

Department of Supply Chain Management and Expenditure: Addendum

Date: 10 November 2023

Your ref: IN/20/2023

TO ALL TENDERERS

Dear Sir/Madam

TENDER NO: IN/20/2023: FOR NURSERY BUILDING PARKING : UNIVERSITY OF VENDA

ADDENDUM 1

This Addendum forms part of the Contract Documents and must be acknowledged by returning the attached form to this office.

The amendments listed/tabled below must be incorporated into the tender document These are as follows:

- 1. Annexure 1: T1.1 Tender Notice and Invitation to Tender,
- 2. Standard Specification C3.1 to C3.2

Tender Document Volume 1 Book 1 of 2

AMENDMENTS:

Replace the following in the original tender document	Replace with the following
Tender submission date: 14 November 2023@	20 November 2023@ 12H00.See notice attached
12H00	and as issued on the 2023 November 10.
tender document: Standard specification: pages	Revised pages:
C.52,53,54,55,56,57,58,59,60,61,62,63,64,65,66,67	C.52,53,54,55,56,57,58,59,60,61,62,63,64,65,66,67
68,69,70,71,72,73,74,75,76,77,78,79,80,81,82,83,84,	68,69,70,71,72,73,74,75,76,77,78,79,80,81,82,83,84,
85,86,87,89,90	85,86,87,89,90 attached.
Page T1.1: The University of Venda, Limpopo, invites	
Tenders for the UNIVEN CAMPUS WATER	The University of Venda, Limpopo, invites Tenders
UPGRADE PHASE 2 (INCLUDING INSTALATION	for the nursery parking,
OF TANKS PER STUDENT RESIDENCE)	Tenderers should have a CIDB contractor grading
Tenderers should have a CIDB contractor grading	designation of Grade 5GB/ CE or Higher
designation of Grade 4GB,CE or Higher	

TENDER NO: IN/20/2023: FOR NURSERY BUILDING PARKING : UNIVERSITY OF VENDA

The new tender document can be submitted in the following manner:

- Can be attached to the original schedule of tender document or
 Can be attached to the separate and sign or initial all pages.

Yours faithfully

For University of Venda

1. ANNEXURE 1:

Notification for the Extension of bid Submission Deadline

- 2. Tender Documents:
 - A. Tender invitation T1.1
 - B. Standard specification: C3.1 TO C3.2

E-mail:

ATTENTION:

- SCAN & E-MAIL: univen.tenders@univen.ac.za
- DATE : 10 November 2023

RE: TENDER NO: IN/20/2023: FOR NURSERY BUILDING PAVING PARKING

ADDENDUM 1

I hereby confirm receipt of Addendum 1 for the above-mentioned project.

FULL NAME:	
COMPANY NAME:	
TELEPHONE NO:	
SIGNATURE:	

NURSING BUILDING PARKING

TENDER NO : IN/20/2023

C3.1 STANDARD SPECIFICATIONS

The standard specifications on which this contract is based are:

SABS 1200 A 1986	:	General
SABS 1200 AB 1986	:	Employer's Agent 's Office
SABS 1200 C 1980 (Amended 1982)	:	Site Clearance
SABS 1200 D 1988 (Amended 1990)	:	Earthworks
SABS 1200 DB 1989	:	Earthworks (Pipe Trenches)
SABS 1200 DK 1996	:	Gabions and Pitching

(Note: "SABS" has been changed to "SANS"; the SABS 1200 specifications are due to be replaced in the foreseeable future by SANS 1200)

The following SANS specifications are also referred to in this document and the Contractor is advised to obtain them from Standards South Africa (a division of SABS) in Pretoria:

:

SANS 1921 – 1 (2004)

Construction and Management Requirements for Works Contracts Part 1: *General Engineering and Construction Works*

NURSING BUILDING PARKING

TENDER NO : IN/20/2023

C3.2: PROJECT SPECIFICATIONS

<u>STATUS</u>

The Project Specification, consisting of two parts, forms an integral part of the contract and supplements the Standard Specifications.

Part A contains a general description of the works, the site and the requirements to be met.

Part B contains variations, amendments and additions to the Standardized Specifications and, if applicable, the Particular Specifications.

In the event of any discrepancy between a part or parts of the Standardized or Particular Specifications and the Project Specification, the Project Specification shall take precedence. In the event of a discrepancy between the Specifications, (including the Project Specifications) and the drawings and / or the Bill of Quantities, the discrepancy shall be resolved by the Employer's Agent before the execution of the work under the relevant item.

The standard specifications which form part of this contract have been written to cover all phases of work normally required for civil contracts, and they may therefore cover items not applicable to this particular contract.

C3.2 PROJECT SPECIFICATIONS

PART A: GENERAL

PS1 PROJECT DESCRIPTION

The UNIVERSITY OF VENDA envisaged the NEW PARKING NEXT TOTEACHERS EDUCATION BLOCK. The Works to be undertaken on this contract comprises the construction of the following work:

- ♦ Construction of Bulk earthworks.
- ◊ Importation of G5 (150mm) compaction to 93% ModAASHTO
- ♦ Importation of G6 (150mm) compaction to 95% ModAASHTO
- ♦ Kerbing by Fig 7, and Figure 8b.
- 80mm thick pavement blocks (Bond Brick according to SABS 1058)
- ♦ Concrete channel (300mm x 300mm Class 30/19)
- Stone pitching on open channel

PS2 DESCRIPTION OF THE SITE AND ACCESS

2.1 Location of site

The limits of the project are as shown on the locality plan bound into the book of drawings to be received together with this document.

This project is situated in the University of Venda, Thohoyandou Campus.

2.2 Access to site

Access to the site can be obtained from the Punda Maria Road.

The contractor shall be responsible for the maintenance and reinstatement of damage caused by him or his Agents/deliveries to vehicular access tracks and rights of way. No damage to fauna and flora located outside the limits of the construction will be permitted on the contract.

The contractor shall take cognizance of the aforementioned items concerning roads and tracks and allow for any costs in his Tender under the relevant section in the Bill of Quantities.

PS3 DETAILS OF THE WORKS

A brief detail of the works for which this specification is applicable is as follows:

3.1 Paved Parking lot

The proposed parking lot will provide 233 parking bays for light vehicles, and will be surfaced with 80mm Interlocking paving blocks.

The stormwater will be controlled with the use of the grading and to flow unto the nearby low point over a stoned pitched area.

3.2 Bulk Earth works

The works will consist of Clear & grub and layers constructed of G6 and G5 materials obtained either from the Contractors own borrow pit or commercial sources. Layer works to be constructed in 150mm thickness.

Bulk earthworks were done but incomplete and there will be a need for complete the bulk earthworks to the required levels as it can be seen on the pictures below:



The table below depict the minimum required specification on the material and compactions required on the earthworks to be constructed.

	MATERIAL REQUIREMENTS						
Layer no.	Layer Thickness	Layer Description	Compaction (% of MOD AASHTO)	P.I. (Max)	G.M. (Min)	CBR at % MOD AASHTO	UCS (kPa) at % MOD AASHTO
1	150mm	G5 Natural Gravel	95%	2GM + 10	1.2	25	-

3.3 Nature of ground conditions and subsoil conditions

The site is covered with 300 to 400mm reddish brown clay with roots. The reddish clay overlies Basalt, which is part of the Sibasa Formation of the Beit Bridge Complex.

The area is drained entirely by means of surface flow to the Dzindi River which later drains to the more significant Luvuvhu River. The area falls into the catchment area of the Luvuvhu River. The area is approximately 6.6km north-west of the Luvuvhu River.

3.4 Climatic conditions

The area is located in the summer rain fall zone of the Republic of South Africa. The mean annual precipitation of the area is approximately 794 mm according to the weather station at Sibasa. The maximum temperature seldom rises above 36 degrees Celsius and the minimum seldom reach -2 degree Celsius.

3.5 Labour recruitment conditions

The recruitment of the local Labour can be done through the University of Venda.

3.6 Construction in confined Areas

It may be necessary for the Contractor to work within confined areas. Except where provided for in the specifications, no additional payment shall be made for work done in restricted areas. In certain places the width of the fill material may decrease to zero and the working space may be confined. The method of construction in these confined areas largely depends on the Contractor's constructional plant.

However, the Contractor shall note that, unless provided for in terms of the scheduled payment items in the SABS 1200 Standard Specifications or these project specifications, measurement and payment shall be in accordance with the specified cross sections and dimensions only, irrespective of the method used for achieving these cross sections and dimensions, and that the Tendered rates and amounts shall include full compensation for all special equipment and construction methods and for all difficulties encountered when working in confined areas and narrow widths, and at or around obstructions, and that no extra payment shall be made nor shall any claim for additional payment be considered in such cases.

PS4 CONSTRUCTION AND MANAGEMENT REQUIREMENTS

4.1 General

The Contractor is referred to **SANS 1921**: 2004 parts 1, 2 and 3: Construction and Management **Requirements for Works Contracts.** These specifications shall be applicable to the contract under consideration and the Contractor shall comply with all requirements relevant to the project.

Certain aspects however require further attention as described hereafter.

4.2 Drawings (Read with SANS 1921 – 1: 2004 clauses 4.1.7; 4.1.11 and 4.1.12)

The reduced drawings form part of the Tender documents as mentioned under Part T1 and shall be used for Tendering purposes only.

The contractor shall be supplied with three complete paper copies of the construction drawings free of charge. The Contractor shall at his own expense re-produce further paper prints required for the construction of the work.

At the completion of the Contract, the Contractor shall return to the Employer's Agent all drawings, provided or made, during the contract period.

Any information which the Contractor has control over and which is required by the Employer's Agent Representative to complete the as-built drawings shall be made available to the Employer's Agent Representative before the Certificate of Completion is issued.

Only written dimensions may be used. Dimensions are not to be scaled from drawings unless ordered by the Employer's Agent. The Employer's Agent will supply all figures / dimensions which are not shown on the drawings. The levels or dimensions given on the drawings are subject to confirmation on site. The Contractor

shall submit all levels and dimensions to the Employer's Agent for confirmation before he commences with any structural construction work. The Contractor shall also check all dimensions which are given on the drawings and inform the Employer's Agent of any conflicting dimensions.

4.3 Responsibilities for design and construction (*Read with SANS 1921 – 1:2004 Clause 4.2*)

- **4.3.1** The responsibility strategy followed in this contract shall be A.
- **4.3.2** The structural and civil Employer's Agent responsible for the design in accordance with the specification is: Endecon Ubuntu (Pty) Ltd

4.4 Planning, Programme and Method Statements (*Read with SANS1921-1:2004 clause 4.3*)

4.4.1 Preliminary programme

The Contractor shall include with his Tender a preliminary programme on the prescribed form to be completed by all Tenders. The programme shall be in the form of a simplified bar chart with sufficient details to show clearly how the works will be performed within the time for completion as stated in the Contract Data.

Tenders may submit tender for an alternative Time for Completion <u>in addition</u> to a Tender based on the initial Tendered Time for Completion. Each such alternative Tender shall include a preliminary programme similar to the programme above for the execution of the works, and shall motivate his proposal clearly by stating all the financial implications of the alternative completion time.

The Contractor shall be deemed to have allowed fully in his Tendered rates and prices as well as in his programme for all possible delays due to normal adverse weather conditions and special non-working days as specified in the Special Conditions of Contract, in the Project Specifications and in the Contract Data.

4.4.2 Programme in terms of Clause 5.6 of the General Conditions of Contract

It is essential that the construction programme, which shall conform in all respects to Clause 5.6 of the General Conditions of Contract, be furnished within the time stated in the Contract Data. The preliminary programme to be submitted with the Tender shall be used as basis for this programme. The following must be stated on the programme:

- (a) The quantity of work applicable to each bar item as well as the rate at which the work will be completed.
- (b) A budget of the value of completed work, month by month, for the full contract period.
- (c) The critical path.
- (d) Work to be undertaken by Local Contractor (if applicable)
- (e) Training Courses
- (f) Schedule of plant and resources to be utilized

The Contractor's attention is also drawn to clause 5.7.3 of the General Conditions of Contract 2015.

4.4.3 Time for Completion

The Tenderer shall indicate under section C1.2.2: *Data provided by Contractor* the time within which the contract shall be completed.

4.4.4 Delay in Completion

The Contractor shall organise the Works in such a manner that no delays occur. Delays due to faulty organisation or lack or shortage of materials or labour or co-operation with other parties or to any other cause within the control of the Contractor will not be countenanced and full power is reserved by the Employer's Agent to order the Contractor to expedite the work should the work, in the opinion of the Employer's Agent, not progress in a satisfactory way.

4.5 Quality Assurance (QA) (*Read with SANS 1921 – 1: 2004 clause 4.4*)

The Contractor will be solely responsible for the production of work that complies with the Specifications to the satisfaction of the Employer's Agent . To this end it will be the full responsibility of the Contractor to institute an appropriate Quality Assurance (QA) system on site. The Employer's Agent will audit the Contractor's quality assurance (QA) system on a regular basis to verify that adequate independent checks and tests are being carried out and to ensure that the Contractor's own control is sufficient to identify any possible quality problems which could cause a delay or failure.

The Contractor shall ensure that efficient supervisory staff, the required transport, instruments, equipment and tools are available to control the quality of his own workmanship in accordance with his QA-system. His attention is drawn to the fact that it is not the duty of the Employer's Agent or the Employer's Agent 's representative to act as foreman or surveyor.

4.6 Management and disposal of water (*Read with SANS 1921 - 1: 2004 clause 4.6*)

The Contractor shall pay special attention to the management and disposal of water and stormwater on the site. It is essential that all completed works or parts thereof are kept dry and properly drained. Claims for delay and for repair of damage caused to the works as a result of the Contractor's failure to properly manage rain and surface water, will not be considered.

4.7 Earthworks (*Read with SANS 1921 - 1: 2004 clause 4.10*)

4.7.1 Borrow pits and spoil areas

It is not foreseen that borrow pits will be made available to the Contractor and allowance is to be made for the importation of material from commercial sources if required.

The spoil sites shall be determined on site in conjunction with the Employer's Agent and the Employer. The Contractor shall be permitted to use only those spoil areas approved by the Employer's Agent.

Should the Contractor wish to use any other spoil area for the disposal of soil, rubble, vegetation, etc, its use shall be subject to the approval of the Employer's Agent and the landowner.

4.8 Testing (*Read with SANS 1921 – 1: 2004 clause 4.11*)

4.8.1 Process control

The Contractor shall arrange for his own process control tests. The Contractor will be expected to employ the services of an accredited laboratory to perform the control testing. The Contractor must submit the results of tests carried out on materials and workmanship when submitting work for acceptance by the Employer's Agent. The costs for these tests shall be deemed to be included in the relevant rates and no additional payment will be made for testing as required.

4.8.2 Acceptance control

The process control test results submitted by the Contractor for approval of materials and workmanship may be used by the Employer's Agent for acceptance control. However, before accepting any work, the Employer's Agent may have his own acceptance control tests carried out by an independent laboratory. The cost of additional tests for acceptance testing shall be to the account of the client.

4.9 Site Establishment (*Read with SANS 1921 - 1: 2004 clause 4.14*)

4.9.1 Contractor's camp site and depot

The Contractor is responsible to provide a suitable site for his camp and to provide accommodation for his personnel, labourers, clerk of works and contracts manager.

The Contractor shall provide security watchmen for the contract as he deems fit at no extra cost for the Employer. The Contractor must ensure that all his employees as well as the employees of his subcontractors are able to identify themselves as members of the construction team.

The area available for the Contractor's will be indicated during the site inspection. The Contractor must take note that the other Contractor's as well as the Employer's Agent 's facilities will also be in the same area. The Contractor shall conform to all local authority, environmental and industrial regulations.

4.9.2 Power Supply

The Contractor shall make his own arrangements concerning the supply of electrical power at the contractor's campsite. No direct payment shall be made for the provision of electrical services. Electrical power cannot be guaranteed by the service provider. During power failures and shortages, the Contractor must make his own arrangements for the provision of electricity.

The rates Tendered for the relevant items in the Preliminary and General Section of the schedule shall include all costs for the establishment and maintenance of a power supply to the works.

4.9.3 Water Supply and Sewer

The Contractor shall erect and maintain on the site proper ablution facilities. The Contractor shall service and maintain the facilities in a clean and hygienic state for the duration of the contract period and on completion of the works from the site.

The Contractor shall make his own arrangements concerning the supply of water and sewer disposal at the contractor's campsite. No direct payment shall be made for the provision of water or sewer disposal.

The Contractor must supply all necessary materials for the water connection at a position pointed out by the Employer's Agent . The availability of water cannot be guaranteed by the Employer and in the event of water no longer being freely available, the Contractor must make his own arrangements to acquire it. The rates Tendered for the relevant items in the Preliminary and General Section of the schedule shall include all costs for the establishment and maintenance of water supply to the works and the Contractor shall make his own arrangements for the possible conveyance and storage of water if necessary. The Contractor will be held responsible for any wastage of water due to negligence.

4.9.4 Accommodation of Employees

No employees except for security guards will be allowed to sleep or be accommodated on the site.

No housing is available for the Contractor's employees and the Contractor shall make his own arrangements to house his employees and to transport them to site.

No informal housing or squatting will be allowed.

The Contractor shall provide the necessary ablution facilities at his camp site and the site of the works for the use of his employees. Chemical toilets will only be allowed where temporary facilities have to be provided.

4.9.5 Water for construction

The availability of water cannot be guaranteed by the Employer and in the event of water no longer being freely available, the Contractor must make his own arrangements to acquire it.

The rates Tendered for the relevant items in the schedule of quantities shall include all costs for the establishment and maintenance of water supply for the works and the Contractor shall make his own arrangements for the possible conveyance and storage of water if necessary. The Contractor will be held responsible for any wastage of water due to negligence.

4.9.6 Facilities for the Employer's Agent

One site office as well as a meeting facility, as described under Clause PSAB1.1, is required for the Employer's Agent.

No housing is required for the Employer's Agent or his Representative.

4.9.7 Telephone Facilities

Telephone and facsimile facilities are needed on the site (refer Clause PSAB2.1).

4.9.8 Survey beacons (Read with SANS 1921 - 1: 2004 clause 4.15)

The Contractor shall take special precautions to protect all permanent survey beacons or pegs such as bench-marks, stand boundary pegs and trigonometrical beacons, regardless whether such beacons or pegs were placed before or during the execution of the Contract. If any such beacons or pegs have been disturbed by the Contractor or his employees, the Contractor shall have them replaced by a registered land surveyor at his own cost.

4.10 Existing Services (Read with SANS 1921 - 1: 2004 clause 4.17)

The Contractor shall make himself acquainted with the position of all existing services before any excavation or other work likely to affect the existing services is commenced.

The Contractor will be held responsible for any damage to known existing services caused by or arising out of his operations and any damage shall be made good at his own expense. Damage to unknown services shall be repaired as soon as possible and liability shall be determined on site when such damage should occur.

SERVICE OWNER	TYPE OF SERVICE	
	Electrical/Power lines	
University of Venda	Communication cables	
	Waterlines and reticulation within the university	

Services belonging to the following service owners will be encountered:

Two weeks prior to commencing construction activities in a particular area, the Contractor shall also diligently enquire of University as to whether there are any other known services which have not been shown on the drawings but which may be affected by the construction activities in that area, and any such services shall be brought to the attention of the Employer's Agent immediately. The contractor shall make provision in his programme for the location and/or shifting of services.

Time lost due to delayed commencement or suspension of the work as a result of the Contractor's failure to obtain approval/ Sub contractors for the relocation of the Known service requiring relocation, shall not be used as a reason to claim for extension of time or standing time and related costs.

4.11 Health and Safety (*Read with SANS 1921 - 1: 2004 clause 4.18*)

4.11.1 General statement

It is a requirement of this contract that the Contractor shall provide a safe and healthy working environment and to direct all his activities in such a manner that his employees and any other persons, who may be directly affected by his activities, are not exposed to hazards to their health and safety. To this end the Contractor shall assume full responsibility to conform to all the provisions of the Occupational Health and Safety Act (OHSA) No 85 and Amendment Act No 181 of 1993, and the OHSA 1993 Construction Regulations 2014 issued on 7 February 2014 by the Department of Labour.

For the purpose of this contract the Contractor is required to confirm his status as mandatory and employer in his own right for the execution of the contract by entering into an agreement with the Employer in terms of the Occupational Health and Safety Act in the form as included in section C1.4.

4.11.2 Health and Safety Specifications and Plans

(a) <u>Employer's Health and Safety Specification</u>

A Health and Safety Specification is included in Section C3.3, Part PE of the Tender documents as part of the Particular Specifications.

(b) <u>Tenderer's Health and Safety Plan</u>

The Tenderer shall submit within 14 days after award of Tender, his own documented Health and Safety Plan proposed to be implemented for the execution of the work under the contract. The Health and Safety Plan must at least cover the following:

- (i) a proper risk assessment of the works, risk items, work methods and procedures in terms of Regulations 9 to 30;
- (ii) Pro-active identification of potential hazards and unsafe working conditions;
- (iii) Provision of a safe working environment and equipment;
- (iv) Statements of methods to ensure the health and safety of subcontractors, employees and visitors to the site, including safety training in hazards and risk areas (*Regulation 7*);
- (v) monitoring health and safety on the site of works on a regular basis, and keeping of records and registers as provided for in the Construction Regulations;
- (vi) details of the Construction Supervisor, the Construction Safety Officers and other competent persons he intends to appoint for the construction works in terms of Regulation 8 and other applicable regulations; and
- (vii) details of methods to ensure that his Health and Safety Plan is carried out effectively in accordance with the Construction Regulations 2014.

The Contractor's Health and Safety Plan will be subject to approval by the Employer, or amendment, if necessary, before commencement of construction work. The Contractor will not be allowed to commence work, or his work will be suspended if he had already commenced work, before he has obtained the Employer's written approval of his Health and Safety Plan.

Time lost due to delayed commencement or suspension of the work as a result of the Contractor's failure to obtain approval for his safety plan, shall not be used as a reason to claim for extension of time or standing time and related costs.

4.11.3 Cost of compliance with the OHSA Construction Regulations

The rates and prices Tendered by the Contractor shall be deemed to include all costs for conforming to the requirements of the Act, the Construction Regulations and the Employer's Health and Safety Specification as applicable to this contract.

Should the Contractor fail to comply with the provisions of the Construction Regulations, he will be liable for penalties as provided in the Construction Regulations and in the Employer's Health and Safety Specification.

4.12 Management of the environment (*Read with SANS 1921 - 1: 2004 clause 4.19*)

Respect for the environment is an important aspect of this contract and the Contractor shall pay special attention to the following:

4.12.1 Natural Vegetation

Only those trees and shrubs directly affected by the works and such others as the Employer's Agent may direct in writing shall be cut down and stumped. The natural vegetation, grassing and other plants shall not be disturbed other than in areas where it is essential for the execution of the work or where directed by the Employer's Agent.

4.12.2 Fires

The Contractor shall comply with the statutory and local fire regulations. He shall also take all necessary precautions to prevent any fires. In the event of fire, the Contractor shall take active steps to limit and extinguish the fire and shall accept full responsibility for damages and claims resulting from such fires which may have been caused by him or his employees.

4.12.3 Environmental Management Plan

In addition to the above all requirements according to the Environmental Management Plan as detailed in C3.3, Particular Specifications Part C, will be adhered to.

4.13 Contract Name board

If required, one official contract name board, as per C4.2 *Site Information: Construction Notice Board*, is will be erected for this contract.

PS5 SECURITY CLEARANCE OF PERSONNEL

Tenders should note that the Employer may require that Security Clearance investigations be conducted on any number of the Tender's personnel.

If so required, the er must remove personnel as indicated immediately and ensure that they have no access to the works or documentation or any other information pertaining the site.

The Employer shall not be liable for any cost concerning the removal of personnel or the effect thereof on the execution of the work.

PS6 SUPPLY OF MATERIALS

All material to be used in the Works is to be supplied by the Contractor.

The Contractor shall ensure that the work is not delayed due to the lack of materials on Site, by placing orders for material required under this Contract as soon as possible. No extension of time will be allowed for any delay due to the supply of materials.

Although the quantities have been carefully calculated, it must be considered as approximate only and the Contractor, before ordering any materials, should check the quantities required. The bill of quantities is provisional.

PS7 EXECUTION OF THE WORKS

7.1 Inspection by the Employer's Agent

No portion of the work shall be proceeded with until the Employer's Agent or his representative has examined and approved the previous stage. If any work is covered or hidden from view before the Employer's Agent or his representative has inspected the work, the Contractor shall at his own cost expose the covered or hidden work for inspection. The Contractor shall also be responsible for making good any work damaged during the uncovering.

C3.2 PROJECT SPECIFICATIONS

PART B: AMENDMENTS TO THE STANDARD SPECIFICATIONS

PSA <u>GENERAL (SABS 1200 A)</u>

PSA 1 MATERIALS (Clause 3)

PSA 1.1 <u>Standardisation mark</u> (Clause 3.1)

Add the following to the Clause:

All material delivered to the site shall bear the Official Standardisation Mark.

PSA 2 PLANT (Clause 4)

PSA 2.1 <u>Restrictions on employee accommodation</u> (Sub-clause 4.2)

No housing is available for the Contractor's employees. The Contractor shall make his own

arrangements to house his employees.

The Employer shall place an area at the disposal of the Contractor to enable him to erect his site offices, workshops and stores. Any facilities shall comply with the requirements of the local authority. The Contractor shall provide his own fencing and site security.

PSA 3 CONSTRUCTION (Clause 5)

PSA 3.1 <u>Dealing with water</u> (Sub-clause 5.5)

In addition to the items as set out in Subclause 5.5, the Contractor shall also provide pumping equipment, pipes and other equipment as may be necessary.

PSA 4 MEASUREMENT AND PAYMENT (Clause 8)

PSA 4.1 Fixed charge and Value Related Items (Sub-clause 8.2.1)

Replace the sub-clause with the following:

"Payment shall be a lump sum to provide for the Contractor's expenses in connection with:

- (a) setting up and maintaining his organisation, camps and plant on the site;
- (b) effecting the insurances and indemnities required in terms of the General Conditions of Contract
- (c) meeting all other general obligations and liabilities which are not specifically measured for payment in these contract documents.

The lump sum total of items (a), (b) and (c) as measured and Fixed Charge Items and time Related Items shall not exceed 15% of the nett total Tender Amount. If the er should Tender a higher amount for this item, it shall be reduced to the amount allowed above and all other Tendered prices increased in the proportion required to retain the same Nett Total Tender Amount.

The Tendered lump sum shall not be subject to any variation if the actual value of work done under the Contract exceeds, or falls short of, the Tender Amount, or as a result of an extension of time for completion in terms of Clause 10 of the General Conditions of Contract.

Any payment made under this item shall not be taken into account when determining whether the value of a certificate complies with the "minimum amount of monthly certificate" laid down in the Appendix.

Before any payment is made under this item the Contractor shall satisfy the Employer's Agent that he has provided on site an establishment and plant of good quality and in value exceeding that of the first instalment. The Contractor may be asked to furnish documented proof that he owns the offices and plant on site, the value of which should exceed the amount claimed in the first certificate. In the event that the Contractor cannot satisfy the Employer's Agent as to the value or ownership, the Employer's Agent shall have the right to withhold part of any payments to be made under this item, until the Works have been completed.

Payment of the lump sum shall be made in three separate instalments as follows:

- (a) The first instalment, 50% of the lump sum, will be paid in the first payment certificate after the Contractor has met all his obligations under this sub-clause and has made a substantial start on construction in accordance with the approved programme.
- (b) The second instalment, 35% of the lump sum, will be paid when the value of the work done reaches one half of the Nett Total Tender Amount.
- (c) The third and final instalment, 15% of the lump sum, will be paid when the works have been completed and the Contractor has fulfilled all requirements of this sub-clause. No payment for the scheduled Fixed Charge Items for this contract will not be made until the requirements regarding and the erection of name boards have been met."

PSA 4.2 <u>Time-Related Items</u> (Sub-clause 8.2.2)

Replace this sub-clause with the following:

Subject to the provisions of 8.2.3 and 8.2.4, payment of item 8.4 (time-related item) will take place in equal monthly amounts, calculated on the Tendered amount for the item, divided by the contract period in months, with the understanding that the total of the monthly payments which was paid for this specific item does not exceed the proportion that the progress of the works to date bears in relation to the works as a whole.

Should the Employer's Agent grant an extension of time, the Contractor is entitled to an increase in the amount Tendered for time related items, and this increase must be kept in the same proportion to the original Tender amount as the extension of time is to the original time of the completion of the works.

Payment for such increased amounts will be considered as full compensation for all time related, provisional and general costs which arise as a result of the extension of time.

PSA 4.3 Exposing of existing services (add the following Sub-clause 8.9)

Add the following new pay item:

Item:

Excavation by hand in all materials to expose existing services

Unit: m³

The Tendered sum must include full compensation for all hand excavation as per the dimension approved by the Employer's Agent for the locating, exposing and moving of existing services. Excavation outside of approved dimensions will not be paid. The rate must also include for backfill and compaction to 90% of mod AASHTO density and, if applicable, the removal of excess material not used for backfill, the securing of excavations, for handling surface and subsurface water, for protection of existing services and for any other activity necessary to complete the work. Free haul of 1,0 km will be applicable on the transport of excess material.

No distinction will be made between classes of material or types of services.

<u>Note:</u> The Contractor must provide sufficient supervision over labourers when services are exposed.

PSA 4.4 <u>Occupational Health and Safety</u> (add the following Sub-clause 8.10)

Add the following new pay items:

Item:

Provision for the cost related to the Occupational Health and Safety Act, 85 of 1993, and the relevant Regulations:

a) b) c)	Preparation of a Health & Safety Plan Compilation of a Risk Assessment prior to Construction Health & Safety induction Training of employees	Unit: Sum Unit: Sum Unit: Sum
d)	Compilation and keeping up to date the Health & Safety file which shall include all documentation required in terms	
e)	of the act Implementation of the Health and Safety Plan over the	Unit: Sum
-,	entire construction period	Unit: Sum

The Tendered sum shall include full compensation for providing the above services as required from the Occupational Health & Safety Act. The rate shall include all related costs incurred by the Act, remuneration of personnel, trainers, etc. and equipment required for the execution of the required services as depicted by the Act. The Tendered amount for items a, b, c and d shall only be

paid on the successful completion of the task as approved by the client. The Tendered amount for item e shall be paid on a monthly basis.

PSA 4.5 Facilities for Employer's Agent (Fixed Charge) (Sub-clause 8.3.2.1)

PSA 4.5.1 <u>Furnished office</u> (Sub-clause 8.3.2.1 a)

Add the following to the pay item:

The rate shall include for all costs to provide one office and a meeting facility as described under PSAB 1.1 and PSAB .2.2.

PSA 4.5.2 <u>Telephone (Sub-clause 8.3.2.1 b)</u>

Add the following to the pay item:

The rate shall include for all costs to provide telephone and fax facilities as described under PSAB 2.1.

PSA 4.6 Facilities for Employer's Agent (Time Related) (Sub-clause 8.4.2.1)

PSA 4.6.1 <u>Furnished office</u> (Sub-clause 8.4.2.1 a)

Add the following to the pay item:

The rate shall include for all costs to maintain one office and a meeting facility as described under PSAB 1.1 and PSAB .2.2.

PSA 4.6.2 <u>Telephone (Sub-clause 8.4.2.1 b)</u>

Add the following to the pay item:

The rate shall include for all costs to maintain the telephone and fax facilities as described under PSAB 2.1.

PSA 4.6.3 <u>Survey assistant and materials</u> (Sub-clause 8.4.2.1 d)

Add the following to the pay item:

The Contractor shall make available for the duration of the contract period, when required by the Employer's Agent, one skilled and one unskilled survey labourers.

PSAB <u>EMPLOYER'S AGENT 'S OFFICE (SABS 1200 AB)</u>

PSAB 1 MATERIALS (Clause 3)

PSAB 1.1 Office building(s) (Sub-clause 3.2)

Add the following to the Clause:

In addition to the requirements of Sub-clause 3.2 the following is required:

OFFICE BUILDING:

One (1) office as well as a meeting facility is required for the Employer's Agent on site. The meeting facility to be of sufficient size and to have a table and chairs to house twelve (12) people comfortably.

CARPORTS:

A carport to provide for two motor vehicles shall be provided adjacent to the Employer's Agent 's office for his exclusive use. The carport shall have side cladding and shall be constructed in such a way as to shelter the parked vehicles from the prevailing winds and rain.

ABLUTION AND LATRINE FACILITIES:

The Contractor shall, in addition to catering for his own staff, provide ablution and latrine facilities adjacent to the Employer's Agent 's office for the exclusive use of the Employer's Agent and his staff. The facilities shall consist of a shower with locker room, hand washbasin and a latrine. The facility shall be maintained in a clean and hygienic condition.

HEATING AND COOLING FACILITIES: (Sub-clause 3.2(j))

The Contractor shall supply and install in the offices and meeting facility an air-conditioning unit with cooling and heating capacity of at least 2 500 k/cal.

REFRESHMENTS FOR THE EMPLOYER'S AGENT AND HIS STAFF:

Tea and/or coffee shall be provided by the Contractor for the Employer's Agent, and the Employer's Agent 's staff, at reasonable intervals throughout any working day for the duration of the construction period.

PSAB 2 PLANT (Clause 4)

PSAB 2.1 <u>Telephone</u> (Sub-clause 4.1 and 5.4)

Add the following to the Clause:

In terms of Sub-clause 4.1 a telephone, if possible, shall be installed in the Employer's Agent 's Office.

The Contractor shall provide the Employer's Agent with a cellular phone for the duration of the Contract.

The Contractor shall arrange for the installation of the telephone and/or provision of cellular phone and the full amount of telephone accounts shall be payable by the Contractor for the duration of the construction period. The Contractor will be required to bear the cost of the telephone calls made by the Employer's Agent.

A facsimile facility, which can transmit and receive must be installed in the Employer's Agent 's Office and shall be linked to an individual telephone line (cellular line, if required). The Contractor shall arrange for the supply and installation of the fax machine. The cost of the supply of the fax facility shall be included in his Tendered rate. The Contractor will be required to bear the cost of transmissions and printing paper.

Upon completion of the Works the ownership of the facsimile facility shall revert to the Contractor.

PSAB 2.2 First Aid Kit and Protective Clothing (additional Sub-clause 4.2)

Add the following Clause:

The Contractor shall provide to the Employer's Agent a first-aid kits to deal with accidents, illnesses and snakebite which may occur during the normal course of Site operations. The Contractor shall provide two sets of safety helmets and rubber boots for the exclusive use of

The Contractor shall provide two sets of safety helmets and rubber boots for the exclusive use of the Employer's Agent and his staff.

PSC SITE CLEARING (SABS 1200 C)

PSC 1 CONSTRUCTION (Clause 5)

PSC 1.1 <u>General</u> (add the following sub-clause 5.9)

The areas where work is to be carried out must be kept clean for the duration of the contract. All rubbish must be removed without delay and the site must be left clean and tidy on completion of the service.

PSC 1.2 <u>Dumping site</u> (add the following sub-clause 5.10)

No dumping is allowed on site other than at the designated and approved fill areas.

PSC 1.3 <u>Cutting of trees</u> (sub-clause 5.2)

Add the following to the clause:

No trees may be removed without prior permission from the Employer's Agent.

PSC 2 MEASUREMENT AND PAYMENT

PSC 2.1 Clear & Grub (Clause 8.2.1)

Add the following to the clause: Item: Clear site.

Unit: m²

"The rate shall include for transport and disposal of material and debris to unspecified site and disposal thereof."

PSDM EARTHWORKS (ROADS, SUBGRADE)

PSDM 3 MATERIALS

PSDM 3.2 CLASSIFICATION FOR PLACING PURPOSES

PSDM 3.2.3 Selected layer

Replace the contents of this subclause with the following:

"The following requirements shall apply in respect of the selected layer:

- (a) Maximum particle size: 60% of compacted layer thickness
- (b) Unstabilized selected layer
- (i) Upper selected layer

Minimum CBR at 93% of modified AASHTO density: 15

Maximum PI: 12 (the Engineer has the right to alter this requirement to 3 x the grading modulus + 10)

(c) Stabilized selected layer

Minimum grading modulus of natural material: 0,75

UCS of stabilized material 300 kPa - 500 kPa at 93% of modified AASHTO density

Maximum PI for stabilized material: 10

- PSDM 5 CONSTRUCTION
- PSDM 5.2 METHODS AND PROCEDURES
- PSDM 5.2.2 Cut and borrow
- PSDM 5.2.2.3 Use of material

Add the following paragraph:

"(e) Commercial sources

The provisions of subclause PSD 5.2.2.5 of SANS 1200 D as amended shall apply."

PSDM 5.2.3 Treatment of the road-bed

PSDM 5.2.3.2 Removal of unsuitable ground

Replace the second sentence of paragraph (a) with the following:

"The excavated spaces shall then be backfilled with approved imported material compacted to the required density."

Add the following sentence to paragraph (b):

"Unsuitable excavated material will be paid for as cut to spoil."

PSDM 5.2.3.3 Treatment of road-bed

Add the following paragraph:

"(c) Three-pass roller compaction

Any portion of the roadbed that is shown on the Drawings or is specified or is directed by the Engineer to be given three-pass roller compaction because of its inadequate natural density, shall be prepared by shaping where necessary and compacting with a roller, complying with the requirements specified below.

Compaction shall comprise three complete coverages by the wheels of the specified roller over every portion of the area that is being compacted. While it is not the intention that the Contractor should apply water to the roadbed for this type of compaction, and while no rigid moisture control will be exercised during compaction, the Contractor shall nevertheless satisfy the Engineer that everything is being done to take full advantage of favourable soil moisture conditions during the rainy season, and that such compaction is as far as possible carried out when the roadbed is neither excessively dry nor excessively wet.

The Engineer has the authority to decide when conditions are favourable for compaction and where such compaction is to be carried out at any particular time, and he has the right to instruct the Contractor to water the roadbed at the Contractor's expense when, in the opinion of the Engineer, the Contractor failed, neglected or refused to comply with these requirements.

The rollers to be used for roller-pass compaction shall conform to the following requirements:

Grid roller: The grid roller shall have a mass of not less than 13,5 t when ballasted, shall be loaded to this mass if required, and shall be moved at a speed of not less than 12 km/h.

Vibratory roller: The vibratory roller shall be capable of exerting a combined static and dynamic force of not less than 120 kN/m width for every metre of loose-layer thickness at an operating frequency not exceeding 25 Hz and shall move at a speed not exceeding 4 km/h."

PSDM 5.2.4 Fill

PSDM 5.2.4.3 Finishing

(e) Topsoiling

Replace the second sentence with the following:

"The thickness of the topsoil shall be as directed by the Engineer."

PSDM 5.2.5 Selected layer

Replace the contents of this subclause with the following:

"Except with regard to density, the requirements of subclause 5.2.4 shall apply. The degree of compaction shall be:

Upper selected*

Selected* : 93% of modified AASHTO density

PSDM 5.2.8 Transport

Replace the contents of this subclause with the following:

"The provisions of subclause PSD 5.2.5 of SANS 1200 D, as amended, shall apply."

PSDM 5.2.8 Transport

PSDM 5.2.8.1* Freehaul

Replace the content of this subclause with the following:

"All transport within the site boundaries will be regarded as freehaul."

PSDM 5.2.8.2* Overhaul

Delete the contents of this clause and replace with the following:

"No overhaul outside the site boundaries will be paid. All transport costs for spoiling or importation of material will be deemed to be included in the relevant rates."

PSDM 6 TOLERANCES

- PSDM 6.2 DIMENSIONS, LEVELS ETC.
- PSDM 6.2.2 Cut

Add the following tolerance:

"(d) Final level of all cuttings +0 mm to -50 mm."

PSDM 7 TESTING

PSDM 7.3 ROUTINE INSPECTION AND TESTING

Replace table 2 and the contents of subclause 7.3.2 with the following:

"PSDM 7.3.2 The dry density requirements for a particular lot of selected layer or wearing course shall be deemed to be satisfied if the average density and the results of individual tests meet the requirements specified in table 2 below. Refer to subclause PSD 7.2 for the requirements for fill.

TABLE 2: DENSITIES

1	2	3	4	5
Layer	Specified density (% of modified AASHTO density)	Number of tests per lot	Average density, %	Minimum density for any single test, %
Upper selected* or selected layer* and gravel wearing course*	93	3 and 4 5 6	93,1 93,4 93,6	89,4 89,2 89,0
Lower selected layer*	90	3 and 4 5 6	90,1 90,4 90,6	86,4 86,2 86,0

PSDM 8 MEASUREMENT AND PAYMENT

PSDM 8.2 COMPUTATION OF QUANTITIES

Replace subclauses 8.2.1 to 8.2.3 (inclusive) with the following:

- "PSDM 8.2.1 The provisions of subclause 8.2.1 of SANS 1200 D shall apply.
- PSDM 8.2.2 The provisions of subclause 8.2.2 of SANS 1200 D shall apply.
- PSDM 8.2.3 The provisions of subclause 8.2.2 of SANS 1200 D shall apply."
- PSDM 8.2.5 Verifying quantities

Replace the first sentence with the following:

"Before any earthworks are commenced but after completion of any site preparation, the Engineer will, upon a written request from the Contractor, provide cross-sections for the purpose of measurement of earthworks quantities."

PSDM 8.3 SCHEDULED ITEMS

PSDM 8.3.3 Treatment of roadbed

(a) Roadbed preparation and compaction of material to

Add the following:

"The unit of measurement shall be the cubic metre of material recompacted as specified and the volume shall be determined from levelled cross-sections on which are superimposed the levels to which the roadbed is to be constructed. When material is imported to make up the required volume, such material will be paid for as cut or borrow to fill as relevant."

Add the following:

"(c) Three-pass roller compaction:

(i)	Grid roller	Unit: m²

(ii) Vibratory rollerUnit: m²

The units of measurement shall be the square metre of roadbed compacted as specified in subclause PSDM 5.2.3.3(c) for the areas designated by the Engineer.

The tendered rates shall include full compensation for shaping the areas, providing the rollers and compacting the roadbed by means of three roller passes over the entire area."

PSDM 8.3.4 Cut to fill, borrow to fill

Replace the last sentence of this item with the following:

"The unit of measurement shall be the cubic metre of fill and the volume will be calculated in accordance with the authorised dimensions of the embankment and levelled cross-sections.

The tendered rates shall include full compensation for excavating the material as if in soft material, for selecting, loading, transporting for the free-haul distance, off-loading, watering, mixing and compacting the material as specified. Borrow to fill in this item relates to material from designated borrow areas (provided by the Employer).

Where it is required that material be obtained from commercial sources, payment for procuring the material will be made under item PSDM 8.3.17."

PSDM 8.3.5 Selected layer compacted to 93% of modified AASHTO maximum density

Replace the heading and the contents of this item with the following:

"PSDM 8.3.5 Selected layer using material from designated borrow pits or excavation:

(a)	Compacted to 90% of modified AASHTO densityUnit: m ³

(b) Compacted to 93% of modified AASHTO density.....Unit: m³

The unit of measurement shall be the cubic metre and the quantity will be calculated from the authorised dimensions of the compacted layer.

The tendered rates shall include full compensation for excavating the material as if in soft material for loading, transporting for the free-haul distance, off-loading, spreading, watering, mixing, breaking down and compacting the layer."

PSDM 8.3.6 Extra over items 8.3.4 and 8.3.5 for excavating and breaking down material in

Replace the heading of this item with the following:

"PSDM 8.3.6 Extra over items 8.3.4, 8.3.5 and 8.3.16 for excavating and breaking down material in"

Replace the words "items 8.3.4 and 8.3.5" *with the words* "items 8.3.4, 8.3.5 and 8.3.16".

PSDM 8.3.7 Cut to spoil or stockpile from

Replace the heading with the following:

"PSDM 8.3.7 Cut to spoil from"

PSDM 8.3.12 Overhaul

Replace this item with the following:

"PSDM 8.3.12 Overhaul

(a)	Limited overhaulUnit: m ³	•
(b)	Long overhaul	i

Overhaul will be paid in accordance with item 8.3.6 of SANS 1200 D

Delete this item as no overhaul will be paid on material for the purposes of this Contract and all the costs for transporting material shall be included in the applicable tendered rates and amounts."

PSDM 8.3.14 Borrow pits

Replace the contents of this item as follows:

"(a)	Opening up and closing down of borrow pit	Unit: sum
(b)	Dealing with overburden	Unit: m³

The provisions of subclauses 8.3.4(b) and 8.3.4(c) of SANS 1200 D shall apply respectively to items (a) and (b) above."

PSDM 8.3.16 Gravel surface layer

Replace the contents of this item with the following:

"The unit of measurement shall be the cubic metre of gravel surface layer and the quantity will be determined from the authorised dimensions of the compacted layer.

The tendered rate shall include full compensation for excavating the material as if in soft material, for loading and transporting the material for the free-haul distance, off-loading, spreading, breaking down, watering, mixing and compacting the material."

Add the following items:

"PSDM 8.3.17 Extra over items 8.3.4, 8.3.5 and 8.3.16 for obtaining material from commercial sourcesUnit: m³

The tendered rate shall include full compensation for the additional cost of finding a suitable source of material, for procuring the material and paying all royalties or other charges to the owner of the source, for transporting the material to the point of use regardless of the distance hauled and for excavating in intermediate, hard or boulder material as required.

Items PSDM 8.3.6, PSDM 8.3.12 and PSDM 8.3.14 do not apply to material obtained from commercial sources.

PSDM 8.3.18 Final finishing and cleaning up of the site of the works....... Unit: sum

The tendered sum shall include full compensation for the clearing, disposal of material, finishing, tidying and all other work required to finish and clean up the Site of the works and affected areas by removing excess earth, stones, boulders, debris and other waste material, by clearing stormwater inlets and outlets and pipe barrels, by clearing the surfacing of all dirt, mud and foreign material, and by neatly finishing off all junctions, intersections and kerbing.

All material resulting from the finishing operations shall be disposed of to a spoil site furnished by the Contractor.

The tendered rate shall make provision for the reinstatement of existing driveways to their original condition where these have been affected by the works, as these items will not be measured and paid for separately.

PSDM 8.3.19 Sidewalks:

(a)	Fill compacted to 90% of modified AASHTO density and obtained from:	
(i)	Designated borrow pits	Unit: m³
(ii)	Commercial sources	Unit: m³
(iii)	Excavations	Unit: m³
(b)	In-situ material scarified to a depth of 150 mm and compacted to 90% of modified AASHTO density	Unit: m³
(c)	Excavated material removed to spoil	Unit: m³

The tendered rates shall include full compensation for constructing the sidewalks to the profiles indicated either on the Drawings or by the Engineer, for working in restricted areas, for using material classified as soft material with a maximum particle size of 60 mm, and for carrying out the work in accordance with the Specifications.

Additional payment will be made under item PSDM 8.3.12 if overhaul is applicable to subitems (a)(i), (a)(iii) and (c) above.

PSDM 8.3.20 Existing Services (see PSDM 5.1.3)

Location

Where particular items are provided in other sections of the schedule (e.g. crossing services in pipe trenches), the costs of detection, exposure, protection and alterations shall be covered by such particular items. Where no such particular items are provided and where there is reason to expect the presence of services, the following items will apply:

- (a) Supply of specialist equipment for detection Unit : Sum
- (b) Excavate by hand in soft material to expose service Unit : m³

The rates above shall cover the cost of delays and disruption of the progress of the work caused by the search for the particular service, in addition to the cost of searching for it, liaising with the local authority, excavating by hand of all material and backfilling holes that will not fall in the prism of road excavation.

PSDM 8.3.21 Temporary Protection of Services Unit : m,No

The rate for each service will cover the cost of location etc. as specified in PSDM 5.1.3.2 liaison with the relevant local authority, delays and disruptions of the progress of the work due to the existence of the service and dealing with the service during the construction period to maintain an uninterrupted continuation of the specified service. The rate must also cover the total cost of all repairs required should any of the services be damaged.

Distinction will be made between services that will be exposed during excavation for roadworks and unexposed services that will be at risk of damage during the execution of roadworks. Drawing DM3 indicates the limits in which the service must fall to qualify for payment.

Cables so grouped that the cross section containing them has a horizontal dimension not exceeding 250 mm will be regarded as one service.

PSDM 8.3.22 Scarify, mix and compact existing layerworks (top 150 mm) Unit : m³

This item applies to areas where the new road levels will be higher than the existing. The rate shall cover the cost to scarify the existing tar and base to a depth of 150 mm, mixing it with some of the new material (base or subbase), shaping it to the new levels and lines and compacting the layer to 98% of the modified AASHTO density.

PSDM 8.3.23 Extra over item 8.3.7 for benching into existing layerworks Unit : m

The rate shall cover the extra cost for neatly cutting through the existing tar and benching into the existing road layers as shown on drawing no.

PSDM 8.3.24 Tie in with existing road edge Unit : m

The tendered rate shall include full compensation for removal and disposal of existing concrete backing, protecting the existing paving when excavating the road box adjacent to it and tying the new layerworks to the existing.

PSDM 8.3.25 Raising or lowering of existing structures Unit : No.

The rate shall cover the cost of locating the manholes/chambers, the necessary excavation to do the works, removing the cover and frame and the cover slab, providing materials, labour and plant for raising the manhole/chamber to the designated new level, provision of new materials in the event of any damage, setting and grouting the cover and frame to the correct level, and backfilling around the manhole to specifications.

PSDM 8.3.29 Extra over item PSDM 8.3.5 for soilcrete backfill Unit : m³

The unit of measurement shall be the cubic metre of soilcrete place where so ordered by the Engineer.

The tendered rate shall include full compensation for selecting, mixing and placing of the soilcrete as well as for the cost of shuttering that may be required all in accordance with the specifications of PSDB 3.5.

PSDM 8.3.30 Variations in the number of roller passes (applicable to subitem 8.3.3(c)):

(a)	Vibratory rollers	Unit: m²-pass
(b)	Oscillatory rollers	Unit: m²-pass
(c)	Grid rollers	Unit: m²-pass
(d)	Tamping rollers	Unit: m²-pass
(e)	Impact rollers	Unit: m²-pass
(f)	Pneumatic-tyred rollers	Unit: m²-pass

The unit of measurement shall be the square-metre coverage, and shall be computed by multiplying the number of square metres to which the changed pass efforts apply by the increased or decreased number of roller passes.

Where a change in the compaction effort is requested, the Contractor will be compensated at the tendered rates for the above items in respect of the increased number of square-metre roller passes of each type of roller required over and above that specified in the relevant standard effort. His compensation will be decreased simultaneously, at the applicable rates, by the number of square-metre roller passes of each type of roller which is either decreased or completely left out.

The tendered rate for each additional square metre-pass ordered by the Engineer over and above the specified number of passes, shall include full compensation for all supervision, labour, plant, equipment, fuel, materials, work and incidentals necessary for completing the work. The same rates shall be accepted by the Contractor during computation of a decrease in his compensation where the number of roller passes for each specific type of roller is decreased."

PSME SUBBASE

PSME 3 MATERIALS

PSME 3.2 PHYSICAL PROPERTIES

PSME 3.2.1 Subbase material

Replace the contents of paragraph (a) with the following:

"(a) The maximum particle dimension of the gravel shall not exceed 63 mm."

Replace the contents of paragraph (d) with the following:

"(d) The CBR at specified density shall be 45 for unstabilized material as well as for stabilized material prior to stabilization."

Delete paragraph (e).

PSME 3.2.2 Gravel shoulder and gravel wearing course material)

Replace the contents of this subclause with the following:

"The material used for gravel shoulders and gravel wearing course shall comply with the following:

(a) The PI shall not be less than 6 and not more than (3 x GM) + 10.

- (b) The maximum particle dimension of the gravel shall not exceed 40 mm.
- (c) The CBR shall be greater than 15 at 93% of modified AASHTO density."

PSME 3.3.1 General (Compulsory if applicable)

In paragraph (b), replace "SABS 471" with "SANS 50197-1:2000"

PSME 5 CONSTRUCTION

PSME 5.2 EXCAVATION

PSME 5.2.2 Borrow pits

Insert the words "designated by the Engineer and" between the words "pits" and "established" in the first line.

Add the following subclauses:

"PSME 5.7 TRANSPORT

Replace the contents of this subclause with the following:

"All movement of material shall be regarded as freehaul. No haulage shall be paid."

PSME 5.8 WEED-KILLER

The subbase layer shall be treated before compaction by applying and mixing in granular HYVAR X or TENOC X weed-killer in accordance with the manufacturer's instructions. An approved equivalent may be used.

PSME 5.9 INSECTICIDE

An insecticide approved by the Engineer shall be applied strictly in accordance with the manufacturer's instructions over the total area of the subbase. The instructions indicate whether the poison is to be applied before or after compaction of the layer."

."

PSME 8 MEASUREMENT AND PAYMENT

PSME 8.1 BASIC PRINCIPLES

Insert a semicolon in the first line of paragraph (b) after the words "will be paid for once only" and delete the rest of the paragraph.

Amend paragraph (d) as follows:

"(d) that, in the case of material from a commercial source or from borrow pits selected by the Contractor, no additional payment will be made for the class of excavation, method of processing (except stabilizing), or overhaul."

PSME 8.3 SCHEDULED ITEMS

PSME 8.3.2 Construct the subbase course/shoulders/gravel wearing course with material from designated excavations

Replace the contents of subitem (a) with the following:

"The rate for (a) shall include full compensation for excavating and selecting subbase material, for loading and transporting the material within the free-haul distance, and for either placing the material on the road or stockpiling the material for later use. When material is stockpiled, the rate shall include compensation for shaping and grading the stockpile so that it is free-draining."

PSME 8.3.3 Construct the subbase course/shoulders/gravel wearing course with material from commercial sources or designated borrow areas

Replace the heading of this item with the following:

"PSME 8.3.3 Construct the subbase course/shoulders/gravel wearing course with material from commercial sources"

Add the following paragraph:

"This item shall also apply to the construction of subbase course/shoulders/gravel wearing course with material from borrow pits selected by the Contractor."

PSME 8.3.9 Overhaul (haul exceeding 2 km):)

Replace the contents with the following:

"(a)	Limited overhaulUnit: n	∩³
(b)	Long overhaulUnit: m³-k	m

Overhaul will be paid in accordance with item 8.3.6 of SANS 1200 D."

"

Add the following item: (Example only)

"PSME 8.3.11 Treatment of subbase with:

(a)	Weed-killer	Unit: m²
(b)	Insecticide	Unit: m²

The tendered rates shall include full compensation for supplying, spreading and mixing-in or applying the poison.

Only areas that were treated on the written instructions of the Engineer will be measured for payment."

PSMF BASE

PSMF 3 MATERIALS

PSMF 3.3 PHYSICAL AND CHEMICAL PROPERTIES

PSMF 3.3.1 Natural gravel (stabilized or unstabilized)

Replace the contents of paragraph (a) with the following:

"(a) The maximum particle dimension of the gravel shall not exceed 63 mm."

PSMF 5 CONSTRUCTION

PSMF 5.3 PROCESSING

Replace this subclause with the following:

"PSMF 5.3 CHEMICAL MODIFICATION

The base material shall be prepared, broken down and spread. Road lime complying with the requirements of SANS 824 shall then be spread over the prepared base material at a rate of 3,0%. The materials shall then be mixed dry using road graders, ploughs and other suitable equipment until the lime is mixed thoroughly and uniformly with the base material. The mixed material shall then be watered, mixed and lightly compacted.

After 24 hours have elapsed the material shall be ripped, worked in the normal manner and compacted to 98% of modified AASHTO density."

PSMF 5.4.4 Compaction

PSMF 5.4.4.2(a) *Replace* "98% of modified AASHTO maximum density" *with* "100% of modified AASHTO maximum density".

PSMF 5.9 TRANSPORT

Replace the contents of this subclause with the following:

"All movement of material will be considered as free-haul. No haulage cost will be paid."

PSMF 7 TESTING

PSMF 7.3 ROUTINE INSPECTION AND TESTING

Replace table 4 with the following:

"TABLE 4: APPARENT DENSITY OF BASE

Specified apparent density, %	Number of tests per lot	Minimum average density, %	Minimum value for any single test, %
86	4	86,1	82,7
	5	86,4	82,6
	6	86,5	82,4
	7	86,7	82,3
	8	86,8	82,2
	9	86,9	82,1

PSMF 8 MEASUREMENT AND PAYMENT

PSMF 8.3 SCHEDULED ITEMS

PSMF 8.3.3 Construct base with material from commercial sources or designated borrow areas

Replace the title of item 8.3.3 with the following:

"PSMF 8.3.3 Construct base course with material from commercial sources and compact to 86% of apparent density"

PSMF 8.3.5 Process base material by the following processes, as relevant, and use in base (applicable to 8.3.1 or 8.3.2 or both):

Add the following subitem:

"(e)	Process base material by chemical modification
	(applicable to item 8.3.1)Unit: m ³

The tendered rate shall include full compensation for the chemical modification as specified, including all labour, transport, etc. The modifying agent will be paid for under item PSMF 8.3.8."

PSMF 8.3.8 Stabilizing agent

Replace the heading of this item with the following:

"PSMF 8.3.8	Road lime for modification	Unit: t"
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PSMF 8.3.9 Overhaul: (

Replace the contents with the following:

"(a)	Limited overhaul	Unit: m³
(b)	Long overhaul	Unit: m³-km

Overhaul will be paid in accordance with item 8.3.6 of SANS 1200 D."

OR

Delete this item:

"No overhaul will be paid on material for the purposes of this contract and all the costs for transporting material must be included in the applicable tendered rates and amounts."

PSMJ SEGMENTED PAVING

PSMJ 5 CONSTRUCTION

PSMJ 5.2 EDGE RESTRAINTS

Add the following:

"Edge Restraints shall be constructed with expansion joints of width at least 12 mm at intervals not exceeding 10 m. These joints must be filled with a compound such as flexcell or similar approved product and sealed with a polysulphide sealant."

PSMJ 5.7 JOINT FILLING

Replace the last two paragraphs with the following:

"A mixture of sand that complies with 3.3(b) and cement (Ratio 5:1) shall be broomed into the joints until they are full, and sufficient passes of a plate compactor shall be made to settle the joint filling. The procedure shall be repeated until the joints remain full after compaction.

All excess shall be washed off and care shall be taken not to contaminate the stormwater system. Damage caused during compaction shall be made good by the Contractor at his own expense."

PSMJ 8 MEASUREMENT AND PAYMENT

PSMJ 8.2 SCHEDULED ITEMS

PSMJ 8.2.1 Provision of edge restraints

Add the following:

"The rates shall cover all the costs for excavating, bedding, laying (including expansion joints), jointing, compacting and backfilling, including the removal of excess material."

PSMJ 8.2.2 Construction of paving complete (

Add the following:

"The tendered rate shall also include full compensation for cutting units to fit edge restraints and for the removal of waste material from the Site."

PSMJ 8.2.3 Cutting units to fit edge restraintsUnit : m

Delete the first sentence of this clause and replace with the following:

"No separate items will be scheduled for straight, raking and circular cutting."

Add the following items: (OPTIONAL)

The rate shall cover the cost of all extra work to construct the centre-line.

PSMJ 8.2.6 Provide joints through existing channels Unit : No

The rate shall cover all the costs to saw 12 mm joints through the existing brickwork channels and to fill and seal these joints as described under PSMJ 5.2.

PSMJ 8.2.7	Transitions
PSMJ 8.2.8	Demarcating Parking Bays, Centreline using rustic blend paving unitsUnit : m

The unit of measurement shall be the actual meter length of paving units installed.

The rate shall include for cutting of the newly installed paving, supply and installing the rustic blend paving units and for disposing of all demolished material to a site provided by the Contractor."

PSMK KERBING AND CHANNELLING

PSMK 3 MATERIALS

PSMK 3.1 CONCRETE

Add the following:

"The Contractor shall timeously submit the concrete mix design for cast-in-situ kerbing to the Engineer for approval and no kerbing shall be placed before the mix design has been approved."

PSMK 3.2 PRECAST KERBING AND CHANNELLING

PSMK 3.2.1 General

Add the following:

"The profile/dimensions of precast kerbs and channels must be in accordance with the details shown on the drawing."

PSMK 3.9 BEDDING MATERIAL

Replace the contents with the following:

"The concrete on which the kerbing and channelling will be placed must be of the strength and thickness specified in the drawings."

PSMK 5 CONSTRUCTION

PSMK 5.1 EXCAVATION AND BEDDING

Replace "90%" with "93% (100% for sand)"

PSMK 5.2 KERBING AND CHANNELING OF PRECAST CONCRETE

Replace the first sentence with:

"Kerbing and Channelling of precast concrete must be placed on a concrete bedding as required in PSMK 3.9".

PSMK 5.11 TRANSITION SECTIONS AND INLET AND OUTLET STRUCTURES

Delete the words "and with the requirements of the Project Specification" in the second paragraph.

Add the following subclauses:

"PSMK 5.12 EXISTING KERBING

The kerbs to be removed shall be inspected by the engineer in the presence of the contractor prior to their removal to determine the number of kerbs suitable for re-use.

The contractor is advised to use the greatest care when removing those kerbs earmarked for re-use, for should the kerbs be damaged and be subsequently rejected, he shall replace them with new kerbs at his own cost.

PSMK 5.14 WATERTESTING OF KERBS

After the kerbs, channels inlets etc. have been constructed the kerbs, channels, etc., must be cleaned and tested with water to ensure that no water is standing in any channel. This test must be done after the base has been completed but before the placing of the surface seal. Any adjustments to kerbs, channels etc., must be completed before the surface seal is applied.

PSMK 5.15 EXPANSION JOINTS

These joints shall be provided at 10 m intervals, through both the kerb and channels. These joints shall be 12 mm wide, filled with a compound such as flexcell or similar product and sealed with a polysulphide sealant. Costs of furnishing the materials and construction of the joint are deemed to be included in the laying rate."

PSMK 7 TESTING

PSMK 7.2 CAST-IN-SITU AND EXTRUDED KERBING AND CHANNELLING

PSMK 7.2.1 General tests

Delete this subclause.

PSMK 7.2.2 Alternative

Replace the heading and contents of this subclause with the following:

"PSMK 7.2.2 Tests

The Contractor shall carry out a minimum of three cube crushing tests per 1 000 m of kerbing placed. The cost of such tests shall be deemed included in the rates tendered for kerbing.

One cube crushing test shall consist of a set of six cubes made with concrete taken from the mixer, the kerbing machine or from any part of the work as ordered.

If, after 28 days in an approved laboratory, after three cubes of any set of six cubes have been tested, the average crushing strength is found to be more than 3 MPa below the specified strength, the kerbing represented by the cubes will be rejected.

The Contractor may apply for resubmission of the rejected section on the basis of cores drilled from this section and tested for the estimated actual crushing strength in accordance with SANS 5865 (excluding Annexure A). The cost of drilling and testing the cores is for the Contractor's account, regardless of the outcome of the tests on the cores. The number of cores required will be determined by the Engineer and the criterion for rejection or acceptance of the section represented by the cores shall be as specified above for cubes."

PSMK 8 MEASUREMENT AND PAYMENT

PSMK 8.2 SCHEDULED ITEMS

PSMK 8.2.1 Concrete kerbing

Replace "5.8.2" in the third line of paragraph (e) with "5.8.3".

PSMK 8.2.3 Variation of tests on extruded kerbing

Delete this subclause.

Add the following items:

"PSMK 8.2.14 Removal of existing kerbing and:

(a)	Disposal of kerbs off-site	Unit: m

(b) Re-use of kerbs elsewhere on the Site.....Unit: m

The tendered rates shall include full compensation for providing all labour and equipment, excavations, lifting the kerbs and, in the case of subitem (a), loading and transporting the kerbs from the Site and, in the case of subitem (b), cleaning the kerbs, and temporarily storing them and relaying them elsewhere on the Site.

PSMK 8.2.15 Brick kerbing and channelling bedded in concrete as shown on the drawings:

(a) Radius over 11 m and straight sections.....Unit : m
 (b) Radius up to 11 mUnit : m
 (c) Dropped sections for entrances....Unit : m
 (d) 800 mm long transition sections between brickwork channelling and side inlets....Unit : No

The unit rate for brick kerbing shall cover the cost for supply of all materials for the kerbing and bedding, and for bedding, jointing (including expansion joints), excavation, compacting, testing in terms of 7.2, and for all labour in laying and jointing (including expansion joints), together with all backfilling, compacting and removal of excess material.

PSMK 8.2.16 Kerb markings Unit : No

Road crossing ducts, valves and hydrants shall be marked with a 3 mm deep, 100 mm high saw cut on the face of each kerb. These cuts must be painted with road marking paint (200 mm wide). The following saw cut notation and colour shall be used.

Valve	WV	Blue
Hydrant	WH	Orange
Electricity	Е	Red
Telkom	Т	Green."

PSMM ANCILLARY ROADWORKS

PSMM 3 MATERIALS

PSMM 3.2 ROAD SIGNS

PSMM 3.2.2 Structural steel

Delete the words "except that they shall be of D-shape cross-section" in the first paragraph.

Add the following:

"All steel sign supports shall be hot-dip zinc-coated (galvanized)."

PSMM 3.2.8 Paints and protective coatings

PSMM 3.2.8.1 Structural steel sign supports and sign face frames

Replace the contents of this subclause with the following:

"The sign supports and the backs of all road sign faces shall be painted grey. The colour code of the paint shall be code No D36 according to the CKS 279 classification.

Newly galvanized surfaces shall be thoroughly scrubbed down with an approved galvanized iron cleaner to remove all traces of the resinous protective coating. The surface shall be washed down and scrubbed to remove all traces of grease, oil, dirt, etc. Two coats of calcium plumbate primer shall be applied to a dry film thickness of not less than 0,028 mm. The undercoat shall follow within one week of the primer."

PSMM 8 MEASUREMENT AND PAYMENT

PSMM 8.3 SCHEDULED ITEMS FOR PERMANENT ROAD SIGNS

Add the following payment clauses:

"PSMM 8.3.8 Remove old and redundant road signs and hand to Employer...... Unit : No.

The rate shall cover the cost of careful removal of the inapplicable road signs, cleaning and removal of concrete support, disposal of rubble, transporting and delivery of the road signs to the Employer, including backfilling, compaction and reinstatement of the affected area.

PSMM 8.4 SCHEDULED ITEMS FOR ROAD MARKINGS"

Add the following payment clauses:

"PSMM 8.4.5 Erase existing road markings Unit : m²

Existing road markings must be removed by either high pressure sand blasting or heating the paint and scraping it off. The areas shall then, after removal of the road paint, be repaired with a single application of sand seal bituminous surface treatment as described under the relevant sections of SABS 1200 MG. The rate shall cover all the cost for the removal of the road markings and the treatment of the road as described above, including all necessary material.

PSMM 8.6 NOMINATED SUBCONTRACT FOR THE INSTALLATION OF THE TRAFFIC LIGHTS

PSMM 8.6.1	Provisional amount for the supply, installation,
	testing and commissioning of the traffic light
	system by the nominated sub-contractor Unit : Prov. Sum

Payment will be made in accordance with clause 45 of the General conditions of Contract.

The tendered percentage includes full compensation for supervision and control over the nominated subcontractor, delays, profits etc. The percentage will be based on the final amount of PSMM 8.6.1.

PSMM 8.7 TREE RINGS Unit : No.

The rate must cover all cost for the supply and installation of the rings, including all the necessary excavation backfilling and removal of surplus material.

PSMM 8.8 SURVEY REFERENCE MARKERS...... Unit : No.

The rate must cover all cost for supply and installation of the survey reference markers according to the detail drawing, including the exact positioning, necessary excavation, backfilling and removal of surplus material.

PSMM 8.9 SPEEDBUMPS Unit : No.

The rate must cover all cost for the construction of the speedbumps as per detail, including compensation for having to discontinue the tarring operation."

UNIVERSITY OF VENDA

NURSERY PARKING

TENDER NO: IN/20/2023

PART T1: TENDERING PROCEDURES

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T1.1:	TENDER NOTICE AND INVITATION TO TENDER	T .2	White
T1.2:	TENDER DATA	T .3	Pink
T1.3:	STANDARD CONDITIONS OF TENDER	T. 11	Pink

T1.1: TENDER NOTICE AND INVITATION TO TENDER



NURSERY PARKING

The University of Venda, Limpopo, invites Tenders for the nursery parking

Tenderers should have a CIDB contractor grading designation of Grade 5GB/ CE or Higher

Tenderers must be registered with the CIDB in a **Civil Engineering** class of construction works.

Preferences are offered to Tenderers who have a specific goal.

Tender documents can be downloaded from the University website as of the 26 October 2023.

Tenderer's must e-mail the proof of payment bearing their company name as reference to <u>univen.tenders@univen.ac.za</u> when requesting tender document.

Tender documents to be submitted at the tender box situated at the University of Venda Main Entrance Gate.

A non-refundable mandatory tender deposit as per advert is **Payable**, proof of deposit is required attach to tender document

Account details are as follows:

Bank	:	ABSA
Account Name	:	UNIVEN Tender Deposits
Account Number	:	1 000 000 538
Reference	:	00015615

Administrative, tender document and procurement enquiries can be directed to univen.tenders@univen.ac.za

The closing time for receipt of tenders is as per the tender advert. No late, faxed or telephonic Tenders will be accepted.

Requirements for sealing, addressing, delivery, opening and assessment of tenders are stated in the Tender Data.

No enquiries will be entertained after the 08 November @ 16H30

INSERT ADVERT HERE

ADDENDUM 1

Final Audit Report

2023-11-11

Created:	2023-11-10
Ву:	don mathevhula (don.mathebula@univen.ac.za)
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