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Contract JW OPS 023/19 Page (1)
Under road drilling

REQUEST FOR INFORMATION

RFI NUMBER:	RFI 010/24 AS	CLOSING DATE:	22 August 2024
DESCRIPTION:	UNDER ROAD DRILLING		
ISSUE DATE	16 August 2024		
Submit via Email to:	amanda.mnisi@jwater.co.za		

ENQUIRIES MAY BE DIRECTED TO:

Bidding procedure inquiries <u>must</u> be sent to		Technical inquiries must be directed to	
CONTACT PERSON	Mnisi Amanda	CONTACT PERSON	Mothusi Tholo
TELEPHONE NUMBER	0116881763	TELEPHONE NUMBER	011 688 7806
E-MAIL ADDRESS (Submissions must be made to this address)	amanda.mnisi@jwater.co.za	E-MAIL ADDRESS	Mothusi.tholo@jwater.co.za

SUPPLIER INFORMATION

NAME OF BIDDER			
STREET ADDRESS			
TELEPHONE NUMBER	CODE		NUMBER
CELLPHONE NUMBER			
E-MAIL ADDRESS			
VAT REGISTRATION NUMBER			
CENTRAL SUPPLIER DATABASE No:	MAAA		
MANUFACTURER OR THIRD PARTY			

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PURPOSE OF THE REQUEST FOR INFORMATION

The RFI response proposals is enquired to assist the organisation with business decision making purposes for an upcoming thirty-six (36) months Request for Tender with regards to budget, cost effectiveness, risk assessment, specific goals to include in the tender, award and allocation strategy to incorporate, firm or non-firm prices, pricing schedule and special conditions of tender.

BACKGROUND

Johannesburg Water invites service providers to respond to a Request for Information for the horizontal drilling of under road surface services for new connections, extension of water or sewer services and renewal or relocation of the same services at the various JW sites for the items on as and when basis for 36 months. This RFI is strictly to solicit market related information from potential bidder(s) for the supply and delivery of the promotional items. This RFI does not constitute; an offer; or any impression none so ever to do business with Johannesburg Water.

Johannesburg Water SOC Ltd



VOLUME 2

CONTRACT

PART 3: SCOPE OF WORK

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PREAMBLE TO SCOPE OF WORK

General

The Standard Specification for all associated civil work shall be the SANS 1200 – Standardized Specification for Civil Engineering Construction.

The Standardized Specifications applicable to this Contract are listed in the Project Specification.

These Specifications are not issued with this volume but are available at the Contractor's expense from: SA Bureau of Standards, Private Bag X191, Pretoria, 0001.

Scope

This Project Specification is set out in two portions:

Portion 1: PROJECT SPECIFICATION covers a general description of the project, the facilities available and the requirements to be met.

Portion 2: VARIATIONS AND ADDITIONS TO THE STANDARDISED SPECIFICATIONS covers variations to the standardized specifications and particular specifications which are applicable to the contract.

Status

Should any requirement of the Project Specification conflict with any requirement of the standardized or particular specifications, the requirements of the Project Specifications shall prevail.

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C3.1 DESCRIPTION OF THE WORKS

C3.1.1 JW OBJECTIVES

The employer's objective is to ensure that an efficient water supply network is maintained within the City of Johannesburg. This will be achieved by engaging at established contractor with a CIDB grading of 3CE or higher.

C3.1.2 OVERVIEW OF THE WORKS

The contract is an as and when required basis and entails the horizontal drilling of under road surface services for new connections, extension of water or sewer services and renewal or relocation of the same services at the various JW sites for a period of thirty six (36) months.

C3.1.3 LOCATION OF THE WORKS

The location of the works will be within the boundaries of the City of Johannesburg.

C3.1.4 TEMPORARY WORKS

The Contractor's facilities and the barricading of the works shall be located in an approved position and subject to the approval of all local authorities. Safety and Security of the Contractors temporary works shall be at his own discretion.

The Contractor shall, as relevant, provide temporary drainage works, temporary pumps and other equipment as might be necessary for the protection, draining and dewatering of the works. The tendered rates shall include full compensation for all temporary works.

C3.1.5 GEOTECHNICAL INVESTIGATIONS

No Geotechnical investigation is available

C3.2 ENGINEERING

C3.2.1 JW's DESIGN

Due to the nature of the project no design should be required. However the Contractor shall comply with all relevant specifications and drawings as mentioned and revised by the JW Representative.

C3.2.2 DRAWINGS

No construction drawings shall be issued for this contract.

C3.3 PROCUREMENT

C3.3.1 PREFERENTIAL PROCUREMENT

C3.3.1.1 Requirements

The Contractor shall comply with the requirements as specified in the documentation.

C3.3.2 SUBCONTRACTING

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C3.3.2.1 Scope of mandatory subcontract works

No part or portion of the works will be sub-contracted without the prior written approval of Johannesburg Water (SOC) Ltd.

C3.4 CONSTRUCTION

C3.4.1 WORKS SPECIFICATIONS

C3.4.1.1 Applicable SABS 1200 Standardized Specifications

Although not bound in or issued with this document, the SANS 1200 Standardized Specification for Civil Engineering Construction as approved by the Council of the South African Bureau of Standards shall apply to this Contract. The Contractor shall be in possession of these Standardized Specifications and their related SANS 0120 Code of Practice which apply equally and shall keep a copy of each on site for reference by him and the Engineer for the duration of the Contract.

For "Workmen's Compensation Act" read "Compensation for Occupational Injuries and Diseases Act, 1993 (Act No.130 of 1993)" wherever it appears. For "Machinery and Occupational Safety Act" and "Mines and Works Act" read "Occupational Health and Safety Act, 1993 (Act 85 of 1993)" wherever they appear. For "maintenance period" read "Defects Liability Period" in terms of Clause 5.16.3 of the General Conditions of Contract for Construction Works 2010, wherever it appears.

The Construction Sections of the Works shall be executed in accordance with the Specifications listed below and other such pertinent Specifications and / or instructions as may be issued from time to time.

The following SABS 1200 Standardized Specifications for civil engineering construction work applicable to this contract shall be:

SABS 1200 A : Preliminary and General
SABS 1200 C : Site clearance
SABS 1200 D : Earthworks
SABS 1200 L : Medium-pressure pipelines
SABS 1200 MJ : Segmented paving

C3.4.1.2 Particular generic specifications

C3.4.1.2.1 Minimum health and safety requirements

This section of the specifications is to be read in conjunction with the Contract Health and

Safety specifications, included as Volume 3. The following requirements shall be deemed

Minimum compliance requirements to ensure the health and safety to the public and workers during the execution of the Contract.

C3.4.1.2.2 Road safety equipment

Work units or teams shall be provided with:

- (a) An amber-flashing beacon, which shall comply with and be operated in accordance with any governing road vehicle lighting regulations or similar.
- (b) Appropriate sized and quantity of road signs, including delineators and cones which shall be displayed at the works area in accordance with South African Road Traffic Signs Manual, Chapter 13.
- (c) Bright coloured overalls, fluorescent over-jackets and belts for each team member for the use at all working times during the day or night.

C3.4.1.2.3 Work site safety

The works are to be executed in areas with high volume pedestrian and vehicular

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traffic. The Contractor shall ensure that:

- (a) The workspace required to successfully complete installations shall be kept at a minimum. Thus, plant and equipment not used is to be removed from the work site to minimize disruption to the customer, other traffic and the general public.
- (b) The working area shall be free of debris when the Contractor leaves the site at the end of the day or each shift.
- (c) Open chambers, machinery and standing equipment are to be protected to ensure the safety and convenience of traffic, the general public or other at all times.

C3.4.1.2.4 Traffic control

Traffic (human and vehicular) control and signage shall be in accordance to the South African Road Traffic Signs Manual, Chapter 13. And at a minimum include:

- (a) A traffic control plan with detailed diagrams showing the location of all traffic control devices and the length of time for all lane closures, as well as any location for flaggers, as necessary.
- (b) One lane of traffic in each direction must be maintained at all times and local streets may only be closed with prior approval of the JW Representative.
- (c) Provision and maintenance of the lights, guards, fencing and watching when and where necessary or required for the protection of the Works and the materials and equipment utilized therefore or for the safety and convenience of the public or others.
- (d) The name and number of the Contractor representatives responsible for traffic control shall be made available to solve traffic problems at each works site location.

C3.4.1.2.5 Encountering of water during operations

The contractor is to provide and maintain a water removal system that has sufficient capacity to remove all encountered water, during works operations. Such system(s) shall ensure that top soil particle removal is kept at a minimum.

C3.4.1.2.6 Site restoration

The Contractor, following all Works completion, shall disassemble all equipment and restore the site to original condition. Any noticeable surface defects, due to executed Works, shall be repaired by the contractor.

C3.4.1.2.7 No disturbance

The Contractor shall be required to perform works under all road surfaces with limited approved disturbance to existing service provision.

C3.4.1.2.8 Metric measurement

All survey recorded dimensions of infrastructure shall be in metric units.

C3.4.1.2.9 Site preparation

Prior to any Works commencement the Contractor shall photograph or video tape entire work area. One copy of which shall be given to the JW Representative and one copy shall remain with the contractor for a period of 52 weeks following the issue of Completion of the contract. This record shall be used to establish accountability for damages during execution of the Contract.

C3.4.1.3 General product requirements

C3.4.1.3.1 Local content

Preference shall be given to materials fully manufactured in South Africa with South African raw materials.

C3.4.1.3.2 References

The Contractor shall submit names and locations of projects in South Africa where the offered product has been in successful use for a period of at least 5 years under similar

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conditions and at similar rates. The Contractor shall:

(a) Make arrangements with the project owners for access for such visits, if the JW Representative wishes to inspect such reference project sites.

(b) Provide an acceptable alternative at the same accepted financial rate of the original proposed product, should the JW Representative find the product unacceptable.

C3.4.1.3.2 Approved products

Only products that have been tested and which have been approved by the SABS or any other accredited body shall qualify.

C3.4.1.3.3 Application rates

As specified by the manufacturer.

C3.4.1.3.4 Specific work-related instructions

The Contractor shall adhere to specific work –related instructions as and when required by the JW Representative.

C3.4.1.3.5 Damage to persons and property

The Contractor shall (except if and so far as the Contract provides otherwise) indemnify and defend at his own expense the Employer, its officers, agents, employees and servants from and against all suits, claims, demands, proceedings, and liability of any nature or kind, including costs and expenses, for injuries or damages to any person or any property whatsoever which may arise out of or in consequence of acts or omissions of the Contractor or his agents, employees, servants or sub-contractors in the execution of the Contract. The provision of this clause shall extend to suits, claims, demands, proceedings and liability in the nature of workmen's compensation claims and arising out of the use of patented inventions and devices. Provided always that nothing herein contained shall be deemed to render the Contractor liable for or in respect of or with respect to:

(a) The right of the Employer to construct the Works or any part thereof on or through any land.

(b) Interference whether temporary or permanent with any right of water or other easement which is the unavoidable result of the construction of the Works in accordance with the Contract.

(c) Death, injuries or damage to persons or property resulting from any act or neglect of the Employer, his agents, servants or other contractors, done or committed during the validity of the Contract.

C3.4.1.3.6 Interference with property access and traffic

All operations necessary for the execution of the Works and for the Construction of any Temporary Works shall, so far as compliance with the requirements of the Contract permits, be carried on so as not to interfere unnecessarily or improperly with the public convenience, or the access to, use and occupation of, public or private roads and footpaths to or of properties whether in the possession of the Employer or of any other person. The Contractor shall hold harmless and indemnify the Employer in respect of all claims, demands, proceedings, damages, costs, charges and expenses whatsoever arising out of or in relation to any such matters in so far as the Contractor is responsible, therefore.

C3.4.1.3.7 Contractor to keep site clean

During the progress of the Works, the Contractor shall keep the Site reasonably free from all unnecessary obstruction and shall store or dispose of any Constructional Plant and surplus materials and clear away and remove from the Site any rubbish or Temporary Works no longer required.

C3.4.1.3.8 Clearance of site on practical completion

On the practical completion of the Works, the Contractor shall clear away and remove

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from the Site all Constructional Plant surplus materials, rubbish and Temporary Works of every kind and leave the whole of the Site and Works clean and in a workmanlike condition to the satisfaction of the JW Representative.

C3.4.1.3.9 Contractor's responsibility

The Contractor shall be held responsible for damage to street or road surfaces, kerbing, storm water drainage channels (gutters), existing utilities, etc. that result from his negligence during the implementation of all works. The Contractor shall repair, at his cost, any damage resulting there from, which shall be subject to approval by the owner of such asset and the JW Representative

C3.4.1.4 Plant and materials

The Contractor shall make available on site the following plant and equipment as and when required, together with operating personnel:

- (a) road traffic signs, materials for barricading and lighting and all other items necessary for ensuring public safety and convenience. The Contractor shall furnish all labour required for the erection, maintenance and removal of these items and materials;
- (b) mechanical and power tools, when ordered to do so by the JW Representative;
- (c) hand tools and equipment such as shovels, picks, etc, which may, in the opinion of the JW Representative, be required for the execution of the works;
- (d) forms for the casting of cast-in-situ concrete for floors and slabs. The Contractor shall supply all labour required for the erection, stripping and cleaning of forms; and
- (e) any other plant and equipment deemed necessary for the execution of the Works

Unless otherwise indicated in the contract documents, the Contractor shall provide all such plant and equipment complete with operating personnel, fuel and power as required.

If the Contractor fails, in the opinion of the JW Representative due to his own negligence, to enable the plant or equipment to be efficiently or fully utilised, the costs of under-utilisation of plant or equipment shall be borne by the Contractor to the extent determined by the JW Representative.

The Contractor is required to prove all plant materials necessary to carry out the work as specified and required. No additional allowances other than those already specified in the Schedule of Rates shall be allowed for with respect to plant and materials.

C3.4.1.4.1 Transportation of labourers

The Contractor will provide all labour on this Contract and shall be responsible for the transportation of labourers to and from site.

C3.4.1.5 Plant and Equipment for Construction

The Tenderer shall include full details in his Tender of the tools he intends to use, its capabilities and the age of the equipment, as well as written proof from the Licensor, that he is the duly appointed Licensee allowing him to use the said tool in the RSA and that due royalties are paid up to date.

C3.4.1.6 Existing services

The Contractor:

- a) must make provision for the possible existence of numerous services (e.g.: Storm water, Water, Eskom, City Power, Egoli Gas, Rand Water, Telkom, and the like) within and in close proximity to the work areas.
- b) is to obtain wayleaves indicating the location of existing services from all affected service providers prior to the commencement of construction. The Contractor is to comply with the conditions of the wayleaves received from the various service providers.
- c) is to ensure the protection and integrity of all existing services exposed and encountered through the course of construction activities. Adequacy in terms of

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protection of existing services shall be at the discretion of the JW Representative. The Contractor is to make good the protection of and any breakages to existing services. The Contractor is to record on as built drawings the location of existing services or services which have been relocated during Contract Period.

d) must inform the relevant service provider immediately (within 2 hours of incident) such that procedures for the reinstatement of the service can be effected, should he damage or break an existing service (whether known or unknown).

e) is responsible to provide his own equipment in order to determine the location of existing services.

NOTA BENE: Drawings indicating other existing services in the vicinity of the Works are not guaranteed as being accurate, as all other services may not have been recorded or properly recorded. It shall remain the responsibility of the Contractor to perform preoperational work, to locate existing services in advance of the commencement of the Works. All cables and pipes shall be considered “live” unless confirmed otherwise by the relevant service authority.

C3.4.2 SITE ESTABLISHMENT, FACILITIES AVAILABLE AND REQUIRED

C3.4.2.1 Water and power supply and other services

The Contractor is not obliged by Johannesburg Water to establish a site camp in the vicinity of the Works. The Contractor shall make his own arrangements to operate from his own premises as the contract is on an “as and when” basis.

Johannesburg Water will not provide any facilities to the Contractor.

The Contractor shall make his own arrangements and pay all installation and consumption charges for the supply of water, electrical power and other services should they be required.

C3.4.2.1.1 Camps and depot

No housing is available and the Contractor shall make his own arrangements to house his employees and transport them to and from the Site. All arrangements for housing workmen shall be made in accordance with and subject to applicable OHS regulations and requirements.

C3.4.2.1.2 Disposal sites

The Contractor shall locate suitable registered waste disposal sites, off site, for the disposal of cleared vegetation, rubble, unsuitable material or surplus material. The Contractor shall inform the JW Representative of any site he proposes to use.

C3.4.2.2 Site usage

The Tenderer shall visit the Site of the Works and shall satisfy himself as to the means of access and all matters affecting the Works, including the extent to which mechanical plant can be used for executing the Works.

C3.4.2.3 Permits and wayleaves

The Contractor will be required to obtain permits and wayleaves from all the applicable service providers within the jurisdiction of the CoJ, thus including the following services: roads and stormwater (JRA), bulk water supply (Rand Water), electricity (Eskom and City Power), gas (Egoli Gas), telecommunications (Telkom), and the like.

The Employer will assist the Contractor to obtain clearance from the various departments with services that are likely to be affected by the Contract. It is, however, the Contractor's responsibility to obtain final permit and wayleave approval according to applicable procedures and specifications. In the case of JRA, this will be as per the CoJ

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COP. Further, a processing fee per wayleave will be payable to cover the cost of processing and approval of the JRA wayleave applications.

C3.4.2.4 Alterations, additions, extensions and modifications to existing works

The Contractor shall, within 14 working days after taking possession of the site, satisfy himself that the position and setting out of existing structures or components thereof are compatible with the proposed works, and notify the JW Representative of any dissatisfaction. The Contractor shall, on becoming aware of a defect in existing works which will have an impact on the current works, notify the JW Representative of such a defect without delay.

C3.4.2.5 Inspection of adjoining properties

The Contractor shall, before commencing with works which have the potential to damage surrounding structures, services, buildings or property, arrange an inspection with the owners of such structures, services, buildings or property and representatives of local or controlling authorities, as appropriate, to determine the condition of buildings, structures, services, paved surfaces, roads, kerbs, channels and the like, that the works could affect, and document their current condition in sufficient detail to enable disturbances or damage (or both) which might be caused by the works to be evaluated. The Contractor shall furnish the JW Representative with copies of all such documentation and shall be held responsible for any disturbance and damage to such structures, services, buildings and property arising from the performance of the contract.

C3.4.2.6 Features requiring special attention

C3.4.2.6.1 Temporary fences

The Contractor shall erect temporary fences where required for the execution of the Works, where shown on the drawings and in place of existing fences which have to be temporarily relocated.

- All fences shall be maintained during construction.
- The cost of the erection, maintenance and removal of temporary fencing will be deemed to be covered by the rates provided by the contractor.

C3.4.2.6.2 Neatness of the site

The general neatness and tidiness of the residential areas are of particular concern and the contractor should ensure the areas are kept neat and tidy at all times.

C3.4.2.6.3 Workmanship and quality control

The onus to produce work that conforms in quality and accuracy of detail to the requirements of the specifications and drawings rests with the Contractor, and the Contractor shall, at his own expense, institute a quality-control system and provide experienced personnel, together with all transport, instruments and equipment to ensure adequate supervision and positive control of the works at all times.

The cost of supervision and process control will be deemed to be included in the rates tendered for the related items of work.

On completion of every part of the Works the Contractor will give the JW Representative 24 hours' notice to conduct an inspection of the works. No portion of the works will be closed unless inspected and approved by the JW Representative.

C3.4.2.6.4 Other contractors on site

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There may be other contractors working within the same area. As such, the Contractor is required to make adequate allowances for such possibilities. No claims with respect to works being carried out by other contractors shall be entertained by the JW Representative.

C3.4.2.6.5 Testing, completion, commissioning and correction of defects

The onus is on the Contractor to produce goods and services which shall conform in quality and in accuracy of detail to the requirements hereinafter specified. The Contractor must clearly understand that it is not the duty of the JW Representative to act as foreman or surveyor on the Works.

The Contractor shall, at his own expense, provide experienced engineers, foremen and surveyors together with all transport, instruments and equipment for supervising, checking and controlling the work.

The act of passing any completed work or accepting materials or goods for payment by the JW Representative shall not be construed as signifying approval or acceptance thereof. Failure on the part of the JW Representative to reject any defective work or material or goods shall not in any way relieve the Contractor of his obligations under the Contract, nor prevent later rejection when such work or material is discovered.

The Contractor shall, when submitting any work to the JW Representative for examination, satisfy himself by testing, measurement and otherwise as may be necessary that the work does in fact meet with the requirements of the Specifications. This information shall be submitted with the Contractor's request for examination and the JW Representative shall be authorised to decide on the number and type of tests, measurements, etc. required to enable him to judge the quality of the work. The submission of this information shall in no way diminish the authority of the JW Representative to conduct such tests as he may consider necessary in order to determine the quality of the work performed by the Contractor, nor shall he be bound to take account of the Contractor's tests, measurements, etc. should he consider these to be either incorrect or not representative.

Quality control and completion tests shall be in accordance with the relevant standard and amended specifications and additional specifications.

C3.4.2.6.6 Recording of Weather and Abnormal Rainfall

The Contractor will be permitted to take his own rainfall measurements on the site subject to the JW Representative's approval, but access to the measuring gauge(s) shall be under the JW Representative's control. The Contractor is to provide and install all the necessary equipment for accurately measuring the rainfall as well as to provide, erect and maintain a security fence plus gate, padlock and keys at each measuring station, all at his own cost.

C3.4.2.6.7 Format of communications

All communication shall be in writing and any verbal agreements shall only be binding once confirmed and agreed to in writing. Communication via, registered post, email or facsimile is acceptable. The Contractor and Employer shall follow the communication protocol through the JW Representative

C3.4.2.6.8 Key personnel

The Contractor shall submit a schedule of key personnel and a schedule of contact particulars of key personnel within one week of appointment.

C3.4.2.6.9 Management meetings

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The Contractor shall attend site meetings with representatives of the Employer and the JW Representative at dates and times to be determined by the Employer. Such meetings will be held to evaluate the progress of the Contract and to discuss matters pertaining to the Contract, which any of the parties represented, may wish to raise.

C3.4.2.6.10 Forms for contract administration

Refer to Returnable Documents Volume 1 for contract related forms that should be completed.

Standard forms for contract administration will be made available after appointment.

C3.4.2.6.11 Payment certificates

Measurements will be done continuously between the JW Representative and the Contractor on dates and times agreed on. Dates must be arranged by these parties.

The progress of the following items will be recorded hereunder:

The contractor will provide a concept with quantities to the JW Representative. If any material on site is claimed, proof of ownership must be provided either by means of the necessary receipts or a letter from the supplier stating that ownership has been transferred to the contractor upon delivery.

Invoices for all work carried out during the month invoices to be submitted by the 7th day of the following month. Penalties will apply, where invoices are submitted late (per day delaying).

C3.4.2.6.12 Permits

The contractor shall fulfil all wayleave requirements/permits prior to construction

C3.4.2.7 Extension of time due to abnormal rainfall

If during the time for completion of the Works, or any extension thereof, should abnormal rainfall or wet conditions occur, then an extension of time in accordance with Clause 5.12.1 to 5.12.3 of the General Conditions of Contract shall be granted by the Employer, calculated on the critical path method. It shall be applied as follows:

A delay caused by inclement weather conditions will be regarded as a delay if, in the opinion of the Employer, all progress on an item or items of work on the critical part of the working programme of the Contractor has been brought to halt. Delays on working days only (based on a five day working week) will be taken into account for the extension of time, but the Contractor shall make provision in his programme of work for an expected delay of **10 (ten)** working days caused by normal rainy weather, for which he will not receive any extension of time.

Daily records of rainfall and activities within the critical parts affected shall be kept by the Contractor and signed by the Employer's representative on the site. For this, accurate rain gauging shall be taken at a suitable point on the site, and the Contractor shall, at his own expense, take all necessary precautions to ensure that unauthorised persons do not interfere with the rain gauges. Failure to produce signed copies of the above records on a daily basis to the Employer's representative on the site after the event having occurred will be deemed to be in breach of this Clause and will not be admissible for purposes of seeking an extension of time.

The Contractor shall be permitted to take his own rainfall measurements on site subject to the Employer's approval, but access to the measuring gauge(s) shall be under the Employer's control.

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The Contractor is to provide and install all the necessary equipment for accurately measuring the rainfall as well as to provide, erect and maintain a security fence plus gate, padlock and keys at each measuring station, all at his own cost.

The values of N_n , R_n , x and y for use in Clause 5.12.2.2 of the Special Conditions of Contract shall be as advised before commencement for the specific site.

C3.4.3 PLANT AND MATERIALS

C3.4.3.1 Plant and materials supplied by the employer

The Employer shall not supply any plant or materials.

C3.4.3.2 Materials, samples and shop drawings

(a) Samples

Materials or work which do not conform to the approved samples submitted, will be rejected. The Engineer reserves the right to submit samples to tests to ensure that the material represented by the sample meets the specification requirements. The costs of any such tests conducted by or on behalf of the Engineer, the results of which indicate that the samples provided by the Contractor do not conform to the requirements of the Contract, shall be for the Contractor's account.

C3.4.4 CONSTRUCTION EQUIPMENT

C3.4.4.1 Requirements for equipment

The Contractor's equipment shall be adequate to construct the works.

C3.4.4.2 Equipment provided by the employer

The Employer will not provide any equipment.

C3.4.5 EXISTING SERVICES

C3.4.5.1 Known services

All known services are indicated on the drawings. Exact positions cannot be guaranteed.

C3.4.5.2 Treatment of existing services

The Contractor shall ascertain and observe all conditions laid down by the relevant authorities for the execution of the work in the vicinity of their services.

C3.4.5.3 Damage to services

If any services are damaged during excavations, the relevant service provider and the Engineer shall be notified immediately. The Contractor shall be responsible for all costs to repair damaged services.

C3.4.5.4 Reinstatement of services and structures damaged during construction

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When the service provider does the permanent reinstatement, the cost involved shall be payable by the Contractor. When the contractor does the permanent reinstatement, the method of reinstatement shall be approved by the services provider.

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PS6 FEATURES REQUIRING SPECIAL ATTENTION

Security

The contractor shall be responsible for the security of his personnel, materials and construction plant on and around the site of the Works and for the security of his camp, and the personnel of the Employer and the JW Representative. The Contractor must take sufficient measures in this regard.

The use of security guards under “normal” conditions, i.e. night watchmen to prevent theft, etc., is recommended. Payment for any such security measures will not be paid separate, but considered to be included in the tendered rates.

Operation of valves

It may be necessary to isolate a portion of the reticulation to execute the Works. The Contractor shall not operate any valves. Requests for isolation of the pipe section shall be made to the Johannesburg Water Regional Depot, at least (7) working days’ notice is required.

Work outside normal working hours

Normal working hours shall be defined as between 07:00 and 17:30 Mondays to Fridays and also 07:00 to 13:00 on Saturdays.

The Contractor might be required to work outside the normal working hours as and required by JW (including Sundays and public holidays). Should the Contractor be requested to work outside normal working hours, written permission shall be obtained from the JW Representative and additional costs will not be applied for such work.

Sanitary facilities

The Contractor will be required to provide ablution facilities on site for their Employees. The contractor shall ensure that no spillage occurs when the toilets are cleaned or emptied. Burial of waste from toilets on site is strictly prohibited. The toilets shall be maintained in a clean state. Performing ablutions anywhere other than in toilets is strictly prohibited. Leaking toilets shall be repaired immediately or removed from site.

Refer to PSA4-2.

Community liaison and community relations

In all dealings with the community and workers employed from within the community, the Contractor shall take due cognizance of the character, culture and circumstances of the community involved and shall at all times use his/her best endeavors to avoid the development of disputes and to foster a spirit of co-operation and harmony towards the project.

The Contractor shall at all times, keep the JW Representative fully informed on all matters affecting the community and shall at all times maintain good public relations with Johannesburg Water’s customers and the public. The Contractor shall at all times, keep the Regional Manager/JW Representative fully informed of progress and planned interruption on all matters affecting the community.

Notices and warning to consumers

The Contractor shall ensure he maintains service (water and/or sanitation) provision at all times whilst executing the works where:

- a) The maximum amount of time of no service shall be 8 hours for any property. Any service disruption longer than 8 hours shall be temporary bypassed by methodologies approved by the JW Representative.
-

Volume	1	2	3			
Part	T1	T2	C1	C2	C3	C4



- b) A Public Notification Program shall be implemented, requiring at minimum that the Contractor shall deliver written notices to each domestic and non-domestic customer affected by the works, 48 hours before commencement of the works, including providing:
- a summary of work to be completed;
 - the time and duration of service interruption; and
 - a local telephone number to contact the Contractor for inquiries or complaints. All complaints received shall be addressed and resolved within the standard Employer response times and a summary of such complaints and associated actions shall be presented to the JW Representative on a monthly basis.

Continuity of service supply to customers

The activities of the Contractor shall not unreasonably interfere with the service supply to customer and be executed outside the agreed and notice time frames.

Where the Contractor cannot reasonably re-establish services within times agreed and notice time frames he shall proceed to contact the affected customer and make alternative arrangements that shall be acceptable to the customer and the JW Representative.

The associated costs of any customer claim arising from a lack of service provision due to the Contractor's negligence or his disregard for the Employer's SOP or his disregard for the conditions of this Contract, whilst executing activities as per this Contract, shall be solely for his the account. The Employer shall have the right to make equivalent monetary deductions from monies owed to the Contractor or from his Guarantee under this Contract and any other active contract(s) with the Employer.

Conditions and procedures for service agencies

The contractor:

- must make provision for the possible existence of numerous services (e.g.: Stormwater, Sewer, Eskom, City Power, Egoli Gas, Rand Water, Telkom, and the like) within and in close proximity to the work areas.
- Is to obtain way leaves indicating the location of existing services from all affected service providers prior to the commencement of construction. The Contractor is to comply with conditions of the way leaves received from the various service providers.
- Is to ensure the protection and integrity of all existing services exposed and encountered through the course of construction activities. Adequacy in terms of protection of existing services shall be at the discretion of JW Representative. The Contractor is to make good the protection of and any breakages to existing services. The contractor is to record on as built drawings the location of existing services or services which have been relocated during Contract Period.
- Must inform the relevant service provider immediately (within 2 hours of incident) such that procedures for the reinstatement of the service can be effected, should he damage or break an existing service (whether known or unknown)
- Is responsible to provide his own equipment in order to determine the location of existing services.
- Is responsible for all costs of repairing damaged services

NOTA BENE: Drawings indicating other existing services in the vicinity of the works are not guaranteed as being accurate, as all other services may not have been recorded or properly recorded. It shall remain the responsibility of the Contractor to perform preoperational work, to locate existing services in advance of the commencement of the works

Generic labour intensive specifications

EPWP guidelines shall not be applicable to this Contract, although it is expected that the Contractor execute the majority portion of the works utilising labour, but skilled labour.

Volume	1	2	3			
Part	T1	T2	C1	C2	C3	C4



Causes for rejection

Causes for rejection shall include but not be limited to not complying to the Employer's requirements and/or specifications and the intended purpose for this Contract, thus:

- a) poor data (including: photographs, recording, prints and reports) and data management;
- b) silt, grease, and debris remaining in conduits after cleaning; and
- c) poor quality construction and remedial works:
 - i) Cracks in any concrete works or pre-cast units shall be cause for rejection.
 - ii) Honeycombed or patched areas in any concrete works or pre-cast unit shall be cause for rejection.

Operations under Live Conditions

All cables and pipes shall be considered "live" unless confirmed otherwise by the relevant service authority.

Volume	1	2	3			
Part	T1	T2	C1	C2	C3	C4



PSA GENERAL (SANS 1200 A)

All payment for items under this clause ARE to be included in the work related rates in the Bill of Quantities.

PSA 3 MATERIALS

PSA 3.1 QUALITY OF MATERIAL (Subclause 3.1)

Add the following:

All materials are to be the best of their respective kinds, new, undamaged, sound and free from defects and shall comply with the relevant clauses of the Specification.

All references to Standard Specifications are to the latest amendment to such specifications.

Materials bearing the SABS or BS mark will not be subjected to tests to determine whether they comply with the relevant specifications. The JW Representative may in his discretion require any material not bearing such a mark to be tested in accordance with the relevant specifications; should he do so the Contractor shall arrange for such tests to be carried out at the Contractor's cost by the South African Bureau of Standards or other approved body.

Whether or not the material bears the mark or is tested, any material found not to be in accordance with the specification would be rejected and replaced by the Contractor at his own cost. Tenderers may be required, at their own expense to submit samples of the material offered to the JW Representative for his approval and the material supplied under this contract shall be of a standard equal to that of the samples so submitted and approved. Samples will remain the property of the Tenderers, who shall remove them when called upon to do so by the JW Representative.

PSA 4 Plant

All payment for items under this clause ARE to be included in the work related rates in the Bill of Quantities.

PSA 5 Construction

All payment for items under this clause ARE to be included in the work related rates in the Bill of Quantities.

PSA 5.1 Survey

PSA 5.1.1 Setting out of the Works. (Sub-clause 5.1.1)

Add the following:

Before commencing any construction, the Contractor shall check the relative positions and levels of works and inform the JW Representative of any discrepancy.

The Contractor shall advise the JW Representative of any conflict between the position of any part of the Works and an existing feature.

PSA 5.2 Safeguarding and accommodation of traffic (Sub-clause 5.2)

Add the following:

With reference to Sub-clause 5.2 of SANS 1200 A, the Contractor shall, in addition to the requirements of Sub-clause 5.1.6 of SANS 1200 D, carry out and maintain such temporary works and provide all temporary road signs, temporary bridging, pipes, deviations and the like, as is necessary to maintain and safeguard the normal flow of public and private, vehicular and pedestrian traffic.

Unless the closing of streets, accesses and thoroughfares has been properly arranged, the Contractor shall accommodate and provide for through traffic, traffic at crossings and vehicular access to houses and buildings at all times. If necessary, safe ramps to mount road kerbs shall be provided where traffic is to be diverted.

Volume	1	2	3			
Part	T1	T2	C1	C2	C3	C4



PSA 5.4 Existing services

PSA 5.4.1 Action by Contractor (Sub-clause 5.4)

Add the following:

Before commencing any excavation for trenches or chambers in a specific area, the Contractor shall locate all existing services with the co-operation of the relevant authority, and carefully excavate by hand, expose and protect such services

In addition to the requirements of Sub-clause 5.4 the Contractor shall deal with the crossing of known existing services by:

- a) Notifying the relevant authority 48 hours prior to executing the work.

PSA 5.5 DEALING WITH WATER

PSA 5.6 POLLUTION

PSA 5.7 SAFETY

Add the following:

The contractor shall be required to comply with the requirements of OHS 95 of 1993 and its regulations as well as JW's OHS and Environmental specifications.

PSA 6 TOLERANCES

Add the following sub-clause:

PSA 6.1 AUTHORISED DIMENSIONS

Except where the contrary is specified or when clearly not applicable, all quantities for measurements and payment shall be determined from the "authorised" dimensions. These are specified dimensions or those shown on the drawings or, if changed, as finally prescribed by the JW Representative, without any allowance for the specified tolerances. Except if otherwise specified all measurements for determining quantities for payment will be based on the "authorised" dimensions.

If the work is therefore constructed in accordance with the "authorised" dimensions plus or minus the tolerances allowed, quantities will be based on the "authorised" dimensions regardless of the actual dimension to which the work has been constructed.

When the work is not constructed in accordance with the authorised dimensions plus or minus the tolerances allowed, the JW Representative may nevertheless, at his sole discretion, accept the work for payment. In such cases no payment shall be made for quantities of work or material in excess of those calculated for the authorised dimensions, and where the actual dimensions are less than the authorised dimensions minus the tolerance allowed, quantities for payment shall be based on the actual dimensions as constructed.

PSA 7 TESTING

All payment for items under this clause ARE to be included in the work related rates in the Bill of Quantities.

PSA 7.1 PRINCIPLES

Add the following sub clause:

7.1.1 Cost for testing

Volume	1	2	3			
Part	T1	T2	C1	C2	C3	C4



The cost of all testing to be carried out by the Contractor in terms of the requirement of the relevant SANS 1200 standard shall be included in the rates for the various work items listed in the schedule of quantities. No separate payment shall be made in this regard.

The JW Representative may order the Contractor to arrange special check tests to be carried out by an approved independent laboratory. The cost of special check tests ordered by the JW Representative shall be paid by the Employer if the test results indicate compliance with the specification and paid by the Contractor if the results indicate non-compliance with the specification.

PSA 7.2 APPROVED LABORATORIES

Add the following:

The independent laboratory used by the Contractor and approved by the JW Representative shall also be deemed and approved laboratory.

PSA 8 MEASUREMENT AND PAYMENT

PSA 8.1 SCHEDULED FIXED-CHARGE AND VALUE-RELATED ITEMS

Note that the following payment items will NOT be paid separately, but are deemed to be included in the work related payment rates in the Bill of Quantities.

PSA 8.1.1 Other fixed-charge obligations:

a) Complying with health and safety specification

This rate shall cover all the fixed charged costs incurred by the contractor to comply with the Health and Safety specifications set by the Client. This will include the compilation of all documentation, assessments, risk analysis, etc. as specified. Refer to particular specifications volume 2 of this contract documentation.

b) Provision for sufficient hand excavation tools

The Contractor is responsible for the supply of sufficient hand excavation tools for the excavation of pits by labour. The tools will remain the property of the Contractor. Payment will be made as a fixed amount and as a time related amount. Should not enough tools be made available; the payment of these items may be reduced until enough tools are on site. This rate shall cover the fixed costs for the supply of hand excavation tools.

PSA 8.2.2 SCHEDULED TIME-RELATED ITEMS

Note that the time related items will NOT be paid separately, but are deemed to be included in the work related payments rates in the Bill of Quantities

PSA 8.8 TEMPORARY WORKS

PAS 8.8.2 Dealing with Traffic: (Sub-clause 8.8.2)

Delete this sub-clause and substitute:

Accommodation of traffic

The rates shall cover the costs of accommodation of traffic and provision of bypasses as described in SANS 1200 D 5.1.6 .Inclusive in their rates.

PSA 8.8.4 Existing services: (Sub-clause 8.8.4)

Add the following:

Volume	1	2	3			
Part	T1	T2	C1	C2	C3	C4



(c)Excavate by hand in soft material to expose existing services

Add the following new sub-clause:

The rate shall cover the cost for removal of premix or other surfacing where necessary, excavating in all materials, shoring, backfilling, compaction and reinstatement of surfaces except for asphalt and removal of non-usable/spoiled material.

(d)Temporary protection of existing services

Add the following new sub-clause:

All existing services, underground as well as above ground level, shall be protected by the Contractor in an appropriate manner for the duration of the construction or as deemed necessary by the JW Representative that no damage to or interruption of the services shall occur.

PSA 8.8.6 Special water control (including Stormwater) (Subclause 8.8.6)

Add the following:

The rate shall include all costs to ensure that no water enters or stand in excavated trenches, low laying areas or portions of the site under construction. The tendered rate shall also include all costs to ensure that access of sub-surface water is controlled and pumped out of the excavated areas.

All plant, labour and operation costs as well as equipment required to secure a dry working area and pumping of water shall be included in the tendered rate.

PSA 8.3.4 Dealing with other Service Authorities

Add the following sub clause:

The tendered rate shall include all costs for dealing with the following service Authorities and for fulfilment of way leave requirements:

- Johannesburg Roads Agency
- City Power
- Eskom
- Telkom SA
- Gautrans
- SASOL
- City Parks
- Egoli Gas

Add the following sub clause:

PSA 8.4 Free-haul and overhaul:

Notwithstanding any clauses in any Standardized Specification or Standard Specification Section dealing with the definition, measurement and/or payment for transport, free-haul and/or overhaul, neither measurement, nor payment for overhaul will be made. All haulage will be considered to be free-haul and the cost thereof will be deemed to be covered by the rates for the provision or disposal of the applicable material. Contractor is to familiarise themselves with surrounding landfill sites. Contractor is to dispose material and rates thereof are to be included in the tendered rates.

Volume	1	2	3			
Part	T1	T2	C1	C2	C3	C4



PSAB 8.5 Medical facilities and safety equipment

The Contractor shall make the first aid services and such personal safety equipment and facilities as are required in terms of PSA 4.3, available to the JW Representative and his site staff.

PSAB ENGINEER'S OFFICE (SANS 1200 AB)

PSAB 5 Construction

PSAB 5.3 Key personnel: (Sub-clause 5.3)

Add the following:

The Contractor shall inform the JW Representative of the person whom he has charged with the duties with respect to the Site in terms of the Occupational Health and Safety Act and the person(s) who are in possession of a valid certificate of competency in first aid. The Contractor shall give copies of the minutes of the site safety meetings to the JW Representative.

PSAB 8 Measurement and payment

Note that the following payment items will NOT be paid separately, but are deemed to be included in the work related payment rates in the Bill of Quantities.

PSC SITE CLEARANCE (SANS 1200 C)

PSC 8 Measurement and payment

Note that the following payment items will NOT be paid separately, but are deemed to be included in the work related payment rates in the Bill of Quantities.

PSC 8.2.10 Removal and conservation of topsoil: (Sub-clause 8.2.10)

Add the following:

The rate tendered for the removal of in situ topsoil shall, in addition to the items listed in Sub-clause 8.2.10, also cover the cost of stabilizing and protecting the stockpiles of topsoil.

PSD EARTHWORKS (SANS 1200 D)

All payment for items under this clause ARE to be included in the work related rates in the Bill of Quantities.

PSD 5 Construction

PSD 5.1.1.1 Barricading and lighting:

Replace sub-paragraph (a) and (b) with the following:

Adequately protected by a barrier or fence comprising fluorescent orange plastic netting of height at least 1 000mm and as close to the excavation as practicable; and

Provided with notice boards marked "CLOSED – GESLUIT" at each end of closed or partially closed roads; and

Add the following to this sub clause:

- c) Provided with flashing orange lights, placed at 15m intervals along the barricading at night.
- d) Should the Contractor fail to provide adequate lighting, signing and barricading, access to properties, or leave the site in a dangerous condition, the JW Representative shall be entitled to suspend all work under the Contractor until in the JW Representative's opinion

Volume	1	2	3			
Part	T1	T2	C1	C2	C3	C4



the Contractor's obligation in these respects have been fulfilled and/or arrange for any emergency work to be carried out by some other agency and to deduct the cost of this work from any monies due to the Contractor.

PSD 5.1.1.2 Safeguarding of excavations:

Add the following to this sub-clause:

- (g) Loose ground, materials, tools and appliances shall be kept clear of the edge of the excavations and a pathway at least 0,50m shall be left clear along the edge of the excavation.

PSD 5.1.4.3 Excavated material not to endanger or interfere:

Add the following to this sub-clause:

A safe, clear path shall be kept open at all times for pedestrians. Equipment, materials and waste shall be stored, stockpiled or removed in such a manner that pedestrians are not endangered and that the nuisance level is kept to a minimum. If construction activities occupy the whole footway and verge area so that pedestrians are forced to walk in the traffic lane, adequate protection from traffic shall be provided.

Where instructed by the JW Representative or where the Works impose a danger to traffic or pedestrians, the Contractor shall remove off Site excavated material to temporary stockpiles (approved by the JW Representative) and the return to Site, excavated material for use as backfill or bedding.

PSD 5.2.2.3 Disposal of surplus or unsuitable material

Add the following:

All surplus material and all unsuitable material from excavations and clearing and grubbing operations shall be removed from the Site by the Contractor and disposed of at an approved dump site. The Contractor is to provide details of the site to the JW Representative for approval.

Dumping shall proceed in an orderly manner with coarse material placed at the bottom and covered with finer material, where possible. Upon completion of dumping the material shall be shaped to provide free-draining surfaces and slopes and finished off to the satisfaction of the JW Representative.

Volume	1	2	3			
Part	T1	T2	C1	C2	C3	C4



PSDB EARTHWORKS – PIPE TRENCHES (SANS1200DB)

All payment for items under this clause ARE to be included in the work related rates in the Bill of Quantities.

PSDB 3 MATERIALS

PSDB 3.8 Classification for hand excavation

Add the following new sub clauses:

Classification of material for various types of hand excavation will be based on the results of a Dynamic Cone Penetrometer (DCP). The category of material shall be determined by testing the material at regular intervals and at various depths along the centre line of the trench. A minimum of 5 tests shall be done at each location and the average number of blows of the tests shall be used to determine the category of material.

The interval between test locations shall be determined by the variation of material type but shall not exceed 50m. The depth of testing shall be determined by the variation of material type and can increase or decrease in hardness with increasing depth of excavation. Table PSDB 3.8 indicates the categories:

TABLE PSDB 3.8: CLASSIFICATION FOR HAND EXCAVATION

Category of Material	Consistency		DCP Blows to Penetrate 100mm	
	Granular	Cohesive	Granular	Cohesive
<u>Soft</u> Soft excavation shall be excavation in material that can be efficiently removed from the trench using a pick and shovel but not requiring prior breaking using mechanical equipment such as pavement breakers.	Up to medium dense	Firm to stiff	0-6	1-5
<u>Intermediate</u> Intermediate excavation shall be excavation in material that require loosening with a hand spike (gwala) before being removed from the trench.	Dense	Stiff to very stiff	7-15	6-8
<u>Hard</u> Hard excavation shall be excavation in material that requires prior breaking using mechanical equipment, such as pavement breakers with clay spades, before being removed from the trench.	Very dense		16-50	-15
<u>Rock</u> Rock excavation shall be excavation in material other than described above which by nature of the material requires prior breaking using mechanical equipment, such as pavement breakers with moil points, before being removed from the trench	-	-	>50	>15

PSDB 5 CONSTRUCTION

PSDB 5.1.3 Accommodation of traffic and access to properties:

Add to sub-clause 5.1.3 (b)

Volume	1	2	3			
Part	T1	T2	C1	C2	C3	C4



The Contractor shall make available on site at all times a sufficient number of steel plates at least 2.0m x 2.0m x 8mm thick to be laid across open trenches to provide access to private properties. The cost of providing, placing and removing the steel plates shall be included in the rates for trench excavation.

PSDB 5.9 REINSTATMENT OF SURFACES

PSDB 5.9.7 Top soiling:

Add the following new sub-clause:

Top soiling will be measured by surface area covered. The rate for top soiling shall cover the cost of loading, hauling, spreading to a thickness of 100 mm, compacting and making suitable provision to avoid the topsoil slipping down the slopes of embankments and cut-slopes, all to the approval of the JW Representative.

PSDB 5.11 Location of existing services

Add the following new sub-clause:

Positions and details of known existing services as received from the various Departments are to be exposed, identified and protected. Exact positions cannot be guaranteed by Johannesburg Water (SOC) Ltd and will not be held responsible for any damages to any services. The contractor shall excavate by hand to locate any such services and ensure that care is taken not to damage these services.

PSDB 5.13 Dealing and protecting existing services

Add the following new sub-clause:

All existing services, underground as well as above ground level, shall be protected by the Contractor in an appropriate manner, for the duration of the construction or as deemed necessary by the JW Representative, such that no damage to or interruption of the services shall occur.

PSDB 5.14 Gas main, Electricity and Telecommunication poles

Add the following new sub-clause:

Gas mains, electricity and telecommunication poles close to the excavations are to be stabilized and protected prior to excavation and for the duration of construction.

PSDB 5.15 Trees in construction path

Add the following new sub clause:

No trees in the construction path must be removed. Care must be taken not to damage the trees in any way what so ever. If there are trees that cause an obstruction in the construction path, the contractor should contact the JW Representative and the Environmental Consultant prior to removal of any trees. A penalty of R1, 000.00 will be applied for each tree damaged.

PSDB 7 TESTING

PSDB 7.2 Inspection at intermediate stages of construction:

Add the following new sub clause:

The Contractor shall call for the JW Representative, giving him reasonable notice, to inspect the works at the following intermediate stages of construction:

Before placing of premix on driveways or any final surfacing on constructed footways. Work shall not progress through the specified stages without the approval of the JW Representative or his representative on site.

Failure to comply with the provision of this clause shall result in the suspension of work until rectified.

Volume	1	2	3			
Part	T1	T2	C1	C2	C3	C4



PSDB 8 MEASUREMENT AND PAYMENT

PSA 8.2 PAYMENT

PSA 8.2.1 Time-related items

Note that the following payment items will NOT be paid separately, but are deemed to be included in the work related payment rates in the Bill of Quantities

PSA 8.3 SCHEDULE FIXED –CHARGE AND VALUE-RELATED ITEMS

Note that the following payment items will NOT be paid separately, but are deemed to be included in the work related payment rates in the Bill of Quantities

PSA 8.3.3 other fixed-charge obligations:

a)Complying with health and safety specification

This rate shall cover all the fixed charged costs incurred by the contractor to comply with the Health and Safety specifications set by the Client. This will include the compilation of all documentation, assessments, risk analysis, etc. as specified. Refer to particular specifications volume 2 of this contract documentation.

b)Provision for sufficient hand excavation tools

The Contractor is responsible for the supply of sufficient hand excavation tools for the excavation of pits by labour. The tools will remain the property of the Contractor. Payment will be made as a fixed amount and as a time related amount. Should not enough tools be made available; the payment of

Note that the following payment items will NOT be paid separately, but are deemed to be included in the work related payment rates in the Bill of Quantities.

MEASUREMENT AND PAYMENT

Note that the following payment items will NOT be paid separately, but are deemed to be included in the work related payment rates in the Bill of Quantities.

PSD 8.3 SCHEDULED ITEMS

PSD 8.3.1 Site preparation

REPLACE SUBCLAUSES 8.3.1.1 AND 8.3.1.2 WITH THE FOLLOWING:

"Where site preparation such as clearing, grubbing, the removal of large trees or the removal and stockpiling of topsoil is required, the provisions and scheduled items of SABS 1200 C shall apply."

PSD 8.3.2 Bulk excavation

REPLACE THE CONTENTS OF ITEM WITH THE FOLLOWING:

"(a) Excavate in all materials and use for embankment or backfill as ordered, from:

- | | |
|----------------------------|----------------------|
| (a) Tower Foundation | Unit: m ³ |
| (b) Valve Chamber | Unit: m ³ |

Volume	1	2	3			
Part	T1	T2	C1	C2	C3	C4



The unit of measurement shall be the cubic metre measured in place in accordance with subclause 8.2 of SABS 1200 D. Separate items will be scheduled for embankments and backfills for different parts of the works. The tendered rates shall cover the cost of complying with all the precautions required in terms of subclause 5.1 of SABS 1200 D (as amended), in addition to the cost of excavating in all materials, basic selecting, loading, transporting, off-loading, spreading or backfilling, watering, compacting, final grading, complying with the requirements for tolerances, providing for testing, finishing and tidying, all in accordance with the specifications.

In addition to the foregoing, the tendered rate for subitem (b) shall further include for the costs of royalties (if applicable), whilst the tendered rate for subitem (c) shall also include for the costs of finding a source of suitable material, for making arrangements with the owner of the source, for procuring the material, for the payment of all requisite royalties, charges or damages, and for transporting the material to the site regardless of the distance involved. No payment will be made for the removal of overburden or stockpiling at the commercial source and no extra over payment shall apply for excavating in intermediate, hard or boulder material."

- (b) Excavate in all materials to spoil Unit: m³
The unit of measurement shall be the cubic metre of material excavated, measured in place in accordance with subclause 8.2 of SABS 1200 D.

The tendered rates shall cover the cost of complying with all the precautions required in terms of subclause 5.1 of SABS 1200 D (as amended), in addition to the cost of excavating, basic selecting, loading, transporting, off-loading at the spoil site, maintaining and finishing the spoil site, all in accordance with the specifications.

- (c) Extra over subitems PSD 8.3.2(a)(1), PSD 8.3.2(a)(2) and PSD 8.3.2(b) for:
(a) Intermediate excavation Unit: m³
(b) Hard rock excavation Unit: m³

The rate shall cover the additional cost of the operations enumerated in subclauses 8.3.2.(a) and 8.3.2.(b) above for any portion of the excavation that is classified as intermediate, hard rock, boulder excavation class A or boulder excavation class B as applicable. (See Drawing D-2.)

- (d) Extra over item PSD 8.3.2(c)(2) for hand excavation or other method (excluding blasting) to remove rock outcrops or rock underbreak after bulk excavation to form level site (alternative for soilcrete backfilling in rock overbreak) Unit: m³

The unit shall be the cubic metre (including bulking of volume) of rock outcrops removed by hand or other labour intensive method.

The rate shall cover all additional costs of the operations including labour, plant, equipment, transport etc to break, excavate, load and removal off site of small rock outcrops not successfully removed during the bulk excavation operations.

Volume	1	2	3			
Part	T1	T2	C1	C2	C3	C4



Add the following new sub-clause:

Top soiling will be measured by surface area covered.

The rate for top soiling shall cover the cost of loading, hauling, spreading to a thickness of 100 mm, compacting and making suitable provision to avoid the topsoil slipping down the slopes of embankments and cut-slopes, all to the approval of the JW Representative. The structural integrity still remains the responsibility of the contractor.

Drill and Installation of pipe through Horizontal Direction Drilling (HDD).....Unit: m

The rate shall include the complete (labour, qualified operators, material, plant and equipment) cost for the successful drilling of the pipe, installation of pipes of various diameters, jointing of pipe. The rate shall also Include the provision and operation of all equipment and accessories, provision and application of all materials, safety equipment (including that required for the Employer's Agent or his duly authorized representative's sole use), traffic accommodation and testing and reporting.

PSDB 8.4 Cutting of the following surfaces.

Add the following new sub clause:

The cutting of premix and concrete surfaces shall be measured per linear meter of cut for various depth ranges as scheduled. Cutting of premix and concrete surfaces shall be done with a diamond tipped saw or by some other approved method. The depth of the cut shall be such that the adjoining premix and concrete surfaces are not disturbed when excavation takes place. The cutting of surfaces shall be done 100mm on either side of the trench.

INFORMATION FOR SPECIFIC GOALS ANALYSIS	
BUSINESS OWNED BY 51% OR MORE -BLACK PEOPLE	
1. Percentage (%) of Black Ownership	
2. Is Black Ownership 51% or more? (Yes or No)	
BUSINESS OWNED BY 51% OR MORE – BLACK YOUTH	
1. Percentage (%) of Ownership by Black Youth	
2. Is the percentage of Black Youth Ownership 51 % or more? (Yes or No)	
BUSINESS OWNED BY 51% OR MORE-WOMEN	
1. Percentage (%) of Ownership by People who are Women	
2. Is the percentage of People who are Women 51 % or more? (Yes or No)	
BUSINESSES LOCATED WITHIN THE BOUNDARIES OF A REGION IN COJ, COJ MUNICIPALITY OR IN GAUTENG PROVINCE	
1. Is your business located in the Gauteng Province? (Yes or No)	

Volume	1	2	3			
Part	T1	T2	C1	C2	C3	C4



2. Is your business located in the COJ Municipality? (Yes or No)	
3. Is your business located within the region of the COJ? (Yes or No)	
BUSINESS OWNED BY 51% OR MORE - BLACK PEOPLE WHO ARE MILITARY VETERANS	
1. Percentage (%) of Ownership by Black People Who Are Military Veterans	
2. Is the percentage of Ownership by Black People Who Are Military Veterans 51% or more? (Yes or No)	
BUSINESS OWNED BY 51% OR MORE-BLACK PEOPLE WITH DISABILITIES	
1. Percentage (%) of Ownership by Black People With Disabilities	
2. Is the percentage of Ownership by Black People with Disabilities 51% or more? (Yes or No)	
SMME (AN EME OR QSE) OWNED BY 51% OR MORE - BLACK PEOPLE	
1. What is the Enterprise Type? EME – turnover is less than R10m QSE – Turnover between R10m and R50m Generic – Turnover is R50M of more	
JOINT VENTURE (JV), CONSORTIUM OR EQUIVALENT	
1. What is the percentage (%) of ownership for each party?	
SUBCONTRACTING WITH COMPANIES AT LEAST 51% OWNED BY HISTORICALLY DISADVANTAGED INDIVIDUAL (HDI) GROUPS MENTIONED ABOVE	
1. What is the percentage (%) that will be sub-contracted to companies that are at least 51% owned by Historically Disadvantaged Individual (HDI) groups mentioned above?	