIDA Commissioner or a Mutual Association licensed in terms of Section 30 of COIDA, prior to starting any work on site.

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

7. APPLICATION FOR CONSTRUCTION WORK PERMIT

The Principal Contractor shall assist the Client in compiling the evidence required by the Department of Labour for the issuing of the Construction Work Permit.

The Principal Contractor shall ensure that the H&S Plan presented for approvals includes:

- Evidence that the Principal Contractor made adequate provision for the cost of H&S measures
- Evidence that the Principal Contractor has the necessary competencies and resources to carry out the construction work safely.
- A copy of the Letter of appointment of the Construction Manager in terms of CR 8(1) + proof of his qualification, competence and registration where applicable.
- Proof of the registration of the Principal Contractors Health & Safety officer with the SACPCMP.

The Principal Contractor shall display the work permit number at the main site entrance. This display must be conspicuous to the satisfaction of the Department of Labor. The permit must be noticeable.

The construction works can only commence once the construction work permit is issued by the Department of Labor.

8. MANAGEMENT AND SUPERVISION OF CONSTRUCTION WORK

8.1 Construction Manager

The Principal Contractor shall appoint a full-time competent person as the construction manager with the duty of managing all construction on the site including the duty of ensuring occupational health and safety compliance.

The Construction Manager must demonstrate competency in relation to work being performed and the ability to manage construction work which may include making all statutory appointments in terms of health and safety.

8.2 Construction Health and Safety Officer

The Principal Contractor shall appoint a full-time competent Construction health and Safety Officer for the construction work. The Construction Safety Officer shall be full on the construction site for this project.

The Safety Officer shall be registered with the South African Council for the Projects and Construction Management Professions. Proof of competence and registration of the appointed Construction Safety Officer must be included in the H&S Plan.

8.3 Construction Supervisor

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

9. PRINCIPAL CONTRACTOR'S HEALTH AND SAFETY PLAN

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

- Objectives
- Scope of work
- Management of construction and supervision
- Monitoring and review plan
- Sub-contractor management
- Risk Assessment & Written Safe Working Procedures
- Incident Management & First Aid
- Emergency procedures/ plan
- Fire Prevention & Protection
- Public Health and Safety
- PPE Provision
- Health & Safety Signage
- Excavations
- Site establishment
- Soil poisoning
- Existing services
- Construction Vehicles and Mobile Plants
- Hand & Electrical Tool Management
- Construction Employees Facilities
- Health & Safety Policies
- Health and Safety Training & Competencies
- Housekeeping
- Hazardous Chemicals
- Inductions
- Medicals
- Site Security
- Stacking and Storage
- Internal and external Audit
- Inspection Registers
- Toolbox Talks
- Site Establishment
- Asphalt road surface

10. HAZARD IDENTIFICATION AND RISK ASSESSMENT

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

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

11. HEALTH AND SAFETY FILE

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

- Client Health & Safety Specification
- Principal Contractor Health & Safety Plan
- Letter of good standing
- Section 37.2 Mandatory Agreement
- Contractor appointment letter in terms of CR 5.1(k)
- Legal appointments and competencies (Site manager, Site supervisor, Safety officer, Risk assessor, Incident investigator, Fall protection planner, Temporary work designer, Temporary work supervisor, Electrical installation supervisor)
- Risk Assessments as per scope of work
- Written Safe Working Procedures as per risk assessment
- Incident/Accident Management Procedures
- Award letter from SCM
- Organogram as per appointments
- Copy of OHS Act and COID Act
- Environmental Management Procedures (Dumpsite, Water provision, Ablution, Waste management, Concrete works, Refuelling and spillage management, Hazardous chemicals storage and disposal, Environmental awareness training, No Go Areas, Protection of animals, Site demarcation etc.)
- Health and Safety Induction programme
- Emergency Procedures/ Plan
- Medical Fitness Certificate (Safety Officer, Site manager and Supervisor)
- Tool Box Talks Programme/ Plan
- SHE Policy

12. HEALTH AND SAFETY REPRESENTATIVES AND COMMITTEE

Health and Safety Representatives

- The Principal Contractor shall ensure that Health and Safety Representatives are appointed in writing and exercise their functions as defined in OHSA.

- The Principal Contractor shall elect and appoint a health and safety representative regardless of the number of employees on the site.
- The H&S representative shall at all times be on site and report to the Health and Safety Officer and Construction Manager.

Health and Safety Committee

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

13. CLOSE- OUT CONSOLIDATED HEALTH AND SAFETY FILE

The Principal Contractor shall compile a consolidated H&S file and hand over to the **Water and Sanitation Unit – Prior Road**. OHS Unit will conduct a project close out using the appropriate checklist before the completion of the project.

14. HEALTH AND SAFETY TRAINING

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

- Written Safe Working Procedures
- Risk Assessments
- Health and Safety Plan
- Emergency Management Plan
- Induction
- Toolbox Talks
- MSDS

15. INCIDENTS MANAGEMENT & FIRST AID

All incidents and accidents as per Section of the Act must be reported, recorded and investigated as per General Administration Regulation 8 & 9

Where a fatality or permanent disabling injury or incident occurs on the Construction site, the Client must ensure that the Principal Contractor provides the Provincial Director with a report contemplated in Section 24 of the Act and the report includes the measures that the Principal Contractor intends to implement to ensure a safe construction site.

16. HEALTH AND SAFETY AUDITS

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

17. FIRE PRECAUTIONS ON CONSTRUCTION SITE

The Principal Contractor shall provide suitable fire extinguishers which shall be serviced regularly in accordance with the manufacture's recommendations.

Safety signage shall be prominently displayed in all areas where fire extinguishers are located. The Principal Contractor shall arrange for training of the relevant personnel, in the use of fire extinguishers.

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

18. PERSONAL PROTECTIVE EQUIPMENT AND CLOTHING.

The Principal Contractor shall ensure that every employee is issued with, and wears SANS-approved P.P.E. as per the conducted risk assessment.

Failure to use protective equipment as per the risk assessment shall require disciplinary intervention and this process shall be documented in the induction.

No employer shall in respect of anything which he is in terms of this Act required to provide or to do in the interest of health or safety of an employee make any deductions from any employee's remuneration or require or permit any employee to make any payment to him or to any other person.

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

19. OCCUPATIONAL HEALTH AND SAFETY SIGNAGE

The Principal Contractor shall erect and maintain quality safety signage

The signage shall include but is not limited to:

- The construction work permit number displayed at the entrance
- Access restrictions

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

20. DUTIES OF PRINCIPAL CONTRACTORS AND CONTRACTORS

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

The Principal Contractor shall ensure that the comprehensive and updated list of all the contractors and sub-contractors on site includes:

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

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

21. EXCAVATION

The Principal Contractor must ensure that all excavation work is carried out under the supervision of a competent person who has been appointed in writing for that purpose.

The Principal Contractor shall take cognizance of the geotechnical study pertaining to the conditions of the construction site and must plan all excavation work in accordance with the recommendations of the professional engineer.

The Principal Contractor must ensure that every excavation, including all bracing and shoring, is inspected daily, prior to the commencement of each shift and that no person

enters the excavation or works in a risk zone until the excavation is assessed and declared safe.

All excavations must be left open for the minimum of time required and those that are left open on the site must be protected by a barrier or a fence of at least one meter in height as close to the excavation as is practicable. The protective barrier or fence must adequately prevent persons from falling into the excavation and barrier taping is not sufficient for this purpose

Excavation shoring and bracing, if required shall be designed by a designer appointed in writing who shall inspect and approve the installed shoring and bracing

Where persons work, inspect or test excavations, warning signs must be in place next to an excavation

The provisions of Regulation 13 of the Construction Regulations shall be followed in every detail.

22. PUBLIC HEALTH AND SAFETY

The site shall at all times be secured to prevent the unauthorized access of persons to construction risk areas.

Appropriate health and safety signage shall be posted and access control to site must be exercised via a single access point.

All members entering the site must indicate in what capacity they are visiting the site.

The access point must be designed and constructed to allow for temporary parking, entry of construction vehicles, entry of personnel transport vehicles and entry of individual workers and other persons.

The principal Contractor shall ensure that each person visiting the site shall be inducted to the site and such abridged induction shall outline the hazards from on-site activities and the precautions to be observed to avoid or minimize those risks

Visitors must only enter when accompanied by a responsible person designated by the Principal Contractor.

23. NIGHT; WEEK –END WORK

No night or weekend work shall be performed unless authorized by the Principal Agent or Lead Engineers

Where week end work is planned the Principal Contractor shall ensure that its construction supervisor is on site, this applies even if only contractors or sub-contractors are working on the site

Where week end work is planned each contractor or sub-contractor shall ensure that its construction supervisor is on site, this applies even if the Principal Contractor's manager or supervisor is on the site.

24. CONSTRUCTION EMPLOYEES FACILITIES

The Principal Contractor shall provide at or within reasonable access of every construction site, the following clean, hygienic and maintained facilities:

- (a) Shower facilities after consultation with the employees or employees representatives, or at least one shower facility for every 15 persons;
- (b) at least one sanitary facility for each sex and for every 30 workers;
- (c) changing facilities for each sex; and
- (d) sheltered eating areas.

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

25. STORAGE AND USE OF FLAMMABLE LIQUIDS

No flammable substances must be stored on site unless these are stored in a flammable store or cabinet approved by the Municipal Chief Fire Officer, no other materials shall be stored in the flammable store or cabinet

Where required the H&S Plan shall include a method statement detailing the safe use, storage, decanting and spill controls for all flammable liquids used and stored on site.

The provisions of Regulation 25 of the Construction Regulations shall be followed in every detail.

26. HAZARDOUS CHEMICAL SUBSTANCE

With respect to hazardous chemical substances used, the contractor shall ensure that:

- All MSDS are included in the H&S File
- A HCS risk assessment is included in the H&S Plan
- The safe use, storage, emergency procedures and safe disposal of hazardous substances are addressed in a method statement(s) included in the H&S Plan.
- Proof of competency and signed letters of appointment of the person responsible for chemical handling is included in the H&S File.

Any hazardous chemical substance intended to be applied on site during the project (i.e. after approval of the H&S Plan) shall be subject to an issue-based risk assessment and method statement which must be presented to the Client Agent prior to the substance being introduced on site.

The provisions of Regulation 3, 5, 7, 8, 9, 9A, 10, 11, 14, 15 of the Hazardous Chemical Substances Regulations shall be followed in every detail.

27. HOUSEKEEPING AND GENERAL SAFEGUARDING ON CONSTRUCTION SITE

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

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

28. CONSTRUCTION MEDICALS

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

29. STACKING AND STORAGE ON CONSTRUCTION SITE

A Principal Contractor must, in addition to compliance with the provisions for the stacking of articles in the General Safety Regulations, 2003, ensure that—
A competent person is appointed in writing with the duty of supervising all stacking and storage on a construction site; Adequate storage areas are provided; There are demarcated storage areas; and storage areas are kept neat and under control.

30. INDUCTION AND TOOLBOX PROGRAMME

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

A contractor must ensure that all visitors to a construction site undergo health and safety

induction pertaining to the hazards prevalent on the site and must ensure that such visitors have

the necessary personal protective equipment.

A contractor must at all times keep on his or her construction site records of the health and safety induction training contemplated in sub-regulation (6) and such records must be made

available on request to an inspector, the client, the client's agent or the principal contractor. The Principal Contractor must ensure that the toolbox talks are conducted on weekly basis and the training records kept on the safety file.

DESIGNER COMMENTS ON HEALTH AND SAFETY SPECIFICATION

Designer's Health and Safety Checklist

Name and address of Project _____

Item and Legal Reference	Y/N	Comment
CR 6(1) (a) Has the designer familiarized himself with the Construction Regulations 2014 (particularly Regulation 6) and the Safety Standards incorporated into these Regulations?		
CR 6(1) (b) During the design stage, was the Client's Health and Safety Specifications given due consideration?		
The structural design aspects that could have an effect on the pricing of construction work?		
The geotechnical-science aspects?		
The weight which the structure is designed to safely withstand?		
CR 6(1)(d) Has the designer communicated all known and anticipated hazards and risks associated with the construction of the designed structure? Furthermore, has the safe method statement been developed to ensure that construction work is safely executed?		
CR 6 (1) (e) As far as is reasonably practicable, are the dangerous processes and materials been eliminated or replaced in the design?		

<p>CR 6(1) (f)</p> <p>Has due consideration been taken during the design stage, for the safe maintenance of the structure after its completion?</p>		
<p>CR 6 (g-i)</p> <p>Is the designer aware of his/her responsibility to carry out periodic site inspections to ensure that the structure is constructed correctly in accordance with the design?</p>		
<p>CR 6(1) (j)</p> <p>Have all ergonomic hazards been considered for the lifecycle of the structure (i.e. during construction and after completion)?</p>		

(Please ensure that the checklist is completed in full particularly the comments column)

Name of Designer _____

Designer's Title (e.g. Engineer, Architect) _____

Signature _____

Date _____

For Further details please contact Hlengiwe.Ngubo@durban.gov.za, 0784571935.