



## agriculture & rural development

Department:  
agriculture  
& rural development  
**PROVINCE OF KWAZULU-NATAL**

### QUOTATION PAGE

QUOTATION NUMBER: <b>R/S/1819/36</b>	VALIDITY PERIOD OF QUOTATION: 90 Days
CHIEF USER: 400A	CLOSING DATE:12/10/2018
REQUEST NO: KCD/UML/017/2018	CLOSING TIME: <b>11:00</b>
DESCRIPTION(SPECIFICATION/S) OF ITEMS/ SERVICE REQUIRED: <b>SUPPLY,DELIVER AND INSTALL IRRIGATION SYSTEM AT SIVELAKUDE GARDEN AT KING CETSWAYO</b>	COMPANY NAME:  Tel NO:- FAX NO:  CONTACT PERSON:  CENTRAL SUPPLIERS DATABASE NO: ..... ( To be completed by the supplier)
DOES OFFER COMPLY WITH SPECIFICATION?	YES/NO (DELETE WHICH EVER IS NOT APPLICABLE)
DOES ARTICLE COMPLY WITH SABS SPECIFICATION? HAS IT BEEN INSPECTED BY SABS?	YES/NO YES/NO (DELETE WHICH EVER IS NOT APPLICABLE)
IS THE PRICE FIRM?	
DELIVERY PERIOD AFTER INITIAL ORDER	
DELIVERY PERIOD AFTER SUBSEQUENT ORDER	
WHERE ARE STOCK HELD? (PHYSICAL ADDRESS)	
QUOTATION PRICE EXCLUDING VAT	TOTAL: R .....
QUOTATION PRICE INCLUDING VAT (VAT TO BE ADDED BY REGISTERED VAT VENDORS ONLY)	TOTAL: R .....
COMPANY OFFICIAL STAMP (COMPULSORY)	..... NAME OF BIDDER  ..... SIGNATURE OF BIDDER  ..... DATE
NUMBER OF PAGES FAXED BACK TO THE DEPARTMENT BY THE SUPPLIER	.....( Supplier to complete)

**NB:** Quotations must be deposited in the bid box situated at Department of Agriculture and Rural Development, Supply Chain Management, 1 Cedara Road, Cedara, 3200

Tel: (033) 343 8225/ 033 355 9184

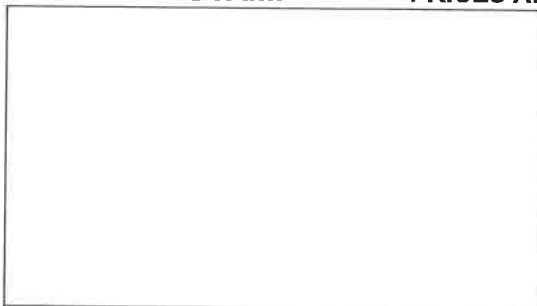
COMPANY NAME :  
 ADDRESS :  
 CONTACT PERSON :  
 CONTACT NUMBER :  
 FAX NUMBER :

LINE NO.	DESCRIPTION OR SPECIFICATION OF ITEM (Please be very specific and clear)	REQUIRED QUANTITY	UNIT PRICE EXCL. VAT		TOTAL PRICE	
			R	C	R	C
1.	Supply , deliver and install 10ha irrigation system for Sivelakude Community Garden in uMlalazi King Cetshwayo					
2.						
* LABOUR (IF APPLICABLE)						
*DELIVERY (IF APPLICABLE)						
TOTAL						
*ONLY APPLICABLE TO VAT REGISTERED SUPPLIERS 14% VAT						
TOTAL PRICE						

\*VAT Registration No. (Supplier) -----

When Required (Requester): September 2018  
 Where Required (Requester): Mpumazi under uMlalazi L/M  
 Contact details of requester: S.L. Makhanya  
 TEL : 082 085 2774

**(COMPULSORY)**  
 COMPANY STAMP



PRICES ARE VALID FOR  30  60  90 DAYS

Mark one Box (X)

SIGNATURE .....

DATE .....



**ANNEXURE B**

Previous/Current Experience (Documents and/or an extended list may be attached for further details)

Client Name	Project Description	Contract Value	Role (Self or Sub Contracted)	Contact (Work / Cell Number)
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
<b>TOTAL VALUE (Past 5 years)</b>				
<b>Signed on behalf of bidder:</b>			<b>Date:</b>	



agriculture  
& rural development  
Department:  
agriculture  
& rural development  
PROVINCE OF KWAZULU-NATAL

## **BID DOCUMENT FOR THE INSTALLATION OF PIPE LINES, VALVES, PUMP HOUSE, PUMP AND ENGINE NEAR ESHOWE**

**PROJECT NAME: SIVELAKUDE IRRIGATION SCHEME**

### **PROJECT DESCRIPTION**

The contract covers the supply of all irrigation material including piping, fittings, and pump/motor combination, the construction of a pump house and full installation of irrigation system for this project. The supply and installation of fencing of the scheme are **not** required for this contract.

### **PROJECT LOCATION**

District: **KINGCETSHWAYO (KCDM)**

Local Municipality: **UMLALAZI LM (ESHOWE)**

SIVELAKUDE Irrigation Scheme is approximately 30kms South West of ESHOWE at King Cetshwayo District Municipality. The site co-ordinates are:

### **DOCUMENT DATA (FOR INTERNAL USE ONLY)**

1) Name of official responsible for attaching this bid document to the request memo:

**TK ONKAY**

2) Designation of official (post + station): **ENGINEER; VRYHEID OFFICE**

3) Date when bid document was obtained:



4 Origin of bid document. *Tick applicable box*

- (a) copied from original at Hilton head office
- (b) sent electronically from Head office and printed out (provide sender's name)  
 .....
- (c) sent electronically by an Engineering colleague not from Hilton (provide name)  
 .....
- (d) copy of a hard copy
- (e) Other **Original Document**

**DISCLAIMER**

- If the contractor has the impression that the information provided in the drawing(s) and the technical specifications/Schedule of quantities contradict each other or are perceived to be ambiguous, (s)he should point this out to the Engineer and ask for clarification at an early stage, but not later than before the commencement of any construction. The same applies for purported differences between the technical specifications and schedule of quantities.*
- The Engineering Services Directorate (ESD) takes no responsibility for an implemented project on the basis of this document alone without any prior involvement of ESD before (partial) completion.*  
*This involvement consists of, but is not necessarily restricted to:*
  - Signing off of the bid/quote document and Drawings by ESD;*
  - Presence of ESD at the handover of the site to the contractor and at the commencement of the work. The contractor is to make sure that ESD is informed of his/her intention to commence the work so that ESD presence can be assured.*
  - Regular site inspections by ESD and the processing of invoices on the basis of achieved progress.*
- District managers and other departmental end users are therefore required to involve ESD at the earliest possible stage, i.e. during PPC meetings or before submission of the request memo is submitted.*

*This document contains:*

<b>No.</b>	<b>Section</b>	<b>Page(s)</b>	<b>Action</b>
1	Cover Page	1	Read
2	Table of Contents/Disclaimer	2	
3	A) Project Particulars	3	Read
4	B) General Conditions of Contract	3-11	Read
5	C) Project Technical Specifications	12 - 17	Read



6	<i>Project Particular Specifications</i>	18	<i>Read</i>
7	<i>ANNEXURE A: Schedule of quantities</i>	19 - 24	<i>Read</i>
8	<i>ANNEXURE C: Additional Information</i>	27-28	<i>Complete</i>
9	<i>ANNEXURE D: Bid Evaluation Criteria</i>	29-30	<i>Read</i>

## 1. PROJECT PARTICULARS

### 1.1 Project Description/Background

Sivelakude Irrigation Scheme is an existing 10ha irrigation scheme which will focus on the production of vegetables and green mealies. The farm is run by non registered co-operative and by community of Empumazi Area. The farmers wish to plant cabbages, spinach, potatoes, and green mealies under irrigation. The farmers requested the Department of Agriculture to assist with the following:-

- Completing the scheme: installing main lines and valves.
- The supply and delivery of a complete portable pumps with all required fittings and materials.

### 1.2 Scope

The contract covers the supply of all materials and fittings, and the execution of all works relating to the irrigation project. The work required involves but not limited to:-

- The setting out and site establishment.
- The supply and installation pipe lines and valves.
- The supply and delivery of pump and engine
- Construction of a pump house.
- The testing of the pump and irrigation system prior to commissioning.

## 2. PROJECT TECHNICAL SPECIFICATIONS

In general, the Specifications published by the South African Bureau of Standards (SABS/SANS), series 1200 (Standardised Specifications for Civil Engineering Construction) shall apply.

The following specifications are applicable to this contract:-

- SABS 1200 A: General
- SABS 1200 C: Site Clearance
- SABS 1200 D: Earthworks
- SABS 1200 GA: Concrete (Small Works)



## SABS 1200 L: Medium Pressure Pipelines

In addition, the following Occupational Health and Safety Regulations (No 85 of 1993) are applicable:-

- General Safety Regulations
- Environmental regulations for workplaces
- Facilities regulations

### 2.1 Preliminaries and General

The contractor is to note that all insurances (UIF, workman's compensation, works, public liability etc.); site and equipment safety; site establishment and security; services (water and electricity); testing of materials and any specialist services are for the contractors responsibility and attention throughout the contract duration until handover of the project. Please also refer to general conditions of contract. The Department reserves the right to stop progress of the works until these conditions are complied with.

### 2.2 Earthworks and Site Preparations

Normal regulations regarding safety, municipal by-laws, contamination of water sources, erosion, siltation etc. will still apply.

- Site preparations & establishment: SABS 1200 AA (4).
- Setting out of works: SABS 1200 AA (5.1.1)
- Permissible deviations: SABS 1200 GA (6.4) Degree of accuracy II for all bases.
  - The site must be cleared and stripped of all plant materials, roots and topsoil.
  - The cleared and stripped material is to be stockpiled away from the construction site and is to be levelled/replaced once all construction is complete.
  - The site is to be levelled prior to any construction. This includes excavation of in situ material to provide the pit.
  - Materials excavated and suitable for backfilling will be placed in even, thin layers and compacted with thickness applicable to the compaction method/machinery used but not exceeding 150mm.

### 2.3 Materials and Constructions

- UPVC pipes and fitting shall be fitted with spigot and socket rubber ring joints and shall comply with requirement of SABS 966.
- All materials must conform to SABS specifications for the products. This includes all items such as pipes, valves, flanges and accessories etc.
- Test pressure shall be performed as stipulated in SABS for test pressure.
- All construction works must conform to the applicable standard specifications and installation requirements as per NBR requirements and manufacturers recommendations.
- All concrete works to conform to Cement & Concrete Institute Standards and Recommendations.

### 2.4 Standard Concrete Mixes:

- Mixing, pouring and curing of concrete: SABS 1200 GA (5.4)
- Materials: SABS 1200 AA (3); SABS 1200 GA (3)
- Cement: Commencement 32,5N or R to SANS 50197-1
- Testing: SABS 1200 AA (7); SABS 1200 GA (7)



- Quality control through the slump test SABS 1200 GA (5.4.1.2) SABS method 862. The contractor is to supply the slump testing equipment.
- Tolerances to SABS 1200 GA (6.4)
- Formwork: Refer to SABS 1200 GA (4.4; 5.2)
- Reinforcing: SABS 1200 GA (5.1)
- Refer to standard concrete mixes specification.

### Standard concrete mixes

Concrete for non-structural purposes shall be "Prescribed mix concrete" produced in accordance with the requirements indicated in table 5.1, and the Contractor is also referred to the foregoing preambles insofar as they apply: -

Class of Concrete	Estimated Minimum Compressive Strength in MPA at 28 Days	Maximum Nominal Size of Coarse Aggregate in mm	Proportion of Constituents		
			Cement (Parts)	Fine Aggregate (Parts)	Coarse Aggregate (Parts)
A	10	37,5	1	4	5
B	15	19,0	1	3	4
C	20	19,0	1	2½	3½
D	25	19,0	1	2	3
E	30	19,0	1	2	2½

Cement and aggregates shall be mixed by volume and the contents of a 50kg sack of cement shall be taken to be 0,033m<sup>3</sup>. Water addition should be kept to a minimum. Only sufficient water should be used to produce a workable mix of 60-100mm slump. A recommended maximum water: cement ratio is 1 for a 10MPa; 0.8 for a 15MPa; 0.65 for a 20MPa; 0.59 for a 25MPa; 0.53 for a 30MPa mix, however the lower the ratio the better the durability of the concrete. Approximately 210 litres per m<sup>3</sup> of concrete is required for an average quality sand and optimum quantity 19mm stone.

MORTAR CLASS	MIX RATIO: (By Volume)	MASONRY CEMENT: kg	LIME: L	SAND: (loose and damp) L (max)
I	1 : 4	50	0-10	130
II	1 : 6	50	0-40	200
PLASTER CLASS	MIX RATIO: (By Volume)	MASONRY CEMENT: kg	LIME: L	SAND: (loose and damp) L (max)
Rich mix (foundations, wet areas)	1 : 4	50	0-10	130
General purpose	1 : 5	50	0-40	165

### 2.5 Safety

- One 5kg ozone friendly fire extinguisher and 1 fully fitted 1st aid box is to be provided in the facility.





- All safety equipment required to construct the facility are for the contractor's responsibility and provisioning. Examples include: safety and protective clothing; sound scaffolding; false work and bracing; ladders etc... all equipment, tools and safety equipment are to be in a safe operating condition and must be used by the workers where appropriate.
- Refer to general conditions for site safety. Site operations and conditions requiring special attention include but are not limited to:
  - Equipment, machinery, tools: (stationary or mobile) such as vehicles, generators, pumps, drills, augers, picks, spades, hand tools, ladders, scaffolding to be in a safe operating condition and are to be used in a safe and responsible manner. The contractor is responsible for all such monitoring and control of site operations and equipment throughout the works for the entire contract duration.
  - Lifting and lowering of materials or personnel in any way whatsoever.
  - Personnel access and operations at raised levels or on raised platforms or scaffolding.
  - Excavation works and holes are to be clearly indicated to prevent injury to personnel.
  - Potential ingress of water on/through the site.
  - Potentially hazardous services may be present on site such as water and sewerage mains, electricity cables etc.
  - Chemical transport, storage and usage whatsoever – this includes chemical contact through equipment use such as fuels and oils; materials such as creosote, paints, solvents, cement, concrete.
  - Safety equipment: Safety and protective clothing, gloves, goggles, masks, hard hats, boots, harnesses etc.
  - A first aid box is to be provided and available at all times on site during working hours and is to comply with the requirements of the Occupational Health and Safety Act.
  - Additional risks associated with specific methods of construction selected by the contractor which are not necessarily covered in the above.

## **2.6 Flanges and Accessories**

Flanges shall comply with the requirements of SABS 1123 latest edition. Flanges designed for rated working pressures of less than 1600kPa shall have flat flange faces and those for equal or greater working pressures raised flange faces.

It shall be the responsibility of the Contractor to ensure that the flanges on pumps, valves, fittings, specials and pipes, which shall be fitted together, are fully compatible. The flanges shall be drilled to the relevant table or to match existing flange drillings if applicable.

Before the machined surfaces have become affected by rust, they shall be coated with a mixture of white lead and tallow or other approved protective composition.

## **2.7 Flange Jointing Material**

All flanged jointing material shall be approved by the Engineer before erection is commenced. Insertions for flat flange faces shall be of the full flange diameter encompassing the bolts. Insertion for raised flanges shall fit neatly inside the bolt rights.

All packing must be cut from rubber insertions (for pipe diameters 300 mm and smaller) with a nominal thickness of 3,2mm according to SABS 564-1973. The inside and outside diameters should be according to SABS 1123-1977. For pipe diameters exceeding 300 mm Klingerrite gaskets should be used to the applicable specifications.



## 2.8 Bolts and Nuts

All nuts, bolts, studs and washers shall comply with SABS 135:1985 and shall be hot dipped galvanised according to ISO 1461.

No bolts or studs of less than the size indicated on the drawings shall be used. The length of each bolt shall be such that after tightening between one thread and one diameter in length projects through the nut and at least one full thread in addition to the thread run-out remains clear between the nut and the unthreaded shank. The threaded portion of bolts shall be clear of the shear plane. All nuts and studs shall be locked in position by lock-washers and where necessary, locknuts. High tensile bolts and nuts should be used to couple the flexible hoses to limit the rust-effect on these very important elements when the pump units have to be moved.

## 2.9 Gate Valves and Scour Valves

Resilient seal gate valves (RSV) shall be similar to VOSA configuration and shall comply with SABS 664 (latest amendment) with classes and flanged drillings as scheduled in the bill of quantities. Where plain-ended valves are required, the ends shall be suitable for the type of pipe specified. The valves shall be designed for drop tight closure over the full range of pressures from zero to maximum working pressure.

The valves shall be provided with a straight unobstructed body passage without pockets. The spindle seat shall consist of 2 nitrile rubber O-rings located in a corrosion resistant housing. A wiper ring shall also be provided. The gates shall be completely rubber covered. The gate guides shall be of the tongue and groove type. Spindles shall be manufactured on solid stainless steel and shall be of non-rising type. The body of the valve shall be coated to a minimum DFT of 250 microns.

Extension spindles and brackets shall be provided where detailed and hand-wheels shall be clearly marked with the direction of opening. All valves shall be clockwise opening/closing. Gearing shall be chosen to limit the total effort at the hand-wheel or valve key to 350 Newton's.

## 2.10 Butterfly Valves

All butterfly valves shall be similar to AMRI configuration and must be provided with a gearbox and hand-wheel mechanism unless otherwise detailed and it must be possible to install the unit between flanges drilled according to SABS specifications. Valves are to have a stainless steel stem and are to incorporate a resilient disc seal mechanically retained around the periphery of the valve disc. Working pressure required is 1000kPa, or as detailed in the Schedule of Quantities and/or the drawings.

## 2.11 Non Return Valves

All wafer type non return valves may have a cast iron body, but stainless steel plates having machined sealing faces, 316 stainless steel pin and springs, nitrile seat and Teflon or similar bearing washers.

## 2.12 Pressure Gauges

Pressure gauges shall comply with BS 1780 or equivalent for Industrial Gauges shall be calibrated in kilopascals and shall be not less than 100 mm diameter. Full-scale reading shall be between 1.5 and 2 times the maximum actual operating pressure except where otherwise specified.



All gauges shall be suitable for continuous operation and shall be liquid filled where fluctuations in pressure may cause damage.

Where blockages of the gauge are possible, diaphragm seals with large bases and a facility for cleaning shall be provided. This shall apply in all cases where liquids bearing solids or sludge are handled.

Gauges shall not be mounted directly on equipment subject to variation. For dry locations indoors, the casing may be plastic or epoxy coated aluminium. For damp indoor locations, particularly in any location where sewage is flowing, and for all locations outdoors, the gauges shall be weatherproof and have AISI 316 stainless steel cases.

Isolating and bleed cocks shall be provided for each pressure gauge, except on installations for hazardous fluids.

## 2.13 Pumps and Motors

### o Guarantee

All pumps and motors must carry a guarantee of twelve months. The pump and motor must be capable of reaching the required pressure. The pump must be free of any defects pointed out by the engineer or client.

### o General

- Pumps to be provided shall include power rating, rotational speed/rpm and efficiency.
- Pumps shall be silent and vibration free during operation.
- No pump shall be started before installation of strainers.
- Pumps shall be provided with adequate protection over inlet and outlet flanges before being delivered to site. Protection covers shall be able to withstand normal handling during construction.
- Pumps shall be suitable for the fluids and fluid temperature that they handle, and shall be selected accordingly. See pump data forms in this regard.
- Manual vent valves shall be provided at high points on the pump casings. For applications with temperatures above boiling point, the vent must be piped to a safe drain point.
- Drain plugs shall be provided at low points on the pump casings.

### o Couplings, Base Plate and Alignment

- The power source and pump must be connected by means of a coupling which can transmit the full power supply of the power source, whether or not a spacer is used, or as specified in the Bill of Quantities. All couplings should be safeguarded to prevent to prevent injury to operators.
- Pumps shall be complete with flexible drive couplings to allow for angular and axial misalignment where applicable.
- The pump and power source must be mounted together on a base plate and the required tolerances:
  - Maximum permissible axial alignment error – 0.03mm
  - Maximum permissible radial alignment error – 0.05mm
- After installation and before commissioning the alignment must again be checked and adjusted with shims.
- Pumps shall be aligned by a representative of the pump supplier but the contractor still remains solely responsible for the guarantee period.
- The tolerances of measurements of the base plate, as indicated by the tenderer in the tender document, must be approximately 2mm.



- Pump drives shall be suitably protected by a securely mounted sheet metal guard and comply with Machinery and Occupational Safety Act (Act 611983).
- Each flexibly coupled pump shall be provided with a cast iron or fabricated steel base plate of ample size to hold both pump and motor in correct alignment. The pump and motor shall be accurately aligned when running at normal temperature. Dowel pins shall be fitted to base plates after alignment.
- Couplings shall be selected to match at least the power of the electric motor and shall not impose any restriction on the normal expansion and tolerances.

○ **Pump Installation**

All pumps are to be installed in accordance with the Manufacturers specifications. The rate for installation and commissioning of pumps must include for all nuts, bolts, base plates or straps that are required for their fixing, according to the Manufacturers specifications.

○ **Standard Specifications**

The workmanship must be of the highest standard throughout and be done according to the most modern practices. All inferior work will be replaced or rectified, as soon as it is pointed out by the engineer, at the cost of the contract.

○ **Inlet and Outlet Adapters**

These form part of the selection of the tender with the necessary nuts, bolts and gaskets for coupling to the pump, and flanged to fit the large end of the steel piping. Suction reducers should be eccentric and conform to a length equals to  $5(D1 - D2)$ .

○ **Safety Precautions**

All necessary safety covers must be supplied to ensure total protection of the operator.

○ **Commissioning**

Should any defects in the equipment become apparent during commissioning or during maintenance accounting; it will be the suppliers' responsibility to replace such faulty equipment.

○ **Operation and Maintenance Manuals**

5 sets of documents are to be provided that include the following:

- Operational philosophy
- Design data where applicable
- Pump and motor data forms and curves
- All technical data and information sheets for equipment and materials
- Detailed layout drawings (in hard copy and electronic (DWG or kcd))



### 3. PROJECT PARTICULAR SPECIFICATIONS (PPS)

A new dragline irrigation system together with a pump station shall be installed for the application of water for vegetables. In addition to the standard specifications, the following project particular specifications are applicable to the specified operations.

#### PPS1 Irrigation System

The following information pertain to the irrigation system:-

- Nett irrigation area - approximately 10ha hectares.
- Type of irrigation system - dragline system.
- Design system efficiency - 80%
- Available working days per week - 5 days
- Available irrigation hours per day - 10 hours
- Nett irrigation requirement - 6 mm/day
- Pipes to be used shall be Steel (bends), uPVC & HDPE. The mainline should be buried at a minimum depth of 900mm to the crown of the pipe and laterals to be buried at 600mm to the crown of the pipe.

#### PPS2 Pumps station

Pump station to include construction of 3.2m X 3.2m pump house and the manufacturing, supplying, delivery to site, installation and commissioning of the following equipment's:

- One KSB or equivalent centrifugal pumps to discharge 70m<sup>3</sup> at P= 66m duty point.
- The above units to be mounted on a suitable frames and base plate
- Associated pipework with necessary fittings and valves. These to be primed and painted with two coats of Copon.
- Pressure gauges with complete associated fittings.
- Valves which include: control valves, Foot valve and non-return valves.
- Install 20mm pipe between the non-return valve and the pumps to prime pump.

#### PPS 3 Air Valves (Double purpose air valves)

Double purpose air release and vacuum break valves shall be ARI type as specified or similar approved. Double purpose air valves shall be able to release appropriate volumes of air (for instance during the pumping process) and let appropriate volumes of air into the system when needed.



**ANNEXURE-A BILL OF QUANTITIES**

**ANNEXURE-A SIVELAKUDE SCHEDULE OF QUANTITIES**

**SCHEDULE 1 : SITE CLEARANCE, EXCAVATION AND BACKFILLING**

ITEM No.	DESCRIPTION	UNIT	QTY	RATE (R)	AMOUNT (R)
1.1	<b>EXCAVATION AND BACKFILLING</b>				
	Contractor to grade trench as such that no local high points between Outlets exists, to include in rates. Place soil on trench side. Rates for excavation to exclude back filling, compaction and disposal of surplus material	sum	1		
1.2	Excavation in all materials including intermediates, for trenches				
	a) Up to 0.6m deep for 90-75mm HDPE Main Lines (400mm wide)	m	400		
1.3	<b>PIPE BEDDING AND BLANKET FILL</b>				
	and blanket where required				
	a) Direct from trench excavation- select/sieve	sum	1		
	b) Form borrow pits within 0.5km select/sieve	sum	1		
1.4	<b>Unselected back fill</b>				
	Disposing of unsuitable material and forming of mound higher than NGL				
	a) Direct from trench excavation-remove large stones	sum	1		
	Overhaul of imported material for bedding cradle and blanket fill	sum	1		
<b>TOTAL SCHEDULE 1 CARRIED FORWARD TO SUMMARY</b>					

**SCHEDULE 2 : PIPES AND FITTINGS**

ITEM No.	DESCRIPTION	UNIT	QTY	RATE (R)	AMOUNT (R)
	<u>SUPPLY, DELIVER, BED, LAY, AND TEST HDPE TYPE IV PRESSURE</u>				
	PIPING CONFORMING TO SABS 533				
2.1	<b>PIPE SIZES</b>				



2.1.1	90mm/class 9 uPVC	m	340		
2.1.2	125mm/Class 9 uPVC	m	60		
2.1.3	Extra Fittings, Pipe extensions, to fix broken pipe sections	sum	1		
2.2	<b>REDUCERS</b>				
2.2.1	125 - 90mm Ø	no	4		
2.3	<b>FEMALE ELBOWS WITH STEEL BANDS</b>				
2.3.1	90mm Ø /90° elbow with Steel bands	no	2		
2.3.2	125mm Ø /90° elbow with Steel bands	no	4		
2.4	<b>REDUCING TEE</b>				
2.4.1	125- 90mm Ø	no	1		
2.5	<b>COMPRESSION COUPLER</b>				
2.5.1	90mm Ø compression coupler	No	2		
<b>TOTAL SCHEDULE 2 TO SUMMARY</b>					

SCHEDULE 3 : VALVES AND SPRINKLERS

ITEM No.	DESCRIPTION	UNIT	QTY	RATE (R)	AMOUNT (R)
	SUPPLY, DELIVER, INSTALL AND TEST THE FOLLOWING: ALL PIPES AND FITTINGS TO BE HDG TO SABS 763 MEDIUM DUTY WHERE APPLICABLE AND DRILLED TABLE D OR AS APPLICABLE TO FEED PUMP, VALVES ETC. TO INCLUDE HDG BOLTS AND WASHERS WITH PACKINGS. FLANGES TO BE OF THE SAME DIAMETER				
	FULL BORE, " BALL" TYPE, ISOLATING VALVES, FEMALE TREADED ( "cobra/RSL" or similar approved, with steel lever)				
3.1	90ND Butterfly valve (Control Valve)	no	2		
3.2	125ND Butterfly valve (Control Valve)	No	1		
3.3	Non return valve (125ND)	no	1		
3.4	Foot Valve to be one size bigger than suction pipe (125 Ø)	no	4		
3.5	1" Spring loaded hydromatic valves	No	60		
3.6	20mm Plastic Pipelets	No	50		
3.7	20mm Hose clamps	No	100		



3.8	1m High 20mm Ø galvanized sprinkler stands	No	50		
3.9	VRSA 36 AF sprinklers (3.2bar, 4mm nozzle)	No	50		
3.10	36m long X 20mmØ drag line hose (10 Year warranty)	no	50		
<b>TOTAL SCHEDULE 3 CARRIED TO SUMMARY</b>					

**SCHEDULE 4 : DIESEL PUMP SET And ANCILLARY MATERIALS**

ITEM No.	DESCRIPTION	UNIT	QTY	RATE (R)	AMOUNT (R)
4.1	<b>PUMP AND ENGINE</b>				
4.1.	Compact water pump (pump and engine as one unit) to deliver 70 m <sup>3</sup> /hr. at 66m head. And Pump to include Pressure Gauge	no	4		
4.2	<b>PUMP HOUSE, FITTINGS AND OTHER ACCESSORIES</b>				
4.2.1	Flexible Suction pipes and delivery steel Pipes, Valves, Bends, Flanges etc	Sum	1		
4.2.2	Pump and engine to be mounted on a suitable base plate and frames	sum	1		
4.2.3	Pump house 3,2mx3,2m and Galvanized Steel door with waterproof Padlock, To have enough ventilation and Steel pipes around Pump	sum	1		
4.2.4	100L Galvanized Diesel Tank –Tank to be filled the with diesel & extra 750ml Oil	sum	1		
4.2.5	Training of at least two beneficiaries for two days and testing of the pump and the system including sprinklers	sum	1		
4.2	<b>GENERAL SPECIFICATION</b>				
	<i>Ball valve to be fitted on pump volute for priming purposes</i>				
	All moving parts and possible areas of danger must be adequately shielded.				
	Pump and engine to be fitted with the correct grade oils for the area operating and maintenance manuals of the pump and motor to be supplied,				
	With any special tools for normal maintenance.				
	Drain pipe to be fitted or gland leak water to spill away from base plate				
	Motor and pump to be aliened in the factory to the pump and engine manufacturers specifications				
	Factory NPSH and other duties testing in presence of engineer or witness				
	Engine speed must be adjustable with hand tools				
4.3	<b>ANCILLARY MATERIALS, SERVICES AND EQUIPMENTS</b>	Sum	20000		
4.3.1	Ancillary Mark up	%			
<b>TOTAL SCHEDULE 4 CARRIED FORWARD TO SUMMARY</b>					





**AGRICULTURE AND RURAL DEVELOPMENT.**

ANGO WAKZN: WEZOLIMO NOKUTHUTHUKISWA KOMPHAKATHI WASEMAKHAYA

## DECLARATION OF INTEREST

1. Any legal person, including persons employed by the state\*, or persons having a kinship with persons employed by the state, including a blood relationship, may make an offer or offers in terms of this invitation to bid (includes a price quotation, advertised competitive bid, limited bid or proposal). In view of possible allegations of favouritism, should the resulting bid, or part thereof, be awarded to persons employed by the state, or to persons connected with or related to them, it is required that the bidder or his/her authorised representative declare his/her position in relation to the evaluating/adjudicating authority and/or take an oath declaring his/her interest, where-

- the bidder is employed by the state; and/or
- the legal person on whose behalf the bidding document is signed, has a relationship with persons/a person who are/is involved in the evaluation and or adjudication of the bid(s), or where it is known that such a relationship exists between the person or persons for or on whose behalf the declarant acts and persons who are involved with the evaluation and or adjudication of the bid.

2. **In order to give effect to the above, the following questionnaire must be completed and submitted with the bid.**

2.1 Full Name of bidder or his or her representative: .....

2.2 Identity Number: .....

2.3 Position occupied in the Company (director, shareholder etc): .....

2.4 Company Registration Number: .....

2.5 Tax Reference Number: .....

2.6 VAT Registration Number: .....

\* "State" means –

- (a) any national or provincial department, national or provincial public entity or constitutional institution within the meaning of the Public Finance Management Act, 1999 (Act No. 1 of 1999);
- (b) any municipality or municipal entity;
- (c) provincial legislature;
- (d) national Assembly or the national Council of provinces; or
- (e) Parliament.

2.7 Are you or any person connected with the bidder presently employed by the state? **YES / NO**

2.7.1 If so, furnish the following particulars:

Name of person / director / shareholder/ member: .....  
Name of state institution to which the person is connected: .....  
Position occupied in the state institution: .....

Any other particulars:  
.....  
.....  
.....

2.8 Did you or your spouse, or any of the company's directors / shareholders / members or their spouses conduct business with the state in the previous twelve months? **YES / NO**

2.8.1 If so, furnish particulars:  
.....  
.....  
.....

2.9 Do you, or any person connected with the bidder, have any relationship (family, friend, other) with a person employed by the state and who may be involved with the evaluation and or adjudication of this bid? **YES / NO**

2.9.1 If so, furnish particulars.  
.....  
.....  
.....

2.10 Are you, or any person connected with the bidder, aware of any relationship (family, friend, other) between the bidder and any person employed by the state who may be involved with the evaluation and or adjudication of this bid? **YES / NO**

2.10.1 If so, furnish particulars.  
.....  
.....  
.....

2.11 Do you or any of the directors /shareholders/ members of the company have any interest in any other related companies whether or not they are bidding for this contract? **YES / NO**

2.11.1 If so, furnish particulars:

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

**DECLARATION**

I, THE UNDERSIGNED (NAME).....

CERTIFY THAT THE INFORMATION FURNISHED IN PARAGRAPHS 2.1 TO 2.11.1 ABOVE IS CORRECT.

I ACCEPT THAT THE STATE MAY ACT AGAINST ME IN TERMS OF PARAGRAPH 23 OF THE GENERAL CONDITIONS OF CONTRACT SHOULD THIS DECLARATION PROVE TO BE FALSE.

.....  
Signature

.....  
Date

.....  
Position

.....  
Name of bidder

## CERTIFICATE OF INDEPENDENT BID DETERMINATION

SBD 9

- 1 This Standard Bidding Document (SBD) must form part of all bids<sup>1</sup> invited.
- 2 Section 4 (1) (b) (iii) of the Competition Act No. 89 of 1998, as amended, prohibits an agreement between, or concerted practice by, firms, or a decision by an association of firms, if it is between parties in a horizontal relationship and if it involves collusive bidding (or bid rigging).<sup>2</sup> Collusive bidding is a *pe se* prohibition meaning that it cannot be justified under any grounds.
- 3 Treasury Regulation 16A9 prescribes that accounting officers and accounting authorities must take all reasonable steps to prevent abuse of the supply chain management system and authorizes accounting officers and accounting authorities to:
  - a. disregard the bid of any bidder if that bidder, or any of its directors have abused the institution's supply chain management system and or committed fraud or any other improper conduct in relation to such system.
  - b. cancel a contract awarded to a supplier of goods and services if the supplier committed any corrupt or fraudulent act during the bidding process or the execution of that contract.
- 4 This SBD serves as a certificate of declaration that would be used by institutions to ensure that, when bids are considered, reasonable steps are taken to prevent any form of bid-rigging.
- 5 In order to give effect to the above, the attached Certificate of Bid Determination (SBD 9) must be completed and submitted with the bid:

<sup>1</sup> Includes price quotations, advertised competitive bids, limited bids and proposals.

<sup>2</sup> Bid rigging (or collusive bidding) occurs when businesses, that would otherwise be expected to compete, secretly conspire to raise prices or lower the quality of goods and / or services for purchasers who wish to acquire goods and / or services through a bidding process. Bid rigging is, therefore, an agreement between competitors not to compete.

**CERTIFICATE OF INDEPENDENT BID DETERMINATION**

I, the undersigned, in submitting the accompanying bid:

\_\_\_\_\_

(Bid Number and Description)

in response to the invitation for the bid made by:

\_\_\_\_\_

(Name of Institution)

do hereby make the following statements that I certify to be true and complete in every respect:

I certify, on behalf of: \_\_\_\_\_ that:  
(Name of Bidder)

1. I have read and I understand the contents of this Certificate;
2. I understand that the accompanying bid will be disqualified if this Certificate is found not to be true and complete in every respect;
3. I am authorized by the bidder to sign this Certificate, and to submit the accompanying bid, on behalf of the bidder;
4. Each person whose signature appears on the accompanying bid has been authorized by the bidder to determine the terms of, and to sign the bid, on behalf of the bidder;
5. For the purposes of this Certificate and the accompanying bid, I understand that the word "competitor" shall include any individual or organization, other than the bidder, whether or not affiliated with the bidder, who:
  - (a) has been requested to submit a bid in response to this bid invitation;
  - (b) could potentially submit a bid in response to this bid invitation, based on their qualifications, abilities or experience; and
  - (c) provides the same goods and services as the bidder and/or is in the same line of business as the bidder

6. The bidder has arrived at the accompanying bid independently from, and without consultation, communication, agreement or arrangement with any competitor. However communication between partners in a joint venture or consortium<sup>3</sup> will not be construed as collusive bidding.
7. In particular, without limiting the generality of paragraphs 6 above, there has been no consultation, communication, agreement or arrangement with any competitor regarding:
  - (a) prices;
  - (b) geographical area where product or service will be rendered (market allocation)
  - (c) methods, factors or formulas used to calculate prices;
  - (d) the intention or decision to submit or not to submit, a bid;
  - (e) the submission of a bid which does not meet the specifications and conditions of the bid; or
  - (f) bidding with the intention not to win the bid.
8. In addition, there have been no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications and conditions or delivery particulars of the products or services to which this bid invitation relates.
9. The terms of the accompanying bid have not been, and will not be, disclosed by the bidder, directly or indirectly, to any competitor, prior to the date and time of the official bid opening or of the awarding of the contract.

<sup>3</sup> Joint venture or Consortium means an association of persons for the purpose of combining their expertise, property, capital, efforts, skill and knowledge in an activity for the execution of a contract.

10. I am aware that, in addition and without prejudice to any other remedy provided to combat any restrictive practices related to bids and contracts, bids that are suspicious will be reported to the Competition Commission for investigation and possible imposition of administrative penalties in terms of section 59 of the Competition Act No 89 of 1998 and or may be reported to the National Prosecuting Authority (NPA) for criminal investigation and or may be restricted from conducting business with the public sector for a period not exceeding ten (10) years in terms of the Prevention and Combating of Corrupt Activities Act No 12 of 2004 or any other applicable legislation.

.....  
Signature

.....  
Date

.....  
Position

.....  
Name of Bidder

Js914w 2