



**agriculture
& rural development**

Department:
agriculture
& rural development
PROVINCE OF KWAZULU-NATAL

**KWAZULU-NATAL DEPARTMENT OF AGRICULTURE AND RURAL
DEVELOPMENT**

Quotation No: R/S/2021/229

**Construction of a seedling nursery with irrigation and storage
shed/tank stand for Avumile LandCare Project.**

NAME OF BIDDER: _____

| COMPULSORY SITE BRIEFING DETAILS | |
|---|-----------------------------------|
| DATE | 17 NOVEMBER 2020 |
| MEETING VENUE | BOSTON GARAGE THAN GO TO THE SITE |
| DIRECTIONS | BHEKI MABIKA: 082 091 0245 |
| MEETING TIME | 10:00 |

1. PRE-QUALIFICATION CRITERIA

REQUIREMENT-CIDB Grading: 1SH/GB

Evaluation will be in terms of the 80/20 preference point system

For more information, please contact the following official:

**For: Technical Enquiries:
Mr B. Mabika
082 091 0245**

**For: Quotations/SCM enquiries:
Mr Ntuthuko Hlengwa
033 343 8367**

CLOSING DATE: 26 NOVEMBER 2020

TIME: 11:00 AM



agriculture & rural development

Department:
agriculture
& rural development
PROVINCE OF KWAZULU-NATAL

INVITATION OF QUOTATION ABOVE R30,000.00

THIS FORM SHOULD BE COMPLETED IN DETAIL AND SHOULD BE ACCOMPANIED BY A **VALID TAX COMPLIANCE STATUS PIN AND VALID BBBEE VERIFICATION CERTIFICATE/AFFIDAVIT**

| | |
|--|---|
| QUOTATION NUMBER: R/S/2021/229 | VALIDITY PERIOD OF QUOTATION..... Days (To be completed by the Supplier) |
| CLOSING DATE: 26/11/2020 | CLOSING TIME: 11H00 |
| DESCRIPTION(SPECIFICATION/S) OF ITEMS/ SERVICE REQUIRED: Construction of a seedling nursery with irrigation and storage shed/tank stand for Avumile LandCare Project. | COMPANY NAME: _____ TEL NO: _____ FAX NO: _____ CONTACT PERSON: CSD REG NUMBER MAAA..... |
| 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) |
| DELIVERY PERIOD AFTER INITIAL ORDER? | |
| IS THE PRICE FIRM | |
| WHERE ARE THE STOCK HELD? (PHYSICAL ADDRESS , PLEASE) | |
| QUOTATION PRICE INCLUDING VAT (VAT TO BE ADDED BY REGISTERED VAT VENDORS ONLY) | TOTAL: R |
| COMPANY OFFICIAL STAMP (COMPULSORY) | SIGNATURE OF BIDDER DATE |
| NUMBER OF PAGES FAXED BACK TO THE DEPARTMENT BY THE SUPPLIER |(Supplier to complete) |

NB: QUOTATION FOR THE ATTENTION OF: Ntuthuko Hlengwa@033 343 8367

NB:

THE ATTACHED SBD4 & SBD9 FORMS MUST BE COMPLETED IN FULL.

THIS REQUEST FOR QUOTATION (RFQ) MUST BE COMPLETED AND RETURNED WITH ALL YOUR QUOTATION DOCUMENTS.

**THE DEPARTMENT OF AGRICULTURE & RURAL DEVELOPMENT: No 4 PIN OAK AVENUE,
HILTON QUARRY, HILTON.**

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

SITE BRIEFING IS COMPULSORY

| 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. | See attached detailed specification document for the purpose of quoting-pricing should be done on the pricing schedule - Pages 35-39 of the specification document and total carried forward to this page. | | | | | |
| * LABOUR (IF APPLICABLE) | | | | | | |
| *DELIVERY (IF APPLICABLE) | | | | | | |
| TOTAL | | | | | | |
| *ONLY APPLICABLE TO VAT REGISTERED SUPPLIERS 15% VAT | | | | | | |
| TOTAL PRICE | | | | | | |

*VAT Registration No. (Supplier)

When Required (Requester) : 31 July 2020

Where Required (Requester): Project site at Impendla – Umgungundlovu District. Avumile Project - 30 km single trip from Impendla town.

Contact details of requester: Thamoney Naidoo – 082 413 2591. For info on specification Mr Robert de Neef – Engineer – 082 959 0364

COMPANY STAMP

PRICES ARE VALID FOR

Mark one Box (X)

30

60

90

DAYS

SIGNATURE

DATE

**APPOINTMENT OF A SERVICE PROVIDER FOR THE CONSTRUCTION OF A SEEDLING NURSERY WITH IRRIGATION AND STORAGE SHED/TANK STAND FOR AVUMILE COOP AT IMPENDLE LOCAL MUNICIPALITY, UMGUNGUNDLOVU DISTRICT MUNICIPALITY****DISCLAIMER****[1] COMPLETENESS OF THE DOCUMENT**

The information regarding subsurface conditions, materials on site and site information supplied, is provided in good faith for the contractor's convenience as an indication of conditions likely to be encountered. No responsibility will be accepted for, and there is no guarantee of the information being representative of the whole area of the works or materials. The information provided will not be regarded as in any way limiting the Contractor's responsibilities. He/ She will be held to have satisfied himself of all conditions to be encountered on site and to allow accordingly in his tendered rates.

[2] APPLICABLE STANDARDS

The South African Bureau of Standards, Standard Specifications for Civil Engineering Construction (SABS 1200) shall apply to this Contract together with additional amendments as set out herein. The Contractor shall have available for reference on site at all times a full set of the above specifications, together with any other to which they refer. These specifications shall remain the property of the Contractor but shall be made available to the Engineer whenever required throughout the duration of the Contract.

[3] CONTRACT DOCUMENTS

This document must be read in conjunction with Drawings 1, 2 & 3 (See Table of Contents). 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 BoQ/ Pricing Schedule/ Schedule of quantities.

[4] INVOLVEMENT OF ENGINEERING STAFF

The Engineering Services Directorate (ESD) takes no responsibility for nurseries built 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:

- a. Signing off of the bid/quote document and Drawings by ESD;
- b. 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.
- c. Supply to the contractor by ESD of A1 (shed) and A3 (steel portal and latrine) size plans. The drawings supplied with this document are for quoting/bidding purposes only and no construction should take place before the contractor has received the bigger sized building plans.
- d. 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.

**APPOINTMENT OF A SERVICE PROVIDER FOR THE CONSTRUCTION OF A SEEDLING NURSERY WITH IRRIGATION AND STORAGE SHED/TANK STAND FOR AVUMILE COOP AT IMPENDLE LOCAL MUNICIPALITY, UMGUNGUNDLOVU DISTRICT MUNICIPALITY****A | TERMS OF REFERENCE****1. BACKGROUND**

- 1.1. Achieving and maintaining high levels of growth in the agricultural sector is a key national policy objective that holds a high priority in the programmes of the KwaZulu-Natal Department of Agriculture and Rural Development (herein after referred to as Department). The Department endeavours to contribute to economic growth within the agricultural sector and in the process promote commercialization in the smallholder farm sector, increase opportunities for skilled and relatively unskilled employment, and increase food security.
- 1.2. The LandCare Programme is one of the programmes in this regards that the Department implements. It is aimed at halting the degradation of natural agricultural resources in the Province, through promoting community based sustainable use and management of agricultural resources. The "LandCare" approach needs to add value to the current conservation systems in the different areas by focusing and prioritizing areas where Departmental programmes are being implemented. The Department has therefore prioritized the need to assist resource-poor communities, in this case via the construction of a seedling nursery.

2. OBJECTIVES

- 2.1. To appoint a suitably qualified Service Provider for the construction of a **seedling nursery**, with ancillary works and supplies.
- 2.2. To ensure the timely realization of a cost effective, well-built seedling nursery and ancillary works of good quality to resource-poor and emerging farmers.

3. SCOPE OF SERVICES

- 3.1. The project covers:
 - 3.1.1. Erection of a 25 x 16m shadecloth nursery
 - 3.1.2. Supply and installation of a converted shipping container as a storage facility
 - 3.1.3. Installation water supply to the nursery, including a water tank on stand and valve boxes
 - 3.1.4. Installation of irrigation and storage and mixing tanks
 - 3.1.5. Supply of consumables.
- 3.2. Documents to accompany this bid specification are listed in the Table of Contents.

4. PROJECT LOCATION

- 4.1. The site is situated in Impendle Local Municipality] in the Umgungundlovu District Municipality, [distance] km N/S/W/E of [name nearest town].
- 4.2. Site Coordinates: ...° ...' ..."S & ...° ...' ..."E

**B | SPECIAL TERMS & CONDITIONS****APPOINTMENT OF A SERVICE PROVIDER FOR THE CONSTRUCTION OF A SEEDLING NURSERY WITH IRRIGATION AND STORAGE SHED/TANK STAND FOR AVUMILE COOP AT IMPENDLE LOCAL MUNICIPALITY, UMGUNGUNDLOVU DISTRICT MUNICIPALITY****1. INTRODUCTION**

- 1.1 Bidders must ensure that they are fully aware of all the Terms and Conditions contained in this bid document. Only bidders that fully meet the prequalification shall be considered.
- 1.2 The Bidder is required to check the number of consecutively numbered pages. Should any found to be missing or in duplicate, or the text of figures indistinct, or should there be any doubt or obscurity as to the meaning of any part of these documents, the Bidder must ascertain the true meaning or intent of the same prior to the submission of his/her Bid. No claims arising from any incorrect interpretation will be admitted.

2. ACCEPTANCE OF BID

- 2.1 The Departmental Bid Adjudication Committee is under no obligation to accept any bid.

3. AMENDMENT OF CONTRACT

- 3.1 Any amendment to or renunciation of the provisions of the contract shall at all times be done in writing and shall be signed by both parties, subject to the Departmental Bid Adjudication Committee approval.

4. AWARD

- 4.1 Bidders who meet the prequalification shall be scored on functionality and only bidders with a minimum score of 70 shall be evaluated on price and preference points.

5. BASIS OF QUANTITIES

- 5.1 Quantities are as reflected on the Bill of Quantities.

6. BBBEE CERTIFICATE

- 6.1 A bidder claiming BBBEE points must submit a valid BBBEE certificate or a sworn affidavit together with the bid.

7. CHANGE OF ADDRESS

- 7.1 Bidders must advise the Departmental Supply Chain Management, Contract Administration should their ownership or address (*domicilium citandi et executandi*) details change from the time of bidding to the expiry of the contract.

8. COMPETENCY OF THE SERVICE PROVIDER

- 8.1. It is estimated that tenderers should have a CIDB contractor grading designation of 1SH or 1GB or higher. Potentially emerging enterprises who satisfy criteria stated in the Tender Data may submit tender offers". The contractor is to submit evidence of his/her OWN **Active** registration.
- 8.2. For evaluation processes, the Department shall apply the evaluation criteria as outlined in the Bid Evaluation Criteria of this bid.
- 8.3. It shall be vital for the appointed supplier to have sufficient financial resources and capacity to finance and execute as per terms and conditions of the contract.



9. COMPULSORY SITE BRIEFING

- 9.1 A compulsory site-briefing meeting will be held with prospective Bidders. Attendance at the meeting will be compulsory and non-attendance shall invalidate any bid. The date and time of the meeting will be published in the Bid Advertisement or, in the case of a quote, be communicated when the prospective service provider is invited to quote.

10. COUNTER OFFERS

- 10.1 Counter offers shall not be considered.

11. DELIVERY CONDITIONS

- 11.1 Delivery of services must be made in accordance with the instructions appearing on the official purchase order.
- 11.2 All deliveries or dispatches must be accompanied by a delivery note stating the official purchase order number against the delivery that has been affected.
- 11.3 In respect of items awarded to them, contractors must adhere strictly to the delivery periods stipulated by them in their bid document.
- 11.4 The instructions appearing on the official purchase order form regarding the supply, dispatch and submission of invoices must be strictly adhered to.
- 11.5 All invoices submitted must be original.
- 11.6 Deliveries not complying with the order form shall be returned to the contractor at the contractor's expense.
- 11.7 No locally manufactured product may be substituted during the contract period with an imported product, and vice versa, without prior approval of the Departmental Bid Adjudication Committee.

12. DETAILS OF CONSTRUCTION CONTRACTS AWARDED TO THE BIDDER PAST/CURRENT (ANNEXURE C3)

- 12.1 The bidder must furnish the following details of all verifiable past and current construction contracts.
- 12.1.1. Date of commencement of contract/s;
 - 12.1.2. Value per contract; and
 - 12.1.3. Contract details; that is, with whom held, phone number and Address/s of the companies.

13. ENTERING OF DEPARTMENTAL PREMISES

- 13.1 No representative from a company shall be permitted to enter Departmental premises, buildings or containers where stores are kept unless he/ she is accompanied by the responsible official in charge of stores.

14. EQUAL BIDS

- 14.1 If two or more bidders score an equal total number of points, the contract must be awarded to the bidder that scored the highest points for BBEE.
- 14.2 If functionality is part of the evaluation process and two or more bidders score equal total points and equal preference points for BBEE, the contract must be awarded to the bidder that scored the highest points for functionality.
- 14.3 If two or more bidders score equal total points in all respects, the award shall be decided by the drawing of lots.



15. INVOICES

- 15.1 All invoices submitted by the Contractor must be Tax Invoices accompanied by payment certificates, indicating the work done, the amount of tax charged and the total invoice amount.
- 15.2 A tax invoice shall be in the currency of the Republic of South Africa and shall contain the following particulars:
- 15.1.1. The name, address and registration number of the supplier;
 - 15.1.2. The name and address of the recipient;
 - 15.1.3. An individual serialized number and the date upon which the tax invoice is issued;
 - 15.1.4. A description of the goods or services supplied;
 - 15.1.5. The payment certificate;
 - 15.1.6. The value of the payment certificate amount, the amount of tax charged and the description of the works completed;

16. IRREGULARITIES

- 16.1 Companies are encouraged to advise the Department timeously of any possible irregularities which might come to their notice in connection with this or other contracts.

17. JOINT VENTURES

- 17.1 In terms of the Preferential Procurement Regulations, 2017 pertaining to the Preferential Procurement Policy Framework Act 5 of 2000, a trust, consortium or joint venture must submit a consolidated BBBEE Status Level Verification Certificate for every separate bid.
- 17.2 Should this bid be submitted by a joint venture, the joint venture agreement must accompany the bid document before the closing date and time of bid. The joint venture agreement must clearly specify the percentage of the contract to be undertaken by each company participating therein.
- 17.3 The non-submission of a BBBEE Certificate by a trust, consortium or joint venture shall result in zero (0) preference points being allocated for evaluation purposes.
- 17.4 Each party to a Joint Venture/ Consortium must submit an original valid Tax Clearance Certificate together with the bid before the closing date and time of bid.
- 17.5 The joint venture or consortium must submit a formal agreement that outlines the roles and responsibilities of each member of the joint venture or consortium, nomination of an authorised person to represent the joint venture or consortium in all matters relating to this bid and the details of the bank account for payments to be effected.
- 17.6 The joint venture or consortium must comply with Central Suppliers Database (CSD) registration requirements as per National Treasury directive.

18. LATE BIDS

- 18.1 Bids are late if they are received at the address indicated in the bid documents after the closing date and time.
- 18.2 A late bid shall not be considered and, where practical, shall be returned unopened to the Bidder, accompanied by an explanation.

19. NOTIFICATION OF AWARD OF BID

- 19.1. The successful bidder shall be notified via an advert in the same media as the invitation to tender.

20. PAYMENT FOR SUPPLIES AND SERVICES

- 20.1 A contractor shall be paid by the Department in accordance with the services rendered as per the payment certificate.
- 20.2 There will be no payment for materials or equipment delivered to site, unless they have been installed or otherwise used in the construction process.



- 20.3 Should a contractor indicate a special discount on his/her account provided payment is made within a certain time, the Department shall make every effort to take advantage of such discount.
- 20.4 Any query concerning the non-payment of accounts must be directed to the Department. The following protocol shall apply if accounts are queried:
- 20.3.1 Contact must be made with the officer-in-charge of the District Office;
- 20.3.2 If there is no response from the District Office, the Director: Finance must be contacted;
- 20.5 Information as contained on the Central Suppliers Database must be valid/correct. Non-compliance with Tax Requirements shall affect payment.

21. PERIOD OF CONTRACT

- 21.1 The contract is ad hoc / once off.
For the completion period, see Clause 59 *Period of Completion & Rate of Progress*.

22. PRE-QUALIFICATION CRITERIA

- 22.1 Only bidders who meet both of the following prequalification criteria may respond:-
- 22.1.1. **BBBEE level 1 (as per the provisions of section 4(1)(a) of the PPPFA Regulations, 2017); and**
- 22.1.2. **EME (as per the provisions of section 4(1)(b) of the PPPFA Regulations, 2017)**
- 22.2 Bidders must submit documentary proof of compliance with the above prequalification criteria.
- 22.3 Bidders who fail to comply with the above-stipulated prequalification criteria or fail to submit documentary proof of the compliance with the prequalification criteria shall not be considered for this bid.

23. QUALITY CONTROL/ TESTING OF PRODUCTS

- 23.1 The Department reserves the right to inspect and verify the quality and specifications of the supplied materials and equipment, as well as other items listed on the Bill of Quantities, **before** construction and/or installation. In case of deviations in terms of dimensions, strength, numbers or otherwise, the Contractor shall replace these goods for the correct ones at his/her own expense.
- 23.2 The same replacement obligation to the Contractor would apply during installation and during and after commissioning.
- 23.3 In the case of sustained or repeated non-adherence to the specifications of the materials and/or equipment, as well as in the case of general negligence during the implementation process, the contract may be cancelled. The Department will in such cases seek compensation from the contractor for the estimated costs for completion.
- 23.4 In cases of deliberate negligence or unwillingness to adhere to the Departmental specifications, the Service provider will be reported to the Provincial and/or National Treasury for listing on the Restricted section of the Central Suppliers database.

24. ORDER OF PRECEDENCE

- 24.1 This invitation to bid/quote is issued in accordance with the provisions of the Public Finance Management Act (PFMA), Chapter 16 A of the *Treasury Regulations* and shall be subject to the provisions of the *National Treasury Government Procurement General Conditions of Contract* (July 2010). The *Special Terms and Conditions* are supplementary to that of the *General Conditions of Contract*. Where, however, the *Special Terms and Conditions* are in conflict with the *General Conditions of Contract*, the *Special Terms and Conditions* shall prevail.



25. SUPPLIERS DATABASE REGISTRATION

- 25.1 A bidder submitting an offer must be registered on the Central Suppliers Database at National Treasury. A bidder who has submitted an offer and is not registered on the Central Suppliers Database shall not be considered at the time of award. No pending registrations shall be considered.
- 25.2 A Joint Venture/Consortium must be registered on the Central Suppliers Database at the time of submitting the bid. **NB: If a bidder is found to be employed by the State and is on the Central Suppliers database, the bidder shall be disqualified.**

26. TAX AND DUTIES

- 26.1 During quotation stage, prices offered and paid must include all customs, excise and import duties, and any other tariffs or taxes levied by the government or statutory body having jurisdiction on the goods provided under this contract, including Value Added Tax (applicable at the current rate).

27. TAX COMPLIANCE PIN

- 27.1 The bidder must submit a valid Tax Compliance Pin with the bid. Bidders should note that their tax compliance status shall be verified through the Central Supplier Database and SARS.
- 27.2 Where a Tax Compliance Pin is not submitted with the bid, the Department shall use the Central Supplier Database to verify the tax matters of the bidder.

28. UNSATISFACTORY PERFORMANCE

- 28.1. Unsatisfactory performance occurs when performance is not in accordance with the contract conditions.
- 28.2. The Departmental official shall warn the contractor in writing that action shall be taken in accordance with the contract conditions unless the contractor complies with the contract conditions and delivers satisfactory supplies or services within a specified reasonable time (7 days minimum).
- 28.3. If the Contractor fails to commence the Works or to proceed with and complete the Works in compliance with the projected timeframes, the Head of Department or his/her representative shall take action in terms of its his/her delegated powers and adopt and exercise one of the following courses wholly or partly, viz: -
- 28.3.1. To direct the Contractor, in writing, on any day named therein to suspend and discontinue the execution of the Works, and to withdraw himself and his workmen from the said Site or Sites,
 - 28.3.2. To make a recommendation to the Accounting Officer for cancellation of the contract concerned.
 - 28.3.3. To Contract or Contracts by calling for Bids or otherwise with any other Contractor or Contractors for the completion of the Works, or any part thereof, at such times and upon such terms as to the Department shall deem best.
- 28.4. In relation to the foregoing provisions the Department shall charge any sums of money which may be paid by the Department for completing the said Contract against the Contractor and if such amount shall exceed this Contract, then the Department shall have the right to recover such excess or any balance thereof from the Contractor by legal proceedings.
- 28.5. When correspondence is addressed to the contractor, reference shall be made to the contract number/ item number/s and an explanation of the complaint.

29. VALIDITY PERIOD OF BID AND EXTENSION THEREOF

- 29.1 The validity (binding) period for the bid shall be **120 days** from close of bid. However, circumstances may arise whereby the Department will request bidders to extend the validity (binding) period. Should this occur, the Department shall request bidders to extend the validity



(binding) period under the same terms and conditions as originally offered for by bidders. This request shall be done before the expiry of the original validity (binding) period.

30. VALUE ADDED TAX (VAT)

- 30.1 Bid prices must be inclusive of 15% VAT.
- 30.2 Bidders who make taxable supplies in excess of R1 million in any 12-month consecutive period are liable for compulsory VAT registration, but a person may also choose to register voluntarily provided that the minimum threshold of R50 000 (as of 1 March 2010) has been exceeded in the past 12-month period. Bidders who meet the above requirement must register as VAT vendors, if successful, within one month of award of the bid.
- 30.3 For the purposes of calculating preference points, VAT shall not be considered during quotation process.

31. SERVICE LEVEL AGREEMENT

- 31.1 The successful Bidder and the Department will sign a Service Level Agreement (SLA) prior to commencement of works. A proposed schedule of works must be provided by the contractor for the approval of the Engineer within two weeks of receiving notification of a successful bid.
- 31.2 The *Special Terms and Conditions (STC)*, the *Standard Technical Specifications (STS)* and the *Project Specific Specifications (PSS)* as listed in this bid document, together with the *Drawings*, are deemed to form part of the SLA.

32. COMMENCEMENT OF THE WORK

- 32.1. Site establishment must start within two (2) weeks, and the actual works within three weeks after hand-over of the site, provided that;
 - 32.1.1. An official order has been issued;
 - 32.1.2. The contractor is in possession of all relevant documentation required for works execution;
 - 32.1.3. No exceptional circumstances such as inclement weather or other outside the control of either party to the contract prevail.
- 32.2. In case work has not commenced within two (2) weeks of the site hand-over and no attenuating circumstances for the delay can be provided, the Department reserves itself the right to cancel the contract

33. HANDOVER OF SITE TO CONTRACTOR

- 33.1. The Department will organize a site hand-over to the contractor who will then be introduced to the project stakeholders and participants.
- 33.2. The site will be handed back at works completion after a final inspection by the Engineer revealed no outstanding patent defects.
- 33.3. The Contractor will control the site for the contract duration. Only the Contractor's own employees, Contractor's local labour and Departmental Representatives will be allowed on site.
- 33.4. The Contractor is responsible in the administration, control and security on the site at all times during the contract duration.

34. WATER AND POWER

- 34.1. The Contractor shall make the necessary arrangements for the provision of any water and power. No payment will be made for the provision or use of these services and the cost of these shall be included in the Bid/quoted amount.



35. LOCATION OF CAMP

- 35.1. The Contractor must be required to determine the most convenient location for his camp site in consultation with the Engineer's representative and Committee members such that this will cause the least disruption and interference with his activities. Dependent on his actual space requirement, different components of the camp could be located in different areas.
- 35.2. Should the Contractor elect to locate any or all of his facilities in one area for a certain duration, and then relocate them later, any associated costs must be solely for his account, and no claims of any nature for additional costs will be entertained.
- 35.3. No persons other than a night watchman may sleep in the camp, without the approval of the local relevant Stakeholder.

36. HOUSING OF CONTRACTOR'S EMPLOYEES

- 36.1. The Contractor shall make his own arrangement for housing, payment and feeding his employees and transporting them to and from the site. However, it may be possible to arrange temporary local accommodation for the Contractor's staff with the participants.
- 36.2. The Contractor is in all respects responsible for the housing and transporting of his employees, and for the arrangement thereof, and no extension of time due to any delays resulting from this, will be granted.

37. LABOUR SOURCE & CAPACITY

- 37.1. The Contractor will be required to satisfy the Department that a sufficient and experienced labor force is employed or that sufficient experienced labour can be acquired to complete the services and produce an acceptable quality of workmanship.
- 37.2. The contractor is encouraged to source unskilled labour from the project participants or local community. The Contractor and the Departmental representative (Engineer or local Agricultural adviser) may negotiate with the participants in this regard to establish all the conditions for the utilization of the local labour.
- 37.3. The Contractor will be responsible for all hiring, payment, housing and transport of all labour used for the duration of the contract.

38. SECURITY & RISK

- 38.1. No one shall be allowed on the construction site after normal working hours except for the necessary security personnel.
- 38.2. The Contractor shall also be responsible for safeguarding all plants, machinery, equipment and materials on site. The Engineer shall not be responsible for any lost, damaged or stolen property or materials. Should any of these situations arise, no allocations will be made in terms of finances or time.

39. MATERIALS: DELIVERY, ON & OFF-LOADING, STORAGE & RESPONSIBILITY

- 39.1. The Contractor shall be responsible for the safe delivery, loading, off-loading, handling and storage of any equipment and materials on site.
- 39.2. All equipment, materials and plant stored on site must be suitably protected against damage or loss by theft or otherwise.
- 39.3. The Contractor shall remain fully responsible for all material and plant etc. until the completed works are handed over and have been officially accepted by the Department.

40. EXISTING ROADS, MUNICIPAL PAVEMENTS, ETC.

- 40.1. The Contractor is advised that he will be held responsible for any damage to the existing pavings,



roads, municipal pavements, fences, boundary walls, etc., and will have to repair such damage at his expense.

41. DAMAGE TO PROPERTY

41.1. If the Contractor or his/her employees, while engaged in the execution of the contract, shall break, deface, injure, destroy or allow to fall into disrepair any part of the Works or property belonging to the Department, or any private property including: buildings, pavings, roads, fences, walls or grounds contiguous to the premises of the Department on which he or they may be employed, the Contractor will be required to repair, in a perfect and workmanlike manner, at own expense all damage to the approval of the Department. The Completion Certificate will not be issued until the Department is satisfied that all necessary remedial work has been satisfactorily completed

41.2. The Contractor shall take every precaution against damage or nuisance being caused by dust both to the properties of the Department and all surrounding properties and shall indemnify the Department against any claim that might arise there from.

42. UNDERGROUND CABLES AND PIPES

42.1. If such services are discovered, immediate notification must be made to the Department and all work in the vicinity of such cables, pipes, etc., shall cease until safe to proceed.

42.2. Should the Contractor damage underground cable or pipes, such damage shall be repaired as soon and safely as possible by the Contractor.

42.3. The cost of making good such damage will be met by the Contractor as this must be covered by the Contractors works insurance.

43. DAILY RAINFALL RECORDS

43.1. Submission of rainfall figures is required for the granting of permission of extending the contract period on the basis of inclement weather. If none are kept, the Engineer is under no obligation to grant extension of the completion period for inclement weather.

44. INSPECTION OF WORK

44.1. The Departmental representative may at all reasonable times have access to the site where work is being executed for inspection purposes.

44.2. The Engineer may request that evidence of the quality or strength of any materials be supplied by the contractor wherever necessary.

45. NOTICE OF COVERING WORK

45.1. The Contractor shall give due notice to the engineer whenever any work or materials are intended to be covered in with earth or otherwise in order that their correct dimensions and quality may be ascertained before being covered.

45.2. If any such work or materials are covered without such notice having been given, the work or materials shall be uncovered at the Contractor's expense on instructions given by the Engineer.

46. SUB-CONTRACTED WORK

46.1. The contractor shall not sub-contract the entire contract. The contractor must indicate in *Annexure C2 – Additional Information: Subcontracted Works* which part(s), if any, (s)he intends to subcontract.

46.2. Sub- contracting shall not relieve the contractor from any liability or obligation under the contract and his/her shall be liable for the acts, defaults and neglects of any sub-contractor, his/her agent or employees as fully as if they were the acts, defaults or neglects of the contractor, his agents or employees.

**47. INSURANCE**

47.1. All accepted approved contractors would be required to provide the following insurance's for the project awarded to them:

- 47.1.1. Insurance against damage, destruction or loss to 50% of the value of the contract.
- 47.1.2. Public Liability insurance.
- 47.1.3. All risks (works) policy and Political.

48. OCCUPATIONAL HEALTH AND SAFETY

48.1. Bidders (including those sub-contractors and/or suppliers who are preparing prices/quotations for submission to the main bidder) must ensure that they make adequate financial provision in their bids for full compliance with the *Occupational Health and Safety Act (85/1993): Construction Regulations, 2014*, as published in the *Government Gazette* of 7 February 2014, or later amendments thereto. Financial provision shall therefore be made by each Bidder for, inter alia, the following:

- Carrying out and documenting risk assessments of all work to be carried out under the contract.
 - Preparation of safe work procedures.
 - Preparation of an H&S plan, discussing it with the Department, and then amending it as agreed.
 - Preparation of a Project H&S File to include all requirements of Annexure A.
 - Regular updating of all of the foregoing.
 - Provision of medical certificates of employees.
 - Provision of PPE and protective clothing for employees
 - Complying with all H&S requirements for the duration of the contract.
 - Provision of forced ventilation (as required when working in confined spaces).
 - The completion and checking of the safety file upon completion of the works and handing it over to the Department.
- 48.

48.2 To enable the Department to appraise the allowances that Bidders have made for H&S in their bids, so that he/she can fulfil his/her obligations in terms of Clause 7 of the Construction Regulations, separate items have been included in the Bill of Quantities for Health and Safety. The Principal Contractor and Sub-Contractors must submit proof of compliance with the OHS requirements table below with the construction phase H&S plan where applicable.

Table 1 – OHS Requirements and submission dates

| PAM Item No. | Requirement | OHS Requirement | Submission Date |
|---------------------|--|---|----------------------------------|
| 2.1 | Notification of Intention to Commence Construction / Building Work | Complete Schedule 1 (Construction Regulations) | Before commencement on site |
| 2.2 | Assignment of Responsible Person to Supervise Construction Work | All relevant appointments, as per OHS Act and Construction Regulations. | Before commencement on site |
| 2.3 | Competence of Responsible Persons | Department Requirement & OHS Act | Together with H&S plan |
| 2.4 | Compensation of Occupational Injuries and Diseases Act (COIDA) 130 of 1993 | COIDA Requirement | Together with H&S plan |
| 2.5 | Health and Safety Organogram | Department Requirement | Together with H&S plan |
| 2.6 | Initial Hazard Identification and Risk Assessment based on the Department's assessment | Construction Regulations. | Together with H&S plan |
| 2.7 | Medical Certificate of Employees | Construction Regulations | On commencement of construction. |



- 48.3 To enable the Department to appraise the allowances that bidders have made for H&S in their bids, so that he/she can fulfil his/her obligations in terms of Clause 7 of the Construction Regulations, separate items have been included in the Bill of Quantities for Health and Safety.
- 48.4 Failure by a bidder to submit realistic prices for the scheduled H&S items is likely to prejudice his bid.
- 48.5 The successful bidder shall be required to submit the Contractor's Health and Safety Plan as required in terms of Regulation 7 of the Occupational Health and Safety Act 1993 Construction Regulations 2014.
- 48.6 The Contractor shall pay particular attention to watching and warning lighting and must provide any necessary barriers, etc., required for the protection of the public in terms of the Act.

49. INJURY TO PERSONS

- 49.1. The Contractor shall be liable for and shall indemnify the department in respect of any liability, loss, claim or proceedings whatsoever, whether arising in Common Law or by Statute in respect of personal injuries to or death of any person whomsoever arising out of or in the course of or caused by the execution of the Works.

50. DISAGREEMENTS

- 50.1. Notice of disagreement. The Contractor has the right by written notice to the Engineer to require him to consider any disagreement which he raises with the Engineer provided the said written notice shall be given within 14 days after the cause of disagreement has arisen.
- 50.2. Ruling on disagreements. The Engineer shall give a ruling on the disagreement in writing to the Contractor no later than 14 days after his receipt of a written request from the Contractor requiring him to do so. The Engineer shall provide such a ruling with as little delay as possible. During the response time the Contractor shall not alter the status of the works under contention.

51. FIXED PRICE CONTRACT

- 51.1. The contract shall **not** be subject to contract price adjustment.

52. PRICING - COMPLETENESS OF BID

- 52.1. Bidders are required to Bid for all services, products and commissioning as specified in this document and associated plans. This includes those optional items that will be pointed out as required at the bid briefing (e.g. VIP toilet(s), fencing and other). If he/she does not bid on all items, his/her bid will be rejected.
- 52.2. All bid/quoted prices for *separate* items are to be in South African currency and must **exclude** VAT.
- 52.3. All items as described in the project specification are to be priced in full.
- 52.4. Transport/Delivery costs must be included in the pricing if the Pricing Schedule does not list them separately.
- 52.5. VAT must be filled in as the sub total followed by the complete price for the entire project.
- 52.6. The Bid price page must be signed by a person legally authorized to do so.

53. QUANTITIES OF WORK

- 53.1. The Contractor shall receive payment only for the works actually executed and approved by the Engineer.

54. PROGRESS PAYMENTS

- 54.1. Payment shall only be made for claims that are commensurate with the works actually executed and complete.



- 54.2. Payment will only be made against the construction progress as pertaining to **built /installed** items. Movable items and materials on site are generally excluded from progress payments until they have been fully installed or fitted or built up.
- 54.3. If any item or part of an item in an invoice is disputed by the Engineer, the Engineer shall give notice of such with reasons.
- 54.4. The Engineer may elect to use a payment schedule that apportions a weighting for the various work phases, in those cases where the actual pricing schedule is not available or lacks balance.
- 54.5. The contractor shall be paid in up to a **maximum of seven** part payments. The Contractor is strongly advised to request **at least five** payments when being notified of him/her being awarded the contract.
- 54.6. Part payments will be made after the Engineer has approved the work and will be made in accordance with the Retention clause (57).
- 54.7. The penultimate payment occurs after works completion. The final payment will be made after the 12 months liability period when the contractor has dealt with all defects, if any.
- 54.8. If the completed pricing schedule/BoQ is unavailable when a payment certificate is drawn up or if a pricing schedule lacks balance with regards to the weighting in terms of price, the Engineer may decide to be guided by the payment schedule below.

| Table 1 – Payment Schedule | | | |
|-----------------------------------|--|----------------------------|-----------------------------------|
| Work phase | Phase Description | % of total contract | % payment after completion |
| 1 | Site establishment, site clearing and leveling | 15.0% | 13.5% |
| 2 | Erection of nursery proper (poles & netting, racks) | 40.0% | 36.0% |
| 3 | Supply & installation of shipping container and tank stand | 18.0% | 16.2% |
| 4 | Erection of fencing | 7.0% | 6.3% |
| 5 | Installation of all irrigation related materials & equipment | 20.0% | 18.0% |
| 6 | 5% retention at practical completion | - | 5.0% |
| 7 | 5% retention 90 days after practical completion | - | 5.0% |
| | TOTAL | 100% | 100% |

55. COMPLETION OF THE WORKS

55.1. Work completion will be established over three stages, in line with the JBCC.

55.1.1. Practical completion

This is defined as the stage when the works are found to be substantially complete and can be used for the purposes intended. This assessment will be solely made by the Engineer. When the Contractor thinks he has completed the works, an inspection will be made by the Engineer who will draw up a list of patent defects, commonly known as a "snag list", if any. *Patent defects* are defects that are visible or discoverable upon an ordinary and proper inspection.

55.1.2. Works completion

This stage will be reached after the Contractor has, to the sole assessment of the Engineer, fixed all defects listed on the snag list. It is at works completion that the Contractor will be paid out 50% of his/her retention money.

55.1.3. Final completion

Final Completion occurs 12 months after Works completion, after expiry of the liability period.

56. RETENTION

56.1. A 10% retention will be withheld on payment for duration of the construction.



- 56.2. The Department will pay out half of this retention, or 5% of the bid value as part of the second last payment at **practical completion** of the works. The remainder, viz 5%, will be paid out at **final completion** after expiry of the defect liability period 12 months after practical completion), the bidder having eliminated all defects.
- 56.3. In some instances, the Engineer may decide to shorten this period order to allow all payments to be completed within the financial year. However, this is **not** a given and the Contractor will be notified during the course of the construction if such would be the case.

57. DEFECT LIABILITY PERIOD

- 57.1. The defect liability period is 12 calendar months calculated from the date of Practical Completion.
- 57.2. The contractor shall unconditionally guarantee all materials, workmanship related to the works for that period. The guarantee shall cover any defects due to inferior materials and/or workmanship of the Contractor, or any of his sub-contractors, fair wear and tear excepted. The Contractor shall repair, remedy or replace any such defects, part or complete works without delay and at his own cost.

58. CONTINGENCIES

- 58.1. An amount of 10% of the subtotal for all materials, equipment and services has been set aside for Contingencies. This allowance will only be accessed for unforeseen additional expenditure not covered in the contract. Payment of the Contingencies allocation is therefore **not** a given, as the occurrence of limited or no approved Contingencies will reduce the total amount paid out for this contract.
- 58.2. Approval from the Engineer for the use of the Contingencies allocation is required before any purchases can be made or work is started from this allocation. Any allowance must be in line with SCM Delegations.

59. PERIOD OF COMPLETION & RATE OF PROGRESS

- 59.1. The project has to reach practical completion **within 4 months** calculated from the date of site handover.
- 59.2. If the Works are delayed by any cause beyond the Contractor's control, the Contractor shall have the right within twenty-one days of any such cause of delay arising, to apply in writing to the Department to extend the date of completion, stating the cause of delay and period of extension applied for.
- 59.3. The Department upon receipt of such written application may by order in writing extend such date of completion by a period to be determined, or may refuse to extend such date of completion, or may postpone giving a decision upon such application until completion of the Contract period set out in sub-clause (a) of this clause.
- 59.4. The date of completion will be extended only to the extent approved by the Department.
- 59.5. Should the Contractor fail to apply in writing for an extension within the time set out above, or should the Department refuse to grant any extension in writing, then the Contract period provided shall not be exceeded.
- 59.6. When the Works are completed the Department will give a completion certificate and the date of such certificate shall be the date of commencement of the guarantee period.

60. PENALTY CLAUSE / FINES FOR LATE OR NON-COMPLETION

- 60.1. If the contractor does not complete the work within the time stipulated and no extenuating circumstances can be given for the delay, the Department may impose a fine as detailed below. The total will be subtracted from the retention allowance.
- 60.2. If the contractor fails to complete the works and the Department is forced to employ another contractor to complete the works, the defaulting contractor will be held liable for the costs as far they exceed the original total Bid value.



60.3. The department will deduct a penalty for late completion of up to **0.05% of the contract value per working day delay**. This will be deducted from the retention.

61. BID EVALUATION CRITERIA

61. Compliance with Special terms and Conditions

Only bids that meet the Special Terms and Conditions in all aspects as stipulated in the bid document shall be considered.

61.3. Correctness of information

All information required in the bid document must be accurate and duly completed including all the appropriate signatures. The Department reserves the right to verify all information submitted. Non-compliance with the above shall result in elimination from further processes

61.4. Compulsory administrative compliance documents that must be submitted with the bid:

- 61.4.1. Central Suppliers Database registration number;
- 61.4.2. Proof of valid and active CIDB 1 SH/GB registration where applicable;
- 61.4.3. Certified Copies of the Identity documents for company members/service providers;
- 61.4.4. A certified copy of a valid BBBEE certificate or valid sworn affidavit for purposes of confirmation of the bidder being a Level 1 BBBEE;
- 61.4.5. Documentary proof of bidder being an EME (e.g. Financial Statement) ;
- 61.4.6. Documentary proof of bidder's experience in support of Annexure B
- 61.4.7. Documentary proof of credit facility with manufacturer and/or Registered Financial Institution or evidence of access to any legal funding instrument.

61.5. Non-submission of any of the above documents shall result in disqualification.

61.6. Where copies of original documentation are submitted, those copies must be certified and must not be copies of certified copies. Original certification should not be older than three (3) months. Failure to comply with this requirement shall invalidate the bid submitted.

62. FUNCTIONALITY EVALUATION

62.1. The bid documents shall be evaluated individually on score sheets, by a representative evaluation panel, according to the below mentioned evaluation criteria.

62.2. All service providers who score less than minimum functionality score of (70%) shall not be considered for the work.

62.3. The evaluation criteria are as in Table 2 below.

| TABLE 2: BID EVALUATION CRITERIA | | | | |
|---|---|-------------------|---|----------------------|
| # | FUNCTIONALITY EVALUATION CRITERIA | Max Points | Evidence | Bidders Score |
| 1. | <p><i>Bidder's experience in the construction of Buildings for Agricultural, domestic, industrial, institutional or commercial occupancies</i></p> <p>1 – 2 projects = 15 points 3 – 5 projects = 25 points > 5 projects = 30 points</p> | 30 | <p><i>Completion Certificate (Works or other) In support of Annexure C3</i></p> | |
| 2. | <p><i>Financial Capacity</i></p> <p><i>Total Credit Facility (with financial institution and/or manufacturer of irrigation material)</i></p> <p>R 100 000 - R250 000 = 15 points R 250 000.00 - R500 000.00 = 25 points >R500 000.00 = 30 points</p> | 30 | <p><i>Evidence of credit facility with manufacturer/supplier and/or Registered Financial Institution Or Evidence of access to any legal funding instrument (e.g. Letter of intent)</i></p> | |



| # | FUNCTIONALITY EVALUATION CRITERIA | Max Points | Evidence | Bidders Score |
|----|--|------------|--|---------------|
| 3. | Access to a transportation facility/ Light Delivery Vehicle (LDV) / Truck | 20 | <u>List under Annexure C1</u> <i>Letter of commitment from fleet company</i> Or <i>Confirmation from producer that delivery shall also be undertaken</i> Or <i>Documentary proof of transport or transportation facility (Log Books/ Letter of agreement supported by Log book)</i> | |
| 4. | Proof of Physical address <i>Office of Bidder outside borders of KZN = 5 pts</i> <i>Office of Bidder within borders of KZN = 20 pts</i> | 20 | <i>Lease agreement; Municipal Utility Bill; or Copy of Bank Statement (first page only) with address</i> | |
| | TOTAL | 100 | | |
| | Minimum Functionality Threshold | 70% | | |



C | STANDARD TECHNICAL SPECIFICATIONS

1. PRELIMINARIES & GENERAL

The contractor is to note that all insurances (UIF, workmen 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 contractor's responsibility and attention throughout the contract duration until handover of the project. This item also includes Occupational Health & Safety Act requirements. The Department reserves the right to stop progress of the works in case of non-compliance until these conditions are complied with.

2. APPLICABLE STANDARDS: SPECIFICATIONS & MATERIALS

2.1. For the purpose of this Contract the relevant SANS specifications shall apply- specifically SABS 1200: *Standardized Specification for Civil Engineering Construction* specifications shall apply. The following sections shall in particular apply here:

2.1.1. **SABS 1200 AA - 1986** (General - Small Works),

2.1.1.1. Materials: SABS 1200 AA (3);

2.1.1.2. Testing: SABS 1200 AA (7);

2.1.2. **SABS 1200 DA -1988** (Earthworks - Small Works)

2.1.3. **SABS 1200GA – 1982** (Concrete - Small Works).

2.1.3.1. Materials SABS 1200 GA (3)

2.1.3.2. Mixing, pouring and curing of concrete: SABS 1200 GA (5.4)

2.1.3.3. Testing: SABS 1200 GA (7)

2.1.4. **SANS 50197-1:** Cement: Common cement 32,5N or R to SANS 50197-1

3. APPLICABLE STANDARDS: EARTHWORKS AND SITE PREPARATION

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

3.1.1. **SABS 1200 AA - 1986** (General - Small Works),

3.1.1.1. Site preparations & establishment: SABS 1200 AA (4).

3.1.1.2. Setting out of works: SABS 1200 AA (5.1.1)

4. APPLICABLE STANDARDS: STANDARD (ABRIDGED) PREAMBLE FOR ALL TRADES

4.1. All materials to be SANS approved and installed to applicable standards specified by SANS, NBR, or the manufacturer.

5. MATERIALS AND CONSTRUCTION

5.1. All materials must be newly purchased and conform to SABS specifications for the products. This includes all items such as bricks, blocks, brick reinforcement, damp proofing, lintels, glazing, plumbing and drainage, curtains, etc... 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 CNCI standards and recommendations

6. CONCRETE

6.1. Concrete strength

6.1.1. The Contractor shall be responsible for the design of strength concrete and for the measurement of the constituent materials to produce concrete that complies with the specified requirements.

6.1.2. The relevant Engineer will decide the class and grade designation of the concrete required for each part of the work and determines suitable limitations on the constituent materials and mix proportions in accordance with the said requirements.



- 6.1.3. The Contractor must ensure that samples of the constituent materials of the concrete, together with evidence that they comply with the provisions, are supplied for approval in good time and provide the Engineer with—
 - 6.1.3.1. a statement from an approved independent laboratory of the results of tests, or
 - 6.1.3.2. experience with, the material concerned.
- 6.1.4. The cement, types of aggregate and their origins may not be changed throughout the duration of the contract without giving prior notification to the Engineer who shall verify that the above requirements are complied with and that the important qualities of the concrete will not be impaired.
- 6.1.5. Durability: for each grade of concrete, the Engineer will, notwithstanding strength considerations, specify the cement/water ratio appropriate to the expected exposure conditions. See (7.2) below.
- 6.1.6. Consistency: unless otherwise indicated by the general workability of the concrete, method of transportation, conditions of placement or otherwise specified by the Engineer, the suggested slump values, for different mixes of concrete shall be as specified in Clause 7.2.
- 6.1.7. Workability: ensure that the concrete is of such workability that it can be readily compacted into the corners of the formwork and around reinforcement without segregation of the materials and without excessive "bleeding" of free water at the surface.

6.2. Concrete quality

- 6.2.1. Should the engineer dispute concrete quality, the contractor shall at his own cost, prove to the satisfaction of the Engineer that the estimated actual strength of cores taken from the structure (by an approved independent testing laboratory and determined in accordance with SABS STM 865) is not less than the specified strength. If the concrete fails to meet the strength criteria stipulated, the Engineer may at his sole discretion and in addition to the options listed in SABS Specification 1200G-
 - (a) accept the concrete subject to approved remedial measures being undertaken by the Contractor at his own cost; or
 - (b) permit the concrete to remain, subject to reduced payment for lower strength concrete.

6.3. Concreting

- 6.3.1. It is essential that the foreman who has charge of the construction of all concrete work, whether reinforced or not, shall be skilled in this class of work, and shall personally superintend the whole construction, paying special regard to—
 - 6.3.1.1. the quality, testing and mixing of the materials.
 - 6.3.1.2. the laying of the material in place and the thorough compaction of the concrete to ensure solidity and freedom from voids;
 - 6.3.1.3. the construction and removal of formwork; and
 - 6.3.1.4. the sizes and positions of the reinforcement.
- 6.3.2. Particular care shall be taken to work concrete against formwork and around reinforcement. **Internal vibrators may be used** with the approval of the Engineer but **external vibrators** which act only on the formwork **will not be permitted**.
- 6.3.3. Concrete to be reinforced shall be deposited in such quantities as will permit of it being properly compacted around the reinforcement.
- 6.3.4. The placing of concrete shall be completed within half-an-hour after mixing or within half-an-hour after agitating and within 2,5 hours after mixing in the case of ready mixed concrete. **On no account shall concrete be incorporated into the work after it has attained its initial set.**
- 6.3.5. Care shall be taken to prevent, as far as possible, the formation of laitance or scum. Laitance is to be understood to mean the scum of strength-less and inert material which



forms on the surface of concrete. It is usually caused by an over-wet mixture, overworking the mixture, improper or excessive finishing or combination thereof.

- 6.3.6. Concrete must not be dropped into position from a height greater than 2.5 m unless prior approval is obtained from the Engineer.
- 6.3.7. If an inclined chute is used for transporting concrete, it shall be of such slope as will ensure a continuous flow of concrete without the use of an excessive quantity of water and without segregation of the aggregates. The chute must be flushed out and properly cleaned before and after each working period. All waste from flushing shall be discharged outside the formwork.
- 6.3.8. In beams, each portion of a successive layer shall be placed as soon as the concrete below has been properly worked around rods and against formwork. Concreting shall be carried forward in irregular steps, that is to say, one layer shall not be completed over the whole section before the succeeding layer is commenced. Concreting of slabs and beams shall, as far as possible, be carried forward in one operation. When concreting has to be interrupted the concrete shall be left with a level, rough top surface with ends vertical. The concrete shall not be merely sloped down.
- 6.3.9. On resuming concreting, the old surface shall be roughened and all laitance thoroughly and carefully removed before any new concrete is deposited. This must be carried out by brushing the surface of the concrete while it is still green. Great care must be taken to avoid any weakness at the junction of old and new concrete, and the old surface shall be coated with a thin layer of cement and sand mortar, in the same proportions as that of the adjoining concrete.
- 6.3.10. While the concrete is setting it shall not be disturbed or shaken by traffic, either on the concrete itself or upon adjoining formwork.
- 6.3.11. No holes in concrete elements shall be patched or filled in without inspection, instruction and approval of the Engineer.
- 6.3.12. No concreting shall be carried out when the air temperature is below 4 °C when it is rising and 8 °C when it is falling.
- 6.3.13. Before concreting is commenced the Contractor shall give the Engineer 24 hours' notice of his intention to do so. On sites further than 200 km from the Engineer, 48 hours' notice must be given.
- 6.3.14. Concrete surface beds, excluding heavy industrial floors etc. shall be Class C concrete and shall be laid in suitable size panels not exceeding 20 m² in area and with the length of any panel not exceeding 4,5 m.
- 6.3.15. Where concrete beams are supported on concrete columns, the columns are to be concreted up to the underside of such concrete beams and then concreted up to the top of the beams, integral with the beams.
- 6.3.16. NB: Any finish applied to the surface of concrete floors, is to be understood as being additional to the thickness of the concrete described or shown on the drawings.

6.4. Curing of concrete

- 6.4.1. After the concrete has been placed, all exposed surfaces shall be kept continuously damp **for at least 10 days** by methods as may be approved by the Engineer, such as covering with approved building paper, or by means of wet canvas, wet sacks, wet sand, by continuous hosing or ponding with water.

6.5. Building on concrete footings and beams

- 6.5.1. No brickwork, stone walling or other structure shall be built on concrete footings until **at least three days after placement of the concrete** in the case of mass concrete footings



and **after seven days** in the case of reinforced concrete footings or as may otherwise be directed by the Engineer.

- 6.5.2. No brickwork, stone walling or other structure shall be built on reinforced concrete beams or similar members until the formwork and all props or supports have been removed.

6.6. Slip joints between concrete and brickwork

- 6.6.1. Slip joints shall be provided between brickwork and concrete slabs and beams by levelling up and troweling smooth the bearing surfaces of brickwork with 3:1 cement mortar and covering the bearings before the concrete is cast, with two layers of one side smooth tempered hardboard, with the smooth sides in contact.
- 6.6.2. The ends and sides of beams and edges of concrete slabs shall be separated from the brickwork with **13 mm thick bitumen impregnated soft board or expanded polyethylene strips** placed vertically against the brickwork before the concrete is cast.
- 6.6.3. Similar slip joints shall be provided between brickwork and concrete lintels cast in situ, but without soft board or expanded polyethylene strips at ends.

6.7. Movement joints

- 6.7.1. All movement joints are to be filled in with approved bitumen impregnated softboard or expanded polyethylene strip unless otherwise specified or detailed on drawings. Form similar movement joints where pathways adjoin buildings externally. Descriptions (prices) of movement joints shall be deemed to include formwork.

6.8. Pre-stressed concrete lintels

- 6.8.1. The dimensions of the lintels used must be 140mm × 75mm. The lintels must be installed as such that the width is 140mm and the vertical height is 75mm. The concrete lintels must comply with the requirements of SANS 1504: 1990.
- 6.8.2. Lengths of standard pre-stressed concrete lintels:
- 6.8.2.1. 0,9m (above all sliding doors)
 - 6.8.2.2. 1,2m (above all windows)
 - 6.8.2.3. 1,5m (above all the doors)
 - 6.8.2.4. 3,0m (above a garage door of 2.1m width)
- 6.8.3. In general, the bearing should always be at least 150mm, so the lintel is always at least 300mm longer than the clear span.

6.9. Formwork

- 6.9.1. Formwork shall include all shuttering, casing and centering of weaved material required for the laying and forming of concrete floors, slabs, beams, lintels, walls, steps, columns, piers, pilasters and any other concrete work requiring molds or forms and shall embrace all cleats, battens, fillets, wedges, struts, trestles, braces, props, shores and other requirements of weaver material for keeping all in correct position. All materials used for formwork must be suitable and substantial and all joints must be tight enough to prevent leakage of liquid matrix.
- 6.9.2. All formwork must be designed by the Contractor and if requested to do so, he must submit fully detailed and dimensioned working drawings to the Engineer for checking purposes.
- 6.9.3. Acceptance of the proposals shall not relieve the Contractor of his responsibility for the safety and stability thereof nor for any loss or damage arising out of defective design, materials and/or workmanship.
- 6.9.4. The formwork must be so constructed that its partial removal can be carried out to the satisfaction of the Engineer and in such stages as are required by the working conditions.



As far as possible, wedges and clamps must be used in preference to nails. All formwork in its various sections for floors, beams, etc. must be so arranged that the whole may be raised or lowered either independently or together with other sections by means of wedges or other approved methods.

- 6.9.5. Immediately before concreting is begun, the formwork in contact with the concrete must be thoroughly cleaned, wetted and kept damp whilst the concrete is being placed. Great care must be taken to keep the formwork wedged up to its correct height and this must be checked by taking levels immediately before concreting is commenced and immediately after it has been completed.
- 6.9.6. All beams shall have a camber of 6 mm to every 3 m of length.
- 6.9.7. The minimum periods that the formwork to the various parts of the structure is to remain in position after concreting shall be 7 days.
- 6.9.8. When determining the stripping time for formwork the weather shall be considered to be "normal" when the temperature is above 18 °C and "cold" when the temperature is between 5° and 10 °C, these being the average daily temperatures of the atmosphere adjacent to the concrete. When the average daily temperature lies between the above values for "normal" and "cold" weather the minimum period for stripping of formwork shall be determined by the Engineer.
- 6.9.9. Notwithstanding the above minimum periods, formwork may be struck immediately the concrete in the various parts of the structure has attained the crushing strengths required by the Engineer. The crushing strengths must be determined by proper tests, which shall be carried out by the Contractor.
- 6.9.10. No formwork of any nature whatever shall be struck, either after the elapse of the minimum periods stated in the above table or on the attainment of the required crushing strengths of the concrete, without the prior consent of the Engineer. Such consent will not absolve the Contractor of his responsibility for the safety of the structure.
- 6.9.11. In structures having either in whole or in part, two or more reinforced concrete floors, props shall be provided under the soffits of any beam or slab of any floor which is being used to support the formwork and wet concrete of the floor above, all to the approval of the Engineer. The props shall not be removed until the formwork supporting the concrete of the floor above has been struck.
- 6.9.12. On no account shall steel formwork be oiled where concrete is to receive plaster.
- 6.9.13. Formwork is measured to the net surfaces of concrete to be supported, except at intersections of beams with beams, columns, walls, etc. and tops of columns with slabs, beams, etc. where no deductions have been made and descriptions (prices) shall be deemed to include use and waste, except where the formwork is of a permanent nature or is to be left in, fitting together to all required shapes, all cutting, intersections, cambering where required, holes for rods, bolts, pipes and the like, propping, maintaining, keeping damp whilst the concrete is being deposited and removing. Formwork "left in" and permanent formwork shall be deemed to include leaving in formwork, props, etc.
- 6.9.14. Descriptions (prices) of formwork to soffits shall be deemed to include propping not exceeding 3,5 m high unless otherwise described. Descriptions (prices) of formwork to walls and columns shall be deemed to be not exceeding 3,5 m high above bearing level unless otherwise described. Descriptions (prices) of formwork to soffits of solid slabs shall be deemed to be to slabs not exceeding 250 mm thick unless otherwise described.

6.10. Smooth formwork

- 6.10.1. Smooth formwork shall be any material approved by the Engineer which is to be used to leave concrete surface smooth when removed and where no other finish is to be applied.
- 6.10.2. Descriptions (prices) shall be deemed to include for rubbing off all projections at seams etc. after removal of the formwork, making good any defects with 2:1 cement mortar and



leaving a smooth surface with all arises slightly rounded, all to the satisfaction of the Engineer.

6.11. Reinforcing rods

- 6.11.1. Mild steel shall comply with the requirements of SABS Specification 920, Type A or B.
- 6.11.2. High tensile steel shall comply with the requirements of SABS Specification 920, Type C or D.
- 6.11.3. Pre-manufactured reinforcing sheet mesh shall comply with the relevant SABS codes, and shall be of the reference code as specified in the drawings.

6.12. Concrete reinforcement

6.12.1. Rod reinforcement

- 6.12.1.1. Bending and hooking of rods shall be done in accordance with SABS Specification 82. Rods shall be bent cold in an effective bending machine, or properly designed rod-bender using a steady pressure and **not by hammering**.
 - 6.12.1.2. Diameters, lengths and positions of rods as shown on the drawings must be strictly adhered to. Joints in rods in beams, stairs, etc. will be permitted only where shown on drawings.
 - 6.12.1.3. Cleaning. Before being placed in position, the rods shall be thoroughly cleaned of all grease, dirt, bituminous material, scale and loose rust.
 - 6.12.1.4. Distribution rods. All distribution rods shall be straight and shall extend at least 150 mm into beams or other support.
 - 6.12.1.5. Joints. Unless otherwise shown on the drawings, all joints in reinforcing rods shall be lapped 40 times the diameter of the rod. The laps shall be securely tied with 1,25 mm diameter annealed mild steel binding wire.
 - 6.12.1.6. Tying. Reinforcement for piles, column footings, columns and walls shall be tied at every intersection, or as directed or shown on drawings, with similar binding wire. Reinforcement in beams shall be tied at alternate intersections in a diamond pattern, unless circumstances demand every intersection.
 - 6.12.1.7. Positioning. Great care must be taken to retain the reinforcement in its correct position during the entire period of concreting.
 - [a] *Blocks of fine concrete*, size approximately 40 x 40 mm, or plastic spacers, shall be provided on the formwork to soffits of beams to ensure that the rods are retained in position and then the correct concrete covering to the main reinforcing rods is provided. The blocks shall be of thickness required and shall be placed under the main reinforcing rods at approximately 600 mm centres.
 - [b] *Reinforcement in the top of slabs* and the like shall be retained in position by means of cradles (stools), formed of steel reinforcing rod as follows:
 - R10 for height range 100-300 mm and maximum width of 300 mm.
 - R12 for height range 310-500 mm and maximum width of 450 mm.
- 6.12.2. Recommended spacing of supports for horizontal bars in slabs:
- 6.12.2.1. Not further than 600 mm apart (cradles ± 1000 mm c/c in both directions) for bar diameters up to 12 mm.
 - 6.12.2.2. Not further than 1 000 mm apart (cradles $\pm 1 500$ mm c/c in both directions) for bar diameters of 16 mm and over.
- 6.12.3. Stools are to be placed on the bottom layer of reinforcement, securely retained in position and with correct concrete cover as specified. Cradles are to be securely wired to the slab reinforcement with binding wire. Beam rods in different layers shall be separated by means of steel spacer bars of suitable diameters and lengths.
- 6.12.4. Double mats in concrete walls shall be kept in their respective positions by means of suitable steel clips as follows:
- 6.12.4.1. Recommended spacing of supports for vertical bars in walls:
 - > 1 000 mm centres in both directions for bars up to 12 mm diameter,
 - > 1500 mm centres in both directions for bars of 16 mm diameter and over.



Supports can be spaced more closely by the design Engineer, depending upon the circumstances.

- 6.12.5. All stirrups shall be properly fastened to the rods so as to retain their relative positions during the entire period of concreting.
- 6.12.6. Welding of main rods will not be permitted unless approval has been given by the Engineer. Spot welding in lieu of wiring may be used to secure rods and stirrups in position.
- 6.12.7. The concrete covering the main reinforcement, unless otherwise specified, shall not be less 50mm.
- 6.12.8. Depending on the condition of exposure and fire resistance requirements, concrete cover can be varied by the design engineer but in no case shall the concrete cover be less than the diameter of the rod to be covered.
- 6.12.9. The cover shall be measured from the face of the concrete to the outside of main reinforcement nearest the face of the concrete, and shall exclude plaster and similar finishing materials.
- 6.12.10. If any sample is found unsatisfactory, the whole consignment of rods from which the samples were taken will be rejected.
- 6.12.11. Top reinforcement in cantilever slabs to be kept in position with a first row of stools or chairs 300 mm from the beam or support, and thereafter at a maximum of 40 bar diameters under each bar.
- 6.12.12. The cover blocks, spacers, bars and stools or chairs are to be placed and/or wired in position by the steel fixer.

6.13. Reinforcement

- 6.13.1. Welded steel fabric shall comply with the relevant requirements of SABS 1024. Steel shall be stacked off the ground as to prevent distortion, and shall be protected from aggressive environments and contamination. R8 @ 200mm by 200mm ref. no. 395.

6.14. Damp-proof membrane

- 6.14.1. The damp-proof membrane under floor shall, unless otherwise specified, be of polyethylene sheeting complying with SABS Specification 952 0,375 mm thick (500 microns) and manufactured in widths of 1000 mm and greater, all laid in the widest practical widths to minimise joints, turned up and dressed to load bearing walls and, if applicable, lapped with the damp-proof course in the walls. All joints shall be sealed with pressure sensitive tape applied over the leading edge of the joint. NB: All cutting of plastic membranes shall be carried out using sharp instruments.

7. STANDARD CONCRETE MIXES

- 7.1. Cement and aggregates shall be mixed by volume and the contents of a 50kg sack of cement shall be taken to be 0,033m³.
- 7.2. 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 m³ of concrete is required for an average quality sand and optimum quantity 19mm stone.
- 7.3. Concrete for non-structural purposes shall be "Prescribed mix concrete" produced in accordance with the requirements indicated in Table 3.



| Class of Concrete | Min. Compressive Strength in MPA at 28 Days | Max. Nominal Size of Coarse Aggregate in mm | Proportion of Constituents >> 1 Wheelbarrow = 2 bags of cement << | | |
|---|---|---|---|--------------|---------------|
| | | | Cement (Parts) | Sand (Parts) | Stone (Parts) |
| A | 10 | 37,5 | 1 | 4 | 5 |
| B | 15 | 19,0 | 1 | 3 | 4 |
| C¹ | 20 | 19,0 | 1 | 2.5 | 3.5 |
| D² | 25 | 19,0 | 1 | 2 | 3 |
| E | 30 | 19,0 | 1 | 2 | 2½ |
| ¹ This project: foundations | | | 1 (=2 bags) | 4 | 4 |
| ² This project: shed floor, tank stand slab, apron | | | 1 (=2 bags) | 3 | 3 |

7. STANDARD PLASTER & MORTAR MIXES

7.1. The standard **plaster** mixes are as listed in Table 4:

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

7.2. The standard **mortar** mixes are as listed in Table 5:

| 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 |
| This project | 1 : 5 | 50 | 0-25 | 165 |

8. FINISHES TO IN-SITU CONCRETE

8.1. Class U1 Ordinary Finish

Immediately after placing, the concrete shall be finished rough by screeding with the edge of a wooden board of straight and true line and working between guides set accurately to level. No mortar shall be added and noticeable surface irregularities caused by the displacement of coarse aggregate shall be made good by re-screeding after removing or tamping down the offending aggregate.

8.2. Class U2 Wood Float Finish (*this is required for the apron around the building*)

The concrete surface shall first be brought to the standard Class U1 ordinary finish and then floated with a wood float. Floating shall be started as soon as the screed finish is stiffened sufficiently and bleed water has evaporated or been removed and it shall be the minimum necessary to produce a surface free from screed marks and uniform in texture.

8.3. Class U3 Coarse Brush Surface Finish

The concrete surface shall first be brought to a Class U1 ordinary finish. A coarse brush finish is then applied with a coarse bristle brush. "Brushing" shall be started soon after screeding to



produce a uniform patterned coarse surface finish with a rough surface texture in the direction of the desired drainage direction.

8.4. Class U4 Steel Float Finish *(this is required for the shed floor inside)*

The concrete surface shall first be brought to the standard Class U1 ordinary finish and then floated with a steel power float. Floating shall be started as soon as the screeded finish is stiffened sufficiently and bleed water has evaporated or been removed and it shall be the minimum necessary to produce a surface free from screed marks and uniform in texture.

9. SITE CLEARANCE

9.1. Applicable standards

SANS 2001 - Construction Works Part BS1: Site Clearance. SANS 2001 standard specifications are deemed to satisfy the provisions of SANS 10400 (The application of the National Building Regulations).

9.2. Areas to be cleared and grubbed.

Both borrow areas and the portions of the site on which excavations are to be carried out and the shed constructed, shall be cleared or grubbed, or both, the Contractor shall excavate the top 150mm of topsoil including all of the smaller vegetation (grass and shrubs, bushes) and stockpile it. The contractor shall not commence with clearing and grubbing until the Department's Agent has designated, the exact areas to be stripped of topsoil and the time at which the work to be started.

9.3. Cutting of trees

- 9.3.1. *Precautions.* The contractor shall take the necessary precautions to prevent injury to persons and animals and damage to structures and other private and public property. Where necessary, trees shall be cut in sections from the top downwards.
- 9.3.2. *Branches overhanging boundaries.* The branches of trees to be left standing shall be so trimmed as not to encroach upon the space (of height at least 7m) vertically above any carriageway, railway formation, or other designated area.
- 9.3.3. *Preservation of trees.* No tree shall be cut down until the engineer has given written authorization for such work to commence.

9.4. Clearing

9.4.1. *Clearing shall consist of:*

- 9.4.1.1. The removal of all trees, rubbish, fences, and all other material that may interfere with the construction of the work.
- 9.4.1.2. The disposal of all material resulting from clearing.
- 9.4.1.3. The removal of rocks and boulders of size up to 0.15m³ that are lying on the surface to be cleared or exposed during the clearing operations.
- 9.4.1.4. Where fences have to be taken down, sorting, coiling, and stacking of the material.
- 9.4.1.5. The removal and stacking of other reusable materials as scheduled.

9.4.2. *Haulage.* The moving of a certain amount soil or gravel may be inherent in or unavoidable during the process of clearing. No extra payment will be made for the removal such soil or gravel.

9.4.3. *Re-clearing of vegetation.* If during the contract period vegetation should again grow on any portion of the site, borrow areas, or the areas that have been cleared in accordance with the specification, the Employer's Agent may, if considers it necessary, order that such area be re-cleared. Such re-clearing shall include the removal and disposal of grass, shrubs, and other vegetation, as in the first clearing operation.

9.5. Grubbing

9.5.1. Stumps and roots larger than 75mm in diameter shall be removed to a depth of at least 600mm below the finished level and at least 100mm below the original ground level. Where the area has to be compacted, all stumps and roots including matted roots shall be removed to a depth of at least 200mm below the cleared surface.



9.5.2. Except in borrow areas, cavities resulting from grubbing shall be backfilled with approved material and compacted to a density at least equal to that of the surrounding ground.

9.6. Conservation of topsoil

9.6.1. The terms of Sub-clause 5.2.2 of SANS 1200DA: 1988 shall apply.

9.7. Site leveling and landscaping

9.7.1. Levelling and landscaping. **The area to be levelled is at least 35 x 25m** and should allow for the placement of a shipping container. After completion of the construction of the nursery those areas affected by the levelling will need to be landscaped, that is all cut soil will need to be spread out uniformly over the area/slopes adjacent to the nursery area, and destroyed vegetation is to be removed or be cut into chips and used as cover for the areas which are cut.

9.8. Other general construction specifications

9.8.1 Site demarcation. The nursery layout must be pegged out by the contractor and will be checked by a departmental representative.

9.8.2 Safeguarding of materials. All material to be supplied and delivered to site. Proper security measures must be implemented in consultation with the school principles to safeguard it prior to installation. It is the contractor's responsibility to ensure the correct material is delivered and measures are taken to safeguard it until the project is handed over.

9.8.3 SABS Compliance. Sound engineering practices and adherence to the relevant SABS construction codes should be applied to secure integrity of the structure. In the absence of compliance and proof of improvement after having been pointed out shortcomings by the Departmental representative, the contractor may be instructed to halt construction and be replaced by another contractor.

9.8.4 Surplus material. Surplus material will be retained by the department and should any surplus material be taken by the contractor, or any material not be supplied, payment will be made based on what has been actually used/put in (to) the scheme. All material must be checked by a departmental representative prior to installation.

9.8.5 Completion & Hand over. The nursery must be fully functional on completion. The contractor will remain responsible for the nursery including all materials, and the official hand over and final payment will not take place until such time that the entire structure is fully functional and all defects have been repaired.



APPOINTMENT OF A SERVICE PROVIDER FOR THE CONSTRUCTION OF A SEEDLING NURSERY WITH IRRIGATION AND STORAGE SHED/TANK STAND FOR AVUMILE COOP AT IMPENDLE LM, UMGUNGUNDLOVU DM

D | SCOPE OF WORKS

- 1 Construction of a seedling nursery and ancillary works:**
- 1.1. Erection of a 25 x 16m shade cloth nursery.
 - 1.2. Supply and erection of a 3.00m high steel tank stand;
 - 1.3. Installation of water supply to the nursery,
 - 1.4. Supply and installation on site of refurbished 7m long shipping container
 - 1.5. Installation of irrigation equipment and storage and mixing tanks
 - 1.6. Supply of consumables.

E | PROJECT SPECIFIC SPECIFICATIONS

1 EARTHWORKS

1.1 LEVELING

- 1.1.1 Nursery area (35 x 25m) to be absolutely level. No slope will be allowed.
- 1.1.2 It is recommended that the leveling be done by dozer rather than TLB.

1.2 SLOPES

- 1.2.1 All embankment slopes for cut and fill work above, below and on the sides of the nursery to be 1.5 : 1 minimum.

1.3 COMPACTION

- 1.3.1 Compaction of leveled area and surplus cut to Mod AASHTO 90%. All unused soil to be spread out and flattened.

2 NURSERY PROPER

2.1 ANCHORS AND POLE BASES

- 2.1.1 Pole bases: Required concrete mix should be 20MPa/19mm. Dimensions pole bases: 500 (l) x 500(w) x 600(h) mm. Poles foot to be free draining and no concrete to be placed below pole foot.
- 2.1.2 Anchor could be M10 x 80mm eyebolts, shield anchor expanding Rawl type. See Drawing 5B. Eyebolts to be drilled into **cured** concrete and **not** to be cast in during the casting of the concrete.

2.2 EXTERNAL STRUCTURE

- 2.2.1 All poles for the nursery structure to be CCA treated hardwood round poles, to SANS 457, size 3000 x 100-125mm.
- 2.2.2 Poles to be in 500 x 500 x 600mm concrete footing 20MPa/19mm.
- 2.2.3 2.2mm high tensile fully galvanized wire for shade cloth support to run from pole to pole following the roof perimeter (stapled onto pole top) and across (tied onto 10mm threaded hook bolt or eye bolt and strained). See Drawings 5B & C for details. Use 32mm staples.
- 2.2.4 2.2mm Veld 1000 wire for cloth hold back along the sides, wound around post top and fixed with staples, tensioned by turnbuckle tensioner attached to Rawl eye bolt.



- 2.2.5 Use 2.0mm galvanized wire to connect the wire tensioning ratchet to the eye bolt fixed in a concrete footing.
- 2.2.6 Entry gate to be HDG 900x1800mm, round or square tubing 40 x 2.0mm minimum. Frame to be closed with weld mesh 50 x 50 x 2.0mm. Two extra 3000 x 100-125mm posts with cross pole (1100 x 100-125mm) are required for gate frame. Space above gate to be closed with shade cloth.
- 2.2.7 Another 2 extra poles are required in the middle of the nursery to provide support for the cross wiring. See Drawings 1 & 2.

2.3 TRAY RACKS

Three racks to be constructed, dimensions 18000 x 2100 x 800mm.

2.3.1 Poles to be:

- 3000 x 100-125mm (longitudinally)
- 2100 x 100-125mm (across)
- 1200 x 100-125mm (posts)

2.3.2 All vertical rack poles to be cast in concrete footing 500 x 500 x 500mm.

2.3.3 Use 3.0mm galvanized binding wires 150mm apart (14 lines) for nursery tray support. Fix with staples hammered in under an angle of 45 degrees with the wire.

2.4 FLOOR COVER

2.4.1 The entire nursery floor (25 x 16m) to be covered with a 50mm layer of 13mm stone placed on top of green USB building plastic (250 micron thick) to suppress weed growth.

2.4.2 In order to prevent waterlogging on top of the plastic, some floor areas should be left without plastic, as per the diagram of figure 1 below.

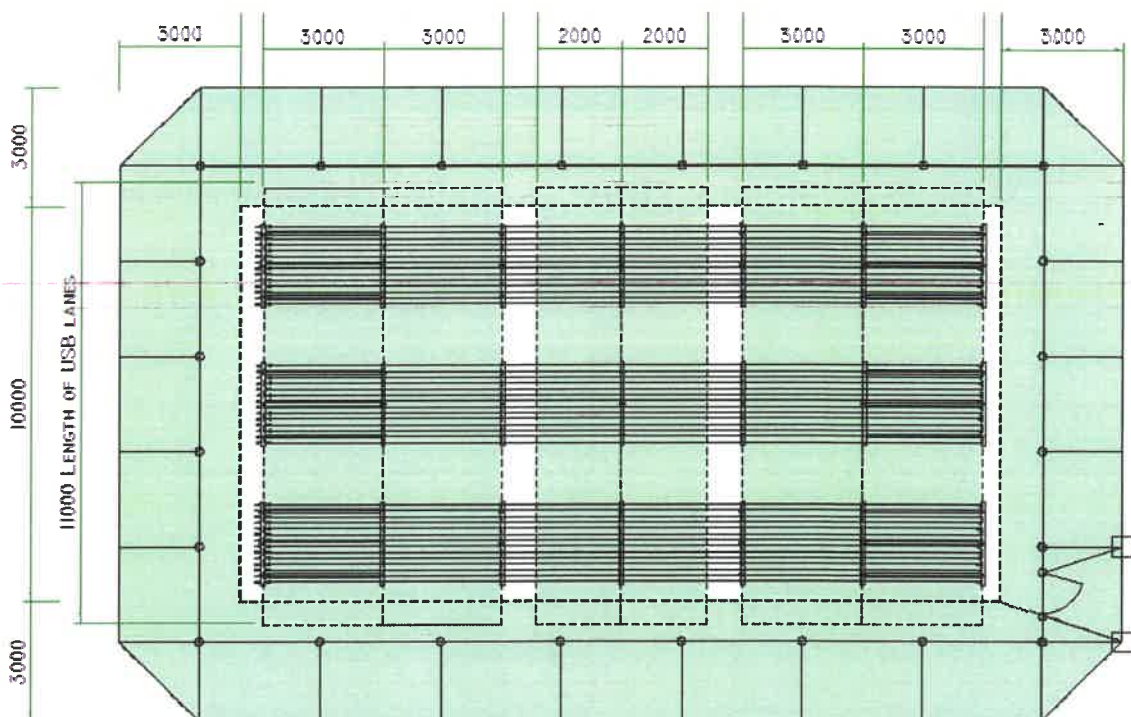


Figure 1: Floor areas to be covered with 250 micron USB building plastic



- 2.4.3 Floor to be properly compacted before laying the plastic sheeting, and with sharp bigger stones taken out that could pierce the sheeting.

2.5 SHADE CLOTH

- 2.5.1 Type: 40% Green. To be fastened unto the steel cross wires running over the centre and 2nd and 4th pole lines in longitudinal direction by a **continuous twine** in order to prevent billowing during strong winds.

3 IRRIGATION SYSTEM AND TANKS

3.1 INSTALLATION

- 3.1.1 **Sprinkler system, pumps, water tanks and pipes to be fitted by a specialist service provider only.** Contractor to indicate name & contact details of specialist on BoQ item 9.18.

3.2 STANDARD OPERATING PROCEDURE (FOLLOW THE BLUE LINES):

- 3.2.1 Water will be pumped up by the mobile pump accessing water from the stream at 450m from the nursery into a 5000L tank placed on a 3.00m high tank stand.
Flow path: V1 – V2 – 5000L tank;
- 3.2.2 From the storage tank it goes into a 500L mixing tank placed inside the shipping container, where the nutrients can be added to the water.
Flow path: 5000L tank - V3 – V4 – Mixing tank.
- 3.2.3 From there an electrical pump sends the water to inside the nursery and directly provides the pressure to the laterals and sprinklers.
Flow path: Mixing tank – V6 – Electrical pump – V7 – V8/9/10 – sprinklers.

3.3 MOBILE DIESEL PUMP

- 3.3.1 Fills the 5000 L storage tank via Valves No. 1 and 2 (standard procedure) - blue main line);
- 3.3.2 Fills the 500L mixing tank via Valves No. 1, 11 and 14 (grey line bypassing 5000L tank)
- 3.3.3 Provides pressure for the 2 taps inside the nursery via the grey bypass via Valves No. 1, 11, 12 and 13.
- 3.3.4 Technical specifications of the pump and engine. See BoQ item 10.2.
- 3.3.4.1 Twinstage. Power: 5-6Hp (5.5Hp/4.1kW)
- 3.3.4.2 Flow rate: 100-220 /min;
- 3.3.4.3 Operational pressure sprinklers: 150kPa/15m (min.)
- 3.3.4.4 Static suction lift: 4m. Height of tank intake point above NGL: 5m
Static discharge head: 44m Total static head: 53m.
Friction losses: 3m
Discharge/delivery head: 41m (if only used for filling up tank)
62m (if used directly to irrigate)
- 3.3.4.5 Inlet: 40/50mm; outlets: minimum two. 2 x 40mm or 1 x 25mm + 1 x 40mm.
- 3.3.4.6 Weight: 20-35kg.
- 3.3.4.7 Impellor type: cast iron. House type: aluminium or steel or cast iron
- 3.3.4.8 Safety: Low oil shut down.
- 3.3.4.9 Starter type: Recoil starter.
- 3.3.4.10 Pump and engine to be mounted on a wheelbarrow type carrier frame.
- 3.3.4.11 Examples: DAVEY 5255H or DAVEY 5258 with HondaGX160 engine
- 3.3.4.12 Pump to be supplied with 3m long flexible suction pipe with strainer/sieve.
- 3.3.4.13 Delivery side of the pump to be equipped with a quick coupling perrot lever type male/female coupling enabling quick coupling of the pump with the delivery pipe entry.



3.3.4.14 Pump curve:

| | | | | | | | |
|-------------------------------|----|-----|-----|-----|-----|------|------|
| Flow rate (m ³ /h) | 0 | 3.0 | 6.0 | 8.1 | 9.0 | 12.0 | 13.2 |
| Flow rate (Liters/minute) | 0 | 50 | 100 | 135 | 150 | 200 | 220 |
| Maximum delivery head (m) | 92 | 84 | 70 | 62 | 58 | 45 | 41 |

3.4 ELECTRIC PUMP

3.4.1 Operates the irrigation system via Valves No. 6, 7, 8, 9 and 10.

3.4.2 Supply and installation of a 0.25kW - 0.40kW single phase pump (Pedrollo CMP100 or equivalent) with a set of performance data as closely as possible to the ones below:

| | | | | | | | |
|-------------------------------|-----|-----|-----|------|-----|-----|-----|
| Flow rate (m ³ /h) | 0.0 | 0.6 | 1.2 | 1.8 | 2.4 | 3.0 | 3.6 |
| Flow rate (Liters/minute) | 0 | 10 | 20 | 30 | 40 | 50 | 60 |
| Maximum delivery head (m) | 16 | 15 | 14 | 12.5 | 11 | 9 | 7 |

3.4.3 Pump to be installed inside the shipping container.

3.5 BYPASSES

The system allows for bypasses of key elements to allow for the operation of the system in the case of the unavailability of one or two pumps and/or one or two of the tanks. The flow of water in those cases will be as follows:

3.5.1 Bypassing of the 5000L storage tank only
Irrigation system operation pressure 1.5kPa provided by electric pump

Flow path: V1 - V11 - V14 - Mixing tank – V5 – Electric Pump - V6 – V7 – V8, 9, 10.
Valves to be closed: V2, V12 & V13.W

3.5.2 Bypassing of the 5000L tank and the 500L mixing tank
Irrigation system 1.5kPa and taps provided by mobile pump

Flow path:

(a) For Irrigation: V1 – V11 – V12 – V13 – V8, 9, 10.

Valves to be closed: V2 – V14 – V7 – taps 1 & 2.

(b) For Taps: V1 – V11 – V12 – Tap 1/Tap 2.

Valves to be closed: V2 – v13 - V14.

3.5.3 Bypassing of the 500L mixing tank only
Irrigation system operating pressure 1.5kPa provided by electrical pump

Flow path: V1- V2 – V3 – V15 – Electric pump – V6 – V7 – V8,9,10

Valves to be closed: V11 - V4 – V5 – V13

3.5.4 Bypassing of the 500L mixing tank and electrical pump.
Irrigation system operating and tap pressure (0.4m) provided by 5000L tank.

(a) For irrigation: Flow path: V1- V2 –V16 – V13 - V8, 9, 1w0

Valves to be closed: V11 – V3– V12 – V7 – taps

(b) For taps: Flow path: V1- V2 –V16 – Tap 1, 2

Valves to be closed: V11 – V3 – V12 – V13

3.5.5 The irrigation system has 3 laterals which each have 12 sprinklers/micro sprayers (flowrate 25-70L/hour). These have an operating pressure of app. 1.5bar and will normally be run via the electrical pump in the blue irrigation line (See Drawings 3 and 4 - NUR/RDN/2020/023 and /024. They can, however, be directly connected to the petrol pump via the grey bypass. See Drawings 3 & 4.

3.5.6 Valves to be used are brass butterfly and ball valves.



3.5.7 Two valve boxes to be built as per Drawing 4 (NUR/RDN/2020/024). Inside and top plastered. To be closed off with steel lid with grip.

3.6 WATER TANKS

3.6.1 Supply and installation of a 5000L vertical plastic water tank on top of the 3.00m high tank stand (see 3.6). Tank to be secured onto platform with twisted steel wire.

3.6.2 Supply and installation of a 500L vertical plastic mixing tank inside the container.

3.6.3 Tank placed on 2 courses of M200 concrete blocks (16 blocks).

3.7 TANK STAND

3.7.1 Supply and installation of a steel 3.00m high premanufactured tank stand with a platform at least 1.80m x 1.80m. Stand to come with engineering certificate.

3.7.2 Tank stand legs to be anchored into 25 MPa/19mm footings with hold down bolts. Dimensions of footings: 600mm x 600mm x 600mm.

4 SUPPLY AND INSTALLATION OF A CONVERTED SHIPPING CONTAINER

4.1 Contractor to supply a second hand refurbished extra high (Hi Cube-2.6m high) converted 20 ft shipping container as storage facility for the nursery.

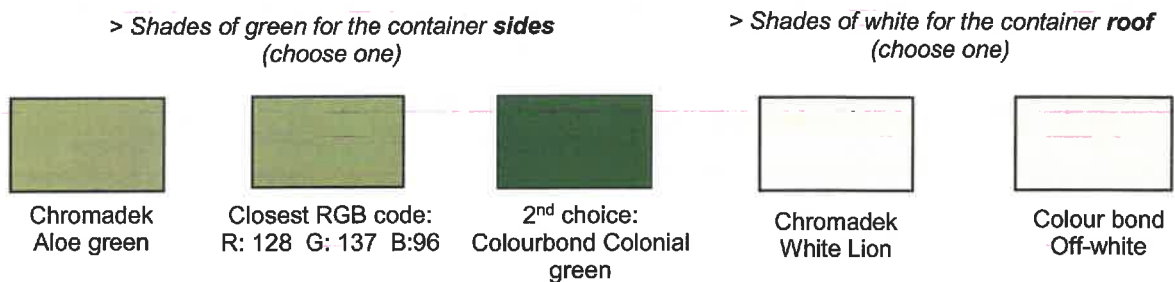
4.2 Container to be placed on M200 concrete blocks placed on a 20 MPa/19mm concrete strip foundation of 600mm x 250mm. Lengths: 6.30m x 2.60m

4.3 Area to be levelled for the container: 10 x 5 meters. Area must be level before container is placed. Maximum deviation: 50mm.

4.4 This container is to be metal etch primed (rusty/damaged spots) and spray-painted by the company doing the container conversion. Colours are white/ivory for the roof and green on the sides. First choice is aloe green. Chromadek paint code is N 03286, RGB code is R: 128 G: 137 N: 96. Paint to be matt or semi-gloss. See figure 2.

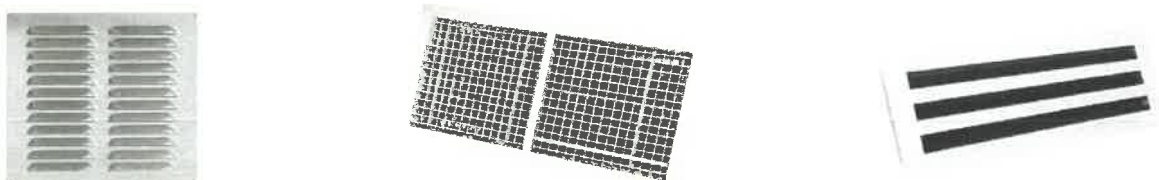
4.5 One (1) turbine type extraction fan (e.g. Whirley bird) to be installed with 300mm throat diameter in the centre of the roof.

Figure 2: Colour scheme for the sides and top of the shipping container



4.6 Four (4) ventilation openings of 400cm² each with metal (aluminium, steel) air vent covers (grilles) to be cut into the container walls, two on each side, at 2m height. Covers to be on inside and outside. Figure 3 shows some examples of such air ducts covers.

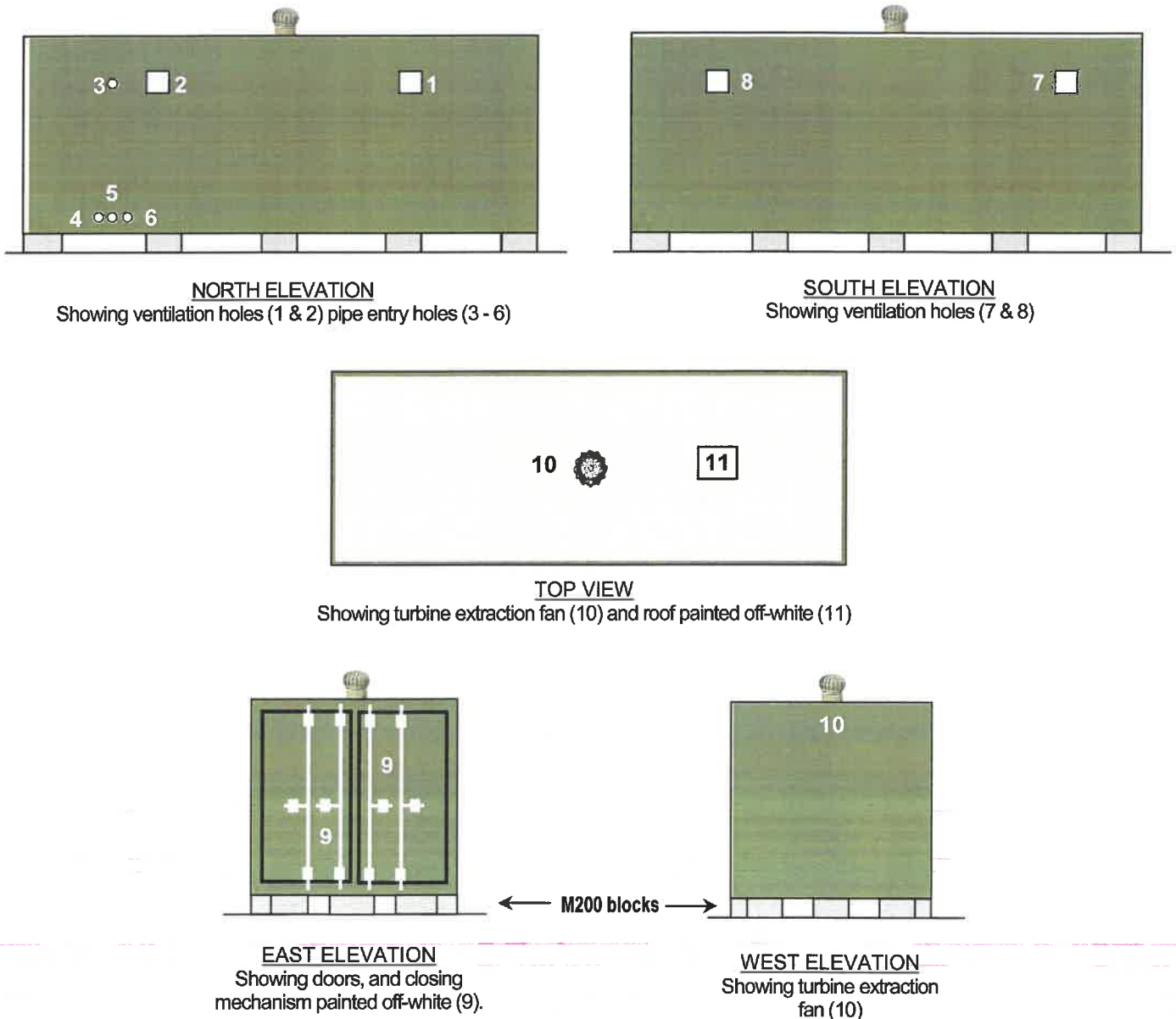
Figure 3: Possible air vent covers for ventilation holes in container walls





- 4.7 Four round holes to be drilled in container wall closest to the storage tank to allow for the passage of 32mm ID / 42 - 45mm OD LDPE Class 6 pipes. One hole at 2.00m height and three holes 75mm apart at 200mm above the container floor. The hole diameter to be to fit the available bushings external diameters (55-60mm). See Figure 4 below.

Figure 4: Shipping container elevations showing conversion features



- 4.8 Bushings to be fitted on inside *and* outside of the container wall (4 x 2 = 8 in total) by the company doing the container conversion/refurbishment.

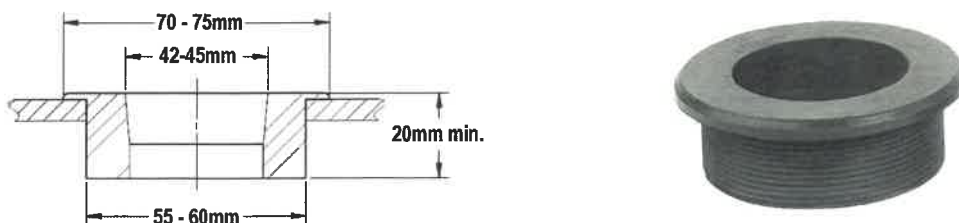


Figure 5: Rubber bushings for the pipe entry holes into the container



5 TECHNICAL SPECIFICATIONS FENCING

5.1 DIMENSIONS

5.1.1 Approximate dimensions fencing perimeter: 36m x 24m (multiples of 3m, the pole distance). Total fence length: 120m.

5.2 MATERIALS

5.2.1 Use 1.2m high **hinged joint mesh fencing** with verticals maximum 150mm apart. (Bonnox, Veldspan or similar).

5.2.2 Use **creosoted poles of 2.4m/100-125mm (49x)**, to be placed in 600mm deep augured holes. Use 2.4m long 125-150mm posts (6x) in corners and for the gate. Box braces are 1.2m (2.4m poles cut in half).

5.3 SPECIFICATIONS (SEE FIGURE 6)

5.3.1 Concrete footings. Only the 16 corner and gate posts to be in a free draining **concrete** (15Mpa/19mm) footings. Concrete base dimensions: 350 x 350 x 600mm. Distance between poles: 3.00m.

5.3.2 Use double boxes in all 4 corners and single ones at the gate. See Figure 6 below.

5.3.3 Use 32mm wire staples (5 per pole) stapled at a 45 degrees angle over the horizontal wires to staple fence to pole.

5.3.4 Two strands of binding wire at 400mm and 800mm height to attach the fence to. Straining wires making part of the hinged joint fence to be properly strained.

5.3.5 Three strands of double stranded barbed wire 150mm apart to run above fence properly fixed to poles and the top of the hinged joint mesh.

5.3.6 Flat wrap razor mesh coils to be installed against the barbed wire strands. Please note this is not shown on Figure 6.

5.3.7 Entry gate in fence at front of shed to be 3.6 x 1.8m, pipes bore 40mm x 2mm. Gate to be clad with 50mm x 50mm of weldmesh on top of the closure the gate comes with. Weldmesh to be properly secured to gate frame with steel wire at 500mm intervals.

5.3.8 Locks: a combination of a hardened chain and padlock of a reputable make (e.g. Union, Yale, Abus) make should be used.

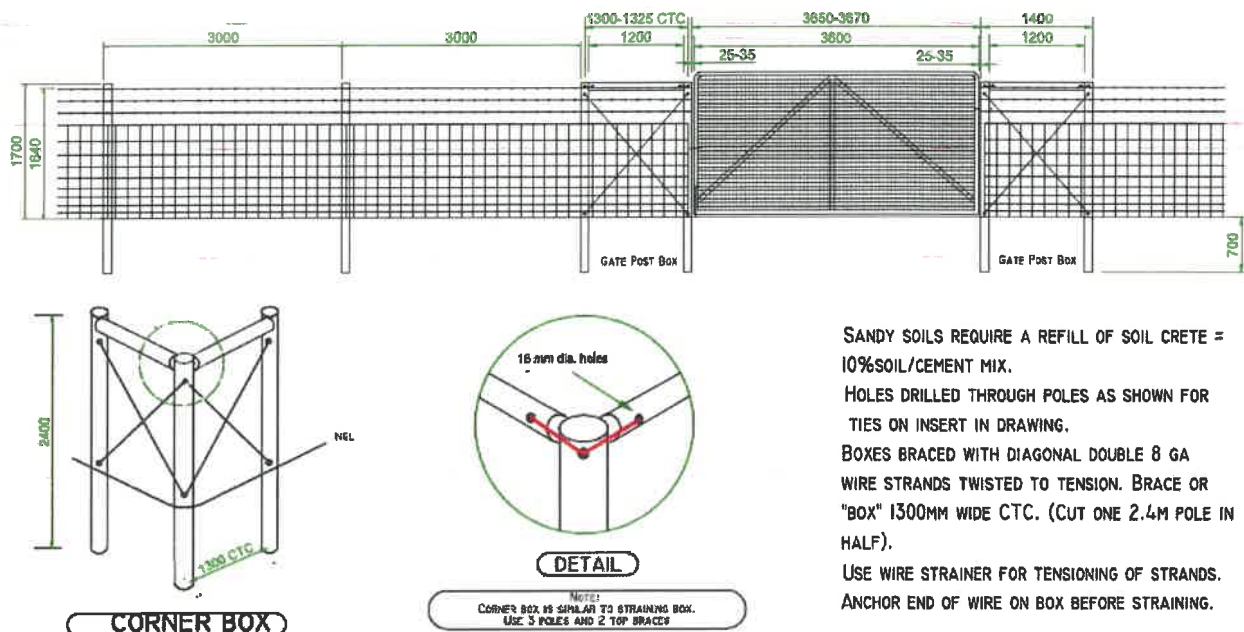


Figure 6: Fencing specifications



ANNEXURE A

BILL OF QUANTITIES/ PRICING SCHEDULE

REVISED



| ANNEXURE A: BILL OF QUANTITIES & PRICING SCHEDULE FOR A 25 X 16M NURSERY AT AVUMILE COOP [AUGUST 2020] SUMMARY PAGE | | |
|--|---|-------------------|
| # | DESCRIPTION | AMOUNT (R) |
| 1 | PAGE 1 P&G'S - SITE CLEARING & SITE ESTABLISHMENT - SOIL & CONCRETE TESTING - EXCAVATION & BACKFILLING | R |
| 2 | PAGE 2 BUILDING MATERIALS | R |
| 3 | PAGE 3 BUILDING MATERIALS. WATERTANKS AND IRRIGATION EQUIPMENT | R |
| 4 | PAGE 4 WATERTANKS AND IRRIGATION EQUIPMENT - PUMPS - SHIPPING CONTAINER | R |
| 5 | PAGE 5 FENCING - CONSUMABLES & GARDEN EQUIPMENT - LABOUR & SUPERVISION | R |
| 6 | SUB TOTAL | R |
| 7 | CONTINGENCIES 10% OF SUBTOTAL | R |
| 8 | SUBTOTAL | R |
| 9 | VAT 15% | R |
| 10 | TOTAL | R |



| ANNEXURE A: BILL OF QUANTITIES & PRICING SCHEDULE FOR A 25 X 16M NURSERY AT AVUMILE COOP [AUGUST 2020] [PAGE 1] | | | | | |
|--|--|----------------|-----|----------|------------|
| ITEM | DESCRIPTION | UNIT | QTY | RATE (R) | AMOUNT (R) |
| 1 | PRELIMINARY & GENERAL & SITE ESTABLISHMENT | | | | |
| 1.1 | Preliminary & General | Sum | 1 | | |
| 1.2 | Site establishment | Sum | 1 | | |
| 2 | SITE CLEARING & LEVELING (35 X 25M) | | | | |
| 2.1 | Site clearing (clear vegetation and trees of girth up to 1m. | m ² | 875 | | |
| 2.2 | Remove 150mm topsoil and stockpile within 0.5km if required (35m x 25m). | m ³ | 131 | | |
| 2.3 | Site Leveling (35 x 25m) | Sum | 1 | | |
| 2.4 | Compaction of levelled area and surplus cut to Mod AASTO 93% | Sum | 1 | | |
| 3 | SOIL & CONCRETE TESTING | | | | |
| 3.1 | Compaction testing with nuclear probe > Field density by nuclear gauge (Troxler) 4 tests > Moisture Density Relationship: Mod. AASHTO effort test. > Report with results > Lab personnel travel and collection costs and professional fees | Sum | 1 | | |
| 3.2 | Compaction testing by Dynamic Cone Penetrometer (DCP) > DCP Test. Allow for 3 tests of 1m depth each. Incl. disposable tip > Processing of penetration data with rel. computer programme > Lab personnel travel and collection costs and professional fees > Report with results. | Sum | 1 | | |
| 3.3 | Compressive strength test of concrete > Concrete Control: Casting (on-site), curing and testing a set of six cubes. Three sets of two cubes for 7 day and 28 day strength determination. Two sets for the nursery pole footings and 1 set for the tank stand footings. > Lab personnel costs > Report | Sum | 1 | | |
| 4 | EXCAVATION AND BACKFILL (POLES + PIPE TRENCH) Excavation rates to include disposing of surplus material within 0.5km | | | | |
| 4.1 | Structure: 28 Poles @ 500 x 500 x 600mm excavations. Total volume: 4,2m ³ | m ³ | 4,2 | | |
| 4.2 | Rack poles: 63 legs @ 500 x 500 x 500mm excavations. | m ³ | 7,9 | | |
| 4.3 | Anchoring: 28 blocks @ 500 x 500 x 500mm. Total volume: 3.5m ³ | m ³ | 3,5 | | |
| 4.4 | Excavation of 4 holes 600 x 600 x 600mm for tank stand footing | Sum | 1 | | |
| 4.5 | Excavation of pipe trench, backfill & compact | m ³ | 81 | | |
| << SUBTOTAL - TRANSFER TO SUMMARY PAGE | | | | R | |



**ANNEXURE A: BILL OF QUANTITIES & PRICING SCHEDULE FOR A 25 X 16M NURSERY AT AVUMILE COOP
[AUGUST 2020] [PAGE 2]**

| ITEM | DESCRIPTION | UNIT | QTY | RATE (R) | AMOUNT (R) |
|----------|--|----------------|-------|----------|------------|
| 5 | BUILDING MATERIALS CEMENT - SAND - STONE | | | | |
| | CONCRETE 20 MPa/19mm for pole footings 500 x 500 x 600mm: 4.2m ³ 20 MPa/19mm for anchor blocks 500 x 500 x 500 for structure 3.5m ³ 20 MPa/19mm for shipping container foundation: 2.8m ³ 20 MPa/19mm for rack legs (63 x 500mm x 500mm x 500mm): 7.9m ³ 20 MPa/19mm for valve box slabs 1.35m x 1.1m/1.1m x 1.1m: 0.3m ³ 25 MPa/19 mm for tank stand footings (600 x 600 x 600mm): 0.9m ³ ²⁰ Total cured volume of all concrete: 19,6m ³ | m ³ | 19,6 | | |
| 5.1 | NPC 42.5 Cement. No. of bags (50kg). | No. | 104,0 | | |
| 5.2 | River sand | m ³ | 9,0 | | |
| 5.3 | Building sand | L | 60 | | |
| 5.4 | 13mm stone for floor | m ³ | 24,0 | | |
| 5.5 | 19mm stone | m ³ | 12,6 | | |
| 5.6 | M 150 blocks for valve boxes | No. | 72 | | |
| 5.7 | Shutterply (2 sheets of 1220 x 2440 x 21mm) for concrete footing tank stands. Include installation costs. | No. | 2,0 | | |
| 6 | BUILDING MATERIALS CCA TREATED HARDWOOD | | | | |
| 6.1 | 3.0 m x 125-150 mm diameter vertical posts for structure | No. | 28 | | |
| 6.2 | Bracing poles above entry gate (900 x 100-125mm) | No. | 2 | | |
| 6.3 | 2.4m x 100-125mm frame legs for racks (cut 2x1.2m legs from 1 pole) | No. | 32 | | |
| 6.4 | 3.0 m x 100-125mm diameter horizontal bracing poles for racks | No. | 18 | | |
| 6.5 | 2.1 m x 100-125mm cross bars for wire support | No. | 21 | | |
| 7 | BUILDING MATERIALS STEEL WIRING & TENSIONERS | | | | |
| 7.1 | Wire - 2.2mm high tensile galvanized steel wire for shade cloth support & holdback. Rolls of 100m | No. | 5 | | |
| 7.2 | Wire - 2.2mm high tensile galvanized steel wire for shade cloth support & holdback. Rolls of 100m | No. | 9 | | |
| 7.3 | 2.5mm binding wire (galv) for racks. Roll of 100m. | No. | 1 | | |
| 7.4 | Wire tensioner anchor: turnbuckle eye-eye type | No. | 28 | | |
| 7.5 | M10 x 80 Eye bolts shield anchor - expanding rawl type | No. | 28 | | |
| | << SUBTOTAL - TRANSFER TO SUMMARY PAGE | | | R | |



**ANNEXURE A: BILL OF QUANTITIES & PRICING SCHEDULE FOR A 25 X 16M NURSERY AT AVUMILE COOP
[AUGUST 2020] [PAGE 3]**

| ITEM | DESCRIPTION | UNIT | QTY | RATE (R) | AMOUNT (R) |
|---|---|------|-----|----------|------------|
| 7 | BUILDING MATERIALS STEEL WIRING & TENSIONERS (CTD) | | | | |
| 7.6 | Cross wire tensioner - ratchet type or hook bolt tensioner | No. | 28 | | |
| 7.7 | Wire tensioners for racks (14 x 3). Hinge bolt galvanised | No. | 42 | | |
| 7.8 | Wire staples - 32mm | kg | 3 | | |
| 7.9 | Hoop irons (galv) 500mm x 30mm x 1.2mm (min) to fasten cross bars to rack legs | No. | 63 | | |
| 8 | BUILDING MATERIALS SHADECLOTH | | | | |
| 8.1 | 40% Green. Rolls of 30m x 3.00m | No. | 6 | | |
| 8.2 | Shade cloth binding wire/twining. Rolls of 100m. | No. | 2 | | |
| 8.3 | 250micron thick green UCP plastic. Rolls of 30m x 3m length | No. | 6 | | |
| 9 | WATER TANKS AND IRRIGATION EQUIPMENT <i>Installation of sprinkler system, pumps and tanks strictly by specialist only.</i> | | | | |
| 9.1 | 5000L-5250L vertical plastic water tank + fittings | No. | 1 | | |
| 9.2 | Tankstand 3.00m high, 2.00m x 2.00m platform. Incl. Engineering certificate and installation on footings. See PSS 3.7 for specs. | Sum | 1 | | |
| 9.3 | 500L PE plastic tank with fittings (other than those mentioned below) | No. | 1 | | |
| 9.4 | 40mm CI 9 HDPE pipes (from mobile pump to storage tank to mixing tank). Roll of 100m. | No. | 5 | | |
| 9.5 | 25mm CI 6 HDPE pipes (from mixing tank to nursery and from storage tank to nursery). Roll of 100m. | No. | 1 | | |
| 9.6 | 20mm CI 6 HDPE pipes (from mixing tank to nursery and from storage tank to nursery). Roll of 100m. | No. | 1 | | |
| 9.7 | Butterfly valve 32 mm (brass or galv. steel) | No. | 8 | | |
| 9.8 | Butterfly valve 25 mm (brass or galv. steel) | No. | 4 | | |
| 9.9 | Butterfly valve 32 mm > 25mm (brass or galv. steel) | No. | 1 | | |
| 9.10 | Butterfly valve 25>20mm (brass or galv. steel) | No. | 3 | | |
| 9.11 | 32mm Ø T-piece | No. | 4 | | |
| 9.12 | 25mm Ø T-piece | No. | 5 | | |
| 9.13 | 40mm Ø 90° elbows (HDPE supply line) | No. | 3 | | |
| 9.13 | 32mm Ø 90° elbows | No. | 16 | | |
| 9.14 | 25mm Ø 90° elbows | No. | 17 | | |
| << SUBTOTAL - TRANSFER TO SUMMARY PAGE | | | | R | |



| ANNEXURE A: BILL OF QUANTITIES & PRICING SCHEDULE FOR A 25 X 16M NURSERY AT AVUMILE COOP [AUGUST 2020] [PAGE 4] | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|-------------------------------|-----|----------|------------|------|------|------|------|---------------------------|---|----|-----|-----|-----|-----|-----|---------------------------|----|----|----|----|----|----|----|-----|---|--|--|
| ITEM | DESCRIPTION | UNIT | QTY | RATE (R) | AMOUNT (R) | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | WATER TANKS AND IRRIGATION EQUIPMENT (CTD) | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9.14 | 20mm Ø 90° elbows | No. | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9.15 | 25-20mm Ø reducer | No. | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9.16 | Steel lids for valve boxes, with grip. 1.35 x 1.10m and 1.10m x 1.10m. With 3 hinges per lid welded on top. Include installation. | Sum | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9.17 | Micro Jets sprayer with Operational Pressure of 150 kPa and flow rates 24-65 L/hour and wetting Ø of 2.5-3.5m Examples: > Microjet 360 degrees, Cap AB 02/AB 03, green base (2.4m wetting diam, discharge 64L/h. OR > Microspin Blue or Green (2.4m /3.0m wetting dia.) >> Quote must include riser tubes << | No. | 36 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9.18 | Y10 rebar cut to 1.5m length to attach sprayers/sprinklers to. No. of rebars of 6m length | No. | 9 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9.19 | Cost for installation by nursery irrigation specialist, incl. disbursements. Name and contact details of specialist > <input type="text"/> | Sum | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | PUMPS | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10.1 | Supply and installation of a 0.25kW - 0.50kW single phase electrical pump (Pedrollo CMP100 or equivalent) able to deliver 2.4m ³ /hour at 11m head. See PSS Section 3.3. | Sum | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10.2 | Supply and installation of a TWINSTAGE SELFPRIMING mobile petrol water pump with engine. > Inlet size: 40 or 50mm. > Outlets: minimum 2x size: 2 x 40mm or 1x40mm & 1x25mm > Power: 5.5Hp/4.1kW (5.0-6.5Hp) > Flow rate 100-220L/min; > Delivery head 75-100m > Weight: 20-25kg > Impellor type: cast iron/stainless steel. > House type: aluminium or steel or cast iron > Low oil shut down Examples: DAVEY 5255H or DAVEY 5258 with HondaGX160 engine Include 3m suction hose, strainer/sieve and quick coupling clamp in the quote if not supplied with the pump or no intake pipe is part of the pump. Pumpcurve: <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>Flow rate (m³/h)</td> <td>0</td> <td>3.0</td> <td>6.0</td> <td>8.1</td> <td>9.0</td> <td>12.0</td> <td>13.2</td> </tr> <tr> <td>Flow rate (Liters/minute)</td> <td>0</td> <td>50</td> <td>100</td> <td>135</td> <td>150</td> <td>200</td> <td>220</td> </tr> <tr> <td>Maximum delivery head (m)</td> <td>92</td> <td>84</td> <td>70</td> <td>62</td> <td>58</td> <td>45</td> <td>41</td> </tr> </table> | Flow rate (m ³ /h) | 0 | 3.0 | 6.0 | 8.1 | 9.0 | 12.0 | 13.2 | Flow rate (Liters/minute) | 0 | 50 | 100 | 135 | 150 | 200 | 220 | Maximum delivery head (m) | 92 | 84 | 70 | 62 | 58 | 45 | 41 | Sum | 1 | | |
| Flow rate (m ³ /h) | 0 | 3.0 | 6.0 | 8.1 | 9.0 | 12.0 | 13.2 | | | | | | | | | | | | | | | | | | | | | | |
| Flow rate (Liters/minute) | 0 | 50 | 100 | 135 | 150 | 200 | 220 | | | | | | | | | | | | | | | | | | | | | | |
| Maximum delivery head (m) | 92 | 84 | 70 | 62 | 58 | 45 | 41 | | | | | | | | | | | | | | | | | | | | | | |
| 10.3 | Non return valve for pump (10.2) for 40mm pipeline | No. | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10.4 | Supply of a wheelbarrow type frame on which the generator and pump can be mounted. | No. | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11 | SHIPPING CONTAINER | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11.1 | Supply, convert, deliver and install 20 ft (6.0m) Hi Cube (2.6m) container as per PSS section 4 | Sum | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11.2 | Leveling & compacting of the site (10 x 5m). | Sum | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11.3 | 20 Mpa/19mm (1:2:4 or 1:3:3) strip foundation for Shipping container | m ³ | 2,8 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11.4 | M200 blocks to place the container on + for mixing tank base | No. | 40 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| << SUBTOTAL - TRANSFER TO SUMMARY PAGE | | | | R | | | | | | | | | | | | | | | | | | | | | | | | | |



**ANNEXURE A: BILL OF QUANTITIES & PRICING SCHEDULE FOR A 25 X 16M NURSERY AT AVUMILE COOP
[AUGUST 2020] [PAGE 5]**

| | | | | | |
|---|---|----------------|-----|----------|--|
| 12 | FENCING (IF REQUIRED) <i>1.2m hinged joint fencing with 3 strands of barbed wire plus razor coils. Posts 3.0m apart. Area to be fenced: 36 x 24m.</i> | | | | |
| 12.1 | Mesh fencing (Bonnox or similar) 100m, 1.2m high, verticals at 150mm max. Gauge 2.5mm | Rolls | 2 | | |
| 12.2 | Razor wire coils (flat wrap 500mm) 15m x 2.0mm | Rolls | 8 | | |
| 12.3 | Creosoted poles 2.4m x 100-125mm | No. | 49 | | |
| 12.4 | Creosoted poles 2.4m x 125-150mm | No. | 6 | | |
| 12.5 | Wire staples 32mm/500g/pack | No. | 3 | | |
| 12.6 | Straining wire 3.15mm-roles of 5kg (app. 80m) | No. | 2 | | |
| 12.7 | Binding wire 2mm thick - roles of 5 kg (app. 200m) | No. | 1 | | |
| 12.8 | Galvanized steel gate 3.6m x 1.80m + hinges: round bar (35 x 2.0mm), ith 500mm flat wrap razor wire on top. | No. | 1 | | |
| 12.9 | Solid Brass/ zinc padlock (Sobo/ Master/Yale/ Union/Abus), + chain. | No. | 1 | | |
| 12.10 | 15 Mpa concrete for the 16 corner and gate posts + boxes: 350 x 350 x 600mm. 1.1m ³ of concrete in total | m ³ | 0,8 | | |
| 12.12 | NPC 42.5 Cement. No. of bags (50kg). | No. | 7,0 | | |
| 12.13 | River sand | m ³ | 0,6 | | |
| 12.14 | 13mm stone | m ³ | 0,8 | | |
| 13 | CONSUMABLES & GARDEN EQUIPMENT | | | | |
| 13.1 | Plastic conduits 15mm dia.x 200mm length for steel cross wires roof | No. | 28 | | |
| 13.2 | Plastic Unigro reusable seedtrays with 128 loose inserts for tree propagation. | No. | 14 | | |
| 13.3 | Nursery trays - Polystyrene, 200 cells/cavities | No. | 300 | | |
| 13.4 | Nursery trays - Polystyrene, 98 cells/cavities | No. | 100 | | |
| 13.5 | Seedling mix - bags of 10L | No. | 50 | | |
| 13.6 | Watering cans (10L) | No. | 2 | | |
| 13.7 | Long handle spades | No. | 2 | | |
| 13.8 | Wheelbarrow Steel 1.8mm min. Solid rubber wheels. 65L capacity | No. | 1 | | |
| 13.9 | Secateurs (pruning shears) | No. | 2 | | |
| 13.10 | 16L Knapsack sprayers (Matabi) | No. | 2 | | |
| 14 | LABOUR AND SUPERVISION | | | | |
| 14.1 | Labour and Supervision | Sum | 1 | | |
| << SUBTOTAL - TRANSFER TO SUMMARY PAGE | | | | R | |

**ANNEXURE B |****REFERENCES**

Please provide an indication of your experience and expertise by completing the table below (minimum 2, maximum 5 projects in the past 5 years).

| No | Name of project + Period | Project description | Role (self or sub-contracted) | Project value | Name and contact number of referee |
|----|--------------------------|---------------------|-------------------------------|---------------|------------------------------------|
| 1 | | | | | |
| 2 | | | | | |
| 3 | | | | | |
| 4 | | | | | |
| 5 | | | | | |

**ANNEXURE C |****LIST OF DRAWINGS**

| # | DRAWING NO. | DRAWING REF. | DRAWING DESCRIPTION |
|---|-------------|------------------|--|
| 1 | DR01 | NUR/RDN/2020/021 | 25X16M SEEDLING NURSERY STRUCTURAL |
| 2 | DR02 | NUR/RDN/2020/022 | 25X16M SEEDLING NURSERY IRRIGATION LAYOUT |
| 3 | DR03 | NUR/RDN/2020/023 | 25X16M SEEDLING NURSERY WATER SUPPLY INSTALLATION DETAILS |
| 4 | DR04 | NUR/RDN/2020/024 | 25X16M SEEDLING NURSERY PIPES, VALVES, PUMPS & FITTINGS |
| 5 | DR05 | NUR/RDN/2020/024 | 25X16M SEEDLING NURSERY TYPICAL SITE LAY OUT & SHADECLOTH INSTALLATION DETAILS |

KINDLY COMPLETE PLEASE!!!

SBD 4

DECLARATION OF INTEREST

1. Any legal person, including persons employed by the state¹, 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 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, trustee, shareholder²):

2.4 Company Registration Number:

2.5 Tax Reference Number:

2.6 VAT Registration Number:

2.6.1 The names of all directors / trustees / shareholders / members, their individual identity numbers, tax reference numbers and, if applicable, employee / persal numbers must be indicated in paragraph 3 below.

¹"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"Shareholder" means a person who owns shares in the company and is actively involved in the management of the enterprise or business and exercises control over the enterprise.

KINDLY COMPLETE PLEASE!!!

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 / trustee / shareholder/ member:
Name of state institution at which you or the person connected to the bidder is employed :
Position occupied in the state institution:

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

2.7.2 If you are presently employed by the state, did you obtain the appropriate authority to undertake remunerative work outside employment in the public sector? **YES / NO**

2.7.2.1 If yes, did you attached proof of such authority to the bid document? **YES / NO**

(Note: Failure to submit proof of such authority, where applicable, may result in the disqualification of the bid.

2.7.2.2 If no, furnish reasons for non-submission of such proof:

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

2.8 Did you or your spouse, or any of the company's directors / trustees / 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**

KINDLY COMPLETE PLEASE!!!

4 DECLARATION

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

CERTIFY THAT THE INFORMATION FURNISHED IN PARAGRAPHS 2 and 3 ABOVE IS CORRECT. I ACCEPT THAT THE STATE MAY REJECT THE BID OR 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

May 2011

**PREFERENCE POINTS CLAIM FORM IN TERMS OF THE PREFERENTIAL
PROCUREMENT REGULATIONS 2017**

This preference form must form part of all bids invited. It contains general information and serves as a claim form for preference points for Broad-Based Black Economic Empowerment (B-BBEE) Status Level of Contribution

NB: BEFORE COMPLETING THIS FORM, BIDDERS MUST STUDY THE GENERAL CONDITIONS, DEFINITIONS AND DIRECTIVES APPLICABLE IN RESPECT OF B-BBEE, AS PRESCRIBED IN THE PREFERENTIAL PROCUREMENT REGULATIONS, 2017.

1. GENERAL CONDITIONS

1.1 The following preference point systems are applicable to all bids:

- the 80/20 system for requirements with a Rand value of up to R50 000 000 (all applicable taxes included); and
- the 90/10 system for requirements with a Rand value above R50 000 000 (all applicable taxes included).

1.2

- a) The value of this bid is estimated to **exceed/not exceed** R50 000 000 (all applicable taxes included) and therefore the **.....** preference point system shall be applicable; or
- b) Either the 80/20 or 90/10 preference point system will be applicable to this tender (*delete whichever is not applicable for this tender*).

1.3 Points for this bid shall be awarded for:

- (a) Price; and
- (b) B-BBEE Status Level of Contributor.

1.4 The maximum points for this bid are allocated as follows:

| | POINTS |
|--|------------|
| PRICE | |
| B-BBEE STATUS LEVEL OF CONTRIBUTOR | |
| Total points for Price and B-BBEE must not exceed | 100 |

- 1.5 Failure on the part of a bidder to submit proof of B-BBEE Status level of contributor together with the bid, will be interpreted to mean that preference points for B-BBEE status level of contribution are not claimed.
- 1.6 The purchaser reserves the right to require of a bidder, either before a bid is adjudicated or at any time subsequently, to substantiate any claim in regard to preferences, in any manner required by the purchaser.

| B-BBEE Status Level of Contributor | Number of points (90/10 system) | Number of points (80/20 system) |
|------------------------------------|---------------------------------|---------------------------------|
| 1 | 10 | 20 |
| 2 | 9 | 18 |
| 3 | 6 | 14 |
| 4 | 5 | 12 |
| 5 | 4 | 8 |
| 6 | 3 | 6 |
| 7 | 2 | 4 |
| 8 | 1 | 2 |
| Non-compliant contributor | 0 | 0 |

5. BID DECLARATION

5.1 Bidders who claim points in respect of B-BBEE Status Level of Contribution must complete the following:

6. B-BBEE STATUS LEVEL OF CONTRIBUTOR CLAIMED IN TERMS OF PARAGRAPHS 1.4 AND 4.1

6.1 B-BBEE Status Level of Contributor: . =(maximum of 10 or 20 points)
 (Points claimed in respect of paragraph 7.1 must be in accordance with the table reflected in paragraph 4.1 and must be substantiated by relevant proof of B-BBEE status level of contributor.

7. SUB-CONTRACTING

7.1 Will any portion of the contract be sub-contracted?

(Tick applicable box)

| | | | |
|-----|--------------------------|----|--------------------------|
| YES | <input type="checkbox"/> | NO | <input type="checkbox"/> |
|-----|--------------------------|----|--------------------------|

7.1.1 If yes, indicate:

- i) What percentage of the contract will be subcontracted.....%
- ii) The name of the sub-contractor.....
- iii) The B-BBEE status level of the sub-contractor.....
- iv) Whether the sub-contractor is an EME or QSE

(Tick applicable box)

| | | | |
|-----|--------------------------|----|--------------------------|
| YES | <input type="checkbox"/> | NO | <input type="checkbox"/> |
|-----|--------------------------|----|--------------------------|

v) Specify, by ticking the appropriate box, if subcontracting with an enterprise in terms of Preferential Procurement Regulations,2017:

| Designated Group: An EME or QSE which is at last 51% owned by: | EME √ | QSE √ |
|---|----------|----------|
| Black people | | |
| Black people who are youth | | |
| Black people who are women | | |
| Black people with disabilities | | |
| Black people living in rural or underdeveloped areas or townships | | |
| Cooperative owned by black people | | |

| | | |
|--|--|--|
| Black people who are military veterans | | |
| OR | | |
| Any EME | | |
| Any QSE | | |

8. DECLARATION WITH REGARD TO COMPANY/FIRM

8.1 Name of company/firm:.....

8.2 VAT registration number:.....

8.3 Company registration number:.....

8.4 TYPE OF COMPANY/ FIRM

- Partnership/Joint Venture / Consortium
 - One person business/sole propriety
 - Close corporation
 - Company (Pty) Limited
- [TICK APPLICABLE BOX]

8.5 DESCRIBE PRINCIPAL BUSINESS ACTIVITIES

.....

8.6 COMPANY CLASSIFICATION

- Manufacturer
 - Supplier
 - Professional service provider
 - Other service providers, e.g. transporter, etc.
- [TICK APPLICABLE BOX]

8.7 Total number of years the company/firm has been in business:.....

8.8 I/we, the undersigned, who is / are duly authorised to do so on behalf of the company/firm, certify that the points claimed, based on the B-BBE status level of contributor indicated in paragraphs 1.4 and 6.1 of the foregoing certificate, qualifies the company/ firm for the preference(s) shown and I / we acknowledge that:

- i) The information furnished is true and correct;
- ii) The preference points claimed are in accordance with the General Conditions as indicated in paragraph 1 of this form;
- iii) In the event of a contract being awarded as a result of points claimed as shown in paragraphs 1.4 and 6.1, the contractor may be required to furnish documentary proof to the satisfaction of the purchaser that the claims are correct;
- iv) If the B-BBEE status level of contributor has been claimed or obtained on a

fraudulent basis or any of the conditions of contract have not been fulfilled, the purchaser may, in addition to any other remedy it may have –

- (a) disqualify the person from the bidding process;
- (b) recover costs, losses or damages it has incurred or suffered as a result of that person's conduct;
- (c) cancel the contract and claim any damages which it has suffered as a result of having to make less favourable arrangements due to such cancellation;
- (d) recommend that the bidder or contractor, its shareholders and directors, or only the shareholders and directors who acted on a fraudulent basis, be restricted by the National Treasury from obtaining business from any organ of state for a period not exceeding 10 years, after the *audi alteram partem* (hear the other side) rule has been applied; and
- (e) forward the matter for criminal prosecution.

| |
|---|
| <p>WITNESSES</p> <p>1.</p> <p>2.</p> |
|---|

| |
|--|
| <p>..... SIGNATURE(S) OF BIDDERS(S)</p> <p>DATE:</p> <p>ADDRESS</p> <p>.....</p> <p>.....</p> |
|--|

DECLARATION CERTIFICATE FOR LOCAL PRODUCTION AND CONTENT FOR DESIGNATED SECTORS

This Standard Bidding Document (SBD) must form part of all bids invited. It contains general information and serves as a declaration form for local content (local production and local content are used interchangeably).

Before completing this declaration, bidders must study the General Conditions, Definitions, Directives applicable in respect of Local Content as prescribed in the Preferential Procurement Regulations, 2011, the South African Bureau of Standards (SABS) approved technical specification number SATS 1286:2011 (Edition 1) and the Guidance on the Calculation of Local Content together with the Local Content Declaration Templates [Annex C (Local Content Declaration: Summary Schedule), D (Imported Content Declaration: Supporting Schedule to Annex C) and E (Local Content Declaration: Supporting Schedule to Annex C)].

1. General Conditions

- 1.1. Preferential Procurement Regulations, 2011 (Regulation 9) makes provision for the promotion of local production and content.
- 1.2. Regulation 9.(1) prescribes that in the case of designated sectors, where in the award of bids local production and content is of critical importance, such bids must be advertised with the specific bidding condition that only locally produced goods, services or works or locally manufactured goods, with a stipulated minimum threshold for local production and content will be considered.
- 1.3. Where necessary, for bids referred to in paragraph 1.2 above, a two stage bidding process may be followed, where the first stage involves a minimum threshold for local production and content and the second stage price and B-BBEE.
- 1.4. A person awarded a contract in relation to a designated sector, may not sub-contract in such a manner that the local production and content of the overall value of the contract is reduced to below the stipulated minimum threshold.
- 1.5. The local content (LC) expressed as a percentage of the bid price must be calculated in accordance with the SABS approved technical specification number SATS 1286: 2011 as follows:

$$LC = [1 - x / y] * 100$$

Where

x is the imported content in Rand

y is the bid price in Rand excluding value added tax (VAT)

Prices referred to in the determination of x must be converted to Rand (ZAR) by using the exchange rate published by South African Reserve Bank (SARB) at 12:00 on the date of advertisement of the bid as indicated in paragraph 4.1 below.

The SABS approved technical specification number SATS 1286:2011 is accessible on http://www.thedti.gov.za/industrial_development/ip.jsp at no cost.

1.6 A bid may be disqualified if –

- (a) this Declaration Certificate and the Annex C (Local Content Declaration: Summary Schedule) are not submitted as part of the bid documentation; and
- (b) the bidder fails to declare that the Local Content Declaration Templates (Annex C, D and E) have been audited and certified as correct.

2. Definitions

- 2.1. **"bid"** includes written price quotations, advertised competitive bids or proposals;
 - 2.2. **"bid price"** price offered by the bidder, excluding value added tax (VAT);
 - 2.3. **"contract"** means the agreement that results from the acceptance of a bid by an organ of state;
 - 2.4. **"designated sector"** means a sector, sub-sector or industry that has been designated by the Department of Trade and Industry in line with national development and Industrial policies for local production, where only locally produced services, works or goods or locally manufactured goods meet the stipulated minimum threshold for local production and content;
 - 2.5. **"duly sign"** means a Declaration Certificate for Local Content that has been signed by the Chief Financial Officer or other legally responsible person nominated in writing by the Chief Executive, or senior member / person with management responsibility(close corporation, partnership or individual).
 - 2.6. **"imported content"** means that portion of the bid price represented by the cost of components, parts or materials which have been or are still to be imported (whether by the supplier or its subcontractors) and which costs are inclusive of the costs abroad (this includes labour or intellectual property costs), plus freight and other direct importation costs, such as landing costs, dock duties, import duty, sales duty or other similar tax or duty at the South African port of entry;
 - 2.7. **"local content"** means that portion of the bid price which is not included in the imported content, provided that local manufacture does take place;
 - 2.8. **"stipulated minimum threshold"** means that portion of local production and content as determined by the Department of Trade and Industry; and
 - 2.9. **"sub-contract"** means the primary contractor's assigning, leasing, making out work to, or employing another person to support such primary contractor in the execution of part of a project in terms of the contract.
3. The stipulated minimum threshold(s) for local production and content (refer to Annex A of SATS 1286:2011) for this bid is/are as follows:

| <u>Description of services, works or goods</u> | <u>Stipulated minimum threshold</u> |
|--|-------------------------------------|
| _____ | _____ % |
| _____ | _____ % |
| _____ | _____ % |

4. Does any portion of the services, works or goods offered have any imported content?
(Tick applicable box)

| | | | |
|-----|--------------------------|----|--------------------------|
| YES | <input type="checkbox"/> | NO | <input type="checkbox"/> |
|-----|--------------------------|----|--------------------------|

4.1 If yes, the rate(s) of exchange to be used in this bid to calculate the local content as prescribed in paragraph 1.5 of the general conditions must be the rate(s) published by SARB for the specific currency at 12:00 on the date of advertisement of the bid.

The relevant rates of exchange information is accessible on www.reservebank.co.za.

Indicate the rate(s) of exchange against the appropriate currency in the table below (refer to Annex A of SATS 1286:2011):

| Currency | Rates of exchange |
|-----------------|--------------------------|
| US Dollar | |
| Pound Sterling | |
| Euro | |
| Yen | |
| Other | |

NB: Bidders must submit proof of the SARB rate (s) of exchange used.

5. Were the Local Content Declaration Templates (Annex C, D and E) audited and certified as correct?
(Tick applicable box)

| | | | |
|-----|--------------------------|----|--------------------------|
| YES | <input type="checkbox"/> | NO | <input type="checkbox"/> |
|-----|--------------------------|----|--------------------------|

5.1. If yes, provide the following particulars:

- (a) Full name of auditor:
- (b) Practice number:
- (c) Telephone and cell number:
- (d) Email address:

(Documentary proof regarding the declaration will, when required, be submitted to the satisfaction of the Accounting Officer / Accounting Authority)

6. Where, after the award of a bid, challenges are experienced in meeting the stipulated minimum threshold for local content the dti must be informed accordingly in order for the dti to verify and in consultation with the AO/AA provide directives in this regard.

**LOCAL CONTENT DECLARATION
(REFER TO ANNEX B OF SATS 1286:2011)**

LOCAL CONTENT DECLARATION BY CHIEF FINANCIAL OFFICER OR OTHER LEGALLY RESPONSIBLE PERSON NOMINATED IN WRITING BY THE CHIEF EXECUTIVE OR SENIOR MEMBER/PERSON WITH MANAGEMENT RESPONSIBILITY (CLOSE CORPORATION, PARTNERSHIP OR INDIVIDUAL)

IN RESPECT OF BID NO.

ISSUED BY: (Procurement Authority / Name of Institution):
.....

NB

1 The obligation to complete, duly sign and submit this declaration cannot be transferred to an external authorized representative, auditor or any other third party acting on behalf of the bidder.

2 Guidance on the Calculation of Local Content together with Local Content Declaration Templates (Annex C, D and E) is accessible on http://www.thdti.gov.za/industrial_development/ip.jsp. Bidders should first complete Declaration D. After completing Declaration D, bidders should complete Declaration E and then consolidate the information on Declaration C. **Declaration C should be submitted with the bid documentation at the closing date and time of the bid in order to substantiate the declaration made in paragraph (c) below.** Declarations D and E should be kept by the bidders for verification purposes for a period of at least 5 years. The successful bidder is required to continuously update Declarations C, D and E with the actual values for the duration of the contract.

I, the undersigned, (full names), do hereby declare, in my capacity as of(name of bidder entity), the following:

(a) The facts contained herein are within my own personal knowledge.

(b) I have satisfied myself that:

- (i) the goods/services/works to be delivered in terms of the above-specified bid comply with the minimum local content requirements as specified in the bid, and as measured in terms of SATS 1286:2011; and
- (ii) the declaration templates have been audited and certified to be correct.

(c) The local content percentage (%) indicated below has been calculated using the formula given in clause 3 of SATS 1286:2011, the rates of exchange indicated in paragraph 4.1 above and the information contained in Declaration D and E which has been consolidated in Declaration C:

| | |
|--|---|
| Bid price, excluding VAT (y) | R |
| Imported content (x), as calculated in terms of SATS 1286:2011 | R |
| Stipulated minimum threshold for local content (paragraph 3 above) | |
| Local content %, as calculated in terms of SATS 1286:2011 | |

If the bid is for more than one product, the local content percentages for each product contained in Declaration C shall be used instead of the table above.

The local content percentages for each product has been calculated using the formula given in clause 3 of SATS 1286:2011, the rates of exchange indicated in paragraph 4.1 above and the information contained in Declaration D and E.

(d) I accept that the Procurement Authority / Institution has the right to request that the local content be verified in terms of the requirements of SATS 1286:2011.

(e) I understand that the awarding of the bid is dependent on the accuracy of the information furnished in this application. I also understand that the submission of incorrect data, or data that are not verifiable as described in SATS 1286:2011, may result in the Procurement Authority / Institution imposing any or all of the remedies as provided for in Regulation 13 of the Preferential Procurement Regulations, 2011 promulgated under the Preferential Policy Framework Act (PPPFA), 2000 (Act No. 5 of 2000).

SIGNATURE: _____

DATE: _____

WITNESS No. 1 _____

DATE: _____

WITNESS No. 2 _____

DATE: _____

CONTRACT FORM - RENDERING OF SERVICES

THIS FORM MUST BE FILLED IN DUPLICATE BY BOTH THE SERVICE PROVIDER (PART 1) AND THE PURCHASER (PART 2). BOTH FORMS MUST BE SIGNED IN THE ORIGINAL SO THAT THE SERVICE PROVIDER AND THE PURCHASER WOULD BE IN POSSESSION OF ORIGINALLY SIGNED CONTRACTS FOR THEIR RESPECTIVE RECORDS.

PART 1 (TO BE FILLED IN BY THE SERVICE PROVIDER)

1. I hereby undertake to render services described in the attached bidding documents to (name of the institution)..... in accordance with the requirements and task directives / proposals specifications stipulated in Bid Number..... at the price/s quoted. My offer/s remain binding upon me and open for acceptance by the Purchaser during the validity period indicated and calculated from the closing date of the bid .
2. The following documents shall be deemed to form and be read and construed as part of this agreement:
 - (i) Bidding documents, viz
 - Invitation to bid;
 - Tax clearance certificate;
 - Pricing schedule(s);
 - Filled in task directive/proposal;
 - Preference claims for Broad Based Black Economic Empowerment Status Level of Contribution in terms of the Preferential Procurement Regulations 2011;
 - Declaration of interest;
 - Declaration of bidder's past SCM practices;
 - Certificate of Independent Bid Determination;
 - Special Conditions of Contract;
 - (ii) General Conditions of Contract; and
 - (iii) Other (specify)
3. I confirm that I have satisfied myself as to the correctness and validity of my bid; that the price(s) and rate(s) quoted cover all the services specified in the bidding documents; that the price(s) and rate(s) cover all my obligations and I accept that any mistakes regarding price(s) and rate(s) and calculations will be at my own risk.
4. I accept full responsibility for the proper execution and fulfilment of all obligations and conditions devolving on me under this agreement as the principal liable for the due fulfillment of this contract.
5. I declare that I have no participation in any collusive practices with any bidder or any other person regarding this or any other bid.
6. I confirm that I am duly authorised to sign this contract.

NAME (PRINT)

CAPACITY

SIGNATURE

NAME OF FIRM

DATE

| | |
|-------------|-------|
| WITNESSES | |
| 1 | |
| 2 | |
| DATE: | |

CONTRACT FORM - RENDERING OF SERVICES
PART 2 (TO BE FILLED IN BY THE PURCHASER)

1. I..... in my capacity as..... accept your bid under reference numberdated.....for the rendering of services indicated hereunder and/or further specified in the annexure(s).
2. An official order indicating service delivery instructions is forthcoming.
3. I undertake to make payment for the services rendered in accordance with the terms and conditions of the contract, within 30 (thirty) days after receipt of an invoice.

| DESCRIPTION OF SERVICE | PRICE (ALL APPLICABLE TAXES INCLUDED) | COMPLETION DATE | B-BBEE STATUS LEVEL OF CONTRIBUTION | MINIMUM THRESHOLD FOR LOCAL PRODUCTION AND CONTENT (if applicable) |
|------------------------|---------------------------------------|-----------------|-------------------------------------|--|
| | | | | |

4. I confirm that I am duly authorised to sign this contract.

SIGNED ATON.....

NAME (PRINT)

SIGNATURE

OFFICIAL STAMP

WITNESSES

1

2

DATE:

CONTRACT FORM - RENDERING OF SERVICES

THIS FORM MUST BE FILLED IN DUPLICATE BY BOTH THE SERVICE PROVIDER (PART 1) AND THE PURCHASER (PART 2). BOTH FORMS MUST BE SIGNED IN THE ORIGINAL SO THAT THE SERVICE PROVIDER AND THE PURCHASER WOULD BE IN POSSESSION OF ORIGINALLY SIGNED CONTRACTS FOR THEIR RESPECTIVE RECORDS.

PART 1 (TO BE FILLED IN BY THE SERVICE PROVIDER)

1. I hereby undertake to render services described in the attached bidding documents to (name of the institution)..... in accordance with the requirements and task directives / proposals specifications stipulated in Bid Number..... at the price/s quoted. My offer/s remain binding upon me and open for acceptance by the Purchaser during the validity period indicated and calculated from the closing date of the bid .

2. The following documents shall be deemed to form and be read and construed as part of this agreement:
 - (i) Bidding documents, viz
 - Invitation to bid;
 - Tax clearance certificate;
 - Pricing schedule(s);
 - Filled in task directive/proposal;
 - Preference claims for Broad Based Black Economic Empowerment Status Level of Contribution in terms of the Preferential Procurement Regulations 2011;
 - Declaration of interest;
 - Declaration of bidder's past SCM practices;
 - Certificate of Independent Bid Determination;
 - Special Conditions of Contract;
 - (ii) General Conditions of Contract; and
 - (iii) Other (specify)

3. I confirm that I have satisfied myself as to the correctness and validity of my bid; that the price(s) and rate(s) quoted cover all the services specified in the bidding documents; that the price(s) and rate(s) cover all my obligations and I accept that any mistakes regarding price(s) and rate(s) and calculations will be at my own risk.

4. I accept full responsibility for the proper execution and fulfilment of all obligations and conditions devolving on me under this agreement as the principal liable for the due fulfilment of this contract.

5. I declare that I have no participation in any collusive practices with any bidder or any other person regarding this or any other bid.

6. I confirm that I am duly authorised to sign this contract.

NAME (PRINT)

CAPACITY

SIGNATURE

NAME OF FIRM

DATE

| | |
|------------------|-------|
| WITNESSES | |
| 1 | |
| 2 | |
| DATE: | |

CONTRACT FORM - RENDERING OF SERVICES

PART 2 (TO BE FILLED IN BY THE PURCHASER)

1. I..... in my capacity as..... accept your bid under reference numberdated.....for the rendering of services indicated hereunder and/or further specified in the annexure(s).
2. An official order indicating service delivery instructions is forthcoming.
3. I undertake to make payment for the services rendered in accordance with the terms and conditions of the contract, within 30 (thirty) days after receipt of an invoice.

| DESCRIPTION OF SERVICE | PRICE (ALL APPLICABLE TAXES INCLUDED) | COMPLETION DATE | B-BBEE STATUS LEVEL OF CONTRIBUTION | MINIMUM THRESHOLD FOR LOCAL PRODUCTION AND CONTENT (if applicable) |
|------------------------|---------------------------------------|-----------------|-------------------------------------|--|
| | | | | |

4. I confirm that I am duly authorised to sign this contract.

SIGNED ATON.....

NAME (PRINT)

SIGNATURE

OFFICIAL STAMP

WITNESSES

1

2

DATE:

DECLARATION OF BIDDER'S PAST SUPPLY CHAIN MANAGEMENT PRACTICES

- 1 This Standard Bidding Document must form part of all bids invited.
- 2 It serves as a declaration to be used by institutions in ensuring that when goods and services are being procured, all reasonable steps are taken to combat the abuse of the supply chain management system.
- 3 The bid of any bidder may be disregarded if that bidder, or any of its directors have-
 - a. abused the institution's supply chain management system;
 - b. committed fraud or any other improper conduct in relation to such system; or
 - c. failed to perform on any previous contract.
- 4 In order to give effect to the above, the following questionnaire must be completed and submitted with the bid.

| Item | Question | Yes | No |
|-------|---|---------------------------------|--------------------------------|
| 4.1 | <p>Is the bidder or any of its directors listed on the National Treasury's Database of Restricted Suppliers as companies or persons prohibited from doing business with the public sector? (Companies or persons who are listed on this Database were informed in writing of this restriction by the Accounting Officer/Authority of the institution that imposed the restriction after the <i>audi alteram partem</i> rule was applied).</p> <p>The Database of Restricted Suppliers now resides on the National Treasury's website (www.treasury.gov.za) and can be accessed by clicking on its link at the bottom of the home page.</p> | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| 4.1.1 | If so, furnish particulars: | | |
| 4.2 | <p>Is the bidder or any of its directors listed on the Register for Tender Defaulters in terms of section 29 of the Prevention and Combating of Corrupt Activities Act (No 12 of 2004)? The Register for Tender Defaulters can be accessed on the National Treasury's website (www.treasury.gov.za) by clicking on its link at the bottom of the home page.</p> | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| 4.2.1 | If so, furnish particulars: | | |
| 4.3 | <p>Was the bidder or any of its directors convicted by a court of law (including a court outside of the Republic of South Africa) for fraud or corruption during the past five years?</p> | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| 4.3.1 | If so, furnish particulars: | | |

| | | | |
|-------|---|---------------------------------|--------------------------------|
| 4.4 | Was any contract between the bidder and any organ of state terminated during the past five years on account of failure to perform on or comply with the contract? | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| 4.4.1 | If so, furnish particulars: | | |

SBD 8

CERTIFICATION

**I, THE UNDERSIGNED (FULL NAME).....
CERTIFY THAT THE INFORMATION FURNISHED ON THIS DECLARATION
FORM IS TRUE AND CORRECT.**

**I ACCEPT THAT, IN ADDITION TO CANCELLATION OF A CONTRACT,
ACTION MAY BE TAKEN AGAINST ME SHOULD THIS DECLARATION
PROVE TO BE FALSE.**

.....
Signature

.....
Date

.....
Position

.....
Name of Bidder

Js365bW

CERTIFICATE OF INDEPENDENT BID DETERMINATION

- 1 This Standard Bidding Document (SBD) must form part of all bids¹ 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).² 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:

¹ includes price quotations, advertised competitive bids, limited bids and proposals.

² 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 consortium³ 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.

³ 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.

SBD 9

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

Js014w 2

OFFICIAL BRIEFING SESSION/SITE INSPECTION CERTIFICATE

N. B.: THIS FORM IS ONLY TO BE INCLUDED AND COMPLETED WHEN APPLICABLE TO THE BID.

Site/building/institution involved:
.....

Bid No:

Service:

THIS IS TO CERTIFY THAT (NAME):

ON BEHALF OF:

VISITED AND INSPECTED THE SITE ON..... (DATE)

AND IS THEREFORE FAMILIAR WITH THE CIRCUMSTANCES AND THE SCOPE OF THE SERVICE TO BE RENDERED.

.....
SIGNATURE OF BIDDER OR AUTHORISED REPRESENTATIVE
(PRINT NAME)

DATE:

.....
SIGNATURE OF DEPARTMENTAL REPRESENTATIVE
(PRINT NAME)

.....
DEPARTMENTAL STAMP:
(OPTIONAL)

DATE: