

Tender

Provision of Maintenance and repair Services for

Civil and Structural Infrastructure

at the

East London Industrial Development Zone

CONTRACT NO: ES/22/INFR/01

VOLUME A (1 of 2): TECHNICAL PROPOSAL

**PROVISION OF MAINTENANCE & REPAIR SERVICES
FOR
CIVIL & STRUCTURAL INFRASTRUCTURE**

East London IDZ Contact person: A. Mzantsi Email: anathi@elidz.co.za	
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NOTE: DO NOT SPLIT THIS DOCUMENT

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PART 1
THE TENDER

CONTRACT NO: ES/22/INFR/01
PROVISION OF MAINTENANCE & REPAIR SERVICES
FOR
CIVIL & STRUCTURAL INFRASTRUCTURE

1.1 TENDERING PROCEDURES

1.1.1 Introduction

1.1.2 Tender Notice and Invitation to Tender

1.1.3 Tender Data

1.1.1 INTRODUCTION

The East London Industrial Development Zone SOC Ltd (ELIDZ) is the duly appointed operator of the East London Industrial Development Zone, a multi-million-rand infrastructure and bulk services development initiated by the Department of Trade and Industry (DTI) that is part of the government's micro-economic reform strategy. In 2016, the ELIDZ has been designated as a Special Economic Zone and was the first to receive an operator's permit from DTI

The East London Industrial Development Zone is located on Buffalo City's West Bank adjacent to the existing East London port and airport, and much of the Phase 1 infrastructure and bulk services required for the development have been completed.

As the East London Industrial Development Zone is now operational, Tenders are hereby invited from relevant service providers for the provision of various maintenance services at the above premises for a three-year period

1.1.2 TENDER NOTICE AND INVITATION TO TENDER

The East London Industrial Development Zone SOC Ltd is the operator of the East London Industrial Development Zone (ELIDZ), an entity which exists to help manufacturers to become globally competitive through the development and efficient management of a modern, purpose built industrial location, which offers investing industries a streamlined business environment enhanced by a range of supporting services. The zone is already operational and currently houses a number of manufacturers that supply products for the local and international markets.

SCOPE OF WORK

Tenders are hereby invited from suitably qualified and experienced service providers for the provision of maintenance services for civil and structural infrastructure, located at our facilities within the West Bank area of the Buffalo City Metropolitan Municipality

The successful tenderer will be required to enter a Two-year Contract for the provision of Maintenance and Repair to the Civil and Structural Infrastructure Services with the East London Industrial Development Zone SOC Ltd.

Tender Reference No.	Tender Description / Name	Closing Date / Time
ES/22/INFR/01	Provision of Maintenance Services and repair for Civil and Structural Infrastructure	04 November 2022 at 12h00

The Services include the following summarized scope of work:

1. The provision of a small, permanent on-site crew during normal working hours
2. Scheduled and unscheduled maintenance activities required for Roads, Stormwater, Bulk water and Bulk sewer infrastructure
3. The provision of urgent and emergency response services related to civil and structural infrastructure, on a 24/7/365 basis

BRIEFING MEETING

Note: A Compulsory Briefing with representatives of the Employer will take place Virtually via Microsoft Teams on 21 October 2022 starting at 10h00. Participants are to register their interests in attending the briefing meeting by emailing anathi@elidz.co.za with subject line indicating the tender name and in the body of the email the details of the personnel that will be attending the meeting. This registering to attend is to be done by no later than 12:00 (Noon) on the 20 October 2022.

BID CONDITIONS:

- ❑ Tenderers are required to submit a Valid SARS Tax Clearance Certificate with their tender, or the relevant SARS pin code which will allow the ELIDZ to confirm the tenderers tax status on-line
- ❑ Tenderer must be registered on Central Supplier Database (CSD) from National Treasury and MAAA number must be provided
- ❑ Tenderers should submit a Valid original or certified B-BBEE certification. Companies with annual turnover less than R10 million to submit an accountant or SARS letter confirming turnover.
- ❑ Tenderers to provide certified copy of Company Registration Certificate
- ❑ Tenderers to provide Letter of Good Standing from Compensation Commissioner
- ❑ Tenderers must submit technical and financial proposals in two separate envelopes clearly marked "Envelope A -Technical Proposal" and "Envelope B – Financial Proposal". Then the financial proposal will only be opened should the technical proposal be found to be acceptable.
- ❑ Non- signed "Form of Offer" the financial proposal in "Envelope B" submission will result in the disqualification of the tender.
- ❑ Inclusion of Price Offer and/ or any other price related details in "Envelope A -Technical Proposal" will result in the disqualification of the tender.
- ❑ The successful Tenderer will be required to have sufficient and competent staff available to commence full time operations in accordance with the contract with effect from the Commencement Date, failing which the contract will be awarded to the next most preferred Tender.
- ❑ Registration with the CIDB in the category **6CE** is compulsory for companies wishing to submit tenders

POPIA

By submitting this tender, the bidder hereby consents to providing the ELIDZ with personal information as provided in the Protection of Personal Information Act 2013 (POPIA).

The ELIDZ undertakes to:

1. It will take all reasonable steps and precautions to preserve the integrity of bidders Personal Information and to prevent any corruption or loss of such data.
2. It will not do any of the following: copy, compile, collect, collate, process, store, transfer, alter, delete, interfere with or in any other manner use the bidders Personal Information as described in the Act for any purpose other than with the express prior written consent of the bidder.
3. Utilize the personal information provided for the purposes of assessment of the tender submitted by the bidder and contracting with the successful bidder as the case may be.
4. It will immediately inform the bidder in writing if any Personal Information relating to it has been compromised. The ELIDZ undertakes to immediately inform the bidder in writing as to how it will manage such compromise and what steps will be taken to rectify the situation.
5. Due and reasonable care of the bidder's personal information and not to share the said personal information with any third party unless you have authorized such disclosure, or the release of such information is required by law.
6. At all times strictly comply with its obligations under Data Protection Legislation.
7. Subject to legislative, regulatory, contractual, and other legitimate conditions, the respective bidder has certain rights in terms of how their information is processed. The bidder can request access to information or guidance on how to lodge a complaint from or direct a request to exercise afforded rights to the ELIDZ Information Officer, or his/her deputy/ies, or the Information Regulator.
8. It will maintain guidelines, policies or procedures for the retention or destruction of data and will retain it only as long as necessary for the identified purposes or to meet legal requirements or policies.
9. It shall implement and maintain, at its cost and expense, appropriate, reasonable technical and organizational measures to prevent loss of damage to or unauthorized destruction of Personal Information and unlawful access to or Processing of Personal Information.

The ELIDZ shall not incur any liability for costs, loss or damage arising from the use of inaccurate or incomplete data provided by or on behalf of the bidder.

EVALUATION

The evaluation will be guided by the ELIDZ procurement policy. Points will be awarded on the basis of Price and BBEE.

Score breakdown:

- ☐ 80 Points for Price
- ☐ 20 Points for BBEE

All tenders not providing compulsory responsive documentation and with functionality scoring less than 75%, will not be considered for the next stage of tender evaluation

TENDER DOCUMENT & SUBMISSION

The RFT document will be available for download on 14 October 2022 12h00 (Noon) at www.elidz.co.za: CIDB website & Dispatch website under opportunities under opportunities.

It will be the responsibility of the respondent to ensure that the RFT documents reaches the ELIDZ. All tender documents are to be submitted online at <https://tenderportal.elidz.co.za> before the closing date and time of 12h00, 04 November 2022. only PDF documents must be uploaded with a maximum size limit of 2GB per file.

Hard copy document submission will not be considered.

TENDER ENQUIRIES

Questions relating to the RFP will be accepted until 13h00 on 28 October 2022 with response by 31 October 2022.

No questions will be accepted or responded to after this date.

Queries relating to this tender may be addressed to:

Contact person: A. Mzantsi

Contact No: 043 702 8200

Email: anathi@elidz.co.za

1.1.3 TENDER DATA

Project title:	Provision of Maintenance & Repair Services for Civil and Structural Infrastructure		
Contract No:	ES/22/INFR/01		
Advertising date:	14 October 2022	Closing date:	04 November 2022
Closing time:	12h00 noon	Validity period:	120 Days
Clause number			
	<p>The conditions of tender are the Standard Conditions of Tender as contained in Annexure F of SANS 294: 2004 (Edition 1).</p> <p>The Standard Conditions of Tender make several references to the Tender Data for details that apply specifically to this tender. The Tender Data shall have precedence in the interpretation of any ambiguity or inconsistency between it and the standard conditions of tender.</p> <p>Each item of data given below is cross-referenced to the clause in the Standard Conditions of Tender to which it mainly applies.</p>		
F.1.1	The employer is the East London Industrial Development Zone SOC Ltd		
F.1.2	<p>The tender documents issued by the employer comprise:</p> <p>1. THE TENDER</p> <p>1.1 TENDERING PROCEDURES</p> <p>1.1.1 Introduction</p> <p>1.1.2 Tender Notice and Invitation to Tender</p> <p>1.1.3 Tender Data</p> <p>1.2 RETURNABLE SCHEDULES</p> <p>1.2.1 List of Returnable Documents</p> <p>1.2.2 Returnable Schedules</p> <p>2. THE CONTRACT</p> <p>2.1 CONTRACT DATA</p> <p>2.2 SCOPE OF WORK</p> <p>2.3 SITE INFORMATION</p> <p>APPENDICES</p> <p>A Generic Occupational Health and Safety Specification</p> <p>B Construction Environment Management Plan</p>		

F.1.2 (cont.)	<p>VOLUME B: FINANCIAL PROPOSAL</p> <p>1. THE CONTRACT</p> <p>1.1 AGREEMENT AND CONTRACT DATA</p> <p>1.1.1 Form of Offer and Acceptance</p> <p>1.1.2 Form of Guarantee</p> <p>1.2 PRICING DATA</p> <p>1.2.1 Pricing Instructions</p> <p>1.2.2 Bills of Quantities</p>										
F.1.4	<p>The employer's agent is:</p> <table border="1"> <tr> <td>Name:</td><td>C Ngxokolo- Nomatye</td></tr> <tr> <td>Address:</td><td>ELIDZ Admin 1 Building, lower Chester Rd, Sunnyridge, East London.</td></tr> <tr> <td>Tel:</td><td>043 702 8200</td></tr> <tr> <td>Fax:</td><td></td></tr> <tr> <td>E-mail:</td><td>camagwini@elidz.co.za</td></tr> </table>	Name:	C Ngxokolo- Nomatye	Address:	ELIDZ Admin 1 Building, lower Chester Rd, Sunnyridge, East London.	Tel:	043 702 8200	Fax:		E-mail:	camagwini@elidz.co.za
Name:	C Ngxokolo- Nomatye										
Address:	ELIDZ Admin 1 Building, lower Chester Rd, Sunnyridge, East London.										
Tel:	043 702 8200										
Fax:											
E-mail:	camagwini@elidz.co.za										
	<p>Add the following sentence: The period of six months may only be reduced should all tenders received be rejected as non-responsive.</p>										
F.2.1	<p>The following tenderers who are registered with the CIDB, or are capable of being registered prior to submissions, are eligible to submit tenders:</p> <p>a) Contractors who have a contractor grading designation equal to or higher than a contractor grading designation determined in accordance with the sum tendered for a 6CE class of construction work.</p> <p>Joint Ventures (JV) are eligible to submit tenders providing that:</p> <ul style="list-style-type: none"> • Every member of the JV is registered with the CIDB • A lead partner has a contractor grading designation in the 6CE class of construction work; and • The combined contractor grading designation calculated in accordance with the Construction Industry Development Regulations is equal to or higher than a contractor grading designation determined in accordance with the sum tendered for a 6CE class of construction work; and • A Joint Venture agreement is submitted together with the tender indicating shareholding percentage <p>All parties to a Joint Venture should meet bid condition requirements to be acceptable.</p> <p>In Bids where consortia/joint venture/ sub-contractors are involved; each tendering party must submit a separate proof of TCS/PIN/CSD number.</p> <p>Where there is no designated sector, ELIDZ may decide to include a specific bidding condition that only locally produced goods or services with a stipulated minimum threshold for local production and content, will be considered, on condition that such prescript and threshold(s) are in accordance with the specific standards determined by the DTI in consultation with the National Treasury.</p>										

	In the event that the successful Bidder has been awarded the contract with value above R 5 000 000.00 for the same goods/services on a consecutive basis, the successful bidder will be required to submit a Supplier development plan for SMMEs to be agreed with the ELIDZ.
F.2.7	The arrangements for a compulsory site clarification meeting are: Date : 21 October 2022 Starting time : 10h00
F2.13.2	All tender documents are to be submitted online at https://tenderportal.elidz.co.za before the closing date and time
F2.13.3	Only the original tender submission is required.
F2.13.6	A two-envelope procedure will be followed.
F2.14	The ELIDZ will disqualify any submission which is not suitably endorsed or which is not comprehensively completed.
F2.15.1	Submissions that are not received on or before the closing time will, in terms of the ELIDZ procurement policy, not be considered.
F.2.16	The tender offer validity period is 120 days.
F2.19	Access to premises will not be required.
F2.23	The tenderer is required to submit with his tender: <input type="checkbox"/> Tenderers are required to submit a Valid SARS Tax Clearance Certificate with their tender, or the relevant SARS pin code which will allow the ELIDZ to confirm the tenderers tax status on-line <input type="checkbox"/> Tenderer is required to provide a CSD registration certificate on older than 10 days before closing of tender <input type="checkbox"/> Tenderers should submit a valid original or certified B-BBEE certification. Companies with annual turnover less than R10 million to submit an accountant or SARS letter confirming turnover. <input type="checkbox"/> Tenderers to provide certified copy of Company Registration Certificate <input type="checkbox"/> Tenderers to provide Letter of Good Standing from Compensation Commissioner <input type="checkbox"/> Tenderers to provide Proof of Registration with the CIDB in the category 6CE . <input type="checkbox"/> All returnable documents and schedules as listed in 1.2.
F3.4	Tender submissions will be opened in public immediately after the stipulated closing time and date.
F3.11	The procedure of the evaluation of tenders is the two-envelope system Tender evaluation will be carried out using the 80/20 preference point system, where: <ul style="list-style-type: none"> ▪ A maximum of 80 points are allocated for financial offer. ▪ A maximum of 20 points are allocated for preference. <p>The above-mentioned evaluation will be subject to offers being responsive and passing the functionality criteria prescribed in the attached schedule.</p>

Quality/Functionality Evaluation

The score achieved for functionality will be assessed using the following criteria, each of which will be scored individually up to the maximum number of points indicated (failure to submit the relevant information will result in zero scores for that section):

DETAILED BREAKDOWN OF FUNCTIONALITY POINTS

Item	Details	Points scored	Available Points
	Criteria 1. Technical Merit		16
1.1	Artisan (Building) – Provide a proof of Trade test certificate provided by an accredited training authority		8
1.2	Artisan (Plumber) – Provide a proof of Trade test certificate provided by an accredited training authority		8
	Criteria 2. Applicant's Expertise and Resources		34
2.1	Staffing Levels (CVs of proposed persons to be provided with attached certificates; clear details of duties and 3 contactable referees on cv)		
2.1.1	Contracts Manager (5 years minimum experience on similar civil and structural infrastructure maintenance projects)		
	> 15 years' relevant experience on similar projects		10
	< 10 but >15 years' relevant experience on similar projects		5
	< 5 but >10 years' years relevant experience on similar projects		3
	CV with no certificates; no clear details of past or present duties; no contactable referees on cv.		0
2.1.2	Site Foreman/supervisor (4 years minimum experience on similar civil and structural infrastructure projects)		
	≥10 years relevant experience on similar projects		10
	≥7 years < 10 years relevant experience on similar projects		5
	4 years < 7 years relevant experience on similar projects		3
	CV with no certificates; no clear details of past or present duties; no contactable referees on cv.		0
2.1.3	Artisan Building Works (3 years minimum experience on similar civil and structural infrastructure maintenance projects)		
	>10 years relevant experience on similar projects		7
	< 5 but > 10 years' relevant experience on similar projects		5
	< 3 but > 5 years' relevant experience on similar projects		3
	CV with no certificates; no clear details of past or present duties; no contactable referees on cv.		0
2.1.4	Artisan Plumber (3 years minimum experience on similar civil and structural infrastructure maintenance projects)		
	>10 years relevant experience on similar projects		7
	< 5 but > 10 years' relevant experience on similar projects		5
	< 3 but > 5 years' relevant experience on similar projects		3
	CV with no certificates; no clear details of past or present duties; no contactable referees on cv.		0

	Criteria 3. Relevant Company Experience		30
3.1	<p>Points can be scored (to a maximum of 30 points) for each confirmed similar project per item in progress or carried out in the past 5 years</p> <ul style="list-style-type: none"> Relevant roadworks maintenance experience Relevant General building maintenance works and related maintenance experience Relevant storm water and related works experience and water supply works experience Relevant sewer works and related maintenance experience <p><u>Companies to submit only completion certificates/ Award Letters for points.</u></p>		<p>8</p> <p>6</p> <p>6</p> <p>10</p>
3.2	If no confirmed similar project per item in progress or carried out in the past 5 years		0
	Criteria 4. Implementation Methodology		10
4.1	<p>Company required to provide detailed method statements, which demonstrate the manner in which work is carried out typically on a maintenance contract of this nature.</p> <ul style="list-style-type: none"> Urgent/emergency response services Site supervision and Reporting Location and protection of existing infrastructure works and underground services 		<p>4</p> <p>3</p> <p>3</p>
	Criteria 5. References		10
5.1	<p>(Fully complete Annexure P06-1 Part A & B reference letter with contact details, signature and stamp). Only relevant letters with company letterhead and stamp will be awarded points</p> <p>A maximum of 10 points could be scored for a minimum of 2 reference letters. The accumulative scores of the two letters will be used.</p>		
	No relevant references provided		0
	TOTAL EVALUATION SCORE FOR FUNCTIONALITY	0	100
	PERCENTAGE POINTS SCORED	0%	

Tender offers scoring less than 75 points out of 100 points for quality/functionality will be regarded as non-responsive and not considered further.

Financial Offer Evaluation

The score achieved for financial offer will be determined using formula 2 (option 1) as follows:

$$\text{Points awarded} = 80 \left[1 - \frac{P - P_m}{P_m} \right]$$

Where P = the comparative offer of the tender offer under consideration
P_m = the comparative offer of the lowest responsive tender

Preference Evaluation Criteria

A maximum of twenty (20) points will be awarded to a tenderer for achieving BBBEE objectives. BBBEE points shall be computed using a relevant scorecard as guided by the company's annual turnover. This is in accordance with the new Codes of Good Practice. BBBEE evaluation shall be done based only on the information submitted in the ELIDZ Procurement Handbook. No points will be awarded for achieving BBBEE objectives if the total percentage scored for BBBEE is less than 30 %.

All tenders with functionality less than 75% of the total functional requirements will not be considered for the next stage of tender evaluation. ELIDZ reserves the right to negotiate if preferred bidder's proposal exceeds ELIDZ project estimate

The tender will be awarded to the bid with the highest number of points. A tender may be awarded to a bidder that did not score the highest number of points if reasonable and justifiable grounds exist.

Any contract offered by the ELIDZ will be based on the correctness of information submitted by the service providers. Any misrepresentation of facts by a service provider may lead to disqualification. Should such misrepresentation be uncovered after the commencement of the contracted work, the ELIDZ reserves the right to terminate the contract and recover all payments made to that service provider and any costs that may have been incurred in the process.

ELIDZ reserves the right to have the tenderer's Black Economic Empowerment Credentials verified by an independent agency. (Procurement Handbook – Annexure: 1 must be fully completed and supplementary information may be completed by service providers with a turnover of less than R10m and be accompanied by letter from an accounting firm or SARS confirming the company's or sworn affidavit turnover is less than R10m).

F3.13.1	<p>Tender offers will only be considered if:</p> <ul style="list-style-type: none"> a) the tenderer or any of its directors is not listed on the Register of Tender Defaulters in terms of the Prevention and Combating of Corrupt Activities Act of 2004 as a person prohibited from doing business with the public sector; and b) the tenderer has: <ul style="list-style-type: none"> i. abused the Employer's Supply Chain Management System; or ii. failed to perform on any previous contract and has been given a written notice to this effect. iii. is not under restrictions, or has principals who are under restrictions, preventing participating in the ELIDZ procurement, iv. c) has the legal capacity to enter into the contract, v. d) is not insolvent, in receivership, under Business Rescue as provided for in chapter 6 of the Companies Act, 2008, bankrupt or being wound up, has his affairs administered by a court or a judicial officer, has suspended his business activities, or is subject to legal proceedings in respect of any of the foregoing, vi. e) complies with the legal requirements, if any, stated in the tender data, and i. f) is able, in the opinion of the ELIDZ, to perform the contract free of conflicts of interest. c) All returnable documents and schedules as listed in 1.2.1 have been completed and submitted with this document.
F.3.18	<p>The number of paper copies of the signed contract to be provided by the employer is 1 (one).</p>

PART 2

THE CONTRACT

CONTRACT NO: ES/22/INFR/01

**PROVISION OF MAINTENANCE & REPAIR SERVICES
FOR
CIVIL & STRUCTURAL INFRASTRUCTURE**

2.1 CONTRACT DATA

2.1.1 Contract Data

2.1.1 CONTRACT DATA FOR

Project title:	PROVISION OF MAINTENANCE SERVICES FOR CIVIL AND STRUCTURAL INFRASTRUCTURE
Contract No:	CONTRACT NO: ES/22/INFR/01

	PART 1: DATA PROVIDED BY THE EMPLOYER
	CONDITIONS OF CONTRACT
	The General Conditions of Contract for Construction Works (2015) [hereinafter referred to as GCC 2015], published by the South African Institution of Civil Engineer's Agenting, is applicable to this Contract.
	Where the SERVICE PROVIDER has incurred any liability to the CLIENT, whether arising from or under this Agreement or otherwise howsoever arising, the CLIENT may, without notice to the SERVICE PROVIDER set-off the amount of such liability against any liability of the CLIENT to the SERVICE PROVIDER arising from or under this Agreement, whether either such liability is liquidated or unliquidated, present, or future, accrued or contingent, unless otherwise agreed to in writing by the CLIENT.
	CONTRACT SPECIFIC DATA
	The following contract specific data; amendments; additions; or omissions are applicable to this Contract.

CLAUSES	Compulsory Data
1.1.14	The name of the "Employer" is East London Industrial Development Zone SOC Ltd.
1.2.2	<p>The address of the Employer is</p> <p>Physical Address:</p> <p>Lower Chester Road, Sunnyridge</p> <p>Buffalo City (East London)</p> <p>5201</p> <p>Postal Address:</p> <p>P.O. Box 5458</p> <p>Greenfields</p> <p>5208</p> <p>Telephone: 043 – 702 8200</p>
1.1.15	The name of the Engineer is: East London Industrial Development Zone SOC Ltd – represented by Camagwini Ngxokolo- Nomatye

1.1.1.16	<p>The address of the Engineer is</p> <p>Physical Address:</p> <p>Lower Chester Road, Sunnyridge Buffalo City (East London) 5201</p> <p>Postal Address:</p> <p>P.O. Box 5458 Greenfields 5208</p> <p>Telephone: 043 – 702 8200</p>
5.8.1	The special non-working days are statutory public holidays.
5.8.1	The year-end break will be as stipulated by South African Federation of Civil Engineering Contractors (SAFCEC).
Appendix 3	The time to deliver the Deed of Guarantee is 21 days. The liability of the Guarantee shall be for 5 % of the Tender Sum.
1.3.5	<p>Replace in its entirety with the following:</p> <p>The Employer will become the owner of the information, documents, advice, recommendations and reports collected, furnished and/or compiled by the Contractor during the course of, and for the purposes of executing this Contract, all of which will be handed over to the Employer on request, but in any event on the termination and/or cancellation of this Contract for whatever reason. The Contractor relinquishes its retention or any other rights to which it may be entitled.</p>
1.3.6	<p>Add the following as 1.3.6:</p> <p>The copyright of all information, documents, advice, recommendations and reports compiled by the Contractor during the course of and for the purposes of finalising the Works will vest in the Employer, must be regarded as confidential and may not be reproduced or distributed or made available to any person outside the Employer's service, or to any institution in any way, and may not be published either during the currency of this contract or after termination thereof without the prior written consent of the Employer. The Employer shall have the right to use such material for any other purpose without the approval of, information or payment to the Contractor.</p>

1.3.7	<p>Add the following as 1.3.7</p> <p>The copyright of all electronic aids, software programmes etc. prepared or developed in terms of the Contract shall vest in the Employer, who shall have the right to use such material for any other purpose without the approval of, information or payment to the Contractor.</p>
1.3.8	<p>Add the following as 1.3.8:</p> <p>In case of the Contractor providing documents, electronic aids, software programmes or like material to the Employer, the development of which has not been at the expense of the Employer, copyright shall not vest in the Employer. The Contractor shall be required to indicate to which documents, electronic aids, software programmes or like material this provision applies.</p>
4.6.1	<p>Replace with the following:</p> <p>The Contractor hereby indemnifies the Employer against any action, claim, damages or legal cost that may be instituted against the Employer on the grounds of an alleged infringement of any copyright or any other intellectual property right in connection with the Works outlined in this Contract.</p>
5.3.1	<p>Replace with the following:</p> <p>The Contractor shall, save as may be otherwise provided in the Contract or be legally or physically impossible, commence executing the Works immediately from the date the Contractor is given access to and possession of the Site in terms of Clause 11.</p>
5.4.1	<p>Replace the word “On the Commencement date” with the words “Within 14 days of the Contractor submitting to the Engineer an acceptable health and safety plan required in terms of the Occupational Health and Safety Act, 1993 (Act 85 of 1993)”</p>
5.6.1	<p>The Contractor shall deliver his Programme of work within 14 days from the Commencement Date.</p>
5.9.1	<p>Amend as follows:</p> <p>“On the date that the Contractor is given access to and possession of the site, the Engineer shall deliver to the Contractor three (3) copies, at no cost to the Contractor, of the drawings and any instructions required for the commencement of the Works. The cost of any additional copies of such drawings and/or instructions, as may be required by the Contractor, will be for the account of Contractor.</p>
7.6.4	<p>Replace the words “within a reasonable time” with the words “within the period stipulated by the Engineer in such order...”</p>

7.9.1	<p>Add the following at the end of this clause:</p> <p>Such losses or damages may be recovered from the Contractor by deducting the same from any amounts still due under this Contract or under any other contract presently or hereafter existing between the Employer and the Contractor and for this purpose all these contracts shall be considered one indivisible whole.</p>
8.6.1.1	<p>The Contractor shall only be required to insure the Works in so far as this comprises new construction. He shall however be required to insure whatever plant, vehicles, tools, equipment and materials are utilised in the execution of his maintenance activities.</p>
8.6.1.1.2	<p>The Employer will not supply any materials.</p>
8.6.1.1.3	<p>The insurance is not required to cover professional fees.</p>
8.6.1.3	<p>Public Liability Insurance shall have a limit of Indemnity of not less than R10 million for any one event. The Public Liability Insurance cover must be extended to include:</p> <ul style="list-style-type: none"> ▪ Spread of fire ▪ Damage to underground services ▪ Surrounding property
6.5.1	<p>The percentage allowance to cover overhead charges on labour and supervision is 33%, and on material cost the percentage allowance is 10%.</p>
5.7.2	<p>Add the following to the end of the second paragraph:</p> <p>“which costs may be deducted from any payments due to the Contractor in terms of the Contract or any other Contract, within the three-year period, existing between the Employer and the Contractor and for this purpose all these shall be considered on indivisible whole”</p>
5.5.1	<p>The contract period for the Works is two years.</p>
5.13	<p>Not applicable</p>
6.8.2	<p>Contract Price will be adjusted annually as per the escalation rates declared in the priced bill of quantities year on year</p>
10.1.3.6	<p>Delete</p>

6.10.1.5	The percentage advance on materials not yet built into the Permanent Works is 80%.
6.10.3	The percentage retention on the amount due to the Contractor is 0 %. The limit of retention money is R Nil
6.10.3	This clause shall be deleted in its entirety.
6.11	This clause shall be deleted in its entirety.
7.8.1	The Defects Liability Period is 12 months.
9.3.3	Add the following at the end After cancellation of the Contract by the Contractor, the Contractor, when requested by the Employer to do so, shall not be entitled to refuse to withdraw from the Works on the grounds of any lien or a right of retention or on the grounds of any right whatsoever.
10.4.2	Dispute resolution shall be by means of mediation.
10.7	Disputes are to be referred for final settlement to litigation.
11.0	Add the following new Clause 11.0 : Amendments to be in writing "No amendments of this Contract or of any provisions or terms hereof and no waiver or relaxation or suspension of any of the provisions or terms of this Contract shall be of any force or effect unless reduced to writing and signed by both the parties hereto."

Contract no: **CONTRACT NO: ES/22/INFR/01**

	PART 2: DATA PROVIDED BY THE CONTRACTOR
1.8	<p>The name of the Contractor is</p> <p>.....</p> <p>(insert the legal name of the Contractor, as well as the Contractor's registration number, if applicable)</p>
1.2.2	<p>The address of the Contractor is:</p> <p>Physical Address:</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>Postal Address:</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>Email address: Telephone:</p>

2.2	SCOPE OF WORK	
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2.2.10	Management	

2.2 **SCOPE OF WORK**

2.2.1 **DESCRIPTION OF THE WORKS**

2.2.1.1 **Employer's Objectives**

The East London Industrial Development Zone SOC Ltd (ELIDZ) is the duly appointed operator of the East London Industrial Development Zone, and as such has an obligation to ensure that the various facilities and services that they own and control are at all times fully operational and able to perform the function for which they were intended.

Accordingly, the ELIDZ has a need to enter into contracts with suitable service providers who are able to carry out the various inspections, maintenance activities and repairs which are necessary to support these objectives.

2.2.1.2 **Overview of the Works**

The maintenance services comprise both scheduled and unscheduled items as described below. It is envisaged that a small permanent crew (as described in the Pricing Schedule) will undertake most of the non-specialised works on a daily basis as directed by the Engineer or the Engineers representative. Works requiring more specialised resources will be brought onto site as and when required.

Responsibility / Function
The Artisans (both building and plumber) and laborers shall be required to be on site 8 hours/day and 5 days a week
Carry out routine inspections and maintenance repairs and submit reports.
Always have a team on standby for emergency callouts afterhours.
Undertake maintenance activities, cleaning, and repairs of Civil and structural infrastructure (roads, stormwater drains, buildings, water) etc.
Compile a monthly preliminary payment valuation and report
Occupational health & safety method statements & compliance
Construction environmental management method statements & compliance

Staffing and Equipment

Provide the following staff and equipment permanently on site during normal working hours to undertake various ongoing maintenance tasks as set out below and as directed by the Engineer/Client's representative.

- Site Foreman
- Artisans (Building and Plumber)
- 5 x general labours
- 2x 1 ton drop-side LDV

- Basic equipment. (spades, picks, rakes, brooms, wheelbarrows,) and small tools and equipment to undertake minor building repairs
- Specialist Equipment. (1 x set rodding irons with attachments, sludge pump, brush cutter with nylon and blade attachments)
- Relevant PPE to be provided to all staff members, according to tasks been undertaken.
- The contractor will be required to provide various relevant plant and equipment at short notice to perform Road, sewer, bulk water and storm repairs namely (Bakkies; Mixers; Drain/sewer cleaning machinery or plant).

Provide a permanently on-site Specialist site management (Registered Professional Engineer) - (Only at sole discretion of the ELIDZ representative, no professional shall be accepted from the contractor)

- The specialist site management is responsible for the daily planning, implementing and control of daily site activities as agreed with ELIDZ representative.
- The specialist shall be required to be on site 8 hours/day and 5 days a week and to also check quality of works during afterhours callouts.
- Leave days for the site specialist shall be discussed with ELIDZ representative.
- The specialist reports to the ELIDZ representative and represents the interest of the ELIDZ.
- The specialist is to ensure that visual and Site inspections are carried out daily and reported to the ELIDZ representative.
- The specialist must be familiar with all relevant drawings and written instructions and use them as reference.
- The specialist is to ensure that the Contracts Manager gets all the necessary information to enable for Reports to be submitted on time to the ELIDZ with invoices on a monthly basis reflecting, amongst other, works completed and planned, delays and problems, condition reports, and labour statistics.
- The specialist ensures that all scheduled and unscheduled works are completed within a desirable timeframe so that cases logged are reported and closed off to the ELIDZ representative.
- The specialist must have a working knowledge of health and safety legislation and bring any problems to the attention of the ELIDZ representative.

The provision for this related cost is priced and outlined in the Bill of Quantities.

Storm-water

Scheduled work

The contractor's permanent on-site team will be required to undertake scheduled maintenance of storm-water infrastructure as directed by the specialist as per agreement with the representative, including but not limited to:

- Check security gratings
- Trim vegetation in V-drains on the erven, cart away debris off site
- Clear blockages and vegetation from inlets, cart debris off site
- Clear blockages and vegetation from dissipater stilling basins, cart debris off site
- Clear blockages and vegetation from fence culverts, cart debris off site
- Check and maintain erosion protection works

Unscheduled work

This aspect includes various types of work that may be required from time to time and may require resources other than the on-site team, on an irregular basis and will incorporate:

- Responding to call-outs re blockages etc.
- Undertaking minor maintenance and/or repair works to pipelines, drains or structures as directed by the Engineer

Roads

Scheduled work

The contractor's permanent on-site team will be required to undertake scheduled maintenance of roads infrastructure as directed by the specialist as per agreement with the representative, including but not limited to:

- Carry out inspections of the road infrastructure and submit report for work scheduled (see also the pricing schedule).
- Sweep and clean road surfaces and channels and remove debris off site.
- Check and report on the condition of the roads, kerbs, channels, road markings, signage and sidewalks

Unscheduled work

This aspect includes various types of work that may be required from time to time and may require resources other than the on-site team, on an irregular basis and will incorporate:

- Repair of surface damage, potholes and cracks
- Apply rejuvenation spray to asphalt surface
- Overlay section of asphalt with slurry seal or premix layer
 - Repair kerb and channels
 - Repaint markings, maintain traffic signage
 - Repair sidewalks

Sewer and Water

Scheduled work

The contractor's permanent on-site team will be required to undertake scheduled maintenance of sewer and water infrastructure as directed by the specialist as per agreement with the representative, including but not limited to:

- Inspections of sewer manholes and sewer mains where visible within manholes
- Inspection and minor maintenance of water supply chambers, surface boxes, valves and fire hydrants.
- Partially close and open all isolating valves and stopcocks to ensure working condition
- Tightening and or repacking glands of valves and fire hydrants
- Remove debris from chambers and manholes

Unscheduled work

This aspect includes various types of work that may be required from time to time and may require resources other than the on-site team, on an irregular basis and will incorporate:

- Respond to call-outs - blockages and leaks
- Repairs to manholes, chambers, surface boxes and the like
- Repair or replace isolating valves, fire hydrants and water meters

- Construct new sewer and water erf connections
- Leak detection

2.2.1.3 **Extent of the Works**

The maintenance services as defined above are required in all areas in Zones 1A, 1B, 1C and 1D, of the ELIDZ as well as Estate buildings utilised by the ELIDZ

Should the need arise the maintenance services may be extended to include one or more portions of new works undertaken on behalf of the ELIDZ. This additional work shall be undertaken at billed rates wherever possible.

Although the Bills of Quantities contain a quantity for each item of work, these are included only to ensure realistic pricing and for budget purposes.

The quantities shall not be interpreted as indicating the overall scope of work to be undertaken under the contract, and the Engineer shall instruct the Contractor as to the actual extent of work to be carried out under each billed item.

2.2.1.4 **Location of the Works**

Zone 1 of the East London Industrial Development Zone is located within Buffalo City on the western side of the Buffalo River, between the East London port and airport.

The actual location of each sub-zone is shown on the locality plan included with the drawings and more fully described in the following table:

SUB-ZONE	DESCRIPTION OF LOCATION
Zone 1A	Situated south-west of Sunnyside, between the Harbour Arterial Road and Prince George Circuit, and accessed from the traffic circle at the lower end of the new Chester Road.
Zone 1B	Situated west of Sunnyside, on the northern side of the Harbour Arterial Road and to the east of the Breezy vale Distributor Road, with access off the Breezy vale Distributor Road slightly north of the traffic circle at the western end of the Harbour Arterial Road.
Zone 1C	Situated south-west of Sunnyside, on the northern side of the Harbour Arterial Road, with access off the Harbour Arterial, opposite the IDZ Transportation Building.
Zone 1D	Situated between Sunnyside and the airport, on the south of Settlers Way, and accessed from Millard road.

2.2.1.5 **Temporary Works**

The provision of any temporary works of whatever nature, required for execution of the scheduled items, shall be the responsibility of the Contractor, and the cost thereof shall be included in the rates for the respective items of work.

2.2.2 **Drawings Issued At Award Stage to successful tenderer**

Drawing no	Description
050/C/MTN/001	Zone 1A Overall Layout of Roads and Storm-water
050/C/MTN/002	Zone 1B Overall Layout of Roads and Storm-water

050/C/MTN/003	Zone 1C Overall Layout of Roads and Storm-water
050/C/MTN/004	Zone 1D Overall Layout of Roads and Storm-water
050/C/MTN/101	Zone 1A Overall Layout of Water Supply
050/C/MTN/102	Zone 1B Overall Layout of Water Supply
050/C/MTN/103	Zone 1C Overall Layout of Water Supply
050/C/MTN/104	Zone 1D Overall Layout of Water Supply
050/C/MTN/111	Zone 1A Water Details
050/C/MTN/201	Zone 1A Overall Layout of Sewers
050/C/MTN/202	Zone 1B Overall Layout of Sewers
050/C/MTN/203	Zone 1C Overall Layout of Sewers
050/C/MTN/204	Zone 1D Overall Layout of Sewers
050/C/MTN/211	Zone 1A and 1B Sewer Details

2.2.3 PROCUREMENT

2.2.3.1 Preferential Procurement Procedures

The ELIDZ Procurement Handbook is included in envelope “A” of the tender submission and must be completed in full.

2.2.3.2 Subcontracting

As stipulated in the General Conditions of Contract, the Contractor shall not subcontract any part of the contract without the prior written consent of the Engineer. Accordingly, the Contractor shall submit his list of proposed subcontractors to the Engineer for approval, prior to commencement of any activities on site.

If feasible to subcontract for a contract above 30 million, ELIDZ will apply subcontracting to advance designated groups.

The successful tenderer must subcontract a minimum of 30% of the value of the contract to :

- An EME or QSE;
- And EME or QSE which is at least 51% owned by black people
- And EME or QSE which is at least 51% owned by black people who are youth;
- And EME or QSE which is at least 51% owned by black people who are women;
- And EME or QSE which is at least 51% owned by black people with disabilities
- And EME or QSE which is at least 51% owned by black people living in rural or underdeveloped areas of township
- A cooperative which is at least 51% owned by black people;
- And EME or QSE which is at least 51% owned by black people who are military veterans.

2.2.4 MAINTENANCE WORKS

2.2.4.1 Works Specifications

The following SABS 1200 Standard Specifications for Civil Engineering Construction are applicable to this contract: and all relevant SANS Codes of Practice where building works are required

Number	Year	Title
SABS 1200 AA	1986	General (small works)

SABS 1200 C	1980	Site clearance
SABS 1200 DA	1988	Earthworks (small works)
SABS 1200 DB	1989	Earthworks (pipe trenches)
SABS 1200 DK	1996	Gabions and pitching
SABS 1200 DM	1981	Earthworks (roads, subgrade)
SABS 1200 GA	1982	Concrete (small works)
SABS 1200 L	1983	Medium Pressure pipelines
SABS 1200 LB	1983	Bedding (pipes)
SABS 1200 LC	1981	Cable ducts
SABS 1200 LD	1982	Sewers
SABS 1200 LE	1982	Storm-water drainage
SABS 1200 LF	1983	Erf connections
SABS 1200 M	1996	Roads (general)
SABS 1200 ME	1981	Subbase
SABS 1200 MF	1981	Base
SABS 1200 MG	1996	Bituminous surface treatment
SABS 1200 MH	1996	Asphalt base and surfacing
SABS 1200 MJ	1984	Segmented paving
SABS 1200 MK	1983	Kerbing and channelling
SABS 1200 MM	1984	Ancillary works

These specifications have not been issued as part of the tender documentation, and are available from SAICE, Private Bag X200, Halfway House, 1685. Telephone 011 805-5947

The Particular Specifications applicable to this contract are:
The ELIDZ Occupational Health and Safety Specification
The ELIDZ Construction Environmental Management Plan

These specifications are included in the tender documentation

2.2.4.2 The variations and additions to the above Standard and Particular specifications are as follows:

PSAA GENERAL (SMALL WORKS)

PSAA 1 SCHEDULED TIME-RELATED ITEMS (CLAUSE 8.4)

All Time-related items shall be measured by the month and the tendered rate shall cover the total monthly cost of the relevant item as described.

PSAA 2 PROVISION OF STAFF AND EQUIPMENT

The contractor is required to provide a permanent crew consisting of a Driver/Foreman, 2 x Artisans (Building and Plumbing), 5 x general labourers, basic equipment. (Spades, picks, rakes, brooms, wheelbarrows,) during normal working hours, and suitable 2 x drop-side 1 Ton LDV

The crew and equipment will be utilized to perform scheduled maintenance activities and minor works on site and under the direction of the engineer.

The contractor is to price for all related costs in the provision of the staff, equipment and the vehicle. It is anticipated that the vehicle will not exceed 100 kms per day on average. An extra-

over rate is included in the Bill for mileage in excess of 2000 kms per month and for overtime should this be required and duly authorized by the engineer.

PSAA 3 PROVISIONAL SUMS (CLAUSE 8.5)

A provisional sum has been included to allow the Contractor to purchase consumables such as oils, soaps, chemicals, and assorted cleaning materials and equipment. The purchase shall only take place if ordered by the Engineer, and the Contractor shall take delivery of and store the material, and deliver any unused material to the ELIDZ on completion of the contract.

PSAA 4 PROVISIONAL SUMS (CLAUSE 8.5)

Allow for the supply and emptying of an 11m³ waste disposal skip to be placed at the maintenance workshop for the disposal of general industrial waste collected by the maintenance crew/s working in the estate.

PSAA 5 PROVISIONAL SUMS (CLAUSE 8.5)

Allow for the acquisition and installation of stormwater drainage netting trash trap or any equivalent approved by the Employer's Agent, as well as to check, clean and remove all litter from stormwater structures, especially after the rain.

PSAA 6 PROVISIONAL SUMS (CLAUSE 8.5)

A provisional sum has been included to allow the Contractor to employ the services of an Employer's Agent manager to plan, implement and control the daily site activities and liaise with the Engineer daily. The site agent service shall only be at the discretion of the ELIDZ representative.

PSAA 7 PROVISIONAL SUMS (CLAUSE 8.5)

A provisional sum has been included to allow the contractor to Provide special locksmith services (supply of locks & key cutting) as directed by the Employer's Agent

PSAB ENGINEERS OFFICE

PSAB1 OFFICE BUILDINGS (CLAUSE 3.2)

The Contractor will not be required to provide an office, telephone, vehicle or any other facilities or equipment for the exclusive use of the Employer, the Engineer or their staff.

PSDA EARTHWORKS (SMALL WORKS)

PSDA 1 CLASSES OF EXCAVATION (CLAUSE 3.1.2)

Notwithstanding the contents of clause 3.1.2, soft excavation shall include the excavation in all material other than hard rock, and no extra-over payment will be made for intermediate or boulder excavation.

PSDA 2 EXISTING SERVICES (CLAUSE 5.1.2)

The contractor will be issued with drawings showing the positions of existing services on or /disturbance of any pipeline, manhole or chamber.

PSD 2.1 Negligence (Clause 5.1.2.4)

Where the contractor damages any existing service, including roads, kerbs, sidewalks, pipelines, manholes, chambers, streetlights or electrical kiosks, he shall not be penalized, but will be responsible for the cost of all necessary repairs and reinstatement.

PSDA 3 DISPOSAL (CLAUSE 5.2.2.3)

All surplus material from the excavations or other construction activities shall be carted to spoil. The Contractor shall be responsible for locating suitable spoil sites. All costs associated with carting and spoiling of material shall be included in the tendered rates and no additional payment will be made for this work. The contractor is to submit certificate of such disposal where necessary.

PSDA 4 TOPSOIL (CLAUSE 5.2.4.2)

Topsoil shall be placed to a thickness of 100 mm on platforms and to a thickness of 75 mm on the faces of cut and fill embankments.

PSDA 5 FREEHAUL (CLAUSE 5.2.5.1)

Notwithstanding the contents of clause 5.2.5.1, all haul of material, whether within the limits of the site, from commercial sources, or disposed of at spoil sites, shall be considered as free haul.

PSDA 6 OVERHAUL (CLAUSE 5.2.5.2)

The cost of the movement and haulage of all materials shall be included in the rates for the respective items, from commercial sources, and no payment will be made for overhaul.

PSDA 7 IMPORTING OF MATERIALS (CLAUSE 8.3.4)

The Contractor shall be required to locate a suitable source for any imported materials.

PSDB EARTHWORKS (PIPE TRENCHES)

PSDB 1 CLASSES OF EXCAVATION (CLAUSE 3.1)

The provisions of PSDA 1 shall apply.

PSDB 2 DISPOSAL OF SOFT EXCAVATION MATERIAL (CLAUSE 5.6.3)

Surplus or unsuitable material from trench excavations shall be disposed of off-site.

PSDM EARTHWORKS (ROADS, SUBGRADE)

PSDM 1 SELECTED LAYER (CLAUSE 3.2.3)

Notwithstanding the requirements of clause 3.2.3, the material used in the upper selected layer shall have minimum grading modules of 0.75.

PSM ROADS (GENERAL)

PSM 1 COMPACTION CONTROL (CLAUSE 7.4)

Add the following to the end of clause 7.4:

“Except that where a nucleonic device is used, it shall have been satisfactorily calibrated against the sand replacement method for each type of material on which it is used.”

PSM 2 REGULAR MAINTENANCE AND INSPECTION OF ROAD INFRASTRUCTURE

PSM 2.1 Sweeping and Cleaning of Roads, Entrances and Parking Areas

The cleaning of roads, entrance and parking areas shall be undertaken by the permanent on-site crew and equipment, as directed by the engineer.

PSM 2.2 Inspection of Road Infrastructure

Inspections shall be carried out by suitably qualified senior staff at the instruction of the engineer, and the Contractor shall provide a full report dealing with the following issues:

- The condition of the road surface as regular visible damage, signs of potholes and evidence of cracking.
- Any surface damage or displacement of the kerbs and channels.
- The state of the road markings, which shall include both lines and symbols.
- The condition of traffic signs, including the supporting poles.
- Signs of deterioration or damage evident in the sidewalks, including cracked pavers or displacement of unit.

Inspections of road infrastructure shall undertake by walking the full length of each lane, each kerb line and each sidewalk, and recording the condition of the various elements in a manner that clearly identifies the location and nature of every item that may require further attention.

The unit of measurement for the inspection of roads shall be the length in kilometer of roads reserve inspected and separate items will be scheduled for each type of road reserve, together with the associated elements therein.

The inspection for other areas such as entrances and parking areas shall be measured and paid as a lump sum. The tendered rate shall include for the full cost of all labour and transport required to undertake the inspection, record and report on the findings, and shall cover all elements within the roads reserve as describe above.

PSM 3 UNSCHEDULED MAINTENANCE OF ROAD INFRASTRUCTURE

PSM 3.1 Sweeping and Cleaning of Roads, Entrances and Parking Areas

In the event of unforeseen spills the cleaning of roads, entrance and parking areas shall include the channels adjacent to kerbs and shall require that the entire surface is thoroughly swept by hand or mechanical means with a stiff broom to loosen and remove all dirt, slit or debris of whatever nature that may occur on the surface. The operation shall include picking up the material swept from the surface, together with collection of all litter and other loose debris that is visible within the road reserve or fence lines, and disposal of all removed material off site.

The tendered rate shall include full compensation for the provision of all material, labour, tools, equipment, supervision and transport required to undertake the cleaning operation as specified, and for dealing with traffic during the cleaning operation.

PSM 3.2 Road Repairs

PSM 3.2.1 Repair of potholes

A provisional sum has been included to allow the Contractor to undertake repairs to minor potholes in asphalt surface roads, or along road edges. The specific repairs and specification for the repair will be agreed with the engineer.

PSM 3.2.2 Sealing of cracks

Where instructed by the Engineer, the Contractor shall be required to seal cracks in existing asphalt surfacing. Preparation for crack sealing shall require the cracks to be blown clean with compressed air, to ensure that all foreign and loose matter is removed from the cracks.

Immediately after cleaning, the cracks shall be primed by pouring in an invert bitumen emulsion manufactured from 80/100 penetration grade bitumen (MSP/1 or similar). Following the prime, the cracks shall then be sealed with an anionic stable grade bitumen emulsion. Cracks wider than 3 mm shall be sealed with emulsion to which rubber crumbs have been added, so that the binder contains net rubber content of 10% of the net binder content. The rubber crumbs shall be obtained by processing tyres. They shall be granulated, free from fibres, steel or other impurities, and shall pass through a 2.0 mm sieve. Deep cracks may require more than one application of sealant.

The unit of measurement shall be length in meters of crack sealed. Separate items will be scheduled for cracks of different widths.

The tendered rate shall include full compensation for the provision of all material, labour, tools, equipment, supervision and transport required to undertake the sealing operation as specified, and for dealing with traffic during the sealing operation.

PSM 3.2.3 Rejuvenation spray

Where instructed by the Engineer, the Contractor shall be required to treat areas of asphalt surfacing that have been identified as being deficient in binder. Preparation for treatment shall require the entire surface to be thoroughly cleaned of all dust, dirt, dung, oil or any other foreign matter that may be detrimental to the seal.

The treatment shall consist of the application of a fog spray of bituminous emulsion to the existing surface by means of a pressure distributor at the rate of application as directed by Engineer. The width of the spray may vary from 0.5 to 4.0 m and may comprise a 30%, 40% or 60% cationic or anionic spray grade emulsion.

The unit of measurement for treatment with diluted emulsion shall be the litre of net bitumen sprayed and separate items will be scheduled for spraying at different dilution rates.

The tendered rate shall include for full compensation for the provision of all material, labour, tools, equipment, supervision and transport required to prepare the surface and undertake the sealing operation as specified, and for dealing with traffic during the sealing operation.

PSM 3.2.4 Overlay with Slurry Seal

Where instructed by the Engineer, the Contractor shall be required to overlay existing open textured areas of asphalt with a slurry seal. The general requirements of SABS 1200 MG as regards materials, plant, equipment and construction shall apply.

Preparation for slurry seal shall require the entire surface to be thoroughly cleaned of all dust, dirt, dung, oil or any other foreign matter that may be detrimental to the seal. Thereafter the area to be treated shall be sprayed with tack coat comprising 30% stable grade bitumen emulsion.

The composition of the slurry seal shall be based on the following proportions by mass:

Aggregate (dry)	100
Stable grade emulsion (60%)	20
Cement	1- 1,5
Water	15

The nominal rate of application of the slurry shall be 0.0040 m³/m².

The unit of measurement for the application of slurry seal shall be square meter of surface area, and separate items shall be provided for application by hand or by spreader.

The tendered rate shall include for full compensation for the provision of all material, labour, tools, equipment, supervision and transport required to prepare and prime the surface and to mix and apply the slurry as specified, as well as for dealing with traffic during the sealing operation.

An additional item will be scheduled to allow for the establishment on site of a mechanical spreader.

PSM 3.2.5 Road repair/reconstruction

Provisional sum has been included to allow for possible road reconstruction including removal and reinstatement of base course layers and asphalt. The specific repairs and specification for the repair will be agreed with the engineer.

PSJ SEGMENTED PAVING

PSMJ 1 RECONSTRUCTION OF SIDEWALKS

Existing sidewalks comprise:

- 50mm thick rectangular precast concrete type SC bond pavers laid on a 20 mm sand bed
- Pavers are generally buff coloured, laid in a herringbone pattern, with a header course of slate coloured pavers along each edge.
- Edge pavers are bedded in a 50mm thick layer of 15 MPa concrete
- The entire sidewalk is laid on top of a 125 mm thick layer of G6 natural gravel subbase compacted to 95% OF MAMDD, over
- A 150 mm thick G6 selected layer compacted to 93% of MAMDD.

Where existing block paved sidewalk have been badly damaged, these shall require complete re-construction. The Engineer shall demarcate the extent of sidewalk to be re-constructed, thereafter the Contractor shall lift the existing pavers and stack these for re-use. The existing G6 material, together with the original bedding sand, shall then scarified to a disposed of off-site. Thereafter the existing selected layer shall be scarified to a depth of 150 mm and re-compacted to the required line and levels. The existing pavers should than be re-laid on a new sand bed, with the edges bedded in concrete as described above.

The re-construction of sidewalks shall be measured by the square meter of sidewalk surface that is ordered to be re-constructed.

The tendered rate shall include full compensation for the provision of all supervision, labour, tolls, plant and materials as necessary to carry out the re- construction as specified, using the existing pavers, and shall include the supply of the new G6 subbase and the bedding sand.

Additional items shall be scheduled to allow for the supply of additional pavers to replace broken pavers, and to allow for the extra cost of bedding edge units in concrete. The tendered rates for

these items shall include full compensation for the additional costs of whatever nature that are extra-over to the basic costs for re-construction of the sidewalks.

PSMJ 2 RE-SETTING OF PAVERS AND EDGE UNITS

Where existing block paved sidewalks have been slightly damaged, these shall require to be re-laid. The Engineer shall demarcate the extent of sidewalk to be re-laid, thereafter the Contractor shall lift the existing pavers and stack these for re-use.

The existing bedding sand shall then be scarified and leveling and the pavers re-laid to match the surrounding areas. Should the header course along the edges be displaced then the existing concrete bed should be removed and the edge units re-laid on a new bed of concrete.

Re- laying of sidewalks shall be measured by the square meter of sidewalk surface that is ordered to be re-laid.

The tendered rate shall include full compensation for the provision of all supervision, labour, tools, plant and materials as necessary to carry out the re-laying as specified, using the existing pavers and bedding sand.

Additional items shall be scheduled for the supply of additional pavers to replace broken pavers where necessary, and to allow for the extra cost of bedding edge units in concrete. The tendered rates for these items shall include full compensation for the additional costs of whatever nature that are extra-over to the basic costs for re-laying of the sidewalks.

PSMJ 3 RECONSTRUCTION OF VEHICLE ENTRANCE

Existing vehicle entrances comprise:

- 80mm thick precast concrete zigzag pavers laid on a 20 mm sand bed
- Pavers are generally buff coloured, laid in a zigzag pattern, with a header course of slate coloured pavers along each edge.
- Edge pavers are bedded in a 50mm thick layer of 15 MPa concrete
- The entire entrance is laid on top of a 125 mm thick layer of G6 natural gravel subbase compacted to 95% OF MAMDD, over
- A 150 mm thick G6 selected layer compacted to 93% of MAMDD.

Where existing paved entrances have been badly damaged, these shall require complete re-construction. The Engineer shall demarcate the extent of works to be re-constructed, thereafter the Contractor shall lift the existing pavers and stack these for re-use. The existing G6 material, together with the original bedding sand, shall then scarified to a disposed of off-site. Thereafter the existing selected layer shall be scarified to a depth of 150 mm and re-compacted to the required line and levels. The existing pavers should than be re-laid on a new sand bed, with the edges bedded in concrete as described above.

The re-construction of entrances shall be measured by the square meter of surface that is ordered to be re-constructed.

The tendered rate shall include full compensation for the provision of all supervision, labour, tools, plant and materials as necessary to carry out the re- construction as specified, using the existing pavers, and shall include the supply of the new G6 subbase and the bedding sand.

Additional items shall be scheduled to allow for the supply of additional pavers to replace broken pavers, and to allow for the extra cost of bedding edge units in concrete. The tendered rates for

these items shall include full compensation for the additional costs of whatever nature that are extra-over to the basic costs for re-construction of the sidewalks.

PSMJ 4 RE-SETTING OF PAVERS AND EDGE UNITS TO VEHICLE ENTRANCE

Where existing block paved vehicle entrances have been slightly damaged, these shall require to be re-laid. The Engineer shall demarcate the extent of works, thereafter the Contractor shall lift the existing pavers and stack these for re-use.

The existing bedding sand shall then be scarified and leveling and the pavers re-laid to match the surrounding areas. Should the header course along the edges be displaced then the existing concrete bed should be removed and the edge units re-laid on a new bed of concrete.

Re- laying of entrances shall be measured by the square meter of surface area that is ordered to be re-laid.

The tendered rate shall include full compensation for the provision of all supervision, labour, tools, plant and materials as necessary to carry out the re-laying as specified, using the existing pavers and bedding sand.

Additional items shall be scheduled for the supply of additional pavers to replace broken pavers where necessary, and to allow for the extra cost of bedding edge units in concrete. The tendered rates for these items shall include full compensation for the additional costs of whatever nature that are extra-over to the basic costs for re-laying of the entrances.

PSMK KERBING AND CHANNELING

PSMK 1 BEDDING MATERIAL (CLAUSE 3.9)

The bedding material for precast kerbs and channels shall be concrete as detailed on the drawings.

PSMK 2 TRANSITIONS (CLAUSE 5.11)

Transitions between different types of kerbs, or on either side of kerb inlets shall be constructed to the details shown on the drawings.

PSMK 3 TRANSITION KERBS (CLAUSE 8.2.6.1)

Transition kerbs will be measured by the number for each type, extra over the respective types of kerbing and channeling. The rate shall cover all additional costs for construction of the transition using in-situ concrete.

PSMK 4 REPLACEMENT OF KERBS AND CHANNELS

PSMK 4.1 Replace with new

Where existing kerbs and channels have been badly damaged these shall be replaced with new kerbs and channels. In some cases, replacement shall be carried out with the same type of precast unit, while in other cases replacement shall use a different type of unit or shall utilize cast in-situ concrete.

The Engineer shall demarcate the extent of kerbs and channels to be replaced, thereafter the Constructor shall remove the existing sections together with the concrete bedding if applicable, and dispose of this off site. The sections shall be carefully removed so as not to disturb adjacent sections or damage the adjacent road surface or layer works.

Thereafter the Constructor shall replace the kerbs and channels with the profile and type as instructed, together with concrete bedding for precast units and shall re-instate the disturbed areas behind the kerbs. Where replacement is carried out with precast units then the edge between the new units and the existing road surface shall be sealed.

The contractor must allow to drill 2 x Y20 x 500mm long steel dowels per kerb, into existing hard stand and the new kerb. and fit with approved epoxy grout

Replacement of kerbs and channels shall be measured by the meter length and separate items will be scheduled for each shape and type of kerbs and channel.

The tendered rate shall include for full compensation for the provision of all supervision, labour, tools, plant and materials as necessary to carry out the replacement as specified, including the supply of precast units and concrete, and jointing.

PSMK 4.2 Replace with existing

Where existing kerbs and channels have been loosened, these shall be reinstated.

The Engineer shall demarcate the extent of kerbs and channels to be reinstated, thereafter the Constructor shall remove the existing sections together with the concrete bedding if applicable. The sections shall be carefully removed so as not to disturb adjacent sections or damage the adjacent road surface or layer works.

Thereafter the Constructor shall reinstate the kerbs and channels as instructed, together with concrete bedding for precast units and shall re-instate the disturbed areas behind the kerbs. Where reinstatement is carried out the edge between the reinstated units and the existing road surface shall be sealed.

The contractor must allow to drill 2 x Y20 x 500mm long steel dowels per kerb, into existing hard stand and the reinstated kerb, and fit with approved epoxy grout.

Reinstatement of kerbs and channels shall be measured by the meter length and separate items will be scheduled for each shape and type of kerbs and channel.

The tendered rate shall include for full compensation for the provision of all supervision, labour, tools, plant and materials as necessary to carry out the reinstatement as specified, including the concrete and jointing.

PSMK 5 REPAIR OF KERBS AND CHANNELS

Where existing kerbs and channels have been slightly damaged, but do not warrant replacement, then the Contractor shall be required to repair these in an approved manner using a proprietary epoxy mortar.

A Provisional Sum is included to cover the cost of these repairs and the materials, method and procedure to be used, together with the payment for the repair operation, shall be agreed with the Contractor prior to commencement of the work.

PSMM ANCILLARY ROADWORKS

PSMM 1 STRUCTURAL STEEL (CLAUSE 3.2.2)

All steel used to support road sign shall be hot dip galvanized to SABS763.

PSMM 2 ROAD SIGNS (CLAUSE 8.3)

Notwithstanding the contents of clause 8.3 of SABS1200 MM, the erection of road signs shall be measured by numbers, and separate items will be scheduled for signs of different types.

The rate tendered shall include for full compensation for the provision of signage and poles only. Labour and equipment measured elsewhere.

PSMM 3 ROAD MARKINGS (CLAUSE 8.4.1)

Lines will be measured by the meter and characters and symbols by the square meter.

PSMM 4 TIMBER POLES FOR VEHICLE BARRIERS

Where designated by the Engineer, the Contractor shall be required to install timber poles along road edges as barriers to prevent vehicles from parking on verges and sidewalks.

The poles shall comprise creosote treated poles of the diameter and length as scheduled and each shall be planted to a depth of 800 mm at the position and spacing as directed by the Engineer. The holes shall be backfilled with excavated material, compacted to at least the density of the surrounding ground, and excess excavated material shall be disposed of off-site.

Supply and installation of the poles shall be measured by the number, and the rate tendered shall include for full compensation for the provision of all supervision, labour, tool, plant and materials as necessary to carry out the installation as specified.

PSL MEDIUM PRESSURE PIPELINES

PSL 1 INSPECTION AND REGULAR MAINTENANCE OF WATER SUPPLY

Inspection of the water supply shall comprise an external inspection of the surrounds and lid of each chamber or surface box, together with the removal of each lid and an inspection of both the internal condition of the chamber or surface box and the fittings that are visible within the chamber. A check should also be made for visible leakage of water from the fittings or joints, and for visible deterioration of any fittings or pipes.

Maintenance of the water supply shall comprise :

- Partially closing and re-opening of all isolating valves to ensure ease of operation.
- Partially opening and re-closing of all fire hydrants to ensure ease of operation.
- Partially closing and re-opening of stopcocks or valves on metered connections.
- Clearing any accumulation of dirt and debris from chambers and manholes.
- Tightening glands of valves and hydrants.

The works shall be undertaken by the permanent on-site crew as directed by the engineer.

PSL 2 UNSCHEDULED MAINTENANCE OF WATER SUPPLY

Unscheduled maintenance of water supply shall consist of work that has been identified during the scheduled inspections, or identified by other means, and requested by the Engineer, as follows:

PSL 2.1 Repair of Leaks in Water Mains

The Contractor shall be required to excavate to locate the leak, determine the cause of the water loss and undertake immediate repairs to the faulty pipeline or joint. Repairs to uPVC pipes shall

comprise the removal of a portion of the defective pipe or joint and installation of one or more cast iron repair couplings together with short pipe lengths as necessary.

If permanent repairs to fittings or specials cannot be done immediately, these shall be repaired temporarily to enable the pipeline to be returned to service, and the nature and extent of the permanent repair shall be agreed with the Engineer and undertaken at a later stage.

The repair of leaks shall be measured by number and length, and separate items will be scheduled for pipes of different diameters.

The tendered rates shall include for all transport, labour, plant and materials required to locate and repair the leak and shall include for excavation, repair work, replacement of pipe bedding, backfilling and reinstatement of the surface on completion.

Additional items shall be scheduled to allow for urgent or emergency responses to a call-out and the rates tendered for these items shall be extra over to the normal payment for a repair, so as to allow for the additional costs of whatever nature are associated with attending to the call-out within the times stipulated in clause 2.3.5.1 (b).

PSL 2.2 Repairs to Damaged Chambers or Surface Boxes

The Contractor shall be required to remove the damaged or broken precast concrete element and replace this with a new element.

The replacement of elements shall be measured by number and separate items will be scheduled for the lids and box segments.

The tendered rates shall include for all materials required to carry out the replacement. The replacement of the defective section or sections, backfilling, reinstatement of the surface on completion and removal and disposal off site of the damaged or broken element shall be undertaken by the permanent on-site crew and equipment, as directed by the engineer.

PSL 2.3 Replacement of Damaged Fittings

The Contractor shall be required to remove the defective or damaged fitting and replace this with a new fitting complete with couplings as necessary.

The replacement of fittings shall be measured by number and separate items will be scheduled for fittings and specials of different types and sizes.

The tendered rates shall include for all transport, labour, plant and materials required to carry out the installation of the replacement fitting, including excavation, bedding, backfilling and reinstatement of the surface on completion.

PSL 2.4 Supply of water meters, complete with associated AMR equipment

The contractor will be required to supply only, Elster Kent Water Meters complete with associated AMR equipment as directed by the engineer. The various types and sizes are itemized in the Bill of Quantities.

PSLD SEWERS

PSLD 1 INSPECTION OF SEWERS

Inspection of sewers shall comprise an external inspection of the cover slab and lid of each manhole, together with the removal of each manhole lid and an inspection of both the internal

condition of the manhole and the channels and sewers that enter or exit the manhole. A check should also be made for visible ingress of water into the manhole, and for visible debris or standing water in the pipes.

The works shall be undertaken by the permanent on-site crew as directed by the engineer.

PSLD 2 UNSCHEDULED MAINTENANCE OF SEWERS

Unscheduled maintenance of sewers shall consist of work that has been identified during the scheduled inspections, or identified by other means, and requested by the Engineer, as follows:

PSLD 2.1 Clearing of Blockages in Sewer Pipes

The Contractor shall be required to clear blockages in the uPVC sewer mains. This shall comprise either manual rodding or mechanical jetting, as appropriate to the nature of the blockage, so as to dislodge the obstruction. The contractor shall ensure that the offending object or objects are caught in the downstream manhole and removed from the system.

The clearing of blockages will be measured by number and separate items will be scheduled for the different clearing methods.

The tendered rates shall include for all transport, labour, plant and materials required to attend to and unblock the sewer.

Additional items shall be scheduled to allow for urgent or emergency responses to a call-out and the rates tendered for these items shall be extra over to the normal payment for a repair, so as to allow for the additional costs of whatever nature are associated with attending to the call-out within the times stipulated in clause 2.3.5.1 (b).

PSLD 2.2 Repairs to Existing Manholes

The Contractor shall be required to undertake various repairs to existing sewer manholes, including the replacement of cover slabs and lids, and sealing of leaking joints between precast manhole shaft sections.

The replacement of slabs and lids shall be measured by number and separate items will be scheduled for each type and size.

The tendered rate shall include for all materials required to carry out the replacement. Minor excavation, placement of the defective section, backfilling, reinstatement of the surface on completion removal and disposal off site of the damaged or broken element shall be carried out by the permanent on-site crew as directed by the engineer.

The sealing of manhole joints shall be carried out using an approved system consisting of a flexible acrylic emulsion together with a 150 mm wide non-woven polyester membrane, all applied strictly in accordance with the manufacturer's instructions. Sealing shall be measured by the number of joints sealed around the full circumference of the manhole and separate items will be scheduled for shafts of different diameters.

The tendered rate shall include for all materials required to carry out the sealing operation, Excavation to expose the manhole, cleaning, preparation and sealing of the joint, backfilling and reinstatement of the surface on completion to be carried out by the permanent on-site crew as directed by the engineer.

PSLD 2.3 Repairs to Broken Sewers

The Contractor shall be required to excavate to expose the portion of broken pipe, remove a short length of sewer and replace this with a length of new pipe together with two repair couplings.

The repair of damaged pipes shall be measured by number and length, and separate items will be scheduled for pipes of different diameters.

The tendered rates shall include for all transport, labour, plant and materials required to locate and repair the pipe and shall include for excavation, repair work, replacement of pipe bedding, backfilling and reinstatement of the surface on completion.

PSLD 3 NEW SEWER INFRASTRUCTURE

Where instructed by the Engineer, the Contractor shall be required to construct new sewer infrastructure, comprising lengths of pipelines, including manholes and erf connections.

PSLD 3.1 Establishment on Site

The Contractor may require certain facilities to be established on site to enable him to undertake the construction works. The facilities will comprise the necessary personnel, plant and equipment as required to undertake the specific construction activity as scheduled.

Establishment on site shall be paid for as a lump sum and separate items will be scheduled for establishment related to different construction activities.

The tendered rates shall include for all costs of whatever nature may be incurred to set up the necessary facilities so as to allow the construction activity to take place.

PSLD 3.2 Laying of Sewer Pipelines

The Contractor shall be required to lay new sewer mains in accordance with instructions issued by the Engineer, using the resources established on site and paid for under a separate item.

Construction of pipelines shall be measured by the metre and separate items will be scheduled for different pipe diameters and classes.

The tendered rates shall include for clearing of vegetation, stripping of topsoil, trench excavation, the supply of all materials, pipelaying, bedding, jointing, testing, backfilling, dealing with adjacent services, reinstatement, and disposal of surplus material off site.

The basic rates shall include for excavation in intermediate material, and a separate item will be scheduled for excavation in hard rock, which will cover the additional costs of dealing with the more difficult material.

PSLE STORM-WATER DRAINAGE

PSLE 1 REGULAR MAINTENANCE AND INSPECTION OF STORM-WATER INFRASTRUCTURE

PSLE 1.1 Kerbs Inlets, Manholes and Pipelines

The various components of the underground storm-water system do not require regular maintenance but shall be inspected to record the condition of each item as regards physical damage, the buildup of slit and sediment, or blockages.

The inspection shall comprise an external inspection of the cover slab and lid of each Manhole or kerb inlet, together with the removal and later replacement of each Manhole lid, and an inspection of both the internal condition of the manhole and the pipes that enter or leave the manhole. A check should be made of standing water in the pipes.

Kerb inlets that cannot be opened, together with the pipes entering or leaving the kerb inlet, shall be inspected internally as far as possible with a torch.

The works required will be carried out by the permanent on-site crew as directed by the engineer.

PSLE 1.2 Locks on Gratings

The Contractor shall be required to inspect, open, close and lubricate all locks on Gates and security gratings fitted to storm-water structures.

The works required will be carried out by the permanent on-site crew as directed by the engineer..

PSLE 1.3 Open Unlined Vee Drains

Maintenance of the unlined vee-drains on the industrial erven shall entail the manual trimming of all vegetation growth (including small trees, bushes, shrubs, weeds, and grass) over a total width of 1,5 m and to a level approximately 100 mm above the ground. Thereafter all cut vegetation and other general debris that may impede the free flow of water along the drain shall be collected and removed for disposal. Under no circumstances shall vegetation and or debris be disposed of anywhere within the IDZ site.

Inspection of the drains shall be carried out by walking the route of the drain on each erf after the maintenance has taken place, and recording the general condition of the drain, with particular reference to the extent of longitudinal erosion or silting up of the invert or berm, and identifying any breaks in the berm where overflow may occur.

The works required will be carried out by the permanent on-site crew as directed by the engineer.

PSLE 1.4 Erf Channel Inlet Manholes

Maintenance of the inlet manholes on each industrial erf shall entail the manual trimming of all vegetation growth (including small trees, bushes, shrubs, weeds, and grass) within an overall distance of 1,5 m of the structure and to a level approximately 100 mm above the ground. Thereafter all cut vegetation and other general debris that may impede the free flow of water into the inlet shall be collected and removed for disposal. Under no circumstances shall vegetation and or debris be disposed of anywhere within the IDZ site.

Inspection of the inlet manhole shall comprise an external inspection of the cover slab and lid of each manhole, together with the removal of each manhole lid and an inspection of both the internal

condition of the manhole and the pipes that enter or leave the manhole. A check should also be made of standing water in the pipes.

The works required will be carried out by the permanent on-site crew as directed by the engineer.

PSLE 1.5 Energy Dissipaters

Maintenance of the energy dissipaters shall entail the manual trimming of all vegetation growth (including small trees, bushes, shrubs, weeds, and grass) within an overall width of 1,5 m of the structure and to a level approximately 100 mm above the ground. Thereafter all cut vegetation and other general debris that may impede the free flow of water from the outlet shall be collected and removed for disposal. Under no circumstances shall vegetation and or debris be disposed of anywhere within the IDZ site.

Inspection of the dissipater shall consider the overall condition of the structure and any gabions or reno mattresses downstream, and shall include the condition of the surrounding ground as regards erosion or settlement. A check should also be made on siltation or standing water in the stilling basin.

The works required will be carried out by the permanent on-site crew as directed by the engineer.

PSLE 1.6 Fence Culverts

Maintenance of the fence culverts shall entail the manual trimming of all vegetation growth (including small trees, bushes, shrubs, weeds, and grass) over the width of the culvert, for a distance of 10 m upstream and 5 m downstream of the wall, and to a level approximately 100 mm above the ground. Thereafter all cut vegetation and other general debris that may impede the free flow of water into or away from the culvert shall be collected and removed for disposal. Under no circumstances shall vegetation and or debris be disposed of anywhere within the IDZ site.

Inspection of the fence culvert shall consider the overall condition of the structure and any gabions or reno mattresses either upstream or downstream, and shall include the condition of the surrounding ground as regards erosion or settlement. A check should also be made on siltation or standing water on both the upstream or downstream sides of the culvert.

The works required will be carried out by the permanent on-site crew as directed by the engineer.

PSLE 2 UNSCHEDULED MAINTENANCE OF STORM-WATER

Unscheduled maintenance of storm-water shall consist of work that has been identified during the scheduled inspections, or identified by other means, and requested by the Engineer, as follows:

PSLE 2.1 Attending to Blockages

The Contractor may be required to clear blockages in open drains, at the inlets of erf channel inlets, at energy dissipaters or at fence culverts that occur in between the regular maintenance activities, and have been caused by vegetation or debris transported by the storm-water runoff. These activities will be undertaken by permanent on-site staff as directed by the engineer.

PSLE 2.2 Minor Repair Work

PSLE 2.2.1 Repair of Erosion Damage

The contractor may be required to repair minor erosion in the following locations:

- Along the bed or berm of open drains.
- Around the transition at the entrance to erf inlet manholes.
- Around the outlets of energy dissipaters.
- Either upstream or downstream of fence culverts.

Repairs shall be carried out using topsoil obtained from the stockpile within Zone 1A of the IDZ. The topsoil shall be transported to the point of placement and used to fill the erosion back to the original level. In certain instances the Contractor may be required to lay and fasten erosion control matting over selected areas, and plant grass.

Filling of erosion shall be measured by the cubic meter and separate items will be scheduled for open drains and structures. The tendered rates shall include for the full cost of all labour, tools, equipment and transport required to obtain the topsoil from stockpile, deliver it to the area to be filled. Placing, levelling, and light compaction shall be undertaken by permanent on-site staff as directed by the engineer.

The erosion control matting shall comprise a biodegradable jute mesh (purchased separately) and shall be measured by the square meter as laid on top of the filled area. The tendered rate shall include for the full cost of all labour, tools, equipment and transport required to deliver the mesh to the point of placement, for cutting, placing and fastening with 10 mm diameter by 300 mm long steel pegs driven into the ground at a maximum spacing of 1,2 m.

Grassing shall be measured by the square meter and shall comprise suitable runners of an approved local grass planted over the areas as instructed by the Engineer. The tendered rate shall include for watering and tending to the grassed area until the growth has been adequately established.

PSLE 2.2.2 Removal of Sediment

The Contractor may be required to remove silt and soil deposits that have settled in open drains or at the inlets or outlets of storm-water structures. This will be undertaken by permanent on-site staff as directed by the engineer.

PSLE 2.2.3 Repairs to Storm-water Structures

The Contractor shall be required to undertake various repairs to manholes, kerb inlets and grate inlets. These may entail the reconstruction of portions of structures and replacement of cover slabs or lids.

Reconstruction shall comprise the removal of existing damaged brickwork and replacement with new brickwork, including plaster where necessary to match the existing structure.

Reconstruction of brickwork shall be measured by the square meter and separate items will be scheduled for walls of each thickness.

The tendered rate shall include for the full cost of the labour, materials, tools, equipment and transport required to break out, remove and dispose of the damaged sections and reconstruct the new walls, including plaster where necessary.

Replacement of cover slabs or lids shall be comprise the removal of the damaged items and the supply and installation of a new item, complete to match the original detail.

The replacement of slabs or lids shall be measured by number and separate items will be scheduled for each type.

The tendered rate shall include for the full cost of all labour, materials, tools, equipment and transport required to remove and dispose of the damaged item, where relevant for each type.

PSLE 3 PRECAST CONCRETE PIPES (CLAUSE 3.1a)

Pipes laid in trenches excavated in in-situ material shall interlocking joints, and those excavated in fill shall have spigot and socket joints.

PSLE 4 BRICKS (CLAUSE 3.4.1)

Delete the first sentence of clause 3.4.1 and replace with the following:

“Bricks used in storm-water structures shall be burnt clay engineering bricks having a nominal compressive strength of 28MPa and complying with requirements of SABS 227.”

PSLE 5 PIPE CULVERTS (CLAUSE 5.2.2)

Pipes with interlocking joints shall require the joints to be wrapped with a 200 mm wide strip of geotextile filter blanket with a mass of at least 150 g/m², and a strength of at least 5.9 kN/m in all directions. The end of the wrapping shall overlap by at least 200 mm.

2.2.5 **EXISTING SERVICES**

All areas within which the Contractor is required to undertake maintenance operations are serviced with the full range of civil, electrical and communication services, some of which are below ground. The Contractor will be issued with drawings showing the positions of the services that are included in the contract and will be required to determine the position of all other known services which may be affected by his work, by consultation with the Engineer.

The Contractor may be required to undertake work in close proximity to existing services in which case he shall take all necessary precautions to prevent any damage to these services. Should his operations result in any damage to existing services, he shall immediately notify the Engineer who will inspect the damage and determine what further action is required. The Contractor shall be responsible for the cost of all repairs or reinstatement necessary, whether these are carried out with his own resources or by a third party.

2.2.6 **SITE ESTABLISHMENT**

a) **Facilities provided by the Employer**

Reticulated potable water exists within each zone of the IDZ. Should the Contractor require a supply of water to enable him to undertake any of his activities on the site then a suitable point of supply will be made available off the relevant reticulation. The Contractor shall be responsible for the cost of removal and reinstatement on completion.

All zones of the IDZ are fully reticulated with electricity. Should the Contractor require an electrical connection then he shall discuss his requirements with the Engineer who will arrange for a supply with the necessary capacity at a suitable position. The Contractor shall be responsible for the cost of removal and reinstatement on completion.

Arrangements will be made for the contractor's staff to use the ablution facilities available on the site provide that they are kept in a clean condition and the contractor takes responsibility for breakages caused by his employees.

The Employer is not able to assist with telecommunication facilities and the Contractor shall make his own arrangements for whatever telephone and facsimile facilities he may require.

b) **Facilities provided by the Contractor**

It is not envisaged that the Contractor will require a permanent campsite, with offices, storage or workshop facilities. Should establishment of any temporary facilities be required to enable the Contractor to carry out any aspect of the work, then the location and extent of such facilities shall require prior approval of the Engineer.

The Contractor will not be required to provide an office, telephone, vehicle or any other facilities or equipment for the exclusive use of the Employer, the Engineer or their staff.

c) **Notice Boards**

A notice board is not required, nor will the Contractor be permitted to erect his own advertising board.

2.2.7 **SITE USAGE**

The Contractor shall restrict his operations to the immediate vicinity of the work being carried out and he shall not be permitted to unnecessarily obstruct or impact on other adjacent areas.

2.2.8 **PERMITS AND WAY LEAVES**

Permits and way leaves are required for work on the IDZ services.

2.2.9 **ALTERATIONS, ADDITIONS, AND EXTENSIONS TO EXISTING WORKS**

Wherever the Contractor is required to carry out new construction to lines and levels based on or tying into existing infrastructure, he shall first check that the information provided for the existing works is accurate and correct. Should there be any discrepancies as regards position, or defects in the quality of the existing work which may affect the proposed work, then the Contractor shall report these to the Engineer and request clarification prior to proceeding with the new construction.

2.2.9.1 **Survey and Setting Out**

The Contractor shall be solely responsible for the survey and setting out of any new work.

2.2.10 **MANAGEMENT**

2.2.10.1 **Management of The Works**

a) **Planning and Programming**

Within 14 days of the Commencement Date and prior to commencement of any operations on site, the Contractor shall prepare and submit to the Engineer a Maintenance Plan that provides full details of the sequence and timing of the scheduled inspections and maintenance activities required in terms of the contract. This shall cover the entire contract period, and shall be amended and revised as necessary until approved by the Engineer.

In addition, one week before the end of each month, the Contractor shall submit a list of work to be carried out during the following month, together with the anticipated expenditure, using the relevant items from the Bills of Quantities. The list shall include both scheduled maintenance items and unscheduled additional work items as requested by the Engineer, and shall form the basis of the work to be carried out and paid for during the month. The Contractor shall not be entitled to claim for payment for scheduled items that have not been included in the monthly schedule and approved by the Engineer.

b) **Sequence of the Works**

The sequence of work shall be carried out strictly in accordance with the maintenance plan and monthly schedule as detailed above.

Certain other aspects of unscheduled work may be required from time to time in response to call-outs. The response to any call-out shall be categorised according to the need for urgency in attending to the call-out.

The applicable categories of call-out are defined as follows :

- i) Emergency Response : This shall be defined as an event that requires an immediate response or action to prevent and/or mitigate against damage, harm or injury to persons or property, or to limit the disruption of services. The Contractor shall respond to an emergency call-out within 2 hours.
- ii) Urgent Response : This shall mean any failure or repair requirement that could significantly affect the services or pose a danger if left

unattended for any length of time. The Contractor shall respond to an urgent call-out within 24 hours.

- iii) Routine Response: This shall apply to all other failures or repairs other than those requiring either an emergency or urgent response. These items shall be dealt with as unscheduled additional work items as requested by the Engineer (refer to a) above).

All items of work shall be categorised as routine.

Items will however be included in the Bill of Quantities to allow for additional payment in the event that the Engineer requires either an urgent or emergency response to a specific aspect of unscheduled work.

c) **Methods and Procedures**

Prior to the commencement of any work on the site the Contractor shall submit method statements for each separate maintenance, repair or construction activity that he is required to undertake. The method statements shall be submitted to the Engineer for approval at least 10 days prior to the scheduled start of the activity. The method statements shall set out the procedures to be followed in carrying out the activity and shall include details of compliance with both Occupational Health and Safety and Environmental aspects.

The Contractor shall ensure that his staff and workers are properly trained in the safe and effective use of any equipment, plant or materials necessary to undertake the work.

d) **Quality Control**

The Contractor shall ensure that the appearance of his staff is neat and tidy, and he shall provide them with appropriate and easily identifiable uniforms, preferably with the Contractor's logo, to enable them to be recognised at all times while on site.

The Contractor shall provide whatever samples of materials are required for approval prior to commencement, and shall undertake all necessary tests that are required in terms of the applicable specification to ensure that his workmanship meets the required standard.

e) **Environment**

Environmental considerations applicable to this project are detailed in the ELIDZ Construction Environment Management Plan (CEMP).

The Contractor shall ensure that he is fully aware of the requirements of the CEMP and that he understands his responsibilities regarding both his management of the project and the actual construction activities on site.

f) **Accommodation of Traffic**

The Contractor shall be responsible for the safety of all vehicular and pedestrian traffic affected by his work and shall provide the necessary deviations together with all warning signs, barricading and lighting fully in compliance with the requirements of the SADC Road Traffic Signs Manual.

The Contractor shall maintain access to all buildings and properties affected by his work and shall liaise with the relevant tenants and the IDZ to agree temporary or partial closure of any access point.

g) **Other Contractors**

Various other maintenance activities and construction contracts will be underway concurrently with this contract. The Contractor may be required to co-ordinate his activities together with the activities of the other contractors, and shall be notified of specific requirements by the Engineer.

h) **Testing, Completion, Commissioning**

Each separate maintenance, repair or construction activity included in the contract shall be fully tested and independently commissioned on completion, and shall immediately thereafter be made available for use by the ELIDZ or the relevant tenant.

i) **Communications**

All communication of whatever nature shall be through the Engineer. The procedure for call-outs shall be discussed and agreed between the Contractor and the Engineer prior to commencement.

Categorisation of call-outs and relevant response times are described in clause b) above.

j) **Key Personnel**

Within 14 days of the Commencement Date and prior to commencement of any operations on site, the Contractor shall submit to the Employer or his representative detailed CV's of his key personnel together with their relevant contact details. Should the key personnel not be the same as those included in the tender submission (at the time of contracting or during execution of the services), then the Contractor shall be required to submit for the prior approval of the Employer the names of personnel with equivalent or better qualifications and experience. Failure on the part of the Contractor to do so, shall permit the Client, without prejudice to its other rights, to summarily, and on such terms and notice as it may be deemed fit terminate the agreement.

k) **Management Meetings**

The Contractor shall be required to attend a monthly meeting during which all aspects relating to the progress, scope, expenditure, OHS and general administration of the contract will be discussed. The Contractor shall ensure that his representative at the meeting has the necessary understanding and authority to make decisions regarding these issues.

l) **Payments**

All payments to the Contractor shall be by means of electronic transfer and the Contractor shall provide his banking details to the Employer or his representative together with the initial payment claim. Monthly claims will be valued by the Project Manager and submitted to employer for payment within 30 days of receiving a corresponding original VAT invoice and statement

m) **Records**

The Contractor shall be required to provide a detailed report following each scheduled inspection on an Excel spread sheet or Word document in both hard and electronic format. The report shall be in a format to be agreed with the Engineer and shall contain the following:

- Results of all routine inspections carried out.
- A record of the routine maintenance activities undertaken.
- Details of repair work done
- Proof of additional/specialist work completed

- A monthly/Daily record of resources (both personnel and equipment) utilised on site.
- Incident report and actions taken
- Compliance to OHS and CEMP documents
- Monthly labour stats report returns

The report shall be submitted within seven days of the scheduled inspection, and no payment will be made to the Contractor until the report has been received.

In addition the Contractor shall submit a brief report on each item of unscheduled repair work that he is required to carry out.

The report shall be submitted within seven days of completion of the unscheduled item of work, and no payment will be made to the Contractor until the report has been received.

n) **Payment Certificates**

Payment Certificates shall be drawn up in an agreed format based on the bills of quantities and any variation orders authorised. The date for submission of each payment claim shall be agreed with the Engineer. The procedure for preparation of Payment Certificates shall be as follows :

- The actual quantity for each item shall be agreed with the Engineer based on the cumulative total of the previous monthly quantity and the additional work carried out during the month.
- The Contractor shall draw up and submit his claim using the agreed quantities.
- The Engineer shall check the claim and certify the amount to be paid.
- The Contractor shall provide a VAT invoice to the Engineer for the certified amount.
- The Engineer shall submit the claim, the VAT invoice and the payment certificate to the Employer.

o) **Permits**

The Contractor is required to obtain identity tags and access cards from the ELIDZ for all his staff that enter the site. He shall make prior arrangements with the ELIDZ to obtain the tags timeously, as no member of his staff shall be allowed on site without the identity tag clearly displayed. These will be issued by the ELIDZ at no cost to the Contractor.

p) **Proof of Compliance with the Law**

The Contractor shall be required to comply with all regulations and laws of whatever nature that are applicable to his operations throughout the duration of the contract, and shall produce documentary evidence when requested for all aspects, including, but not limited to :

- Valid proof of registration with the Compensation Commissioner
- Proof of registration for income tax and VAT
- Compliance with the Occupational Health and Safety Act and Construction Regulations.

2.2.11 **Health and Safety Requirements and Procedures**

The Contractor shall comply with all relevant aspects of the Occupational Health and Safety Act together with the Regulations referred to therein, as applicable to the scope of his activities.

Particular attention must be paid to the issuing of the relevant Notices, appointment of responsible people, undertaking Hazard Identification and Risk Assessments, and preparation of a Health and

Safety Plan. All necessary documentation shall be prepared and submitted for comment and approval immediately after the contract award and prior to commencement with any work on site.

Specific Health and Safety considerations applicable to this project are detailed in the ELIDZ Occupational Health and Safety Specification.

Method statements submitted for the Contractor's maintenance activities shall include details of compliance with Occupational Health and Safety, and shall be submitted immediately after the contract award.

The Contractor shall ensure that all his personnel are properly inducted with respect to the ELIDZ Occupational Health and Safety standards prior to their undertaking any work within the IDZ premises.

The Contractor shall provide the necessary personal protective equipment and clothing to all staff as necessary for the type of work being carried out.

Wherever the Contractor's staff may be subjected to hazardous substances, excessive dust or noise, then he is to arrange for pre and post-employment medical examinations on the relevant employees.

No member of the Contractor's staff shall be allowed on site while under the influence of alcohol or drugs. Any member of his staff that exhibits any signs of alcohol or drug usage shall be removed from the ELIDZ premises by security staff.

The Contractor shall be responsible for the protection of the public in the areas in which he is working and shall provide barricades and lighting as necessary to ensure their safety. He shall also be responsible for the safe control of traffic wherever his works impact on the existing roadways.

2.2.14 Environmental Management Plan (EMP) Requirements and Procedures

The Contractor shall comply with all relevant aspects of the ELIDZ Construction Environmental Management Plan (CEMP) together with the Regulations referred to therein, as applicable to the scope of his activities.

The ELIDZ CEMP is attached as Appendix B

Particular attention must be paid to the issuing of the relevant Notices, appointment of responsible people, undertaking Environmental Risk Assessments, and preparation of Method Statements for comment and approval prior to commencement with any work on site.

The Contractor shall ensure that all his personnel are properly inducted with respect to the ELIDZ CEMP standards prior to their undertaking any work within the IDZ premises.

2.3 SITE INFORMATION

2.3.1 Existing Services

2.3.2 Existing Buildings

2.3.3 Environmental Restrictions

2.3 SITE INFORMATION

2.3.1 EXISTING SERVICES

All areas within which the Contractor is required to undertake maintenance operations are serviced with the full range of civil, electrical and communication services, most of which are below ground. The Contractor will be issued with drawings showing the positions of the services that are included in the scope of work that comprises his contract. He will be required to determine the position of all other known services which may be affected by his work, by consultation with the Engineer.

2.3.2 EXISTING BUILDINGS

Numerous buildings exist within the area in which the Contractor is required to undertake maintenance operations. Should the Contractor require drawings of any existing building to enable him to undertake his activities on site, then he shall request these from the Engineer, who will make the necessary arrangements with the ELIDZ or other consultants for the provision of the record drawings for these buildings.

2.3.3 ENVIRONMENTAL RESTRICTIONS

Certain areas within the ELIDZ have been designated as “Environmentally sensitive areas”. Drawings indicating the location and extent of these areas can be obtained by request from the Engineer. Under no circumstances shall the Contractor enter or use these areas for any purpose whatsoever, without the specific written approval of the Engineer.

APPENDICES

APPENDIX A

ELIDZ OHS Regulations

APPENDIX B

ELIDZ CEMP

APPENDIX C

DRAWINGS