

TENDER 37/2022

FOR THE

CONSTRUCTION OF NEW MATERIAL RECOVERY FACILITY IN ASHTON, LANGEBERG MUNICIPALITY

VOLUME 1

June 2022

ISSUED BY:



Langeberg Municipality

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Ashton
6715

Tel: +27 23 615 8000

Contact Person:

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PREPARED BY:



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Contact Person:

Mr. Ryan Lategan
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NAME OF TENDERER: _____

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PART T1 : TENDERING PROCEDURES

T1.1 Tender Notice and Invitation to Tender

T1.2 Tender Data

INVITATION TO BID

YOU ARE HEREBY INVITED TO BID FOR REQUIREMENTS OF THE (LANGEBERG MUNICIPALITY)					
BID NUMBER:	TENDER 37/2022	CLOSING DATE:	22 JULY 2022	CLOSING TIME:	12H00
DESCRIPTION	CONSTRUCTION OF A NEW MATERIALS RECOVERY FACILITY, ASHTON, LANGEBERG MUNICIPALITY				
THE SUCCESSFUL BIDDER WILL BE REQUIRED TO FILL IN AND SIGN A WRITTEN CONTRACT FORM (MBD7).					

LANGEBERG MUNICIPAL OFFICES					
28 MAIN ROAD					
ASHTON					
6715					
SUPPLIER INFORMATION					
NAME OF BIDDER					
POSTAL ADDRESS					
STREET ADDRESS					
TELEPHONE NUMBER	CODE		NUMBER		
CELLPHONE NUMBER					
FAX NUMBER	CODE		NUMBER		
E-MAIL ADDRESS					
VAT REGISTRATION NUMBER					
TAX INCOME NUMBER					
TAX COMPLIANCE STATUS	TCS PIN:		AND	CSD No:	
B-BBEE STATUS LEVEL VERIFICATION CERTIFICATE	Yes	☐	B-BBEE STATUS SWORN AFFIDAVIT	LEVEL	Yes
[TICK APPLICABLE BOX]	No	☐			No
					☐

[A B-BBEE STATUS LEVEL VERIFICATION CERTIFICATE/ SWORN AFFIDAVIT (FOR EMES & QSEs) MUST BE SUBMITTED IN ORDER TO QUALIFY FOR PREFERENCE POINTS FOR B-BBEE]			
ARE YOU THE ACCREDITED REPRESENTATIVE IN SOUTH AFRICA FOR THE GOODS /SERVICES /WORKS OFFERED?	Yes ☐ No ☐ [IF YES ENCLOSE PROOF]	ARE YOU A FOREIGN BASED SUPPLIER FOR THE GOODS/SERVICES/WORKS OFFERED?	Yes ☐ No ☐ [IF YES, ANSWER PART B:3]
TOTAL NUMBER OF ITEMS OFFERED		TOTAL BID PRICE VAT INCLUSIVE	R
SIGNATURE OF BIDDER		DATE	
CAPACITY UNDER WHICH THIS BID IS SIGNED			
BIDDING PROCEDURE ENQUIRIES MAY BE DIRECTED TO:		TECHNICAL INFORMATION MAY BE DIRECTED TO:	
DEPARTMENT	SCM	DEPARTMENT	Project Management
CONTACT PERSON	Sabelo NGCONGOLO	CONTACT PERSON	Neil Albertyn
TELEPHONE NUMBER	023 615 8000	TELEPHONE NUMBER	023 615 8000
FAX NUMBER	023 615 1563	FAX NUMBER	023 615 1563
E-MAIL ADDRESS	sngcongolo@langeberg.gov.za	E-MAIL ADDRESS	NAlbertyn@langeberg.gov.za

LANGEBERG MUNICIPALLY TERMS AND CONDITIONS FOR BIDDING

1. BID SUBMISSION:		
1.1. BIDS MUST BE DELIVERED BY THE STIPULATED TIME TO THE CORRECT ADDRESS. LATE BIDS WILL NOT BE ACCEPTED FOR CONSIDERATION.		
1.2. ALL BIDS MUST BE SUBMITTED ON THE OFFICIAL FORMS PROVIDED—(NOT TO BE RE-TYPED) OR ONLINE		
1.3. THIS BID IS SUBJECT TO THE PREFERENTIAL PROCUREMENT POLICY FRAMEWORK ACT AND THE PREFERENTIAL PROCUREMENT REGULATIONS, 2017, THE GENERAL CONDITIONS OF CONTRACT (GCC) AND, IF APPLICABLE, ANY OTHER SPECIAL CONDITIONS OF CONTRACT.		
2. TAX COMPLIANCE REQUIREMENTS		
2.1 BIDDERS MUST ENSURE COMPLIANCE WITH THEIR TAX OBLIGATIONS.		
2.2 BIDDERS ARE REQUIRED TO SUBMIT THEIR UNIQUE PERSONAL IDENTIFICATION NUMBER (PIN) ISSUED BY SARS TO ENABLE THE ORGAN OF STATE TO VIEW THE TAXPAYER'S PROFILE AND TAX STATUS.		
2.3 FOREIGN SUPPLIERS MUST COMPLETE THE PRE-AWARD QUESTIONNAIRE IN PART B:3.		
2.4 BIDDERS MAY ALSO SUBMIT A PRINTED TCS CERTIFICATE TOGETHER WITH THE BID.		
2.5 IN BIDS WHERE CONSORTIA / JOINT VENTURES / SUB-CONTRACTORS ARE INVOLVED, EACH PARTY MUST SUBMIT A SEPARATE TCS CERTIFICATE / PIN / CSD NUMBER.		
2.6 WHERE NO TCS IS AVAILABLE BUT THE BIDDER IS REGISTERED ON THE CENTRAL SUPPLIER DATABASE (CSD), A CSD NUMBER MUST BE PROVIDED.		
3. QUESTIONNAIRE TO BIDDING FOREIGN SUPPLIERS		
3.1. IS THE ENTITY A RESIDENT OF THE REPUBLIC OF SOUTH AFRICA (RSA)?	YES	NO
3.2. DOES THE ENTITY HAVE A BRANCH IN THE RSA?	YES	NO
3.3. DOES THE ENTITY HAVE A PERMANENT ESTABLISHMENT IN THE RSA?	YES	NO
3.4. DOES THE ENTITY HAVE ANY SOURCE OF INCOME IN THE RSA?	YES	NO
3.5. IS THE ENTITY LIABLE IN THE RSA FOR ANY FORM OF TAXATION?	YES	NO
IF THE ANSWER IS "NO" TO ALL OF THE ABOVE, THEN IT IS NOT A REQUIREMENT TO REGISTER FOR A TAX COMPLIANCE STATUS SYSTEM PIN CODE FROM THE SOUTH AFRICAN REVENUE SERVICE (SARS) AND IF NOT REGISTER AS PER 2.3 ABOVE.		

NB: FAILURE TO PROVIDE ANY OF THE ABOVE PARTICULARS MAY RENDER THE BID INVALID. NO BIDS WILL BE CONSIDERED FROM PERSONS IN THE SERVICE OF THE STATE.

SIGNATURE OF BIDDER:

CAPACITY UNDER WHICH THIS BID IS SIGNED:

DATE:

**TENDER 37/2022**

Tenders are hereby requested for the **"TENDER 37/2022: CONSTRUCTION OF A NEW MATERIALS RECOVERY FACILITY, ASHTON, LANGEBERG MUNICIPALITY"** as specified in the bid document. Completed Bids, in sealed envelopes, clearly marked **"TENDER 37/2022: CONSTRUCTION OF A NEW MATERIALS RECOVERY FACILITY, ASHTON, LANGEBERG MUNICIPALITY"** should be placed in the tender box, at the Langeberg Municipal Office, 28 Main Road, Ashton, not later than **12:00 on 22 July 2022** when the Bids will be opened in public. Late, faxed or e- mailed tenders will not be considered.

PLEASE NOTE:

The official Bid document must be fully completed in black ink and all pages must be submitted.

Supporting documents must be submitted separately and must be stapled or bound. Only goods and services applicable to local production and content will be considered.

Preferential Procurement Regulations, 2011 (Regulation 9. (1) and 9. (3) make provision for the promotion of local production and content. Local production content applicable to designated sectors of construction.

Only goods, works and services with a stipulated minimum threshold as applicable for local production and content will be considered. The South African Bureau of Standards approved, Technical Specification Number (SATS 1286:2011) will be used to calculate local content.

Industry/sector/subsector	Minimum Threshold for Local Content	% of local content (3-5 years) : Practice
Electrical and telecom products	Electrical Cables: Cables used for power station transmission – Low Voltage	90%
	Electrical Cables: Cables used for power station transmission – Medium and High Voltage	90%
Valve Products and Actuators	Check valves: low pressure, 80mm – 3500mm, PN6-PN25	70%
	Gate Valves: low pressure, 15mm – 1800mm, PN6-PN25	70%
	Fire Hydrants (Underground): low pressure, 65mm inlet PN16	70%
Conversion processes for steel products and components for construction	Fabricated structural steel: Latticed steelwork, reinforcement steel, columns, beams, plate girders, rafters, bracing, cladding, supports, stair stringers, ladders, steel flooring, floor grating, handrailing and balustrading, scaffolding, ducting	100%
	Joining/joining components: Gussets, cleats, stiffeners, splices, cranks, kinks, doglegs, spacers, lugs, brackets	100%
	Frames: Doors and windows	100%
	Roof and cladding: Bare steel cladding, galvanised steel cladding, colour coated cladding	100%
	Fasteners: Bolts, nuts, rivets and nails	100%
	Wire products: All fencing products, all barbed wire and meshed fencing, fabric/mesh reinforcing, gabions, wire/rope strand and chains, welding electrodes, nails/tacks, springs and screws	100%
	Ducting and structural pipework: Non-conveyance tubing fabricated from steel sheeting and plate with structural support	100%
	Gutters, downpipes and launders: Fabricated materials made from sheeting associated with roof drainage systems	100%
Plastic Pipes	Polyvinyl chloride (PVC) Pipes	100%
	High density polyethylene (HDPE) pipes	100%

The lowest, or any tender, will not necessarily be accepted and council reserves the right to accept any tender. Tenders will be evaluated according to the Council's Supply Chain Management Policy and the 80/20 Preference Point system. The Supply Chain Management Policy can be viewed at Municipal Offices or www.langeberg.gov.za

Tender documents are available from 17 June 2022, on the Langeberg Municipal website: www.langeberg.gov.za.

Bids may only be submitted on the bid documentation provided by the municipality and must remain valid for 120 days after bid closing.

Tenderers must be registered with the CIDB in a CE class of construction works and have a grading designation equal to or higher than that determined in accordance with the sum tendered or a value determined in accordance with regulation 25(7A) of the Construction Industry Development Regulations, 2004. It is estimated that tenderers will need a grading designation of 6CE or higher.

A compulsory clarification meeting will be held on 29 June 2022 at 10:00 in the Municipal Offices, 52 Church Street, Robertson after which the site will be visited. Bidders that fail to attend the compulsory clarification meeting will be disqualified.

A representative may only represent one tenderer at this meeting.

Please refer written enquiries to Mr N Albertyn (nalbertyn@langeberg.gov.za).

ASA DE KLERK
MUNICIPAL MANAGER
Private Bag X2
Ashton,
6715

T1.2 : TENDER DATA

The Conditions of Tender are the Standard Conditions of Tender as contained in Annexure C of the CIDB Standard for Uniformity in Construction Procurement (www.cidb.co.za) and included as Appendix A in this document.

The Standard Conditions of Tender make several references to the Tender Data. The Tender Data shall have precedence in the interpretation of any ambiguity or inconsistency between it and the Standard Conditions of Tender.

Each item of data given below is cross-referenced to the clause in the Standard Conditions of Tender to which it mainly applies.

Clause	Wording
GENERAL	
C.1.1	The employer is Langeberg Municipality
C.1.2	The tender documents issued by the employer comprise: THE TENDER PART T1 : TENDERING PROCEDURES T1.1: Tender Notice and Invitation to Tender T1.2: Tender Data PART T2 : RETURNABLE DOCUMENTS T2.1: Langeberg Procurement Returnable Documents T2.2: List of Returnable Documents T2.3: Returnable Schedules THE CONTRACT PART C1: AGREEMENTS AND CONTRACT DATA C1.1: Form of Offer and Acceptance C1.2: Contract Data C1.3: Form of Guarantee (Pro Forma) PART C2 : PRICING DATA C2.1: Pricing Data C2.2: Bills of Quantities PART C3 : SCOPE OF WORKS C3: Scope of Work C3.1: Description of the Works C3.2: Engineering C3.3: Procurement C3.4: Construction

Clause	Wording
	C3.5: Management C3.6: Annexes
C.1.4	PART C4 : SITE INFORMATION The Employer's agent is: Name: Element Consulting Engineers (Pty) Ltd Address: Oxford Gate, Block C, 54 Oxford Street Durbanville 7551 Tel: 021 975 1718 Fax: 086 668 1482 E-mail: rlategan@eceng.co.za
TENDERER'S OBLIGATIONS	
C.2.1.1.1	Only those tenderers who satisfy the following eligibility criteria are eligible to submit tenders: a) Availability of resources b) Availability of skills to manage and perform the contract (assigned personnel.) c) Previous experience on contracts of a similar value and nature. d) Financial good standing and capability. e) Must be registered on the Central Supplier Database (CSD)
C.2.1.1.2	Only those tenders who are registered with the Construction Industry Development Board (CIDB), or are capable of being so prior to the evaluation of submissions, in a Contractor grading designation determined in accordance with the sum tendered, or a value in accordance with Regulation 25(1B) or 25(7A) of the Construction Industry Development Regulations, for a 6CE class of construction work, are eligible to have their tenders evaluated. Joint Ventures are eligible to submit tenders provided that: 1. Every member of the joint venture is registered with the CIDB; 2. The lead partner has a Contractor grading designation in the class of construction work; and 3. The combined contractor 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 or a value determined in accordance with Regulation 25(1B) or 25(7A) of the Construction Industry Development Regulations. Notwithstanding the above, tenderers who are capable of being so registered prior to the evaluation of submission may be evaluated at the sole discretion of the Employer.
C.2.2.2	Tender Documents will be downloadable on: www.langeberg.gov.za as from 17 June 2022.
C.2.7	The arrangements for a compulsory clarification meeting are as stated in the Tender Notice. Tenderers should be represented at the clarification meeting by a person who is suitably qualified and experienced to comprehend the implications of the work involved.

Clause	Wording
C.2.12	If a tenderer wishes to submit an alternative offer/solution, then the Bill of Quantities (BoQ) must be completed (as is) and the alternative offer/solution, must be presented in a tender letter attached to the BoQ. Calculations, drawings and all other pertinent technical information and characteristics as well as modified or proposed Pricing Data must be submitted with the alternative tender offer to enable the Employer to evaluate the efficacy of the alternative and its principal elements, to take a view on the degree to which the alternative complies with the Employer's standards and requirements and to evaluate the acceptability of the pricing proposals. Calculations must be set out in a clear and logical sequence and must clearly reflect all design assumptions. Pricing Data must reflect all assumptions in the development of the pricing proposal. Acceptance of an alternative tender offer will mean acceptance in principle of the offer. It will be an obligation of the contract for the tenderer, in the event that the alternative is accepted, to accept full responsibility and liability that the alternative offer complies in all respects with the Employer's standards and requirements. The modified Tender Data must include an amount equal to 5% of the amount tendered for the alternative offer to cover the Employer's costs of confirming the acceptability of the detailed design before it is constructed.
C.2.13.5	The Employer's address for delivery of tender offers and identification details to be shown on each tender offer package are: Location of tender box: Ashton Municipal Offices Physical Address: 28 Main Road Ashton, 6715 Identification details: TENDER 37/2022: CONSTRUCTION OF A NEW MATERIALS RECOVERY FACILITY, ASHTON, LANGEBERG MUNICIPALITY
C.2.13.16 / C.3.5	A two-envelope procedure will not be followed.
C.2.15	The closing time for submission of tender offers is: 22 July 2022 <i>Telephonic, telegraphic, telex, facsimile or e-mailed tender offers will not be accepted</i>
C.2.16	<i>The tender offer validity period is 120 days.</i>
C.2.19	The geotechnical information is attached as Annexure 5.
C.2.22	Return all retained tender documents within twenty-eight (28) days after the expiry of the validity period.
C.2.23	The tenderer is required to submit the following certificate with the tender:
C.2.23.1	Tax Clearance Certificate Only tax pin to be provided.
EMPLOYER'S UNDERTAKINGS	
C.3.2	Issue addenda <i>Add the following to C.3.2:</i> Notwithstanding any request for confirmation of receipt of Addenda issued, the tenderer shall be deemed to have received such addenda if the employer can show proof of transmission thereof (or a notice in respect thereof) via electronic mail, facsimile or registered post.
C.3.4	The time and location for opening of the tender offers are: Time: 22 July 2022 Location: Langeberg Municipal Offices, 28 Main Road, Ashton.

Clause	Wording
C.3.5	A two-envelope procedure will not be followed.
C.3.11.1	General <i>Add the following to C.3.11.1:</i> The procedure for the evaluation of responsive tenders is Method 2: Financial Offer and Preference.
C.3.11.2	<i>Add the following new sub clause C.3.11.2:</i> Method 2: Financial Offer and Preference. The procedure for the evaluation of responsive tenders is as follows: The financial offer will be scored: a) 80 where the financial value inclusive of VAT of all responsive tenders received.
C.3.11.3	<i>Add the following new sub clause C.3.11.3:</i> Risk Analysis Notwithstanding compliance with regard to CIDB registration or any other requirements of the tender, the employer will perform a risk analysis in respect of the following: a) Reasonableness of the financial offer b) Reasonableness of the unit rates and prices c) The tenderer's ability to fulfil his obligations in terms of the tender document, that is, that the tenderer can demonstrate that he possesses the necessary professional and technical qualifications, professional and technical competence, financial resources, equipment and other physical facilities, managerial capability, reliability, experience, reputation, personnel to perform the contract. No tenderer will be recommended for an award unless the tenderer has demonstrated that he has the resources and skills required.
C.3.11.4	<i>Add the following new sub clause C.3.11.4:</i> Scoring Financial Offers The financial offer will be scored using Formula 2 (Option 1) where the value of W1 is 80 (eighty) points. A maximum of 80 (eighty) tender evaluation points (W1) will be scored for Financial Offers from responsive tenders under consideration scoring points according to the formula: $(P-P_m)$ NFO = $W1 \times [1 - P_m]$ where, NFO = Number of tender evaluation points awarded for Financial Offer W1 = Maximum tender evaluation points awarded for Financial Offer = 80 (eighty) points P = Financial Offer+ Tender Sum (including VAT, contingencies, provisional Sums and escalation) = the comparative offer of the tender offer under construction P_m = Lowest Tender Sum (including VAT, contingencies, provisional sums and escalation) = the comparative offer of the most favourable comparative offer.
C.3.11.5	<i>Add the following new sub clause C.3.11.5:</i> Scoring Preferences The procedure for the evaluation of responsive tenders will be in accordance with the Tenderer's B-BBEE Status Level Certificate. Up to 20 (Twenty) Tender evaluation points will be awarded for Tenders who supply an authenticated copy of the B-BBEE Status Certificate and who are found to be eligible for the preference(s) claimed. See also Schedule 5.
C.3.13	Acceptance of Tender Offer <i>Add the following to C.3.13:</i> The Municipality reserves the right to withdraw any invitation to tender and/or to re-advertise or to reject any tender or to accept a part of it. The Municipality does not bind itself to accepting the lowest or only Tender.

Clause	Wording
	Tender offers will only be accepted if: i) the Tenderer has included within this document, or provided on request, a Tax pin issued by the South African Revenue Services or has made arrangements to meet outstanding tax obligations; ii) the Tenderer is registered with the Construction Industry Development Board (CIDB) in the appropriate CIDB Contractor grading designation before the tender closing date/time; iii) the Tenderer or any of its directors is not listed on the Register of Tenders Defaulters in the terms of the Prevention and Combating of Corrupt Activities Act of 2004 as a person prohibited from doing business with the public sector; iv) the Tenderer had not: a) Abused the Employer's Supply Chain Management System; or b) Failed to perform on any previous contract and has been given a written notice to this effect. v) the Tenderer has completed the Compulsory Enterprise questionnaire and there are no conflicts of interest which may impact on the Tenderer's ability to perform the contract in the best interests of the Employer or potentially compromise the tender process. vi) the Tenderer is registered and in good standing with the compensation fund or with a licensed compensation insurer; vii) the Employer is reasonably satisfied that the Tenderer has in terms of the Construction Regulations, 2014, issued in terms of the Occupational Health and Safety Act, 1993, the necessary competencies and recourses to carry out the work safely. Tender offers will be rejected if they show any additional items nor originally included in the tender documents, conditional or incomplete offers, irregularities of any kind in the tender. A tender may be rejected if the unit rates, or lump sums for some of the terms in the Schedule of Quantities are, in the opinion of the Employer, unreasonable or out of proportion, and the Tenderer fails, within a period of 7 (seven) days of having been notified in writing by the Employer to justify any specific rates or lump sums (i.e. to provide a financial breakdown of how such rates or sums were obtained) or to adjust the unit rates or lump sums for such items while retaining the tender sum unchanged. The Employer does not bind himself to accept the lowest priced tender, highest point's tender or any tender offer. The Employer has the right to accept any part of a tender as he may deem expedients subject to negotiation with the successful Tenderer for the whole tender. i) the Tenderer is registered and in good standing with the compensation fund or with a licensed compensation insurer; ii) the Employer is reasonably satisfied that the Tenderer has in terms of the Construction Regulations, 2014, issued in terms of the Occupational Health and Safety Act, 1993, the necessary competencies and recourses to carry out the work safely.
C.3.13	<i>Add the following new sub clause C.3.13.1:</i> C.3.13.1 Notification of decision and appeal period All Tenderers will be notified of the decision of the Supply Chain Management Tender Adjudication Committee as regards to the successful Tenderer. Regulation 49 of the Supply Chain Management Regulations, gives any person whose rights have been affected by such a decision, the right to appeal such decision within 14 (fourteen) days of notification of the decision. Any Tenderer wishing to exercise this right, must submit their appeal in writing to the Employer. The format of the appeal must: i) set out the reasons for the appeal; ii) state on which way the appellant's rights have been affected by the decision; iii) state the remedy sought, and iv) be accompanied by a copy of the notification advising the Tenderer of the decision of the Supply Chain Management Tender Adjudication Committee. The notification of the decision sent to the successful Tenderer is Acceptance in terms of the General Conditions of Contract. The successful Tenderer will be notified in writing after 14 (fourteen) days of the notification of any final decision (i.e. Acceptance) or any developments with respect to the appeal process, and, if applicable, procedures for the commencement of the work.

Clause	Wording
C.3.17	Provide copies for the contract <i>Add the following to C.3.17:</i> The number of paper copies of the signed contract to be provided by the Employer is 1 (one).
	Local Labour It is a requirement from the client (Langeberg Municipality) that un-skilled labour used on site will consist of at least 100% local labour from Ward 9 to Ward 10. South African Citizen shall be given preference for work opportunities.
C.3.18.4	Letter of good standing from the Commissioner of Compensation a) A valid Letter of Good Standing from the Compensation Commissioner or a certified copy thereof, must accompany the bid documents unless the bidder is registered on the Accredited Supplier Database of the Municipality and the Municipality has a valid Letter of Good Standing from the Compensation Commissioner or a certified copy thereof for the bidder on record. The onus is on the bidder to ensure that the Municipality has a valid Letter of Good Standing from the Compensation Commissioner or a certified copy thereof on record. b) In the case of a Consortium/Joint Venture every member must submit a separate valid Letter of Good Standing from the Compensation Commissioner or a certified copy thereof with the bid documents unless the member is registered on the Accredited Supplier Database of the Municipality and the Municipality has a valid Letter of Good Standing from the Compensation Commissioner or a certified copy thereof on record for all members of the Consortium/Joint Venture. c) If a bid is not supported by a valid Letter of Good Standing from the Compensation Commissioner or a certified copy thereof, either as an attachment to the bid documents or on record in the case of suppliers registered on the Supplier Database of the Municipality, the Municipality reserves the right to obtain such document after the closing date. If no such document can be obtained within a period as specified by the Municipality, the bid will be disqualified. d) If a bid is accompanied by proof of application for valid Letter of Good Standing from the Compensation Commissioner, the original or certified copy thereof must be submitted on/or before the final date of award. e) Should a bidder's Letter of Good Standing from the Compensation Commissioner expire during the contact period, a valid certificate must be submitted within an agreed upon time. f) The right is reserved to not award a tender if a valid Letter of Good Standing from the Compensation Commissioner or a certified copy thereof is not submitted within the requested time. EPWP This is not an EPWP project, but the project needs to report on EPWP with regards to creation of work opportunities. The Langeberg Municipality will do induction training on EPWP, where-after the Contractor will have to abide to the monthly reporting instructions related to it.

PART T2 : RETURNABLE DOCUMENTS

T2.1 List of Returnable Documents

T2.2 Returnable Schedules

T2.1 : LIST OF RETURNABLE DOCUMENTS
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The following documents are to be completed and returned as they constitute the tender. Whilst many of the returnables are required for the purpose of evaluating the tenders, some will form part of the subsequent contract, as they form the basis of the tender offer. For this reason, it is very important that tenderers return all information requested.

RETURNABLE SCHEDULES REQUIRED FOR TENDER EVALUATION PURPOSES (included hereafter for completion)

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**RETURNABLE SCHEDULES REQUIRED FOR TENDER EVALUATION
PURPOSES (included hereafter for completion)**

1. DECLARATION OF "IN THE SERVICE OF THE STATE"

If a spouse, child or parent of the owner, director, manager, shareholder or stakeholder of the entity is in the service of the state, or has been in the service of the state in the previous twelve months, the following information must be completed: (Please indicate if not applicable)

The name of the person in the employment of the state:

.....

The capacity in which that person is in service of the state:

.....

Is that person an owner, director, manager, shareholder or connected to the business: Yes or No? (If yes please specify)

.....

The relationship to the owner, director, manager, shareholder or stakeholder of the entity:

	Spouse	Child	Parent
Owner			
Director			
Manager			
Shareholder			

"in the service of the state" means to be –

(a) a member of –

- (i) any municipal council;
- (ii) any provincial legislature; or
- (iii) the National Assembly or the National Council of Provinces;

(b) a member of the board of directors of any municipal entity;

(c) an official of any municipality or municipal entity;

(d) an employee of any national or provincial department, national or provincial public entity or constitutional institution within the meaning of the Public Finance Management Act, 1999 (Act No.1 of 1999);

(e) a member of the accounting authority of any national or provincial public entity; or

(f) an employee of Parliament or a provincial legislature.

CERTIFICATION

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

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

.....
Signature

.....
Date

.....
Position

.....
Name of Bidder

2. MUNICIPAL SERVICE ACCOUNT

- 2.1. **An original latest municipal account must be attached to this page.**
- 2.2. It should be noted that the tender cannot be considered/evaluated if any municipal rates and taxes or municipal services charges owed by the bidder or any of its directors to the municipality or municipal entity, or to any other municipality or entity, are in arrears for more than three months,
- 2.3. If the bidder or any of its directors are not responsible for the payment of municipal rates of service charges to the municipality or municipal entity, or to any other municipality or entity, a sworn affidavit to this effect must be attached to this page.

3. PRICING SCHEDULE – FIRM PRICES (MBD 3.1) (PURCHASES)

NOTE: ONLY FIRM PRICES WILL BE ACCEPTED. NON-FIRM PRICES (INCLUDING PRICES SUBJECT TO RATES OF EXCHANGE VARIATIONS) WILL NOT BE CONSIDERED

IN CASES WHERE DIFFERENT DELIVERY POINTS INFLUENCE THE PRICING, A SEPARATE PRICING SCHEDULE MUST BE SUBMITTED FOR EACH DELIVERY POINT

Name of bidder:.....

Bid number:.....

Closing Time:

Closing date:

OFFER TO BE VALID FOR DAYS FROM THE CLOSING DATE OF BID.

4. DECLARATION OF INTEREST MBD 4

4.1. Any legal person, including persons employed by the state¹, or persons having a kinship with persons employed by the state, including a blood relationship, may make an offer or offers in terms of this invitation to bid (includes an advertised competitive bid, a limited bid, a proposal or written price quotation). In view of possible allegations of favouritism, should the resulting bid, or part thereof, be awarded to persons employed by the state, or to persons connected with or related to them, it is required that the bidder or his/her authorised representative declare his/her position in relation to the evaluating/adjudicating authority where-

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

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

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

4.2.2. Identity Number:

4.2.3. Position occupied in the Company (director, trustee, shareholder², member):

.....
.....

4.2.4. Registration number of company, enterprise, close corporation, partnership agreement or trust:

.....

4.2.5. Tax Reference Number:

4.2.6. VAT Registration Number:

4.3. The names of all directors / trustees / shareholders / members, their individual identity numbers, tax reference numbers and, if applicable, employee / PERSAL numbers must be indicated in paragraph 6.5 below.

¹"State" means –

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

²"Shareholder" means a person who owns shares in the company and is actively involved in the management of the enterprise or business and exercises control over the enterprise.

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

4.4.1. If so, furnish the following particulars:

Name of person / director / trustee / shareholder/ member:

Name of state institution at which you or the person connected to the bidder is employed:

Position occupied in the state institution:

Any other particulars:

.....
.....

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

4.4.3. If yes, did you attach proof of such authority to the bid document? **YES / NO**

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

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

.....
.....

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

If so, furnish particulars:

.....
.....

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

If so, furnish particulars.

.....
.....

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

If so, furnish particulars.

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

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

If so, furnish particulars:

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

4.5. Full details of directors / trustees / members / shareholders.

Full Name	Identity Number	Personal Income Tax Reference Number	State Employee Number/Personal Number

4.6. DECLARATION

I, THE UNDERSIGNED (NAME):
CERTIFY THAT THE INFORMATION FURNISHED IN PARAGRAPHS 6.2 and 6.5 ABOVE IS CORRECT.

I ACCEPT THAT THE STATE MAY REJECT THE BID OR ACT AGAINST ME SHOULD THIS DECLARATION PROVE TO BE FALSE.

.....
Signature

.....
Date

.....
Position

.....
Name of Bidder

5. **PREFERENCE POINTS CLAIM FORM IN TERMS OF THE PREFERENTIAL PROCUREMENT REGULATIONS 2017 (MBD 6.1)**

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

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

5.1. GENERAL CONDITIONS

5.1.1. The following preference point systems are applicable to all bids:

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

5.1.2.

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

5.1.3. Points for this bid shall be awarded for:

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

5.1.4. The maximum points for this bid are allocated as follows:

	POINTS
PRICE	80
B-BBEE STATUS LEVEL OF CONTRIBUTOR	20
Total points for Price and B-BBEE must not exceed	100

5.1.5. Failure on the part of a bidder to submit proof of B-BBEE Status level of contributor together with the bid, will be interpreted to mean that preference points for B-BBEE status level of contribution are not claimed.

5.1.6. The purchaser reserves the right to require of a bidder, either before a bid is adjudicated or at any time subsequently, to substantiate any claim in regard to preferences, in any manner required by the purchaser.

5.2. DEFINITIONS

- a) **"B-BBEE"** means broad-based black economic empowerment as defined in section 1 of the Broad-Based Black Economic Empowerment Act;
- b) **"B-BBEE status level of contributor"** means the B-BBEE status of an entity in terms of a code of good practice on black economic empowerment, issued in terms of section 9(1) of the Broad-Based Black Economic Empowerment Act;

- c) **“bid”** means a written offer in a prescribed or stipulated form in response to an invitation by an organ of state for the provision of goods or services, through price quotations, advertised competitive bidding processes or proposals;
- d) **“Broad-Based Black Economic Empowerment Act”** means the Broad-Based Black Economic Empowerment Act, 2003 (Act No. 53 of 2003);
- e) **“EME”** means an Exempted Micro Enterprise in terms of a code of good practice on black economic empowerment issued in terms of section 9 (1) of the Broad-Based Black Economic Empowerment Act;
- f) **“functionality”** means the ability of a tenderer to provide goods or services in accordance with specifications as set out in the tender documents.
- g) **“price”** includes all applicable taxes less all unconditional discounts;
- h) **“proof of B-BBEE status level of contributor”** means:
 - 1. B-BBEE Status level certificate issued by an authorized body or person;
 - 2. A sworn affidavit as prescribed by the B-BBEE Codes of Good Practice;
 - 3. Any other requirement prescribed in terms of the B-BBEE Act;
- i) **“QSE”** means a qualifying small business enterprise in terms of a code of good practice on black economic empowerment issued in terms of section 9 (1) of the Broad-Based Black Economic Empowerment Act;
- j) **“rand value”** means the total estimated value of a contract in Rand, calculated at the time of bid invitation, and includes all applicable taxes;

5.3. FORMULAE FOR PROCUREMENT OF GOODS AND SERVICES

5.4. POINTS AWARDED FOR PRICE

5.4.1. THE 80/20 OR 90/10 PREFERENCE POINT SYSTEMS

A maximum of 80 or 90 points is allocated for price on the following basis:

80/20	or	90/10
$P_s = 80 \frac{1 - P_t - P_{min}}{P_{min}}$		$P_s = 80 \frac{1 - P_t - P_{min}}{P_{min}}$

Where

P_s = Points scored for price of bid under consideration

P_t = Price of bid under consideration

P_{min} = Price of lowest acceptable bid

5.4.2. FORMULAE FOR DISPOSAL OR LEASING OF STATE ASSETS AND INCOME-GENERATING PROCUREMENT

5.4.3. POINTS AWARDED FOR PRICE

A maximum of 80 or 90 points is allocated for price on the following basis:

80/20	or	90/10
$P_s = 80 \frac{1 - P_t - P_{max}}{P_{max}}$		$P_s = 80 \frac{1 - P_t - P_{max}}{P_{max}}$

Where

P_s = Points scored for price of bid under consideration

P_t = Price of bid under consideration

P_{max} = Price of highest acceptable bid

5.5. POINTS AWARDED FOR B-BBEE STATUS LEVEL OF CONTRIBUTOR

5.5.1. In terms of Regulation 6 (2) and 7 (2) of the Preferential Procurement Regulations, preference points must be awarded to a bidder for attaining the B-BBEE status level of contribution in accordance with the table below:

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

5.6. BID DECLARATION

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

5.7. B-BBEE STATUS LEVEL OF CONTRIBUTOR CLAIMED IN TERMS OF PARAGRAPHS 1.4 AND 5.1

5.7.1. B-BBEE Status Level of Contributor: =.....(maximum of 10 or 20 points)

(Points claimed in respect of paragraph 7.1 must be in accordance with the table reflected in paragraph 5.1 and must be substantiated by relevant proof of B-BBEE status level of contributor.)

5.8. SUB-CONTRACTING

5.8.1. Will any portion of the contract be sub-contracted? **(Tick applicable box)**

YES		NO	
-----	--	----	--

5.8.2. If yes, indicate:

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

YES		NO	
-----	--	----	--

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

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

Designated Group: An EME or QSE which is at least 51% owned by:	EME √	QSE √
Cooperative owned by black people		
Black people who are military veterans		
OR		
Any EME		
Any QSE		

5.9. DECLARATION WITH REGARD TO COMPANY/FIRM

5.9.1. Name of company/firm:

5.9.2. VAT registration number:

5.9.3. Company registration number:

5.9.4. TYPE OF COMPANY/ FIRM

☐ Partnership/Joint Venture / Consortium

☐ One person business/sole propriety

☐ Close corporation

☐ Company

☐ (Pty) Limited

[TICK APPLICABLE BOX]

5.9.5. DESCRIBE PRINCIPAL BUSINESS ACTIVITIES

.....

.....

.....

.....

5.9.6. COMPANY CLASSIFICATION

☐ Manufacturer

☐ Supplier

☐ Professional service provider

☐ Other service providers, e.g. transporter, etc.

☐ [TICK APPLICABLE BOX]

5.9.7. MUNICIPAL INFORMATION

Municipality where business is situated:

Registered Account Number:

Stand Number:

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

5.9.9. I/we, the undersigned, who is / are duly authorised to do so on behalf of the company/firm, certify that the points claimed, based on the B-BBE status level of contributor indicated in paragraphs 1.4 and 5.1 of the foregoing certificate, qualifies the company/ firm for the preference(s) shown and I / we acknowledge that:

- i) The information furnished is true and correct;
- ii) The preference points claimed are in accordance with the General Conditions as indicated in paragraph 1 of this form;
- iii) In the event of a contract being awarded as a result of points claimed as shown in paragraphs 1.4 and 5.1, the contractor may be required to furnish documentary proof to the satisfaction of the purchaser that the claims are correct;
- iv) If the B-BBEE status level of contributor has been claimed or obtained on a fraudulent basis or any of the conditions of contract have not been fulfilled, the purchaser may, in addition to any other remedy it may have –
 - (a) disqualify the person from the bidding process;
 - (b) recover costs, losses or damages it has incurred or suffered as a result of that person's conduct;
 - (c) cancel the contract and claim any damages which it has suffered as a result of having to make less favourable arrangements due to such cancellation;
 - (d) recommend that the bidder or contractor, its shareholders and directors, or only the shareholders and directors who acted on a fraudulent basis, be restricted by the National Treasury from obtaining business from any organ of state for a period not exceeding 10 years, after the audi alteram partem (hear the other side) rule has been applied; and
 - (e) forward the matter for criminal prosecution.

WITNESSES

- 1.
- 2.

.....

SIGNATURE(S) OF BIDDERS(S)

DATE

6. CONTRACT FORM - PURCHASE OF GOODS/WORKS (MBD 7.1)

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

PART 1 (TO BE FILLED IN BY THE BIDDER)

- 6.1. I hereby undertake to supply all or any of the goods and/or works described in the attached bidding documents to (name of institution)..... in accordance with the requirements and specifications stipulated in bid number..... at the price/s quoted. My offer/s remain binding upon me and open for acceptance by the purchaser during the validity period indicated and calculated from the closing time of bid.
- 6.2. The following documents shall be deemed to form and be read and construed as part of this agreement:
- 6.3. Bidding documents, viz
- Invitation to bid;
 - Tax pin;
 - Pricing schedule(s);
 - Technical Specification(s);
 - Preference claims for Broad Based Black Economic Empowerment Status Level of Contribution in terms of the Preferential Procurement Regulations 2011;
 - Declaration of interest;
 - Declaration of bidder's past SCM practices;
 - Certificate of Independent Bid Determination;
 - Special Conditions of Contract;
- 6.4. General Conditions of Contract; and
- 6.5. Other (specify)
-
-
-
- 6.6. I confirm that I have satisfied myself as to the correctness and validity of my bid; that the price(s) and rate(s) quoted cover all the goods and/or works specified in the bidding documents; that the price(s) and rate(s) cover all my obligations and I accept that any mistakes regarding price(s) and rate(s) and calculations will be at my own risk.
- 6.7. I accept full responsibility for the proper execution and fulfilment of all obligations and conditions devolving on me under this agreement as the principal liable for the due fulfilment of this contract.
- 6.8. I declare that I have no participation in any collusive practices with any bidder or any other person regarding this or any other bid.
- 6.9. I confirm that I am duly authorised to sign this contract.

NAME (PRINT)

CAPACITY

SIGNATURE

NAME OF FIRM

DATE

WITNESSES

1

2.

7. CONTRACT FORM - PURCHASE OF GOODS/WORKS (MBD 7.1) PART 2 (TO BE FILLED IN BY THE PURCHASER)

- 7.1. I, Mr ASA DE KLERK in my capacity as,
- 7.2. accept your bid under reference numberdated.....or the supply of goods/works indicated
- 7.3. hereunder and/or further specified in the annexure(s).
- 7.4. An official order indicating delivery instructions is forthcoming.
- 7.5. I undertake to make payment for the goods/works delivered in accordance with the terms and conditions of the contract, within 30 (thirty) days after receipt of an invoice accompanied by the delivery note.

ITEMNO.	PRICE (ALL APPLICABLE TAXES INCLUDED)	BRAND	DELIVERY PERIOD	B-BBEE STATUS LEVEL OF CONTRIBUTION

- 7.6. I confirm that I am duly authorized to sign this contract.

SIGNED ATON.....

NAME (PRINT)

SIGNATURE

OFFICIAL STAMP

WITNESSES

1.

2.

8. DECLARATION OF BIDDER'S PAST SUPPLY CHAIN MANAGEMENT PRACTICES (MBD 8)

- 8.1. This Municipal Bidding Document must form part of all bids invited.
- 8.2. It serves as a declaration to be used by municipalities and municipal entities in ensuring that when goods and services are being procured, all reasonable steps are taken to combat the abuse of the supply chain management system.
- 8.3. The bid of any bidder may be rejected if that bidder, or any of its directors have:
- 8.4. abused the municipality's / municipal entity's supply chain management system or committed any improper conduct in relation to such system;
- 8.5. been convicted for fraud or corruption during the past five years;
- 8.6. will-fully neglected, reneged on or failed to comply with any government, municipal or other public sector contract during the past five years; or
- 8.7. been listed in the Register for Tender Defaulters in terms of section 29 of the Prevention and Combating of Corrupt Activities Act (No 12 of 2004).
- 8.8. In order to give effect to the above, the following questionnaire must be completed and submitted with the bid.

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

Item	Question	Yes	No
8.15	Does the bidder or any of its directors owe any municipal rates and taxes or municipal charges to the municipality / municipal entity, or to any other municipality / municipal entity, that is in arrears for more than three months?	Yes ☐	No ☐
8.16	If so, furnish particulars:		
8.17	Was any contract between the bidder and the municipality / municipal entity or any other organ of state terminated during the past five years on account of failure to perform on or comply with the contract?	Yes ☐	No ☐
8.18	If so, furnish particulars:		

CERTIFICATION

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

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

.....
Signature

.....
Date

.....
Position

.....
Name of Bidder

9. DECLARATION OF BIDDER'S PAST SUPPLY CHAIN MANAGEMENT PRACTICES (MBD 8)

- 9.1. This Municipal Bidding Document (MBD) must form part of all bids¹ invited.
- 9.2. Section 4 (1) (b) (iii) of the Competition Act No. 89 of 1998, as amended, prohibits an agreement between, or concerted practice by, firms, or a decision by an association of firms, if it is between parties in a horizontal relationship and if it involves collusive bidding (or bid rigging).² Collusive bidding is a *pe se* prohibition meaning that it cannot be justified under any grounds.
- 9.3. Municipal Supply Regulation 38 (1) prescribes that a supply chain management policy must provide measures for the combating of abuse of the supply chain management system, and must enable the accounting officer, among others, to:
 - 9.4. take all reasonable steps to prevent such abuse;
 - 9.5. reject the bid of any bidder if that bidder or any of its directors has abused the supply chain management system of the municipality or municipal entity or has committed any improper conduct in relation to such system; and
 - 9.6. cancel a contract awarded to a person if the person committed any corrupt or fraudulent act during the bidding process or the execution of the contract.
- 9.7. This MBD serves as a certificate of declaration that would be used by institutions to ensure that, when bids are considered, reasonable steps are taken to prevent any form of bid-rigging.
- 9.8. In order to give effect to the above, the attached Certificate of Bid Determination (MBD 9) must be completed and submitted with the bid:

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

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

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

10. **CERTIFICATE OF INDEPENDENT BID DETERMINATION (MBD 9)**

I, the undersigned, in submitting the accompanying bid:

(Bid Number and Description)

in response to the invitation for the bid made by:

(Name of Municipality / Municipal Entity)

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

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

- 10.1. I have read and I understand the contents of this Certificate;
- 10.2. I understand that the accompanying bid will be disqualified if this Certificate is found not to be true and complete in every respect;
- 10.3. I am authorized by the bidder to sign this Certificate, and to submit the accompanying bid, on behalf of the bidder;
- 10.4. Each person whose signature appears on the accompanying bid has been authorized by the bidder to determine the terms of, and to sign, the bid, on behalf of the bidder;
- 10.5. For the purposes of this Certificate and the accompanying bid, I understand that the word "competitor" shall include any individual or organization, other than the bidder, whether or not affiliated with the bidder, who:
 - has been requested to submit a bid in response to this bid invitation;
 - could potentially submit a bid in response to this bid invitation, based on their qualifications, abilities or experience; and
 - provides the same goods and services as the bidder and/or is in the same line of business as the bidder
- 10.6. The bidder has arrived at the accompanying bid independently from, and without consultation, communication, agreement or arrangement with any competitor. However communication between partners in a joint venture or consortium³ will not be construed as collusive bidding.
- 10.7. In particular, without limiting the generality of paragraphs 12.6 above, there has been no consultation, communication, agreement or arrangement with any competitor regarding:
 - prices;
 - geographical area where product or service will be rendered (market allocation)
 - methods, factors or formulas used to calculate prices;
 - the intention or decision to submit or not to submit, a bid;
 - the submission of a bid which does not meet the specifications and conditions of the bid; or bidding with the intention not to win the bid.
- 10.8. In addition, there have been no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications and conditions or delivery particulars of the products or services to which this bid invitation relates.
- 10.9. The terms of the accompanying bid have not been, and will not be, disclosed by the bidder, directly or indirectly, to any competitor, prior to the date and time of the official bid opening or of the awarding of the contract.

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

.....
Signature

.....
Date

.....
Position

.....
Name of Bidder

11. CODE OF CONDUCT FOR SUPPLIERS

Langeberg Municipality is strongly committed in observing the highest ethical standards in all its procurement activities. As such, this Code of Conduct for Suppliers has been prepared to provide clear summary of Langeberg Municipality expectation from the suppliers in all procurement dealings, ensuring that internationally recognized procurement ethics are followed. Transparency and accountability should be strictly adhered to in all procurement activities.

Langeberg Municipality procurement ethics focuses on **zero tolerance on corruption, avoiding any form of interest and honest representation of supplier's capabilities.**

Suppliers are strongly urged to familiarize themselves with this Code of Conduct to ensure successful working relations with Langeberg Municipality.

Policy on Corruption and Position on Conflict of Interest

Langeberg Municipality expects all contracted suppliers and companies seeking to sell goods and services to conduct their business in accordance with the highest ethical standards. Suppliers or potential suppliers must strictly comply with all rules and regulations on bribery, corruption and avoid unacceptable business practices. Hence suppliers are expected to observe the following:

- Shall not, directly or indirectly, offer, give or agree or promise to give to any Langeberg Municipality staff any gratuity for the benefit of/or at the direction or request of any Staff or Langeberg Municipality;
- To immediately inform the Langeberg Municipality in the event that any Staff or Langeberg Municipality solicits or obtained or has made an attempt to obtain gratification for himself/herself or for any other persons.
- To immediately declare if any of the Company's staff and/or officers had or have any relative employed with Langeberg Municipality. Failure to make such declaration shall be construed as a conflict of interest and might result in the exclusion of the supplier from present and future procurement activities and/or other legal action as deemed fit by the Organization.

Representation from Suppliers

Langeberg Municipality expects all its suppliers to honestly declare and warrant that:

- It will comply with all rules, regulations and statutory requirements relating to the provision of the products/services to Langeberg Municipality;
- It will not act in concert with other suppliers or agents when participating in a bid;
- It is a duly authorized/certified provider of the supplied products/services and shall not, expressly or impliedly hold itself out to be an agent/representative of a third party provider of the same products/services;
- It will only supply products that are certified to be of merchantable and satisfactory quality;
- The supplier processes the necessary capabilities, equipment and suitable place of business to perform its obligations;
- It shall not contract out of subcontract or outsource any portion of the products/services unless prior written consent from Langeberg Municipality has been obtained; and
- It shall maintain the highest standards of integrity and quality of work at all times.

Applicability of the Code of Conduct

This Code of Conduct shall apply to all Suppliers, sub-contractors and to other entities acting behalf of them (approval of Langeberg Municipality).

Monitoring compliance to the Code of Conduct

To facilitate the monitoring of suppliers' compliance with this Code of Conduct, Langeberg Municipality expects suppliers to:

- Develop and maintain all necessary documentation to support compliance with the described standards; such documentation must be accurate and complete;
- Provide Langeberg Municipality representatives with access to relevant records, upon Langeberg Municipality request;
- Allow Langeberg Municipality representatives to conduct interviews with the supplier's employees and with management separately;

- Allow Langeberg Municipality representatives to conduct announced and unannounced site visits of supplier locations; and
- Respond promptly to reasonable inquiries from Langeberg Municipality representatives in relation to the implementation of the Code of Conduct.

Secure Communication Channels

Langeberg Municipality has established a secure communication channel to enable the suppliers to raise their concerns confidentially and responsibly. If the supplier has questions about the Code of Conduct or wishes to report a questionable behaviour or possible violation of the Code of Conduct, the Supplier is encouraged and should contact Langeberg Municipality at:

Municipal Manager
28 Main Road
Ashton
6715

or contact at mm@langeberg.gov.za;

Langeberg Municipality will not tolerate any retribution or retaliation by anyone against a concerned Supplier who has, in good faith, sought out advice or has reported questionable behaviour and/or a possible violation. Langeberg Municipality will take disciplinary action up to and including termination of contract for anyone who threatens or engages in retaliation, retribution or harassment of the concerned individual. Identities and contents of all information or complaints will be rated strictly confidential.

SANCTIONS

Breach of the Code may result in actions being taken against that service providers, in addition to any contractual or legal remedies. The actions applied will depend on the nature and seriousness of the breach and on the degree of commitment shown by the service provider to resolve any issues stemming from the breach.

The range of actions to be imposed include but are not restricted to the following:

- Formal written warnings;
- Required disclosure of nature of breach in terms of the Policy;
- Immediate termination of contract;
- Criminal and/or civil action.

ACKNOWLEDGEMENT AND ACCEPTANCE

This is to certify that I have fully read the Supplier's Code of Conduct attached. Having fully read and understood the completed requirement of this Supplier's Code of Conduct, I hereby commit myself and my company to serve this Code of Conduct and to fully comply with all of its principles. I also certify that I am authorized by my company to sign and accept this document in its behalf.

Supplier: _____

Address: _____

Representative: _____

Signature: _____

12. DECLARATION CERTIFICATE FOR LOCAL PRODUCTION AND CONTENT FOR DESIGNATED SECTORS (SBD 6.2)

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

Before completing this declaration, bidders must study the General Conditions, Definitions, Directives applicable in respect of Local Content as prescribed in the Preferential Procurement Regulations, 2017, the South African Bureau of Standards (SABS) approved technical specification number SATS 1286:2011 (Edition 1) and the Guidance on the Calculation of Local Content together with the Local Content Declaration Templates [Annex C (Local Content Declaration: Summary Schedule), D (Imported Content Declaration: Supporting Schedule to Annex C) and E (Local Content Declaration: Supporting Schedule to Annex C)].

12.1. General Conditions

- 12.1.1. Preferential Procurement Regulations, 2017 (Regulation 8) make provision for the promotion of local production and content.
- 12.1.2. Regulation 8.(2) prescribes that in the case of designated sectors, organs of state must advertise such tenders with the specific bidding condition that only locally produced or manufactured goods, with a stipulated minimum threshold for local production and content will be considered.
- 12.1.3. Where necessary, for tenders referred to in paragraph 15.1.2 above, a two stage bidding process may be followed, where the first stage involves a minimum threshold for local production and content and the second stage price and B-BBEE.
- 12.1.4. A person awarded a contract in relation to a designated sector, may not sub-contract in such a manner that the local production and content of the overall value of the contract is reduced to below the stipulated minimum threshold.
- 12.1.5. The local content (LC) expressed as a percentage of the bid price must be calculated in accordance with the SABS approved technical specification number SATS 1286: 2011 as follows:

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

Where

- x is the imported content in Rand
- y is the bid price in Rand excluding value added tax (VAT)

Prices referred to in the determination of x must be converted to Rand (ZAR) by using the exchange rate published by South African Reserve Bank (SARB) at 12:00 on the date of advertisement of the bid as indicated in paragraph 13.2.2 below.

The SABS approved technical specification number SATS 1286:2011 is accessible on <http://www.thedti.gov.za/industrial development/ipisp> at no cost.

- 12.1.6. A bid may be disqualified if this Declaration Certificate and the Annex C (Local Content Declaration: Summary Schedule) are not submitted as part of the bid documentation;

12.2. The stipulated minimum threshold(s) for local production and content (refer to Annex A of SATS 1286:2011) for this bid is/are as follows:

12.2.1. Does any portion of the goods or services offered have any imported content?

(Tick applicable box)

YES		NO	
-----	--	----	--

12.2.2. If yes, the rate(s) of exchange to be used in this bid to calculate the local content as prescribed in paragraph 1.16.4 of the general conditions must be the rate(s) published by SARB for the specific currency at 12:00 on the date of advertisement of the bid.

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

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

Currency	Rates of exchange
US Dollar	
Pound Sterling	
Euro	
Yen	
Other	

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

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

13. **DECLARATION CERTIFICATE FOR LOCAL PRODUCTION AND CONTENT FOR DESIGNATED SECTORS – MDB 6.2**

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

Before completing this declaration, bidders must study the General Conditions, Definitions, Directives applicable in respect of Local Content as prescribed in the Preferential Procurement Regulations, 2017, the South African Bureau of Standards (SABS) approved technical specification number SATS 1286:2011 (Edition 1) and the Guidance on the Calculation of Local Content together with the Local Content Declaration Templates [Annex C (Local Content Declaration: Summary Schedule), D (Imported Content Declaration: Supporting Schedule to Annex C) and E (Local Content Declaration: Supporting Schedule to Annex C)].

13.1. **General Conditions**

- 13.1.1. Preferential Procurement Regulations, 2017 (Regulation 8) make provision for the promotion of local production and content.
- 13.1.2. Regulation 8.(2) prescribes that in the case of designated sectors, organs of state must advertise such tenders with the specific bidding condition that only locally produced or manufactured goods, with a stipulated minimum threshold for local production and content will be considered.
- 13.1.3. Where necessary, for tenders referred to in paragraph 1.2 above, a two stage bidding process may be followed, where the first stage involves a minimum threshold for local production and content and the second stage price and B-BBEE.
- 13.1.4. A person awarded a contract in relation to a designated sector, may not sub-contract in such a manner that the local production and content of the overall value of the contract is reduced to below the stipulated minimum threshold.
- 13.1.5. The local content (LC) expressed as a percentage of the bid price must be calculated in accordance with the SABS approved technical specification number SATS 1286: 2011 as follows:

$$LC = [1 - x / y] * 100$$
 Where
 x is the imported content in Rand
 y is the bid price in Rand excluding value added tax (VAT)
 Prices referred to in the determination of x must be converted to Rand (ZAR) by using the exchange rate published by South African Reserve Bank (SARB) on the date of advertisement of the bid as indicated in paragraph 3.1 below.
 The SABS approved technical specification number SATS 1286:2011 is accessible on <http://www.thedti.gov.za/industrialdevelopment/ip.jsp> at no cost.
- 13.1.6. A bid may be disqualified if this Declaration Certificate and the Annex C (Local Content Declaration: Summary Schedule) are not submitted as part of the bid documentation;

- 13.2. The stipulated minimum threshold(s) for local production and content (refer to Annex A of SATS 1286:2011) for this bid is/are as follows:

Industry/sector/subsector	Minimum Threshold for Local Content	% of local content (3-5 years) : Practice
Electrical and telecom products	Electrical Cables: Cables used for power station transmission – Low Voltage	90%
	Electrical Cables: Cables used for power station transmission – Medium and High Voltage	90%
Valve Products and Actuators	Check valves: low pressure, 80mm – 3500mm, PN6-PN25	70%
	Gate Valves: low pressure, 15mm – 1800mm, PN6-PN25	70%
	Fire Hydrants (Underground): low pressure, 65mm inlet PN16	70%
	Fabricated structural steel: Latticed steelwork, reinforcement steel, columns, beams, plate girders, rafters, bracing, cladding, supports, stair stingers,	100%

Industry/sector/subsector	Minimum Threshold for Local Content	% of local content (3-5 years) : Practice
Conversion processes for steel products and components for construction	ladders, steel flooring, floor grating, handrailing and balustrading, scaffolding, ducting	
	Joining/joining components: Gussets, cleats, stiffeners, splices, cranks, kinks, doglegs, spacers, lugs, brackets	100%
	Frames: Doors and windows	100%
	Roof and cladding: Bare steel cladding, galvanised steel cladding, colour coated cladding	100%
	Fasteners: Bolts, nuts, rivets and nails	100%
	Wire products: All fencing products, all barbed wire and meshed fencing, fabric/mesh reinforcing, gabions, wire/rope strand and chains, welding electrodes, nails/tacks, springs and screws	100%
	Ducting and structural pipework: Non-conveyance tubing fabricated from steel sheeting and plate with structural support	100%
	Gutters, downpipes and launders: Fabricated materials made from sheeting associated with roof drainage systems	100%
Plastic Pipes	Polyvinyl chloride (PVC) Pipes	100%
	High density polyethylene (HDPE) pipes	100%

13.3. Does any portion of the goods or services offered have any imported content?

(Tick applicable box)

YES		NO	
-----	--	----	--

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

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

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

Currency	Rates of exchange
US Dollar	
Pound Sterling	
Euro	
Yen	
Other	

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

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

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

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

IN RESPECT OF BID NO.

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

.....

NB

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

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

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

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

(b) I have satisfied myself that:

(i) the goods/services/works to be delivered in terms of the above-specified bid comply with the minimum local content requirements as specified in the bid, and as measured in terms of SATS 1286:2011; and

(c) The local content percentage (%) indicated below has been calculated using the formula given in clause 3 of SATS 1286:2011, the rates of exchange indicated in paragraph 3.1 above and the information contained in Declaration D and E which has been consolidated in Declaration C:

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

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

The local content percentages for each product has been calculated using the formula given in clause 3 of SATS 1286:2011, the rates of exchange indicated in paragraph 3.1 above and the information contained in Declaration D and E.

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

(e) I understand that the awarding of the bid is dependent on the accuracy of the information furnished in this application. I also understand that the submission of incorrect data, or data that are not verifiable as described in SATS 1286:2011, may result in the Procurement Authority / Institution imposing any or all of the remedies as provided for in Regulation 14 of the Preferential Procurement Regulations, 2017 promulgated under the Preferential Policy Framework Act (PPPFA), 2000 (Act No. 5 of 2000).

SIGNATURE:

WITNESS No. 1

DATE:

WITNESS No. 2

DATE:

ANNEXURE C1

SATS 1286.2011

Local Content Declaration – Summary Schedule

(C1) Tender No.	TENDER 37/2022					
(C2) Tender Description	CONSTRUCTION OF NEW MATERIAL RECOVERY FACILITY IN ASHTON, WESTERN CAPE					
(C3) Designated product(s)	CHECK VALVES					
(C4) Tender Authority	LANGEBERG MUNICIPALITY					
(C5) Name of Tendering Entity						
(C6) Tender Exchange Rate	Pula		EU		GBP	
(C7) Specified local content %	30%					

NOTE: VAT to be excluded from all calculations

		Calculation of local content						Tender summary			
Tender Item No's	List of Items	Tender Price – each	Exempted imported value	Tender value net of exempted imported content	Imported value	Local value	Local content % (per item)	Tender Quantity	Total tender value	Total exempted imported content	Total imported content
(C8)	(C9)	(C10)	(C11)	(C12)	(C13)	(C14)	(C15)	(C16)	(C17)	(C18)	(C19)
F.5.7	Bermand type or similar approved (110 mm Diam)						70%	1 No.			
(C20) Total tender value											
(C21) Total Exempt imported content											
(C22) Total Tender value net of exempt imported content											
(C23) Total Imported content											
(C24) Total local content											
(C25) Average local content % of tender											

SIGNATURE OF TENDERER AS PER LOCAL CONTENT DECLARATION

DATE

ANNEXURE C2

SATS 1286.2011

Local Content Declaration – Summary Schedule

(C1) Tender No.	TENDER 37/2022					
(C2) Tender Description	CONSTRUCTION OF NEW MATERIAL RECOVERY FACILITY IN ASHTON, WESTERN CAPE					
(C3) Designated product(s)	ELECTRICAL CABLES – LOW VOLTAGE					
(C4) Tender Authority	LANGEBERG MUNICIPALITY					
(C5) Name of Tendering Entity						
(C6) Tender Exchange Rate	Pula		EU		GBP	
(C7) Specified local content %	30%					

NOTE: VAT to be excluded from all calculations

Calculation of local content							
Tender Item No's	List of Items	Tender Price – each	Exempted imported value	Tender value net of exempted imported content	Imported value	Local value	Local content % (per item)
(C8)	(C9)	(C10)	(C11)	(C12)	(C13)	(C14)	(C15)
O.1.1	25mm ² /4C/CU: SDB- G						90%
O.1.2	16mm ² /4C/CU: SDB- k						90%

Tender summary			
Tender Quantity	Total tender value	Total exempted imported content	Total imported content
(C16)	(C17)	(C18)	(C19)
200 m			
100 m			
(C20) Total tender value			
(C21) Total Exempt imported content			
(C22) Total Tender value net of exempt imported content			
(C23) Total Imported content			
(C24) Total local content			
(C25) Average local content % of tender			

SIGNATURE OF TENDERER AS PER LOCAL CONTENT DECLARATION

DATE

ANNEXURE C3										SATS 1286.2011	
Local Content Declaration – Summary Schedule											
(C1) Tender No.		TENDER 37/2022						NOTE: VAT to be excluded from all calculations			
(C2) Tender Description		CONSTRUCTION OF NEW MATERIAL RECOVERY FACILITY IN ASHTON, WESTERN CAPE									
(C3) Designated product(s)		GATE VALVES									
(C4) Tender Authority		LANGEBERG MUNICIPALITY									
(C5) Name of Tendering Entity											
(C6) Tender Exchange Rate		Pula			EU					GBP	
(C7) Specified local content %		30%									
Calculation of local content											
Tender Item No's	List of Items	Tender Price – each	Exempted imported value	Tender value net of exempted imported content	Imported value	Local value	Local content % (per item)	Tender summary			
(C8)	(C9)	(C10)	(C11)	(C12)	(C13)	(C14)	(C15)	Tender Quantity	Total tender value	Total exempted imported content	Total imported content
(C8)	(C9)	(C10)	(C11)	(C12)	(C13)	(C14)	(C15)	(C16)	(C17)	(C18)	(C19)
F.5.4	Resilient seal type valve (110 mm Diam)						70%	1 No			
N.1.4	PPR Isolator Valve with copper adaptor (16mm Diam)						70%	22 No			
N.3.7	Isolator Valve with male to PPR fitting, both sides (25 mm Diam)						70%	3 No			
N.4.4	Isolator Valve with male to PPR fitting, both sides (32mm Diam)						70%	2 No			
N.6.5	Isolator valve						70%	1 No			
								(C20) Total tender value			
								(C21) Total Exempt imported content			
								(C22) Total Tender value net of exempt imported content			
								(C23) Total Imported content			
								(C24) Total local content			
								(C25) Average local content % of tender			

SIGNATURE OF TENDERER AS PER LOCAL CONTENT DECLARATION

DATE

(C20) Total tender value

(C21) Total Exempt imported content

(C22) Total Tender value net of exempt imported content

(C23) Total Imported content

(C24) Total local content

(C25) Average local content % of tender

ANNEXURE C4

SATS 1286.2011

Local Content Declaration – Summary Schedule

(C1) Tender No.	TENDER 37/2022					
(C2) Tender Description	CONSTRUCTION OF NEW MATERIAL RECOVERY FACILITY IN ASHTON, WESTERN CAPE					
(C3) Designated product(s)	FIRE HYDRANTS					
(C4) Tender Authority	LANGEBERG MUNICIPALITY					
(C5) Name of Tendering Entity						
(C6) Tender Exchange Rate	Pula		EU		GBP	
(C7) Specified local content %	30%					

NOTE: VAT to be excluded from all calculations

Calculation of local content							
Tender Item No's	List of Items	Tender Price – each	Exempted imported value	Tender value net of exempted imported content	Imported value	Local value	Local content % (per item)
(C8)	(C9)	(C10)	(C11)	(C12)	(C13)	(C14)	(C15)
F.5.5	Ainsworth type or similar approved (110 mm Diam)						70%

Tender summary			
Tender Quantity	Total tender value	Total exempted imported content	Total imported content
(C16)	(C17)	(C18)	(C19)
4 No			
(C20) Total tender value			
(C21) Total Exempt imported content			
(C22) Total Tender value net of exempt imported content			
(C23) Total Imported content			
(C24) Total local content			
(C25) Average local content % of tender			

SIGNATURE OF TENDERER AS PER LOCAL CONTENT DECLARATION

DATE

ANNEXURE C5

SATS 1286.2011

Local Content Declaration – Summary Schedule

(C1) Tender No.	TENDER 37/2022					
(C2) Tender Description	CONSTRUCTION OF NEW MATERIAL RECOVERY FACILITY IN ASHTON, WESTERN CAPE					
(C3) Designated product(s)	FABRICATED STRUCTURAL STEEL					
(C4) Tender Authority	LANGEBERG MUNICIPALITY					
(C5) Name of Tendering Entity						
(C6) Tender Exchange Rate	Pula		EU		GBP	
(C7) Specified local content %	30%					

NOTE: VAT to be excluded from all calculations

Calculation of local content							
Tender Item No's	List of Items	Tender Price – each	Exempted imported value	Tender value net of exempted imported content	Imported value	Local value	Local content % (per item)
(C8)	(C9)	(C10)	(C11)	(C12)	(C13)	(C14)	(C15)
M.5.1	Mild steel bars						100%
M.5.2	High tensile bars						100%
M.5.3	Mesh ref 617						100%
M.11.2.1	175 x 175 x 20 x 3 CFLC						100%
M.11.2.2	175 x 175 x 20x 3 CFLC						100%
M.11.2.3	254 x 146 x 37 I SECTION						100%

Tender summary			
Tender Quantity	Total tender value	Total exempted imported content	Total imported content
(C16)	(C17)	(C18)	(C19)
13.5 t			
27 t			
360 m ²			
1.5 t			
1.5 t			
9.5 t			

(C20) Total tender value

(C21) Total Exempt imported content

(C22) Total Tender value net of exempt imported content

(C23) Total Imported content

(C24) Total local content

(C25) Average local content % of tender

SIGNATURE OF TENDERER AS PER LOCAL CONTENT DECLARATION

DATE

ANNEXURE C5

SATS 1286.2011

Local Content Declaration – Summary Schedule

(C1) Tender No.	TENDER 37/2022					
(C2) Tender Description	CONSTRUCTION OF NEW MATERIAL RECOVERY FACILITY IN ASHTON, WESTERN CAPE					
(C3) Designated product(s)	FABRICATED STRUCTURAL STEEL					
(C4) Tender Authority	LANGEBERG MUNICIPALITY					
(C5) Name of Tendering Entity						
(C6) Tender Exchange Rate	Pula		EU		GBP	
(C7) Specified local content %	30%					

NOTE: VAT to be excluded from all calculations

Calculation of local content							
Tender Item No's	List of Items	Tender Price – each	Exempted imported value	Tender value net of exempted imported content	Imported value	Local value	Local content % (per item)
(C8)	(C9)	(C10)	(C11)	(C12)	(C13)	(C14)	(C15)
M.11.2.4	152 x 152 x 37 H SECTION						100%
M.11.2.5	60 x 60 x 4 RSA						100%
M.11.2.6	50 x 50 x 3 RSA						100%
M.11.2.7	30 x 30 x 3 RSA						100%
M.11.2.8	88.9 x 3.5 CHS						100%
M.11.2.9	101.6 x 3.5 CHS						100%

Tender summary			
Tender Quantity	Total tender value	Total exempted imported content	Total imported content
(C16)	(C17)	(C18)	(C19)
2.5 t			
0.5 t			
0.5 t			
0.5 t			
2 t			
2 t			

(C20) Total tender value

(C21) Total Exempt imported content

(C22) Total Tender value net of exempt imported content

(C23) Total Imported content

(C24) Total local content

(C25) Average local content % of tender

SIGNATURE OF TENDERER AS PER LOCAL CONTENT DECLARATION

DATE

ANNEXURE C5

SATS 1286.2011

Local Content Declaration – Summary Schedule

(C1) Tender No.	TENDER 37/2022					
(C2) Tender Description	CONSTRUCTION OF NEW MATERIAL RECOVERY FACILITY IN ASHTON, WESTERN CAPE					
(C3) Designated product(s)	FABRICATED STRUCTURAL STEEL					
(C4) Tender Authority	LANGEBERG MUNICIPALITY					
(C5) Name of Tendering Entity						
(C6) Tender Exchange Rate	Pula		EU		GBP	
(C7) Specified local content %	30%					

NOTE: VAT to be excluded from all calculations

Calculation of local content								Tender summary			
Tender Item No's	List of Items	Tender Price – each	Exempted imported value	Tender value net of exempted imported content	Imported value	Local value	Local content % (per item)	Tender Quantity	Total tender value	Total exempted imported content	Total imported content
(C8)	(C9)	(C10)	(C11)	(C12)	(C13)	(C14)	(C15)	(C16)	(C17)	(C18)	(C19)
M.11.2.10	Grating stair treads - 40x4.5mm Mild Steel Bearing Bar for length and 80x6mm Mild Steel Bearing Bar Type 8 for width.						100%	20 m ²			
M.11.2.11	2mm Vastrap Floor Plate						100%	35 m ²			
M.14.1	Handrail Type 1						100%	1 No			
M.14.2	Handrail Type 2						100%	1 No			
M.14.3	Handrail Type 3						100%	1 No			
M.14.4	Handrail Type 4						100%	1 No			
(C20) Total tender value											
(C21) Total Exempt imported content											
(C22) Total Tender value net of exempt imported content											
(C23) Total Imported content											
(C24) Total local content											
(C25) Average local content % of tender											

SIGNATURE OF TENDERER AS PER LOCAL CONTENT DECLARATION

DATE

ANNEXURE C5

SATS 1286.2011

Local Content Declaration – Summary Schedule

(C1) Tender No.	TENDER 37/2022					
(C2) Tender Description	CONSTRUCTION OF NEW MATERIAL RECOVERY FACILITY IN ASHTON, WESTERN CAPE					
(C3) Designated product(s)	FABRICATED STRUCTURAL STEEL					
(C4) Tender Authority	LANGEBERG MUNICIPALITY					
(C5) Name of Tendering Entity						
(C6) Tender Exchange Rate	Pula		EU		GBP	
(C7) Specified local content %	30%					

NOTE: VAT to be excluded from all calculations

Calculation of local content							
Tender Item No's	List of Items	Tender Price – each	Exempted imported value	Tender value net of exempted imported content	Imported value	Local value	Local content % (per item)
(C8)	(C9)	(C10)	(C11)	(C12)	(C13)	(C14)	(C15)
M.14.5	Handrail Type 5						100%
M.14.6	Handrail Type 6						100%
M.16.3	Mesh ref 193						100%

Tender summary			
Tender Quantity	Total tender value	Total exempted imported content	Total imported content
(C16)	(C17)	(C18)	(C19)
1 No			
1 No			
45 m ²			
(C20) Total tender value			
(C21) Total Exempt imported content			
(C22) Total Tender value net of exempt imported content			
(C23) Total Imported content			
(C24) Total local content			
(C25) Average local content % of tender			

SIGNATURE OF TENDERER AS PER LOCAL CONTENT DECLARATION

DATE

ANNEXURE C6

SATS 1286.2011

Local Content Declaration – Summary Schedule

(C1) Tender No.	TENDER 37/2022					
(C2) Tender Description	CONSTRUCTION OF NEW MATERIAL RECOVERY FACILITY IN ASHTON, WESTERN CAPE					
(C3) Designated product(s)	JOINING/JJOINING COMPONENTS					
(C4) Tender Authority	LANGEBERG MUNICIPALITY					
(C5) Name of Tendering Entity						
(C6) Tender Exchange Rate	Pula		EU		GBP	
(C7) Specified local content %	30%					

NOTE: VAT to be excluded from all calculations

Calculation of local content								Tender summary			
Tender Item No's	List of Items	Tender Price – each	Exempted imported value	Tender value net of exempted imported content	Imported value	Local value	Local content % (per item)	Tender Quantity	Total tender value	Total exempted imported content	Total imported content
(C8)	(C9)	(C10)	(C11)	(C12)	(C13)	(C14)	(C15)	(C16)	(C17)	(C18)	(C19)
M.11.3	Base plates						100%	0.5 t			
M.11.4	Stiffeners and end plates						100%	2.5 t			
M.11.5	All other connection elements						100%	1.5 t			
								(C20) Total tender value			
								(C21) Total Exempt imported content			
								(C22) Total Tender value net of exempt imported content			
								(C23) Total Imported content			
								(C24) Total local content			
								(C25) Average local content % of tender			

SIGNATURE OF TENDERER AS PER LOCAL CONTENT DECLARATION

DATE

ANNEXURE C7

SATS 1286.2011

Local Content Declaration – Summary Schedule

(C1) Tender No.	TENDER 37/2022					
(C2) Tender Description	CONSTRUCTION OF NEW MATERIAL RECOVERY FACILITY IN ASHTON, WESTERN CAPE					
(C3) Designated product(s)	FASTENERS					
(C4) Tender Authority	LANGEBERG MUNICIPALITY					
(C5) Name of Tendering Entity						
(C6) Tender Exchange Rate	Pula		EU		GBP	
(C7) Specified local content %	30%					

NOTE: VAT to be excluded from all calculations

Calculation of local content							
Tender Item No's	List of Items	Tender Price – each	Exempted imported value	Tender value net of exempted imported content	Imported value	Local value	Local content % (per item)
(C8)	(C9)	(C10)	(C11)	(C12)	(C13)	(C14)	(C15)
M.11.7.1	M10 to M20 bolts & nuts - Grade 8.8 and including Hot-dipped galvanised zinc coating						100%
M.11.8.1	HD Galv. Bolts of Grade 8.8 of size M16 and M20 including Hot-dipped galvanised zinc coating						100%

Tender summary			
Tender Quantity	Total tender value	Total exempted imported content	Total imported content
(C16)	(C17)	(C18)	(C19)
1.25 t			
100 No			
(C20) Total tender value			
(C21) Total Exempt imported content			
(C22) Total Tender value net of exempt imported content			
(C23) Total Imported content			
(C24) Total local content			
(C25) Average local content % of tender			

SIGNATURE OF TENDERER AS PER LOCAL CONTENT DECLARATION

DATE

ANNEXURE C8

SATS 1286.2011

Local Content Declaration – Summary Schedule

(C1) Tender No.	TENDER 37/2022					
(C2) Tender Description	CONSTRUCTION OF NEW MATERIAL RECOVERY FACILITY IN ASHTON, WESTERN CAPE					
(C3) Designated product(s)	ROOF AND CLADDING					
(C4) Tender Authority	LANGEBERG MUNICIPALITY					
(C5) Name of Tendering Entity						
(C6) Tender Exchange Rate	Pula		EU		GBP	
(C7) Specified local content %	30%					

NOTE: VAT to be excluded from all calculations

Calculation of local content								Tender summary			
Tender Item No's	List of Items	Tender Price – each	Exempted imported value	Tender value net of exempted imported content	Imported value	Local value	Local content % (per item)	Tender Quantity	Total tender value	Total exempted imported content	Total imported content
(C8)	(C9)	(C10)	(C11)	(C12)	(C13)	(C14)	(C15)	(C16)	(C17)	(C18)	(C19)
M.12.1	Roof sheeting - Colourbond, Colonial Green colour						100%	645 m ²			
M.12.2	Bullnose Sheeting - Colourbond, Colonial Green colour						100%	40 m			
M.12.3.1	Clear sheeting as windows						100%	30 m ²			
M.12.3.2	Colourbond, Colonial Green colour						100%	690 m ²			
M.12.4	Supply and install ancillaries for bullnose sheeting (Radius of 500mm)						100%	40 m			
M.20.4	Roof Sheeting						100%	645 m ²			
(C20) Total tender value											
(C21) Total Exempt imported content											
(C22) Total Tender value net of exempt imported content											
(C23) Total Imported content											
(C24) Total local content											
(C25) Average local content % of tender											

SIGNATURE OF TENDERER AS PER LOCAL CONTENT DECLARATION

DATE

ANNEXURE C9

SATS 1286.2011

Local Content Declaration – Summary Schedule

(C1) Tender No.	TENDER 37/2022					
(C2) Tender Description	CONSTRUCTION OF NEW MATERIAL RECOVERY FACILITY IN ASHTON, WESTERN CAPE					
(C3) Designated product(s)	FRAMES: DOORS AND WINDOWS					
(C4) Tender Authority	LANGEBERG MUNICIPALITY					
(C5) Name of Tendering Entity						
(C6) Tender Exchange Rate	Pula		EU		GBP	
(C7) Specified local content %	30%					

NOTE: VAT to be excluded from all calculations

Calculation of local content							
Tender Item No's	List of Items	Tender Price – each	Exempted imported value	Tender value net of exempted imported content	Imported value	Local value	Local content % (per item)
(C8)	(C9)	(C10)	(C11)	(C12)	(C13)	(C14)	(C15)
M.21.1	W1						100%
M.21.2	W2						100%
M.21.3	W3						100%
M.21.4	W4						100%
M.22.1	D1						100%
M.22.2	D2						100%

Tender summary			
Tender Quantity	Total tender value	Total exempted imported content	Total imported content
(C16)	(C17)	(C18)	(C19)
4 No			
4 No			
2 No			
5 No			
5 No			
3 No			

(C20) Total tender value

(C21) Total Exempt imported content

(C22) Total Tender value net of exempt imported content

(C23) Total Imported content

(C24) Total local content

(C25) Average local content % of tender

SIGNATURE OF TENDERER AS PER LOCAL CONTENT DECLARATION

DATE

ANNEXURE C10

SATS 1286.2011

Local Content Declaration – Summary Schedule

(C1) Tender No.	TENDER 37/2022					
(C2) Tender Description	CONSTRUCTION OF NEW MATERIAL RECOVERY FACILITY IN ASHTON, WESTERN CAPE					
(C3) Designated product(s)	POLYVINYL CHLORIDE (PVC) PIPES					
(C4) Tender Authority	LANGEBERG MUNICIPALITY					
(C5) Name of Tendering Entity						
(C6) Tender Exchange Rate	Pula		EU		GBP	
(C7) Specified local content %	30%					

NOTE: VAT to be excluded from all calculations

Calculation of local content							
Tender Item No's	List of Items	Tender Price – each	Exempted imported value	Tender value net of exempted imported content	Imported value	Local value	Local content % (per item)
(C8)	(C9)	(C10)	(C11)	(C12)	(C13)	(C14)	(C15)
E.3.1	160 mm Diam Class 34						100%
E.8.1	110 mm Diam Class 34						100%
F.4.1	110 mm Diam Class 12						100%
G.3.1	110 mm Diam Class 34						100%
G.5.1	110 mm Diam Perforated						100%
H.3.1	110 mm Diam Class 6						100%

Tender summary			
Tender Quantity	Total tender value	Total exempted imported content	Total imported content
(C16)	(C17)	(C18)	(C19)
127 m			
6 m			
75 m			
45 m			
80 m			
130 m			

(C20) Total tender value

(C21) Total Exempt imported content

(C22) Total Tender value net of exempt imported content

(C23) Total Imported content

(C24) Total local content

(C25) Average local content % of tender

SIGNATURE OF TENDERER AS PER LOCAL CONTENT DECLARATION

DATE

ANNEXURE C10

SATS 1286.2011

Local Content Declaration – Summary Schedule

(C1) Tender No.	TENDER 37/2022					
(C2) Tender Description	CONSTRUCTION OF NEW MATERIAL RECOVERY FACILITY IN ASHTON, WESTERN CAPE					
(C3) Designated product(s)	POLYVINYL CHLORIDE (PVC) PIPES					
(C4) Tender Authority	LANGEBERG MUNICIPALITY					
(C5) Name of Tendering Entity						
(C6) Tender Exchange Rate	Pula		EU		GBP	
(C7) Specified local content %	30%					

NOTE: VAT to be excluded from all calculations

Calculation of local content								Tender summary			
Tender Item No's	List of Items	Tender Price – each	Exempted imported value	Tender value net of exempted imported content	Imported value	Local value	Local content % (per item)	Tender Quantity	Total tender value	Total exempted imported content	Total imported content
(C8)	(C9)	(C10)	(C11)	(C12)	(C13)	(C14)	(C15)	(C16)	(C17)	(C18)	(C19)
H.3.2	160 mm Diam Class 6						100%	30 m			
M.9.2	38mm uPVC drainage pipes (weepholes) at 2000mm c/c along entire length of all retaining walls						100%	20 No			
N.8.4	110mm PVC Class 34						100%	24 m			
N.9.1	160 mm PVC Class 34						100%	18 m			
O.5.1	75 mm diam PVC sleeve						100%	100 m			
O.5.2	75 mm diam for electronic						100%	90 m			
(C20) Total tender value											
(C21) Total Exempt imported content											
(C22) Total Tender value net of exempt imported content											
(C23) Total Imported content											
(C24) Total local content											
(C25) Average local content % of tender											

SIGNATURE OF TENDERER AS PER LOCAL CONTENT DECLARATION

DATE

ANNEXURE C11

SATS 1286.2011

Local Content Declaration – Summary Schedule

(C1) Tender No.	TENDER 37/2022					
(C2) Tender Description	CONSTRUCTION OF NEW MATERIAL RECOVERY FACILITY IN ASHTON, WESTERN CAPE					
(C3) Designated product(s)	HIGH DENSITY POLYETHYLENE (HDPE)					
(C4) Tender Authority	LANGEBERG MUNICIPALITY					
(C5) Name of Tendering Entity						
(C6) Tender Exchange Rate	Pula		EU		GBP	
(C7) Specified local content %	30%					

NOTE: VAT to be excluded from all calculations

Calculation of local content							
Tender Item No's	List of Items	Tender Price – each	Exempted imported value	Tender value net of exempted imported content	Imported value	Local value	Local content % (per item)
(C8)	(C9)	(C10)	(C11)	(C12)	(C13)	(C14)	(C15)
F.8.1.1	20 mm Diam HDPE PE100 PN16						100%
F.8.1.1	50 mm Diam HDPE PE100 PN16						100%
N.1.6	16mm PN16 cold water pipe						100%
N.1.7	16mm PN16 Hot Water Pipe Insulated to R value 1						100%
N.2.3	20mm Cold Water Pipe						100%
N.2.4	20mm Hot Water Pipe Insulated to R value 1						100%

Tender summary			
Tender Quantity	Total tender value	Total exempted imported content	Total imported content
(C16)	(C17)	(C18)	(C19)
20 m			
70 m			
58 m			
16 m			
5 m			
12 m			

(C20) Total tender value

(C21) Total Exempt imported content

(C22) Total Tender value net of exempt imported content

(C23) Total Imported content

(C24) Total local content

(C25) Average local content % of tender

SIGNATURE OF TENDERER AS PER LOCAL CONTENT DECLARATION

DATE

ANNEXURE C11

SATS 1286.2011

Local Content Declaration – Summary Schedule

(C1) Tender No.	TENDER 37/2022					
(C2) Tender Description	CONSTRUCTION OF NEW MATERIAL RECOVERY FACILITY IN ASHTON, WESTERN CAPE					
(C3) Designated product(s)	HIGH DENSITY POLYETHYLENE (HDPE)					
(C4) Tender Authority	LANGEBERG MUNICIPALITY					
(C5) Name of Tendering Entity						
(C6) Tender Exchange Rate	Pula		EU		GBP	
(C7) Specified local content %	30%					

NOTE: VAT to be excluded from all calculations

Calculation of local content								Tender summary			
Tender Item No's	List of Items	Tender Price – each	Exempted imported value	Tender value net of exempted imported content	Imported value	Local value	Local content % (per item)	Tender Quantity	Total tender value	Total exempted imported content	Total imported content
(C8)	(C9)	(C10)	(C11)	(C12)	(C13)	(C14)	(C15)	(C16)	(C17)	(C18)	(C19)
N.3.1	25 mm Cold Water Pipe						100%	3 m			
N.3.2	Hot Water Pipe Insulated to R value 1						100%	3 m			
N.4.1	32 mm Cold Water Pipe						100%	17 m			
(C20) Total tender value											
(C21) Total Exempt imported content											
(C22) Total Tender value net of exempt imported content											
(C23) Total Imported content											
(C24) Total local content											
(C25) Average local content % of tender											

SIGNATURE OF TENDERER AS PER LOCAL CONTENT DECLARATION

DATE

ANNEXURE C12

SATS 1286.2011

Local Content Declaration – Summary Schedule

(C1) Tender No.	TENDER 37/2022					
(C2) Tender Description	CONSTRUCTION OF NEW MATERIAL RECOVERY FACILITY IN ASHTON, WESTERN CAPE					
(C3) Designated product(s)	WIRE PRODUCTS					
(C4) Tender Authority	LANGEBERG MUNICIPALITY					
(C5) Name of Tendering Entity						
(C6) Tender Exchange Rate	Pula		EU		GBP	
(C7) Specified local content %	30%					

NOTE: VAT to be excluded from all calculations

Calculation of local content							
Tender Item No's	List of Items	Tender Price – each	Exempted imported value	Tender value net of exempted imported content	Imported value	Local value	Local content % (per item)
(C8)	(C9)	(C10)	(C11)	(C12)	(C13)	(C14)	(C15)
L.3.1	2.4m high "BETA FENCE" or similar approved clear view type fencing						100%
L.3.2	5.0m wide at 2.4m high "BETA FENCE" or similar approved type fencing, double leaf gate						100%

Tender summary			
Tender Quantity	Total tender value	Total exempted imported content	Total imported content
(C16)	(C17)	(C18)	(C19)
190 m			
1 No			

(C20) Total tender value

(C21) Total Exempt imported content

(C22) Total Tender value net of exempt imported content

(C23) Total Imported content

(C24) Total local content

(C25) Average local content % of tender

SIGNATURE OF TENDERER AS PER LOCAL CONTENT DECLARATION

DATE

ANNEXURE D1

SATS 1286.2011

Imported Content Declaration – Supporting Schedule to Annexure C

(D1)	Tender No.	TENDER 37/2022				
(D2)	Tender Description	CONSTRUCTION OF NEW MATERIAL RECOVERY FACILITY IN ASHTON, WESTERN CAPE				
(D3)	Designated product(s)					
(D4)	Tender Authority	LANGEBERG MUNICIPALITY				
(D5)	Tendering Entity's Name					
(D6)	Tender Exchange Rate	Pula		EU		GBP

NOTE: VAT to be excluded from all calculations

A. Exempted imported content				Calculation of imported content					
Tender item no's	Description of imported content	Local supplier	Overseas supplier	Foreign currency value as per Commercial Invoice	Tender Exchange Rate	Local value of imports	Freight costs to port of entry	All locally incurred landing costs & duties	Total landed cost
(D7)	(D8)	(D9)	(D10)	(D11)	(D12)	(D13)	(D14)	(D15)	(D16)

(D19) Total exempt imported value

Summary	
Tender Quantity	Exempted imported value
(D17)	(D18)
This total must correspond with Annex C – C21	

B. Imported directly by the Tenderer				Calculation of imported content					
Tender item no's	Description of imported content	Unit of measure	Overseas supplier	Foreign currency value as per Commercial Invoice	Tender Exchange Rate	Local value of imports	Freight costs to port of entry	All locally incurred landing costs & duties	Total landed cost
(D20)	(D21)	(D22)	(D23)	(D24)	(D25)	(D26)	(D27)	(D28)	(D29)

(D32) Total imported value by tenderer

Summary	
Tender Quantity	Total imported value
(D30)	(D31)

ANNEXURE D2										SATS 1286.2011
Imported Content Declaration – Supporting Schedule to Annexure C										

(D1)	Tender No.	TENDER 37/2022								
(D2)	Tender Description	CONSTRUCTION OF NEW MATERIAL RECOVERY FACILITY IN ASHTON, WESTERN CAPE								
(D3)	Designated product(s)									
(D4)	Tender Authority	LANGEBERG MUNICIPALITY								
(D5)	Tendering Entity's Name									
(D6)	Tender Exchange Rate	Pula		EU		GBP				

NOTE: VAT to be excluded from all calculations

A. Exempted imported content				Calculation of imported content						Summary	
Tender item no's	Description of imported content	Local supplier	Overseas supplier	Foreign currency value as per Commercial Invoice	Tender Exchange Rate	Local value of imports	Freight costs to port of entry	All locally incurred landing costs & duties	Total landed cost	Tender Quantity	Exempted imported value
(D7)	(D8)	(D9)	(D10)	(D11)	(D12)	(D13)	(D14)	(D15)	(D16)	(D17)	(D18)
(D19) Total exempt imported value											
										This total must correspond with Annex C – C21	
B. Imported directly by the Tenderer				Calculation of imported content						Summary	
Tender item no's	Description of imported content	Unit of measure	Overseas supplier	Foreign currency value as per Commercial Invoice	Tender Exchange Rate	Local value of imports	Freight costs to port of entry	All locally incurred landing costs & duties	Total landed cost	Tender Quantity	Total imported value
(D20)	(D21)	(D22)	(D23)	(D24)	(D25)	(D26)	(D27)	(D28)	(D29)	(D30)	(D31)
(D32) Total imported value by tenderer											

ANNEXURE E1		SATS 1286.2011
Local content Declaration – Summary Schedule to Annexure C		
(E1) Tender No.	TENDER 37/2022	NOTE: VAT to be excluded from all calculations
(E2) Tender Description	CIVIL ENGINEERING SERVICES FOR CONSTRUCTION OF NEW MATERIAL RECOVERY FACILITY IN ASHTON, WESTERN CAPE	
(E3) Designated product(s)		
(E4) Tender Authority	LANGEBERG MUNICIPALITY	
(E5) Tendering Entity's Name		

LOCAL PRODUCTS (Goods, Services and Works)		
Description of items purchased	Local suppliers	Value
(E6)	(E7)	(E8)
(E9) Total local products (Goods, service and works)		

(E10) Manpower costs (Tenderer's own manpower cost)

(E11) Factory overheads (Rental, depreciation & amortization, utility costs, consumables, etc.)

(E12) Administration overheads and mark-up (Marketing, insurance, financing interest, etc.)

(E13) Total local content

This total must correspond with Annex C1 – C24

SIGNATURE OF TENDERER AS PER LOCAL CONTENT DECLARATION

DATE

ANNEXURE E2		SATS 1286.2011
Local content Declaration – Summary Schedule to Annexure C		
(E1) Tender No.	TENDER 37/2022	NOTE: VAT to be excluded from all calculations
(E2) Tender Description	CIVIL ENGINEERING SERVICES FOR CONSTRUCTION OF NEW MATERIAL RECOVERY FACILITY IN ASHTON, WESTERN CAPE	
(E3) Designated product(s)		
(E4) Tender Authority	LANGEBERG MUNICIPALITY	
(E5) Tendering Entity's Name		

LOCAL PRODUCTS (Goods, Services and Works)		
Description of items purchased	Local suppliers	Value
(E6)	(E7)	(E8)
(E9) Total local products (Goods, service and works)		

(E10) Manpower costs (Tenderer's own manpower cost)

(E11) Factory overheads (Rental, depreciation & amortization, utility costs, consumables, etc.)

(E12) Administration overheads and mark-up (Marketing, insurance, financing interest, etc.)

(E13) Total local content

This total must correspond with Annex C1 – C24

SIGNATURE OF TENDERER AS PER LOCAL CONTENT DECLARATION

DATE

14. CERTIFICATION OF CORRECTNESS OF INFORMATION SUPPLIED IN THIS DOCUMENT

I/We the undersigned is/are duly authorised to do so on behalf of the firm certify that:

1. The information supplied is correct.
2. All copies of relevant information are attached.
3. The BBBEE points claimed are correct and based on owners/shareholders who are actively involved in the day to day management of the enterprise
4. I take note that payment will be effected 30 days after delivery was effected if delivered with an original invoice.
5. If I am classified as a dependant service provider/labour broker as stated in the fourth schedule of the Income Tax act I hereby authorise the LM to deduct PAYE and supply me with a yearly IRP 30 (only if no valid Labour Broker Certificate can be supplied).
6. None of the owners, directors, managers, shareholders or stakeholders of this entity is in the service of the state, or has been in the service of the state in the previous twelve months.
7. In case of a dispute the wording of the original approved Bid Specification Committee Document would prevail.

Signature of authorised person

Date

Personal information in block letters

[illegible][illegible][illegible][illegible]

ON BEHALF OF THE
(SUPPLIER'SNAME)

[illegible]

Signed and sworn to before me at on this the day of

By the Deponent, who has acknowledged that he/she knows and understands the contents of this Affidavit, that it is true and correct to the best of his/her knowledge and that he/she has no objection to taking the prescribed oath, and that the prescribed oath will be binding on his/her conscience.

Commissioner of Oaths

Date: _____

15. **PRE-QUALIFICATION OF BIDDER**

The following special criteria shall apply to this tender:

15.1. Bank rating (Eligibility Criteria)

- Proof of bank rating is applicable from bids with an estimated value of R1,75m and higher and proof must be submitted with the tender document.
- Bidders can easily obtain such proof within a few days and it must be attached to their tender document. The municipality can verify this if necessary, by asking its own bankers to verify the rating at the bidder's bank. This can take a few days.
- This is a tender condition and if proof is not submitted the bid will be deemed not responsive or if a bidder does not have the required rating, it will also be deemed not responsive.

15.2. Pre-evaluation of tenders

- The following criteria will be used.
 - a. Tenders will be pre-evaluated on the criteria as set out under (e).
 - b. Bidders that score less than 70% (56 Points) for the special criteria, will be regarded as submitting a non-responsive tender and will not be evaluated on price and preference points. The evaluation and scoring of the respective bidders will be based on the sole discretion of Langeberg Municipality. The Municipality reserves the right to adjudicate no tender.
 - c. Unclear or incomplete information provided will result in no points being allocated.
 - d. Bidders should therefore ensure that all information is provided.
 - e. The following criteria will be used to calculate points for the special of tenders and bidders should ensure that they submit all information in order to be pre-evaluated on the criteria mentioned below:

	CRITERIA	WEIGHT	SCORE
1	Relevant experience and references (Schedule 6)	40	
2	Personnel qualifications (Schedule 7)	40	
	TOTAL	80	

Special criteria are further divided as follows and points will be awarded as indicated below:

Criterion 1a: Relevant experience (Schedule 6 – 25points)

- (a) A maximum of 25 points will be awarded at the sole discretion of the Municipality's Bid Evaluation

Committee based on the information provided and will be split as follows:

Description	Maximum points	Points Scored by bidder
Less than 2 projects completed	0	
2 completed projects (value R1,0 million plus)	10	
3 completed projects (value R1.5 million plus)	15	
4 completed projects (value R2,5 million plus)	20	
5 completed projects (value R3,5 million plus)	25	

- (b) In order to claim points for the above, bidders must submit the following information as well as documentary proof:
- i. Information of how long the business is in existence supported by Company or Business registrations documents.
 - ii. Detailed list of information for each project completed
 - 1) Names of client.
 - 2) Description of work performed
 - 3) Duration of contracts.
 - 4) Letter of Appointment
 - 5) Completion Certificate
 - iii. Points will only be awarded for relevant experience.

Criterion 1b: References (Schedule 6 – 15points)

- (a) In order to claim points, bidders must submit with the tender document details of three contactable references from businesses to which the required services have been provided to.
- (b) These references must not be older than three (3) years.
- (c) If the references are unable to provide information on past performances or relevant experience, no point will be awarded for that particular reference.

A maximum of 15 points will be awarded. Points will be awarded by contacting 3 references who will answer 5 questions. 1 point will be awarded for every “yes” answer. The following questions will be asked to references:

Question	Response
1. Has the Contractor performed similar/relevant Nature of work	Yes / No Comments
	
	
	
	
	
2. Was the work completed within the time frame?	Yes / No Comments
	
	
	
	
	
3. Was the work completed within budget?	Yes / No Comments
	
	
	
	
	

4. Did the Contractor comply with safety regulations?	Yes / No Comments
	
	
	
	
	
5. Overall satisfied with the Contractor's performance?	Yes / No Comments
	
	
	
	
	
	

Criterion 2: Personnel qualifications (Schedule 7 – 40 points)

- (a) A maximum of 40 points will be awarded at the sole discretion of the Municipality's Bid Evaluation Committee based on the information provided and will be split as follows:

Description	Maximum points	Points Scored by bidder
0 up to 3 years relevant experience	10	
More than 3 years up to 5 years relevant experience	20	
More than 5 years up to 10 years relevant experience	30	
More than 10 years relevant experience	40	

- (b) In order to claim points for the above, bidders must submit the following information as well as documentary proof:
- Detailed Curriculum Vitae of key personnel
 - Points will only be awarded for relevant experience

NB: Relevant experience is defined as experience in the construction of infrastructure of a civil engineering nature which includes experience in the fields of earthworks, reinforced concrete and medium pressure pipelines; and as determined by the Langeberg Municipality and/or professional consulting engineer overseeing this project.

16. COMPULSORY ENTERPRISE QUESTIONNAIRE

The following particulars must be furnished. In the case of a joint venture, separate enterprise questionnaires in respect of each partner must be completed and submitted.

Section 1: Name of enterprise:

Section 2: VAT registration number, if any:

Section 3: CIDB registration number, if any:

Section 4: Particulars of sole proprietors and partners in partnerships

Name*	Identity number*	Personal income tax number*

* Complete only if sole proprietor or partnership and attach separate page if more than 3 partners

Section 5: Particulars of companies and close corporations

Company registration number

Close corporation number

Tax reference number

Section 6: Record in the service of the state

Indicate by marking the relevant boxes with a cross, if any sole proprietor, partner in a partnership or director, manager, principal shareholder or stakeholder in a company or close corporation is currently or has been within the last 12 months in the service of any of the following:

☐ a member of any municipal council	☐ an employee of any provincial department, national or provincial public entity or constitutional institution within the meaning of the Public Finance Management Act, 1999 (Act 1 of 1999)
☐ a member of any provincial legislature	
☐ a member of the National Assembly or the National Council of Province	
☐ a member of the board of directors of any municipal entity	☐ a member of an accounting authority of any national or provincial public entity
☐ an official of any municipality or municipal entity	☐ an employee of Parliament or a provincial legislature

If any of the above boxes are marked, disclose the following:

Name of sole proprietor, partner, director, manager, principal shareholder or stakeholder	Name of institution, public office, board or organ of state and position held	Status of service(tick appropriate column)	
		Current	Within last 12 months

*insert separate page if necessary

Section 7: Record of spouses, children and parents in the service of the state

Indicate by marking the relevant boxes with a cross, if any spouse, child or parent of a sole proprietor, partner in a partnership or director, manager, principal shareholder or stakeholder in a company or close corporation is currently or has been within the last 12 months been in the service of any of the following:

- | | |
|--|--|
| ☐ a member of any municipal council | ☐ an employee of any provincial department, national or |
| ☐ a member of any provincial legislature | ☐ provincial public entity or constitutional institution within |
| ☐ a member of the National Assembly or the National Council of Province | ☐ the meaning of the Public Finance Management Act, 1999 (Act 1 of 1999) |
| ☐ a member of the board of directors of any municipal entity | ☐ a member of an accounting authority of any national or provincial public entity |
| ☐ An official of any municipality or municipal entity | ☐ an employee of Parliament or a provincial legislature |

Name of spouse, child or parent	Name of institution, public office, board or organ of state and position held	Status of service (tick appropriate column)	
		Current	Within last 12 months

*insert separate page if necessary

The undersigned, who warrants that he / she is duly authorised to do so on behalf of the enterprise:

- i) authorizes the Employer to obtain a tax clearance certificate from the South African Revenue Services that my / our tax matters are in order;
- ii) confirms that neither the name of the enterprise or the name of any partner, manager, director or other person, who wholly or partly exercises, or may exercise, control over the enterprise appears on the Register of Tender Defaulters established in terms of the Prevention and Combating of Corrupt Activities Act of 2004;
- iii) confirms that no partner, member, director or other person, who wholly or partly exercises, or may exercise, control over the enterprise appears, has within the last five years been convicted of fraud or corruption;
- iv) confirms that I / we are not associated, linked or involved with any other tendering entities submitting tender offers and have no other relationship with any of the tenderers or those responsible for compiling the scope of work that could cause or be interpreted as a conflict of interest; and
- v) confirms that the contents of this questionnaire are within my personal knowledge and are to the best of my belief both true and correct.

Signed Date

Name Position

Enterprise Name

17. AUTHORITY FOR SIGNATORY

Indicate the status of the tenderer by ticking the appropriate box hereunder. The tenderer must complete the certificate set out below for the relevant category.

A Company	B Partnership	C Joint Venture	D Sole Proprietor	E Close Corporation

A. Certificate for Company

I, chairperson
of the board of directors of
.....hereby
confirm that by resolution of the board (copy attached) taken on20...,
Mr./Ms
acting in the capacity of, was
authorized to sign all documents in connection with this tender and any contract resulting from it on behalf of the company.

As witnesses :

1. Chairman:
2. Date:

Tenderers must attach a copy of the Resolution of the Board.

B Certificate for Partnership

We, the undersigned, being the key partners in the business trading as
.....hereby authorize Mr./Ms
acting in the capacity of to sign all documents in connection with the
tender for Contractand any contract resulting from it on our behalf.

NAME	ADDRESS	SIGNATURE	DATE

NOTE : This certificate is to be completed and signed by all of the key partners upon whom rests the direction of the affairs of the Partnership as a whole

C. Certificate of Joint Venture

We, the undersigned, are submitting this tender offer in Joint Venture and hereby authorize Mr./Ms.....
, authorized signatory of the company,
 acting in the capacity of lead partner, to sign all documents in connection with the tender offer for Contract
to sign all documents in connection with the tender for Contract
 and any contract resulting from it on our behalf.

This authorization is evidence by the attached power of attorney signed by legally authorizes signatories of all the partners to the Joint Venture.

NAME OF FIRM	ADDRESS	AUTHORIZING SIGNATURE NAME & CAPACITY	DATE

D. Certificate of Sole Proprietor

I, hereby confirm that I am the sole owner of the
 Business trading as

As witnesses:

1. Signature
 Sole
 Owner:

2. Date:

E. Certificate for Close Corporation

We, the undersigned, being the key members in the business trading as
hereby authorize Mr./Ms
 acting in the capacity ofto sign all documents in connection
 with the tender for Contractand any contract resulting from it on our behalf.

NOTE: This certificate is to be completed and signed by all of the key partners upon who rests the direction of the affairs of the Partnership as a whole.

18. CERTIFICATE OF AUTHORITY FOR JOINT VENTURES

This Returnable Schedule is to be completed by joint ventures.

We, the undersigned, are submitting this tender offer in Joint Venture and hereby authorise

Mr/Ms,

authorised signatory of the company, close corporation or partnership

.....
acting in the capacity of lead partner, to sign all documents in connection with the tender offer and any contract resulting from it on our behalf.

NAME OF FIRM	ADDRESS	DULY AUTHORISED SIGNATORY
Lead partner		Signature
.....		Name
CIDB registration no		Designation
.....		
Partner		Signature
.....		Name
CIDB registration no		Designation
.....		
Partner		Signature
.....		Name
CIDB registration no		Designation
.....		

19. PERSONNEL SCHEDULE

Tenderers shall provide curriculum vitae of all key personnel as indicated under Schedule 7.

Job Description	Number of Non-Local Labour to be Employed on the Contract	Number of Local Labour to be Employed on the Contract
Contract Manager		
Site Agent		
General Foreman		
Foreman		
* Other		

* To be filled in by Tenderer

Signed Date

Name Position

Tenderer:

20. SCHEDULE OF WORK EXPERIENCE

The tenderer shall insert in the spaces provided below a list of the tenderer's past work experience in terms of similar (Water Projects) successfully completed projects. The value and scale of the projects indicated for these purposes must be supplied together with any other relevant information requested. A completion letter/certificate, per project, must be attached to this schedule.

Listed projects with invalid or incorrect contact details for the employer and/or consulting engineer and information not supplied in the format as requested below will **NOT** be evaluated.

Employer (Name and Contact No)	Consulting Engineer (Name and Contact No)	Similar projects (Tenderer need to identify the type of work in a brief description)	Value of Work Incl. VAT (R million)	Date Completed (Month and Year)

Signed Date

Name Position

Tenderer:

21. DETAILS OF KEY PERSONNEL EXPERIENCE

The tenderer shall set out in the table's hereafter details of the relevant experience in similar successfully completed projects of the persons identified for each listed position. Tenderers shall provide curriculum vitae of all key personnel as indicated under Schedule 5.

Tenderers that fail to supply the information requested in this schedule (both pages of this schedule included) with their tender offers and in this format will NOT be evaluated.

Note: One person only to qualify for each of the positions listed below. The key personnel to be used in this regard will be subject to the approval of the Engineer prior to the commencement date of the contract. Should any of the persons identified not be available for the position which they are indicated for, then a suitable candidate with equal or superior tertiary qualification and/or relevant experience than that of the person which he/she replaces shall be used for every such positions.

CONTRACTS MANAGER	NAME:			
	TERTIARY QUALIFICATION AND NQF LEVEL:			
Contact and Client	Project Description	Position held	Value of work (incl. VAT) (R million)	Year completed

SITE AGENT	NAME:			
	TERTIARY QUALIFICATION AND NQF LEVEL:			
Contact and Client	Project Description	Position held	Value of work (incl. VAT) (R million)	Year completed

GENERAL FOREMAN	NAME: TERTIARY QUALIFICATION AND NQF LEVEL:			
Contact and Client	Project Description	Position held	Value of work (incl. VAT) (R million)	Year completed

Signed Date

Name Position

Tenderer:

22. PRELIMINARY PROGRAMME

The tenderer shall attach a preliminary program for the duration of the construction period indicated to this schedule which must show that the tenderer clearly understands and fully identifies with the scope of works of this project.

The works to be executed over one financial year namely 2022/23. Tenderers to see to it that programming and resources are allocated to ensure spending requirements are achieved.

A detailed program (Gant chart) indicating all construction activities, phasing, resources, timelines, monthly expenditure and critical path for the duration of the construction period indicated is requested.

The tenderer shall also take into account the additional requirements stated in the Project Specifications when drawing up the program and the working hours shall be indicated.

Note: Where the entity tendering is a joint venture, one preliminary plan on behalf of the joint venture is adequate for these purposes.

Details of the Preliminary Plan shall be appended to this Schedule.

Number of sheets appended by the tenderer to this Schedule (if nil, enter NIL).

Signed Date

Name Position

Tenderer:

23. ESTIMATED MONTHLY CASH FLOW

The Tenderer shall state below the estimated value of work to be completed every month, based on his preliminary programme and his tendered unit rates.

The amounts for Contingencies and Contract Price Adjustment must not be included. The Tenderer must make note of any cash-flow restrictions.

MONTH	VALUE
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
TOTAL	

Signed Date

Name Position

Tenderer:

24. SCHEDULE OF PROPOSED SUBCONTRACTORS

We notify you that it is our intention to employ the following Subcontractors to work on this contract.

If we are awarded the contract we agree that this notification does not change the requirement for us to submit the names of proposed Subcontractors in accordance with requirements in the contract for such appointments. If there are no such requirements in the contract, then your written acceptance of this list shall be binding between us.

No.	Name and Address of Proposed Subcontractor	Nature and Extent of Work	Previous Experience with Subcontractor
1.			
2.			
3.			
4.			
5.			
6.			
7.			

Signed Date

Name Position

Tenderer:

25. PROPOSED AMENDMENTS AND QUALIFICATIONS

The Tenderer should record any deviations or qualifications he may wish to make to the tender documents in this Returnable Schedule. Alternatively, a tenderer may state such deviations and qualifications in a covering letter to his tender and reference such letter in this schedule.

The Tenderer's attention is drawn to clause F.3.8 of the Standard Conditions of Tender referenced in the Tender Data regarding the employer's handling of material deviations and qualifications.

Page	Clause or Item	Proposal

Signed Date

Name Position

Tenderer:

26. CERTIFICATE OF ATTENDANCE OF CLARIFICATION MEETING

This is to certify that

..... (Tenderer)

of (address)

.....

was represented by the person(s) named below at the compulsory meeting held for all tenderers at

..... (location) on (date), starting at

We acknowledge that the purpose of the meeting was to acquaint ourselves with the site of the works and / or matters incidental to doing the work specified in the tender documents in order for us to take account of everything necessary when compiling our rates and prices included in the tender.

Particulars of person(s) attending the meeting:

Name Signature

Capacity

Name Signature

Capacity

Attendance of the above persons at the meeting is confirmed by the Employer's representative, namely:

Name Ryan Lategan Signature

Capacity Engineer

27. DECLARATION FOR PROCUREMENT ABOVE R10MILLION (ALL APPLICABLE TAXES INCLUDED) MBD 5

For all procurement expected to exceed R10 million (all applicable taxes included), bidders must complete the following questionnaire:

Are you by law required to prepare annual financial statements for auditing?

If yes, submit audited annual financial statements for the past three years or since the date of establishment if established during the past three years.

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

Do you have any outstanding undisputed commitments for municipal services towards any municipality for more than three months or any other service provider in respect of which payment is overdue for more than 30 days?

If no, this serves to certify that the bidder has no undisputed commitments for municipal services towards any municipality for more than three months or other service provider in respect of which payment is overdue for more than 30 days.

If yes, provide particulars.

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

* Delete if not applicable

***YES / NO**

Has any contract been awarded to you by an organ of state during the past five years, including particulars of any material non-compliance or dispute concerning the execution of such contract?

YES / NO

If yes, furnish particulars

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

Will any portion of goods or services be sourced from outside the Republic, and, if so, what portion and whether any portion of payment from the municipality / municipal entity is expected to be transferred out of the Republic?

YES/NO

If yes, furnish particulars

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

CERTIFICATION

I, THE UNDERSIGNED (NAME)

CERTIFY THAT THE INFORMATION FURNISHED ON THIS DECLARATION FORM IS CORRECT.

I ACCEPT THAT THE STATE MAY ACT AGAINST ME SHOULD THIS DECLARATION PROVE TO BE FALSE.

.....
Signature

.....
Date

.....
Position

.....
Name of bidder

28. PREFERENCE POINTS CLAIM FORM IN TERMS OF THE PREFERENTIAL PROCUREMENT REGULATIONS 2017 – MDB 6.1

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

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

1. GENERAL CONDITIONS

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

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

1.2 The value of this bid is estimated to not exceed R50 000 000 (all applicable taxes included) and therefore the 80/20 preference point system shall be applicable

1.3 Points for this bid shall be awarded for:

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

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

	POINTS
PRICE	80
B-BBEE STATUS LEVEL OF CONTRIBUTION	20
Total points for Price and B-BBEE must not exceed	100

1.5 Failure on the part of a bidder to submit proof of B-BBEE Status level of contributor together with the bid, will be interpreted to mean that preference points for B-BBEE status level of contribution are not claimed.

1.6 The purchaser reserves the right to require of a bidder, either before a bid is adjudicated or at any time subsequently, to substantiate any claim in regard to preferences, in any manner required by the purchaser.

2. DEFINITIONS

- (a) **“B-BBEE”** means broad-based black economic empowerment as defined in section 1 of the Broad-Based Black Economic Empowerment Act;
- (b) **“B-BBEE status level of contributor”** means the B-BBEE status of an entity in terms of a code of good practice on black economic empowerment, issued in terms of section 9(1) of the Broad-Based Black Economic Empowerment Act;
- (c) **“bid”** means a written offer in a prescribed or stipulated form in response to an invitation by an organ of state for the provision of goods or services, through price quotations, advertised competitive bidding processes or proposals;
- (d) **“Broad-Based Black Economic Empowerment Act”** means the Broad-Based Black Economic Empowerment Act, 2003 (Act No. 53 of 2003);

- (e) **“EME”** means an Exempted Micro Enterprise in terms of a code of good practice on black economic empowerment issued in terms of section 9 (1) of the Broad-Based Black Economic Empowerment Act;
- (f) **“functionality”** means the ability of a tenderer to provide goods or services in accordance with specifications as set out in the tender documents.
- (g) **“prices”** includes all applicable taxes less all unconditional discounts;
- (h) **“proof of B-BBEE status level of contributor”** means:
 - 1) B-BBEE Status level certificate issued by an authorized body or person;
 - 2) A sworn affidavit as prescribed by the B-BBEE Codes of Good Practice;
 - 3) Any other requirement prescribed in terms of the B-BBEE Act;
- (i) **“QSE”** means a qualifying small business enterprise in terms of a code of good practice on black economic empowerment issued in terms of section 9 (1) of the Broad-Based Black Economic Empowerment Act;
- (j) **“rand value”** means the total estimated value of a contract in Rand, calculated at the time of bid invitation, and includes all applicable taxes;

3. POINTS AWARDED FOR PRICE

3.1 THE 80/20 PREFERENCE POINT SYSTEM

A maximum of 80 points is allocated for price on the following basis:

80/20

$$P_s = 80 \left(1 - \frac{P_t - P_{\min}}{P_{\min}} \right)$$

Where

- P_s = Points scored for price of bid under consideration
- P_t = Price of bid under consideration
- $P_{\min}$ = Price of lowest acceptable bid

4. POINTS AWARDED FOR B-BBEE STATUS LEVEL OF CONTRIBUTOR

- 4.1 In terms of Regulation 6 (2) and 7 (2) of the Preferential Procurement Regulations, preference points must be awarded to a bidder for attaining the B-BBEE status level of contribution in accordance with the table below:

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

5. BID DECLARATION

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

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

6.1 B-BBEE Status Level of Contributor: . =(maximum of 20 points)

(Points claimed in respect of paragraph 7.1 must be in accordance with the table reflected in paragraph 4.1 and must be substantiated by relevant proof of B-BBEE status level of contributor.)

7. SUB-CONTRACTING

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

(Tick applicable box)

YES		NO	
-----	--	----	--

7.1.1 If yes, indicate:

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

(Tick applicable box)

YES		NO	
-----	--	----	--

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

Designated Group: An EME or QSE which is at least 51% owned by:	EME √	QSE √
Black people		
Black people who are youth		
Black people who are women		
Black people with disabilities		
Black people living in rural or underdeveloped areas or townships		
Cooperative owned by black people		
Black people who are military veterans		
OR		
Any EME		
Any QSE		

8. DECLARATION WITH REGARD TO COMPANY/FIRM

8.1 Name of company/firm:

8.2 VAT registration number:

8.3 Company registration number:

8.4 TYPE OF COMPANY/ FIRM

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

8.5 DESCRIBE PRINCIPAL BUSINESS ACTIVITIES

.....

8.6 COMPANY CLASSIFICATION

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

8.7 MUNICIPAL INFORMATION

Municipality where business is situated:

Registered Account Number:

Stand Number:

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

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

- i) The information furnished is true and correct;
- ii) The preference points claimed are in accordance with the General Conditions as indicated in paragraph 1 of this form;
- iii) In the event of a contract being awarded as a result of points claimed as shown in paragraphs 1.4 and 6.1, the contractor may be required to furnish documentary proof to the satisfaction of the purchaser that the claims are correct;
- iv) If the B-BBEE status level of contributor has been claimed or obtained on a fraudulent basis or any of the conditions of contract have not been fulfilled, the purchaser may, in addition to any other remedy it may have –
 - (a) disqualify the person from the bidding process;
 - (b) recover costs, losses or damages it has incurred or suffered as a result of that person's conduct;
 - (c) cancel the contract and claim any damages which it has suffered as a result of having to make less favourable arrangements due to such cancellation;

- (d) recommend that the bidder or contractor, its shareholders and directors, or only the shareholders and directors who acted on a fraudulent basis, be restricted by the National Treasury from obtaining business from any organ of state for a period not exceeding 10 years, after the audi alteram partem (hear the other side) rule has been applied; and
- (e) forward the matter for criminal prosecution.

WITNESSES	
1.	

SIGNATURE(S) OF BIDDERS(S)
.....

29. HEALTH AND SAFETY PLAN

Tenderers are to note the requirements of the Occupational Health and Safety Act No. 85 of 1993 and the Construction Regulations 2014 issued in terms of Section 43 of the Act. The tenderer shall be deemed to have read and fully understood the requirements of the above Act and Regulations and to have allowed for all cost in compliance therewith.

The tenderer shall attach to this schedule a Health and Safety Plan in respect of the Works in order to demonstrate the necessary competencies and resources to perform the construction work all in accordance with the Act and Regulations.

Such Health and Safety Plan shall cover inter-alia the following details:

1. Management Structure, Site Supervision and Responsible Persons including a succession plan.
2. Contractor's induction training programme for employees, sub-contractors and visitors to the Site.
3. Health and safety precautions and procedures to be adhered to in order to ensure compliance with the Act, Regulations and Safety Specifications.
4. Regular monitoring procedures to be performed.
5. Regular liaison, consultation and review meetings with all parties.
6. Site security, welfare facilities and first aid.
7. Site rules and fire and emergency procedures.

Tenders are to note that the Contractor is required to ensure that all sub-contractors or others engaged in the performance of the contract also comply with the above requirements.

The tenderer shall also take into account the additional requirements stated in Part C3: Scope of Work when drawing up the Health and Safety Plan for the contract.

Note: Where the entity tendering is a joint venture, one Health and Safety Plan on behalf of the joint venture is adequate for these purposes and the score awarded for it will be based on the same criteria than that for a sole partner entity.

Details of the Health and Safety Plan shall be appended to this Schedule.

Number of sheets appended by the tenderer to this Schedule..... (If nil, enter NIL)

Signed Date

Name Position

Tenderer:

30. TAX PIN – MBD 2

A Tax pin from the South African Revenue Services (SARS).

Signed Date

Name Position

Tenderer:

31. CERTIFICATE OF CONTRACTOR'S REGISTRATION ISSUED BY THE CIDB

A certificate of the Contractor's Registration issued by the CIDB or proof of application for registration submitted shall be attached to this schedule.

Signed Date

Name Position

Tenderer:

32. DOCUMENTS OF INCORPORATION

A certified copy of the Certificate of Incorporation of the tenderer's company, close corporation or trust shall be attached to this schedule.

Signed Date

Name Position

Tenderer:

33. **DECLARATION OF BIDDER'S PAST SUPPLY CHAIN MANAGEMENT PRACTICES – MBD 8**

1. This Municipal Bidding Document must form part of all bids invited.
2. It serves as a declaration to be used by municipalities and municipal entities in ensuring that when goods and services are being procured, all reasonable steps are taken to combat the abuse of the supply chain management system.
3. The bid of any bidder may be rejected if that bidder, or any of its directors have:
 - a) abused the municipality's / municipal entity's supply chain management system or committed any improper conduct in relation to such system;
 - b) been convicted for fraud or corruption during the past five years;
 - c) wilfully neglected, reneged on or failed to comply with any government, municipal or other public sector contract during the past five years; or
 - d) been listed in the Register for Tender Defaulters in terms of section 29 of the Prevention and Combating of Corrupt Activities Act (No 12 of 2004).
4. In order to give effect to the above, the following questionnaire must be completed and submitted with the bid.

Item	Question	Yes	No
4.1.	Is the bidder or any of its directors listed on the National Treasury's database as a company or person prohibited from doing business with the public sector? (Companies or persons who are listed on this database were informed in writing of this restriction by the National Treasury after the audial teram partem rule was applied). If so, furnish particulars: _____	Yes ☐	No ☐
4.2.	Is the bidder or any of its directors listed on the Register for Tender Defaulters in terms of section 29 of the Prevention and Combating of Corrupt Activities Act (No 12 of 2004)? (To access this Register enter the National Treasury's website, www.treasury.gov.za , click on the icon "Register for Tender Defaulters" or submit your written request for a hard copy of the Register to facsimile number (012) 3265445). If so, furnish particulars: _____	Yes ☐	No ☐
4.3.	Was the bidder or any of its directors convicted by a court of law (including a court of law outside the Republic of South Africa) for fraud or corruption during the past five years? If so, furnish particulars: _____	Yes ☐	No ☐
4.4.	Does the bidder or any of its directors owe any municipal rates Yes No and taxes or municipal charges to the municipality / municipal entity, or to any other municipality / municipal entity, that is in arrears for more than three months? If so, furnish particulars: _____	Yes ☐	No ☐

Item	Question	Yes	No
4.5.	Was any contract between the bidder and the municipality / Yes No municipal entity or any other organ of state terminated during the past five years on account of failure to perform on or comply with the contract?	Yes ☐	No ☐
	If so, furnish particulars:		

CERTIFICATION

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

CERTIFY THAT THE INFORMATION FURNISHED ON THIS DECLARATION FORM TRUE AND CORRECT.

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

Signature

Date

Position

Name of Bidder

34. CERTIFICATE OF INDEPENDENT BID DETERMINATION – MBD9

1. This Municipal Bidding document (MBD) must form part of all bids¹invited.
2. Section 4 (1) (b) (iii) of the Competition Act No. 89 of 1998, as amended, prohibits an agreement between, or concerted practice by, firms, or a decision by an association of firms, if it is between parties in a horizontal relationship and if it involves collusive bidding (or bid rigging).²Collusive bidding is a pe se prohibition meaning that it cannot be justified under any grounds.
3. Municipal Supply Regulation 38 (1) prescribes that a supply chain management policy must provide measures for the combating of abuse of the supply chain management system, and must enable the accounting officer, among others, to:
 - (a) Take all reasonable steps to prevent such abuse;
 - (b) Reject the bid of any bidder if that bidder or any of its directors has abused the supply chain management system of the municipality or municipal entity or has committed any improper conduct in relation to such system; and
 - (c) Cancel a contract awarded to a person if the person committed any corrupt or fraudulent act during the bidding process or the execution of the contract.
4. This MBD serves as a certificate of declaration that would be used by institutions to ensure that, when bids are considered, reasonable steps are taken to prevent any form of bid-rigging.
5. In order to give effect to the above, the attached Certificate of Bid Determination (MBD 9) must be completed and submitted with the bid:

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

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

CERTIFICATE OF INDEPENDENT BID DETERMINATION

I, the undersigned, in submitting the accompanying bid:

 (Bid Number and Description)

In response to the invitation for the bid made by:
 (Name of Municipality / Municipal Entity)

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

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

1. I have read and I understand the contents of this Certificate;
2. I understand that the accompanying bid will be disqualified if this Certificate is found not to be true and complete in every respect.
3. I am authorized by the bidder to sign this Certificate, and to submit the accompanying bid, on behalf of the bidder;
4. Each person whose signature appears on the accompanying bid has been authorized by the bidder to determine the terms of, and to sign, the bid, on behalf of the bidder;
5. For the purposes of this Certificate and the accompanying bid, I understand that the word "competitor" shall include any individual or organization, other than the bidder, whether or not affiliated with the bidder, who:
 - (a) Has been requested to submit a bid in response to this bid invitation;
 - (b) Could potentially submit a bid in response to this bid invitation, based on their qualifications, abilities or experience; and
 - (c) Provides the same goods and services as the bidder and/or is in the same line of business as the bidder.
6. The bidder has arrived at the accompanying bid independently from, and without consultation, communication, agreement or arrangement with any competitor. However communication between partners in a joint venture or consortium³ will not be construed as collusive bidding.
7. In particular, without limiting the generality of paragraphs 6 above, there has been no consultation, communication, agreement or arrangement with any competitor regarding:
 - (a) Prices;
 - (b) Geographical area where product or service will be rendered (market allocation)
 - (c) Methods, factors or formulas used to calculate prices;
 - (d) The intention or decision to submit or not to submit, a bid;
 - (e) The submission of a bid which does not meet the specifications and conditions of the bid; or
 - (f) Bidding with the intention not to win the bid.
8. In addition, there have been no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications and conditions or delivery particulars of the products or services to which this bid invitation relates.
9. The terms of the accompanying bid have not been, and will not be, disclosed by the bidder, directly or indirectly, to any competitor, prior to the date and time of the official bid opening or of the awarding of the contract.
10. I am aware that, in addition and without prejudice to any other remedy provided to combat any restrictive practices related to bids and contracts, bids that are suspicious will be reported to the Competition Commission for investigation and possible imposition of administrative penalties in terms of section 59 of the Competition Act No. 89 of 1998 and or may be reported to the National Prosecuting Authority (NPA) for criminal investigation and or may be restricted from conducting business with the public

Sector for a period not exceeding ten (10) years in terms of the Prevention and Combating of Corrupt Activities Act No. 12 of 2004 or any other applicable legislation.

Signature

Date

Position

Name of Bidder

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

35. BANKING DETAILS

The Bidder must provide all relevant banking details in table below:

Financial Institution

Contact Person

Branch

Account Number

Name of Account Holder

We hereby give LANGEBERG MUNICIPALITY permission to obtain the necessary bank codes from out financial institution.

Signature

Date

Position

Name of Bidder

36. MUNICIPAL RATES AND SERVICES

The bidder must provide all relevant details in table below:

Names Of Directors/Partners/Senior Managers	Physical Residential Address Of The Director/Partner/Senior Manager	Residential Municipal Account Numbers	Name Of Municipality

NB: Please attach copy/copies of Municipal Account(s)

DECLARATION

I, THE UNDERSIGNED (NAME)

CERTIFY THAT THE INFORMATION FURNISHED ABOVE IS CORRECT. I ACCEPT THAT THE STATE MAY ACT AGAINST ME SHOULD THIS DECLARATION PROVE TO BE FALSE

Signature

Date

Position

Name of Bidder

37. LETTER OF GOOD STANDING TO RELEVANT AUTHORITIES

The tenderer must attach to this page a letter from the relevant authorities indicating his good standing with regard to UIF payments and COIDA. Each party to a Joint Venture or Consortium shall submit separate documents.

SIGNED BY TENDERER:

38. RECORD OF ADDENDA TO TENDER DOCUMENTS

We confirm that the following communications received from the Procuring Department before the submission of this tender offer, amending the tender documents, have been taken into account in this tender offer :

No.	Date	Title or Details
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		

Attach additional pages if more space is required.

Signed Date

Name Position

Tenderer:

39. **DECLARATION CONCERNING FULFILMENT OF THE CONSTRUCTION REGULATIONS 2014**

In terms of the Construction Regulations, 2014 and the Occupational Health and Safety Act, 1993 (Act No. 85 of 1993) the Employer shall not appoint a contractor to perform construction work unless the Contractor can satisfy the Employer that his/her firm has the necessary competencies and resources to carry out the work safely and has allowed adequately in his/her tender to the due fulfilment of all the applicable requirements of the Act and the Regulations.

Tenderers shall answer the questions below:

1. I confirm that I am fully conversant with the Regulations and that my company has (or will acquire/procure) the necessary competencies and resources to timeously, safely and successfully comply with all the requirements of the Regulations.

(Tick)

Yes	
No	

2. Indicate which approach shall be employed to achieve compliance with the Regulations.

(Tick)

Own resources, competent in terms of the Regulations (refer to 3 below)	
Own resources, still to be hired and/or trained (until competency is achieved)	
Specialist subcontract resources (competent) – Specify:	

3. Provide details of proposed key persons, competent in terms of the Regulations, who will form part of the Contract team as specified in the Regulations (CV to be attached)

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

4. Provide details of proposed training (if any) that will be undergone:

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

5. List potential key risks identified and measures for addressing risks:

.....

.....

.....

6. I have fully included in my tender rates and prices (in the appropriate payment items provide in the Schedule of Quantities) for all resources, actions, training and any other costs required for the due fulfilment of the Regulations for the duration of the construction and defects repair period.

(Tick)

Yes	
No	

SIGNATURE OF PERSON(S) AUTHORISED TO SIGN THIS TENDER:

1. ID NO:

(Name in Print):

2. ID NO:

(Name in Print):

40. MANDATARY AGREEMENT

OCCUPATIONAL HEALTH AND SAFETY ACT NO 85 OF 1993

Note: Section 1(1) (xxviii) of the Act defines a “mandatary” as including “an agent , a contractor or a subcontractor for work”

Agreement made and entered into between LANGEBERG MUNICIPALITY

and (mandatary)

as envisaged by the provisions of Section 37(2) of the Occupational Health and Safety Act 1993 as amended.

I, representing

(Mandatary) do hereby

Acknowledge that (mandatary)

Is and employer in its own right with duties as prescribed in the Occupational Health and Safety Act 1993 as amended and agree to ensure that all contractual work will be performed and that all machinery and plant will be used in accordance with the provisions of the said Act. In conclusion, I do hereby indemnify the LANGEBERG MUNICIPALITY

against any claim of whatever nature that may arise as a result of any injury sustained by or any act of omission or negligence by any employee of (mandatary): .

SIGNED: on the day of 2008.

WITNESS.....

(for and on behalf of the Mandatary)

WITNESS.....

(for and on behalf of the LANGEBERG MUNICIPALITY)

41. NOTIFICATION OF CONSTRUCTION WORK

ANNEXURE A

OCCUPATIONAL HEALTH AND SAFETY ACT, 1993 Regulation 4 of the Construction Regulations, 2014

1. (a) Name and postal address of principal contractor: _____

(b) Name and tel. no. of principal contractor's contact person: _____

2. Principal contractor's compensation registration number: _____
3. (a) Name and postal address of client: _____

(b) Name and tel. no. of client's contact person or agent: _____

4. (a) Name and postal address of designer(s) for the project: _____

(b) Name and tel. no. of designer(s) contact person: _____

5. Name and telephone number of principal contractor's construction manager on site appointed in terms of regulation 8(1) : _____

6. Name/s of principal contractor's sub-ordinate supervisors on site appointed in terms of regulation 8(2) : _____

7. Exact physical address of the construction site or site office: _____

8. Nature of construction work: _____

9. Expected commencement Date: _____
10. Expected completion Date: _____
11. Estimated maximum number of persons on the construction site:
Total:.....
Male:.....
Female:.....

12. Planned no of contractors on the construction site accountable to principal contractor:

13. Name(s) of contractors already chosen:

Principal Contractor: Date

Client: Date

-
- THIS DOCUMENT IS TO BE FORWARDED TO THE OFFICE OF THE DEPARTMENT OF LABOUR **PRIOR TO COMMENCEMENT** OF WORK ON SITE.
 - **ALL PRINCIPAL CONTRACTORS** THAT QUALIFY TO NOTIFY MUST DO SO EVEN IF ANOTHER PRINCIPAL CONTRACTOR ON THE SAME SITE HAD DONE SO PRIOR TO THE COMMENCEMENT OF WORK.

PART C1 : AGREEMENT AND CONTRACT DATA

C1.1 Form of Offer and Acceptance

C1.2 Contract Data

C1.3 Performance Guarantee

C1.1 : FORM OF OFFER AND ACCEPTANCE

(Agreement)

OFFER

The Employer, identified in the acceptance signature block / the Contract Data Part 1, has solicited Offers to enter into a Contract in respect of the following works:

TENDER 37/2022: CONSTRUCTION OF A NEW MATERIALS RECOVERY FACILITY, ASHTON, LANGEBERG MUNICIPALITY

The Tenderer, identified in the Offer signature block below, has examined the documents listed in the Tender Data and addenda thereto as listed in the Tender Schedules, and by submitting this Offer has accepted the Conditions of Tender.

By the representative of the Tenderer, deemed to be duly authorized, signing this part of this Form of Offer and Acceptance, the Tenderer offers to perform all of the obligations and liabilities of the Contractor under the Contract including compliance with all its terms and conditions according to their true intent and meaning for an amount to be determined in accordance with the Conditions of Contract identified in the Contract Data.

The offered total of the prices inclusive of value-added tax is

..... Rand (in words); R (in figures)

This Offer may be accepted by the Employer by signing the Acceptance part of this Form of Offer and Acceptance and returning one copy of this document to the Tenderer before the end of the period of validity stated in the Tender Data, whereupon the Tenderer becomes the party named as the Contractor in terms of the Conditions of Contract identified in the Contract Data.

For the Tenderer:

Signature

Name

Capacity

Name and address of organization:

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

Signature and name of Witness:

Signature

Name

Date

ACCEPTANCE

By signing this Form of Offer and Acceptance, the Employer identified below accepts the Tenderer's Offer. In consideration thereof, the Employer shall pay the Contractor the amount due in accordance with the Conditions of Contract identified in the Contract Data. Acceptance of the Tenderer's Offer shall form and Agreement between the Employer and the Tenderer upon the terms and conditions contained in this Agreement and in the Contract that is the subject of this Agreement.

The terms of the contract are contained in

Part C1 : Agreements and Contract Data (which include this Agreement)

Part C2 : Pricing data

Part C3 : Scope of work

Part C4 : Site Information

and drawings and documents or parts thereof, which may be incorporated by reference into Parts C1 to C4 above.

Deviations from and amendments to the documents listed in the Tender Data and any addenda thereto, as listed in the Tender Schedules, as well as any changes to the terms of the Offer agreed by the Tenderer and the Employer during this process of offer and acceptance, are contained in the Schedule of Deviations attached to and forming part of this Agreement. No amendments to or deviations from said documents are valid unless signed by the authorised representative(s) of both parties.

The Tenderer shall after receiving a completed copy of this Agreement, including the Schedule of Deviations (if any), deliver to the Employer's agent (whose details are given in the Contract Data), within such time(s) as stated in the Contract Data, any bonds, guarantees, proof of insurance and any other documentation to be provided in terms of the Conditions of Contract identified in the Contract Data. Failure to fulfil any of the obligations in accordance with those terms shall constitute a repudiation of this Agreement.

Notwithstanding anything contained herein, this Agreement comes into effect on the date when the Tenderer receives one fully completed original copy of this document, including the Schedule of Deviations (if any). Unless the Tenderer (now Contractor), within five (5) days of the date of such receipt, notifies the Employer in writing of any reason why he cannot accept the contents of this Agreement, this Agreement shall constitute a binding Contract between the parties.

For the Employer:

Signature

Name.....

Capacity

Name and address of organization:

.....

.....

.....

Signature and name of Witness:

Signature

Name.....

Capacity

SCHEDULE OF DEVIATIONS

Notes:

1. The extent of deviations from the tender documents issued by the Employer prior to the tender closing date is limited to those permitted in terms of the Conditions of Tender.
2. A Tenderer's covering letter shall not be included in the final contract document. Should any matter in such, letter, which constitutes a deviation as aforesaid, become the subject of agreements reached during the process of, offer and acceptance, the outcome of such agreement shall be recorded here.
3. Any other matter arising from the process of offer and acceptance either as a confirmation, clarification or change to the tender documents, and which it is agreed by the Parties becomes an obligation of the contract, shall also be recorded here.
4. Any change or addition to the tender documents arising from the above agreements and recorded here, shall also be incorporated into the final draft of the Contract.

1. Subject _____
2. Details _____
3. Subject _____
4. Details _____
5. Subject _____
6. Details _____

By the duly authorized representatives signing this Schedule of Deviations, the Employer and the Tenderer agree to and accept the foregoing Schedule of Deviations as the only deviations from and amendments to the documents listed in the Tender Data and addenda thereto as listed in the Tender Schedules, as well as any confirmation, clarification or changes to the terms of the offer agreed by the Tenderer and the Employer during this process of offer and acceptance.

It is expressly agreed that no other matter whether in writing, oral communication or implied during the period between the issue of the tender documents and the receipt by the Tenderer of a completed signed copy of this Agreement shall have any meaning or effect in the contract between the parties arising from this Agreement.

FOR THE TENDERER		FOR THE EMPLOYER
	Signature:	
	Name:	
	Capacity:	
Name and address of organisation:		Name and address of organisation:
	Witness Signature	
	Witness Name	
	Date	

CONFIRMATION OF RECEIPT

The Tenderer (now Contractor), identified in the Offer part of this Agreement, hereby confirms receipt from the Employer, identified in the Acceptance part of this Agreement, of one fully completed original copy of this Agreement, including the Schedule of Deviations (if any) today:

The day)
of (month)
20. (year)
At (place)

For the Contractor:

Signature
Name
Capacity

Signature and name of witness:

Signature
Name.....

C1.2: CONTRACT DATA

PART 1: DATA PROVIDED BY THE EMPLOYER

CONDITIONS OF CONTRACT

The General Conditions of Contract for Construction Works, Third Edition 2015, published by the South African Institution of Civil Engineering (SAICE), Private Bag x200, Halfway House, 1685 is applicable to this Contract and are obtainable from www.saice.org.za

CONTRACT SPECIFIC DATA

The following contract specific data, referring to the General Conditions of Contract for Construction Works, Third Edition 2015, are applicable to this Contract:

1.1.1.13	Defects Liability Period The Defects Liability Period is 12 (Twelve) calendar months .
1.1.1.14	The time for achieving Practical Completion of the whole of the Works is as stated in Part 2 of the Contract Data.
1.1.1.15	Name of the Employer The name of the Employer is Langeberg Municipality .
1.1.1.16	Name of the Employers Agent The name of the Engineer is Element Consulting Engineers (Pty) Ltd represented by an employee duly authorised thereto in writing.
1.1.1.26	Pricing Strategy Re-measurement Contract.
1.2.1.2	The Employer's address for receipt of communications is: Telephone: 023 615 8000 Facsimile: 023 615 1563 E-mail: nalbertyn@langeberg.gov.za Address (Postal): Private Bag X2 Ashton 6715 Address (Physical): 28 Main Road Ashton 6715
1.2.1.2	The Engineer's address for receipt of communications is: Telephone: 021 975 1718 Facsimile: 086 668 1482 E-mail: rlategan@eceng.co.za Address (Postal): P O Box 1142 Durbanville 7551

	Address (Physical): 54 Oxford Street, Oxford Gate, Block C Durbanville 7550
1.3.2	Governing Law The governing law is the law of the Republic of South Africa.
1.3.3	Language of the Contract The language of the Contract and of written communications is English.
4.3.2	If required, and for the duration of this contract, the Contractor shall provide proof to the Engineer that the Contractor is in good standing with respect to duties, taxes, levies and contributions required in terms of legislation applicable to the work in this Contract. Failure to prove such prove shall entitle the Employer to withhold any payments due to the Contractor until such proof is provided.
4.4.1	The Contractor shall not subcontract the whole contract
4.4.2	The Contractor shall be liable for the acts, default and negligence of any subcontractor, his agents or employees as fully as if they were the acts, default or negligence of the Contractor.
4.4.3	The contractual relationships be the Contractor and any subcontractor selected by the Contractor in consultation with the Employer in accordance with the requirements of and a procedure set out in the Scope of Work, shall be the same as if the Contractor had appointed the subcontractor in terms of Clause 4.4.2
4.4.4	Any appointment of a subcontractor in accordance with Clause 4.4.3 shall not amount to a contract between the Employer and the subcontractor, or a responsibility or liability on the part of the Employer to the subcontractor and shall not relieve the Contractor from any liability or obligation under the contract.
4.4.6	In the events of termination of the contract under 9.2, the subcontractor in terms of Clause 4.4.4 shall be assigned to the Engineer upon such instruction by the Employer.
5.3.1	Documentation Required before Commencement of Works The following documentation is required before Commencement with Works execution: a) Health and Safety Plan (Refer to Clause 4.3) b) Letter of Good Standing (Refer to Clause 4.3) c) Initial programme (Refer to Clause 5.6). d) Security (Refer to Clause 6.2) e) Insurance (Refer to Clause 8.6)
5.3.2	Time to submit documentation The time to submit the documentation required before commencement with Works execution is 14 days.
5.4.2	Access to and possession of the site shall not be exclusive to the Contractor insofar as the provisions of Clause 4.8 apply and where ongoing use by the general public is required. The Contractor shall bear all cost and charges for special and temporary rights of way required by him in connection with access to the site.
5.8.1	Non-working days The non-working days are Sundays. The special non-working days and public holidays and the year-end break which shall be defined for the purposes of this Contract as commencing on 16 December 2020 and ending on 10 January 2021, inclusive.

5.12.2

Add the following to GCC 5.12.2

Extension of time from abnormal climatic conditions

The Contractor shall make allowance for the average rainfall and windy conditions that may exist during the contract period. All necessary steps shall be taken to proceed with the works despite inclement weather. The Contractor shall however record all rainy and windy periods which adversely affect the contract extension of time in terms of clauses 5.12 (2, 3 & 4) of the general conditions of contract, arising from abnormal climatic conditions, shall be applied as follows:

Delays on working days only (based on a five-day working week) will be taken into account for the extension of time, but the Contractor shall make provision in his program of work for an expected delay of "n" working days caused by normal inclement weather, for which he will not receive any extension of time. The value of "n" for this contract shall be based on the loss of 31 working days per annum due to inclement weather.

Extension of time during working days will be granted to the degree to which actual delays, as defined above, exceed the number of "n" working days as mentioned above.

When considering extension of time for abnormal climatic conditions, the effect of the loss of 31 working days per annum due to normal inclement weather shall be taken cumulatively over the whole contract period.

For portions of less than one year the appropriate number of days of normal inclement weather will be determined on a pro rata basis based on the following table:

MONTH	NUMBER OF NORMAL INCLEMENT WEATHER
	DAYS EXPECTED
January	2
February	3
March	2
April	2
May	3
June	3
July	4
August	3
September	2
October	3
November	3
December	1
Total	31

Should the Contractor wish to submit a claim for extension of time for the completion of the works due to the works being delayed by reason of abnormal climatic conditions he shall do so in writing and with the following details:

1. The times work was stopped and recommenced.
2. A motivation for the reason's construction could not continue, with reference to the agreed construction programme activities.
3. A report on active resources on site at the time of the disruption, which shall be certified by the Engineer's site representative or Clerk-of-Works.
4. The circumstances surrounding any instruction by a third to stop work due to inclement weather (i.e. Industrial Council/Safety Officer, etc.).

The Contractor shall submit to the Engineer claims for all time lost due to inclement weather within 1 working day of the claim day, duly certified by the Engineer's representative or Clerk-of-Works, as the case may be. A record of inclement weather will be kept and recorded at site meetings on a regular basis. Only when all parts of the contract have been handed over will claims, if any, be considered for exceptionally inclement weather. The onus is on the Contractor to prove these claims.

	The delays granted, in terms of this clause, shall not automatically result in an overall extension of time being granted for completion of the works unless the effect is clearly applicable to the critical path of the agreed construction programme.
5.13.1	Penalty for delay The penalty for delay of the Works is R 5,000 per day.
5.16.3	Latent Defect Period The latent defects period is 10 years.
6.2.1	The Performance Guarantee is to contain the wording of the document included in C1.3 The Performance Guarantee shall be ten percent (10%) of the Tender Price.
6.2.2	Delete Clause 6.2.2 in its entirety.
6.2.3	The expiry date shall be the date on which the Certificate of Completion of the Works is issued, approved by the Engineer and by the Municipality.
6.3	Variation Orders Prior approval of variations is to be obtained from the Director Engineering Services, in writing, before commencement of work. Failure to comply will result in unauthorised expenditure.
6.5.1.2.3	Percentage allowance for overheads The percentage allowance to cover overheads charges is as stated in the Part 2 of the Contract Data.
6.8.2	Contract Price Adjustment Factor A Contract Price Adjustment Factor shall not be applied to the value of certificates and the rates and prices shall be final and binding.
6.8.2	Add the following to Clause 6.8.4: Notwithstanding the above, in the event that a public holiday is proclaimed within 28 days before the closing date for tenders, no cost other than those that can be claimed under Clause 5.12.3 shall be added to the contract price.
6.10.1.5	Percentage advance on materials The percentage advance on materials not yet built into the Permanent Works is 80% (Eighty percent), and has to relate to the approved Project Programme.
6.10.3	Limit of Retention Money Notwithstanding the provision of a performance guarantee in terms of clause 6.2.1, interim payment certificates to the contractor shall be subjected to a retention by the Employer of an amount of 10% of the certificate value. The limit of retention money shall be 5% of total contract value.
6.10.4	Add the following to Clause 6.10.4: Notwithstanding the above, the Engineer shall be empowered to withhold the delivery of the payment certificate until the Contractor has complied with his obligations to report in terms of GCC Clause 4.10.2 and as described in the Scope of Work.
6.11	Variations Exceeding 15%
	Replace all references to 15% in Clause 6.11 with 30%.
8.6.1.1.2	Value of Plant & Materials by Employer The Tender makes provision for an alternative where the Employer procure segmented paving through an existing Municipal Tender. Paving bricks will be delivered to site in accordance with the successful Tenderers programme. Should this alternative be followed, it will be required from the Tenderer to add the value of the materials, procured by the Langeberg Municipality, to the tendered value for the required insurance value.

8.6.1.1.3	Amount to cover Professional Fees The amount to cover professional fees for repairing damage and loss to be included in the insurance sum is R 20,000.00.
8.6.1.3	Liability Insurance The limit of indemnity for liability insurance is R 10,000,000.00
8.6.1.5	In addition to the insurance required in terms of General Conditions of Contract Clauses 8.6.1.1 to 8.6.1.4 the following insurance is also required: a) Insurance of construction equipment (including tools, offices and other temporary structures and contents) and other things (except those intended from incorporation into the Works) brought onto the site for a sum sufficient to provide for their replacement. b) Insurance in terms of the provisions of the Compensation for Occupational injuries and Diseases Act No. 130 of 1993. c) Motor Vehicle Liability Insurance comprising (as a minimum) "Balance of Third Party" risk including Passenger Liability Indemnity. d) Where the contract involves manufacturing and/or fabrication of the Works or part thereof at premises other than the Site, the Contractor shall satisfy the Employer that all materials and equipment for incorporation in the Works are adequately insured during manufacture and/or fabrication. In the event of the Employer having an insurable interest in such work during manufacture or fabrication then such interest shall be noted by endorsement to the Contractor's Policies of Insurance.
8.6.6	The evidence that the insurances have been effected in terms of Clause 8.6.1, shall be in the form of an insurance broker's warranty.
10.7.1	Determination of disputes The determination of disputes shall be by arbitration.

C1.2: CONTRACT DATA

PART 2 : DATA PROVIDED BY THE CONTRACTOR

1.1.1.9	The Contractor is:				
1.2.1.2	The Contractor's address for receipt of communications is:				
	Telephone:				
	Facsimile:				
	E-mail :				
	Address (Postal) :				
	Address (Physical) :				
1.1.1.14	Practical Completion The time for achieving Practical Completion for the Contract is 18 weeks (including 2 weeks for the Contractor to provide the guarantee, Health and Safety File and other requirements, and for approval by the Municipality), plus all special non-working days.				
6.2.1	Security by Contractor The security to be provided by the Contractor shall be as follows and include Value Added Tax:				
	<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 70%; text-align: left;">Type of Security</th> <th style="width: 30%; text-align: center;">Contractor's Choice "Yes" or "No"</th> </tr> </thead> <tbody> <tr> <td>Performance Guarantee of 10% of the Contract Sum plus</td> <td style="text-align: center;">Yes</td> </tr> </tbody> </table>	Type of Security	Contractor's Choice "Yes" or "No"	Performance Guarantee of 10% of the Contract Sum plus	Yes
Type of Security	Contractor's Choice "Yes" or "No"				
Performance Guarantee of 10% of the Contract Sum plus	Yes				
6.5.1.2.3	Percentage allowance to overhead charges The percentage allowance to cover overhead charges is %				

C1.3 PERFORMANCE GUARANTEE

GUARANTOR DETAILS AND DEFINITIONS

“Guarantor” means:

Physical address:

“Employer” means:

“Contractor” means :

“Engineer” means:.....

“Works” means:

“Site” means:.....

“Contract” means: The Agreement made in term of the Form of Offer and Acceptance and such amendments or additions to the Contract as may be agreed in writing between the parties.

“Contract Sum” means: The accepted amount inclusive of VAT of R

Amount in words:

“Guaranteed Sum” means: The maximum aggregate amount of R

Amount in words:

“Expire Date” means: Date id issue by the Engineer of the Certificate of Completion of the Work

CONTRACT DETAILS

Engineer issues: Interim Payment Certificates, Final Payment Certificates and the Certificate Completion of the Works as defined in the Contract.

PERFORMANCE GUARANTEE

1. The Guarantor’s liability shall be limited to the amount of the Guaranteed Sum.
2. The Guarantor’s period of liability shall be from and including the date of issue of this Performance Guarantee and up to and including the Expiry Date or the date of issue by the Engineer of the Certificate of Completion of the Works or the date of payment in full of the Guaranteed Sum, whichever occurs first. The Engineer and/or the Employer shall advise the Guarantor in writing of the date on which the Certificate of Completion of the Works has been issued.
3. The Guarantor hereby acknowledge that:

Any reference in this Performance Guarantee to the Contract is made for the Purpose of convenience and shall not be constructed as any intention whatsoever to create an accessory obligation or any intention whatsoever to create a suretyship;

It’s obligation under this Performance Guarantee is restricted to the payment of money.
4. Subject to the Guarantor’s maximum liability referred to in 1, the Guarantor hereby undertakes to pay the Employer the sum certified upon receipt of the document identified in 4.1 to 4.3:
 - a. A copy of a first written demand issued by the Employer to the Contractor stating that payment of a sum certified by the Engineer is an Interim or Final Payment Certificate has not been made in terms of the Contract and failing such payment within seven (7) calendar days, the Employer intends to call upon the Guarantor to make payment in terms of 4.2;

- b. A first written demand issued by the Employer to the Guarantor at the Guarantor's physical address with a copy to the Contractor stating that a period of seven (7) days has elapsed since the first written demand in terms of 4.1 and the sum certified has still not been paid;
 - c. A copy of the aforesaid payment certificate which entitles the Employer to receive payment in terms of the Contract to the sum certified in 4.
5. Subject to the Guarantor's maximum liability referred to in 1, the guarantor undertakes to pay to the Employer the guaranteed Sum or the full outstanding balance upon receipt of a first written demand from the Employer to the Guarantor at the Guarantor's physical address calling up this Performance Guarantee, such demand stating that:
 - a. the Contract has been terminated due to the Contractor's default and that this Performance Guarantee is called up in terms of 5; or
 - b. a provisional or final sequestration or liquidation court order has been granted against the Contractor and that the Performance Guarantee is called up in terms of 5; and
 - c. the aforesaid written demand is accompanied by a copy of the notice of termination and/or the provisional/final sequestration and/or the provisional liquidation court order.
6. It is recorded that the aggregate amount of payments required to be made by the Guarantor in terms of 4 and 5 shall not exceed the Guarantor's maximum liability in terms of 1.
7. Where the Guarantor has made payment in terms of 5, the Employer shall upon the date of issue of the Final Payment certificate submit an expense account to the Guarantor showing how all monies received in terms of this Performance Guarantee have been expended and shall refund to the Guarantor any resulting surplus. All monies refunded to the Guarantor in terms of this performance Guarantee shall bear interest at the prime overdraft rate of the Employer's bank compounded monthly and calculated from the date payment was made by the Guarantor to the Employer until the date of refund.
8. Payment by the Guarantor in terms of 4 or 5 shall be made within seven (7) calendar days upon receipt of the first written demand to the Guarantor.
9. Payment by the Guarantor in terms of 5 will only be made against the return of the original Performance Guarantee by the Employer.
10. The Employer shall have the absolute right to arrange his affairs with the Contractor in any manner which the Employer may deem fit and the Guarantor shall not have the right to claim his release from the Performance Guarantee on account of any conduct alleged to be prejudicial to the Guarantor.
11. The Guarantor chooses the physical address as stated above for the service of all notices for all purposes in connection herewith.
12. This Performance Guarantee is neither negotiable nor transferable and shall expire in terms of 2, where after no claims will be considered by the Guarantor. The original of this Guarantee shall be returned to the Guarantor after it has expired.
13. This Performance Guarantee, with the required demand notices in terms of 4 or 5, shall be regarded as a liquid document for the purposes of obtaining a court order.
14. Where this Performance Guarantee is issued in the Republic of South Africa the Guarantor hereby consents in terms of Section 45 of the Magistrate's Courts Act No 32 of 1944, as amended, to the jurisdiction of the Magistrate's Court of any district having jurisdiction in terms of Section 28 of the said Act, notwithstanding that the amount of the claim may exceed the jurisdiction of the Magistrate's Court.

Signed at

Date

Guarantor's signatory: (1)

Capacity

Guarantor’s signatory: (2).....

Capacity

Witness signatory (1):

Witness signatory (2):.....

PART C2 : PRICING DATA

- C2.1 Pricing Instructions
- C2.2 Bill of Quantities

C2.1: PRICING INSTRUCTIONS

C2.1.1 PREAMBLE TO THE BILL OF QUANTITIES

- C2.1.1.1 The method of measurement published by the South African Bureau of Standards in Clause 8 of the Standardised Specifications for Civil Engineering Construction is applicable, subject to the variations and amendments contained in the section "Applicable SABS 1200 standardised specifications".
- C2.1.1.2 Descriptions in the Bill of Quantities are abbreviated and comply generally with those in the Standardised Specifications. Clause 8 of each Standardised Specification, read together with the relevant clauses of the Scope of Work, set out what ancillary or associated activities are included in the rates for the operations specified. Should any requirements of the measurement and payment clause of the applicable Standardised Specification, or the Scope of Work, conflict with the terms of the Bill, the requirements of the Standardised or Scope of Work, as applicable, shall prevail.
- C2.1.1.3 The clauses in a specification in which further information regarding the bill item can be obtained appear under "Reference clause" in the Schedule. The reference clauses indicated are not necessarily the only sources of information in respect of schedule items. Further information and set specifications may be found elsewhere in the contract documents. Standardised Specifications are identified by the letter or letters which follow SABS in the SABS 1200 series of specifications, e.g. G for SABS 1200 G.
- C2.1.1.4 Unless otherwise stated, items are measured nett in accordance with the drawings, and no allowance is made for waste.
- C2.1.1.5 The quantities set out in the Bill of Quantities are the estimated quantities of the Contract Works, but the Contractor will be required to undertake whatever quantities may be directed by the Engineer from time to time. The Contract Price for the completed contract shall be computed from the actual quantities of work done, valued at the relevant unit rates and prices.
- C2.1.1.6 The prices and rates to be inserted in the Bill of Quantities are to be the full inclusive prices for the work described under the several items. Such prices and rates shall cover all costs and expenses that may be required in and for the execution of the work described, and shall cover the cost of all general risks, liabilities, and obligations set forth or implied in the documents on which the tender is based, as well as overhead charges and profit. Reasonable prices shall be inserted as these will be used as a basis for assessment of payment for additional work that may have to be carried out.
- C2.1.1.7 A price or rate is to be entered against each item in the Bill of Quantities, whether the quantities are stated or not. An item against which no price is entered will be considered to be covered by the other prices or rates in the Bill of Quantities.
- C2.1.1.8 Except where rates only are required, the Tenderer shall insert all amounts to be included in his total tendered price in the "Amount" column and show the corresponding total tendered price.
- C2.1.1.9 The units of measurement described in the Bill of Quantities are metric units. Abbreviations used in the Bill of Quantities are as follows :

mm	=	millimetre	h	=	hour
m	=	metre	kg	=	kilogram
km	=	kilometre	t	=	ton (1 000 kg)
m ²	=	square metre	No.	=	number
m ² .pass	=	square metre-pass	sum	=	lump sum
ha	=	hectare	MN	=	Mega Newton
m ³	=	cubic metre	MN.m	=	Mega Newton-metre
m ³ .km	=	cubic metre-kilometre	P C sum	=	Prime Cost sum
ℓ	=	litre	Prov sum	=	Provisional sum
kℓ	=	kilolitre	%	=	per cent
MPa	=	Mega Pascal	kW	=	kilowatt

C2.2: BILL OF QUANTITIES

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
	SANS 1200 A	<u>SCHEDULE A: PRELIMINARY AND GENERAL</u>				
A.1	8.3	FIXED-CHARGE ITEMS				
A.1.1	8.3.1	Contractual Requirements	Sum	1		
	8.3.2.1	Facilities for Engineer (SANS 1200 AB)				
A.1.2		e) Meeting room	Sum	1		
	8.3.2.2	Facilities for Contractor				
A.1.3		a) Offices and storage shed	Sum	1		
A.1.4		d) Living accommodation	Sum	1		
A.1.5		e) Ablution	Sum	1		
A.1.6		f) Tools and equipment	Sum	1		
A.1.7	SD A 8.3.2.3	g) Water supplies, electrical power and communication facilities	Sum	1		
A.1.8	SD A 8.3.3.2	h) Dealing with water	Sum	1		
A.1.9	SD A 8.3.2.3	i) Access	Sum	1		
A.1.20		j) Plant	Sum	1		
A.1.21	8.3.3	Other fixed-charge obligations (Specify)	Sum	1		
A.1.22	8.3.5	Health and safety plan - submit for approval	Sum	1		
A.2	8.4	TIME-RELATED ITEMS				
A.2.1	8.4.1	Contractual requirements	Month	8		
A.2.2	8.4.2	Operation and maintenance of facilities on site	Month	8		
	SD A 8.4.2.1	Facilities for Engineer (SANS 1200 AB)				
A.2.3		e) Meeting room	Month	8		
	8.4.2.2	Facilities for Contractor for duration of Contract				
A.2.4		a) Offices and storage shed	Month	8		
A.2.5		d) Living accommodation	Month	8		
A.2.6		e) Ablution	Month	8		
A.2.7		f) Tools and equipment	Month	8		
A.2.8	SD A 8.3.2.3	g) Water supplies, electrical power and communication facilities	Month	8		
A.2.9	SD A 8.3.2.3	h) Dealing with water	Month	8		
A.2.10	SD A 8.3.2.3	i) Access	Month	8		
TOTAL CARRIED FORWARD						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
BROUGHT FORWARD						
A.2.11		j) Plant	Month	8		
A.2.12	8.4.5	Other time-related obligations (Specify)	Month	8		
A.2.13	8.4.3	Supervision	month	8		
A.2.14	SD A 8.4.4	Company and Head office overhead costs	Sum	1		
A.2.15	SD A 8.19	Wayleaves	Sum	1		
A.3	SD A 8.5	SUMS STATED PROVISIONALLY BY ENGINEER				
	SD A 8.5 (a)	Sums Stated Provisionally by Engineer for work done by Contractor or Selected Sub-Contractor				
A.3.1		i) Tests required by Engineer	Prov. Sum	1	25 000.00	25 000.00
A.3.2		ii) Verification of erf pegs by Land surveyor	Prov. Sum	1	15 000.00	15 000.00
A.3.3		iii) Camera survey of newly constructed sewer pipelines	Prov. Sum	1	25 000.00	25 000.00
A.3.4	SD A 8.5 (b)	(ii) Contractor's overheads, profit etc on items A.3.1 - A.3.3	%	65000		
A.4	SD A 8.7	DAYWORK				
A.4.1		Trench excavator with minimum capability of 75 kW Manufacturer:..... Model:.....	h	10		
A.4.2		Front end Loader with minimum capability of 60 kW Manufacturer:..... Model:.....	h	10		
A.4.3		Digger-loader with minimum capability of 50 kW Manufacturer:..... Model:.....	h	10		
A.4.4		Tip truck with minimum capacity of 6m3 Manufacturer:..... Model:.....	h	10		
A.4.5		Grader with minimum capability of 150kW Manufacturer:..... Model:..... Compactors:	h	10		
A.4.6		Self-propelled single drum vibrating compactor. Minimum mass: 19 t Minimum capability: 97 kW Manufacturer:..... Model:.....	h	10		
TOTAL CARRIED FORWARD						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
BROUGHT FORWARD						
A.5.7		Hand controlled double drum vibrating compactor Minimum drum width: 0.39 m Minimum capability: 3.7kW Manufacturer:..... Model:.....	h	10		
A.6	SD A 8.7.1	STANDING TIME COSTS				
A.6.1		Plant	day	5		
A.6.2		Labour	day	5		
A.6.3		Other resources (Specify)	day	5		
A.7	8.8	TEMPORARY WORKS				
A.7.1	SD A 8.8.2	Accommodation of traffic	Sum	1		
A.7.2	SD A 8.8.5	Cost of Survey - beacons, benchmarks, boundary pegs: locate, protect and re-establish	Sum	1		
A.7.3	SD A 8.9	Implementation and adherence to the occupational health and safety act	Sum	1		
A.7.4	SD A 8.10	Environmental Control	Sum	1		
TOTAL CARRIED FORWARD TO SUMMARY						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
	SANS 1200 C	<u>SCHEDULE B: SITE CLEARANCE</u>				
B.1	SD C 8.2.1	Clear and grub in :				
B.1.1		a) Erven	m ²	4750		
B.1.2		b) Pipeline routes at 2.0m wide	m	60		
B.1.3		c) Remove existing kerbs	m	35		
B.1.4		d) Remove existing fencing including underdig concrete. Store fencing panels at location on site as indicated by Client	m	15		
B.1.5		e) Remove existing gravel material from existing road and stockpile material for re-use (150mm thick)	m ³	45		
B.1.6		f) Carefully remove existing brick paving and stockpile for later re-use	m ²	90		
B.2	SD C 8.2.11	Extra over items B.1.1 to B.1.6 for the removal of cleared material to an offsite spoil location	m ³	15		
B.3	SD C 8.2.12	Remove from site and dispose of rubble and undesirable material at a site to be identified by the Contractor	m ³	10		
B.4	SD C 8.2.13 (b)	Existing services that adjoin excavations				
B.4.1		i) Existing boundary fence	m	60		
B.5	SD C 8.2.13 (a)	Existing services intersecting excavation for streets				
B.5.1		i) Electrical posts	No.	3		
B.5.2		ii) Overhead electrical cables	No.	3		
TOTAL CARRIED FORWARD TO SUMMARY						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
	SANS 1200 D	<u>SCHEDULE C: EARTHWORK GENERAL</u>				
	8.3.2	Bulk excavation				
	SD D 8.3.2	Cut in all materials and use for the following:				
C.1		a) Fill on erven compacted to 93% MOD.AASHTO density (100% for sand) with material from bulk excavation	m ³	705		
C.2		d) Cut to spoil on site at areas as indicated by Engineer	m ³	10		
C.3	SD D 8.3.1	Preparation of in-situ material before fill	m ²	1700		
C.4	SD DM 8.3.21	Existing services that adjoin excavations				
C.4.1		i) Existing boundary fence	m	60		
C.5	SD DM 8.3.22	Existing services intersecting excavation for streets				
C.5.1		i) Electrical posts	No.	3		
C.5.2		ii) Overhead electrical cables	No.	3		
		FINISHING				
C.6	SD DM 8.3.17	Trim, shape and compact verges	m ²	1760		
C.7	SD D 8.3.10	Topsoiling 75mm thick	m ³	25		
C.8	SD D 8.3.11	Vegetative cover				
C.8.1		i) placing soil saver or similar approved erosion protection to embankment slopes	m ²	275		
C.8.2		ii) planting of vegetative cover to embankment slopes - Kaapsevy (Carpobrotus edulis) type	m ²	275		
TOTAL CARRIED FORWARD TO SUMMARY						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
D.1	SANS 1200 DM	SCHEDULE D: EARTHWORKS STREETS				
		TREATMENT OF ROADBED				
	8.3.3 (a)	Preparation and in-situ compaction of roadbed to:				
D.1.1		93% MOD.AASHTO density (100 % for sand) 150mm depth under roads and parkings	m³	300		
D.1.2		93% MOD.AASHTO density (100 % for sand) 100mm depth under walkways	m³	35		
D.2		EARTHWORKS				
	SD DM 8.3.4	Cut in all materials and use for the following:				
D.2.1		a) Fill in road reserve (behind kerbs) compacted to 93% MOD.AASHTO density (100% for sand) from material of road box	m³	105		
D.2.2		c) Cut to spoil on site at areas as indicated by Engineer	m³	1335		
	SD DM 8.3.5	Selected layers compacted to 93% MOD.AASHTO density (100% for sand) under roads:				
D.3		Upper 150mm selected layer using G7 materials, compacted to 93% MOD.AASHTO density (100% for sand) under roads:				
D.3.1		a) From commercial sources	m³	300		
D.4		Upper 100mm selected layer using G7 materials, compacted to 93% MOD.AASHTO density (100% for sand) under walkways:				
D.4.1		a) From commercial sources	m³	35		
D.5		Lower 150mm selected layer using G7 materials, compacted to 93% MOD.AASHTO density (100% for sand) under roads:				
D.5.1		a) From commercial sources	m³	300		
D.6		FINISHING				
D.6.1	SD DM 8.3.17	Trim, shape and compact verges	m²	900		
D.7		EXCAVATION ANCILLARIES				
D.7.1	SD DM 8.3.21	Existing services that adjoin excavation for streets				
D.7.1.1		i) Existing surfaced areas	m	20		
D.7.1.2		ii) Existing Kerbs	m	5		
D.7.1.3		iii) Existing boundary fence	m	60		
D.7.2	SD DM 8.3.22	Existing services intersecting excavation for streets				
D.7.2.1		i) Existing kerbs	No.	4		
D.8	SD DM 8.3.23	Tie in with existing road edge	m	35		
TOTAL CARRIED FORWARD						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
E.1	SANS 1200 DB SD DB 8.3.2 (a)	<u>SCHEDULE E: SEWERAGE</u> EXCAVATION Trench excavation in all material, backfilling, compacting and removal of surplus material for house connection pipes diam 110 mm for depths:				
E.1.2		b) 1,01 - 1,50 m	m	6		
E.1.3		Trench excavation in all material, backfilling, compacting and removal of surplus material for pipes diam 160 mm for depths:				
E.1.4		a) 0,00 - 1,00 m	m	30		
E.1.5		a) 1,01 - 1,51 m	m	35		
E.1.6		a) 1,51 - 2,00 m	m	62		
E.1.6	SD DB 8.3.2 (d)	Excavation by hand to expose existing services	m³	2		
E.1.7	SD DB 8.3.5 (a)	Services that intersect a trench				
E.1.7.1		i) Existing sewer conservancy tank	No.	1		
E.1.7.2		ii) Existing valve	No.	1		
E.1.7.3		iii) Existing fire hydrant	No.	1		
E.1.8	SD DB 8.3.5 (b)	Services that adjoin a trench				
E.1.8.1		i) Existing boundary fence	m	45		
E.1.8.2		ii) Existing kerbs	m	30		
E.2	SABS 1200 LB	BEDDING (PIPES) Supply and compact bedding to 100% Mod.AASHTO-density with material:				
	8.2.2.3	from commercial sources:				
E.2.1		a) Bedding	m³	11		
E.2.2		b) Blanket	m³	45		
E.3	SABS 1200 LD	SEWERS Supply and lay uPVC Class 34 heavy duty, on Class C bedding, joint and test sewer pipes				
	8.2.1	b) 160 mm diam	m	127		
E.3.1						
E.7	SD LD8.2.3	MANHOLES Precast concrete ring type manhole with heavy duty ductile iron EN124-D400 hinged cover and frame as per detail on drawing Drg. No. 2104161/C/600 complete for depths::				
E.7.1		a) 0,00 - 1,00 m	No	1		
E.7.2		b) 1,01 - 1,51 m	No	1		
E.7.3		c) 1,51 - 2,00 m	No	3		
TOTAL CARRIED FORWARD						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
BROUGHT FORWARD						
E.8		ERF CONNECTIONS				
	8.2.1	Supply, lay, joint, bed (Class C) and test uPVC class 34 sewer pipes				
E.8.1		110mm dia	m	6		
		End Caps				
E.8.2	SD LD 8.2.13	110 mm dia uPVC	No	1		
E.8.3	SD LD 8.2.14	Extra over item E.6 for uPVC erf connections directly to new manhole	No	1		
	SD LD 8.2.18	Marker posts as per detail for:				
E.8.4		a) Erf connections	No	1		
	SD LD 8.2.11	Connect to existing sewer manhole				
E.8.5		160mm diam	No.	1		
TOTAL CARRIED FORWARD TO SUMMARY						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
		<u>SCHEDULE F: WATER RETICULATION</u>				
F.1	SANS 1200 DB	EXCAVATIONS				
	SD DB 8.3.2 (a)	Trench excavations in all materials, backfilling, compacting and removal of surplus material for pipes nominal diam 110mm to 200mm for depths:				
F.1.1		a) 1,01 - 1,50 m	m	75		
	SD DB 8.3.2 (a)	Trench excavations in all materials, backfilling, compacting and removal of surplus material for erf connections nominal diam 50mm for depths:				
F.1.2		a) 1,01 - 1,50 m	m	70		
F.1.3	SD DB 8.3.2 (d)	Excavate by hand to expose existing services	m³	2		
F.2	DB 8.3.3	EXCAVATION ANCILLARIES				
	SD L 8.2.22	Services that intersect a trench				
F.2.1		i) Existing sewer conservancy tank	No.	1		
F.2.2		ii) Existing valve	No.	1		
F.2.3		iii) Existing fire hydrant	No.	1		
	SD L 8.2.21	Services that adjoin a trench				
F.2.4		i) Existing boundary fence	m	45		
F.2.5		ii) Existing kerbs	m	30		
F.3	SANS 1200 LB	BEDDING (PIPES)				
		Supply and compact bedding to 100% Mod.AASHTO-density with material:				
	8.2.2.3	From commercial sources:				
F.3.1		a) Bedding	m³	14		
F.3.2		b) Blanket	m³	80		
F.4	SANS 1200 L	MEDIUM-PRESSURE PIPELINES				
	SD L 8.2.1	uPVC Class 12				
		Supply, handle, lay and bed (Class C bedding), joint as described in notes on drawing, test and disinfect pipes for:				
F.4.1		110 mm diam	m	75		
F.5	8.2.2	SPECIALS AND FITTINGS				
		Extra over Items F.4.1 - F.4.2 for supply, lay, handle, bed (Class C bedding), joint, including cut pipes to lengths where required, test and disinfect for:				
		DUCTILE IRON BENDS (socket ended)				
F.5.1		110 mm diam x 45 °	No	2		
F.5.2		110 mm diam x 90 °	No	1		
		DUCTILE IRON T-pieces				
F.5.3		110 x 110 mm diam	No	1		
TOTAL CARRIED FORWARD						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
BROUGHT FORWARD						
F.5.4	SD L 8.2.3	Valves: Supply and install resilient seal type valve, including cutting pipes where necessary, with T-piece and other required specials and fittings, complete to detail on drawing Drg. No. 2104161/C/600 (excluding chamber) for: a) 110 mm diam	No	1		
F.5.5	SD L 8.2.3	Hydrants: Supply and install Ainsworth type (or similar approved) type hydrant, including cutting pipes, T-piece and other required specials and fittings, complete to detail on drawing Drg. No. 2104161/C/600 (excluding chamber) for: a) 110 mm diam	No	2		
F.5.6	SD L 8.2.3	Booster Connection: Supply and install Twin Booster pedestal type (or similar approved) booster connection, including cutting pipes, T-piece and other required specials and fittings, complete to detail on Drg. No. 2104161/C/600 (excluding chamber) for: a) 110 mm diam	No	1		
F.5.7	SD L 8.2.3	Non- return Valve: Supply and install Bermand type (or similar approved) non-return valve, including cutting pipes, T-piece and other required specials and fittings, complete to detail on Drg. No. 2104161/C/600 (excluding chamber) for: a) 110 mm diam	No	1		
F.6	SD L 8.2.11	ANCILLARIES Anchor/thrust blocks and pedestals according to details on drawing Drg. No. 2104161/C/600	m³	2		
F.7	8.2.13	VALVE AND HYDRANT CHAMBERS				
F.7.1		Valve chamber to detail on Drg. No. 2104161/C/600 with heavy duty ductile iron belltoby for depth up to 1.5 m including painting cover and frame.	No	1		
F.7.2		Hydrant chamber to detail on Drg. No. 2104161/C/600 with heavy duty ductile iron cover for depths up to 1.5 m including painting cover and frame.	No	2		
F.7.3		Non-return valve chamber to detail drawing Drg. No. 2104161/C/600 with heavy duty ductile iron cover for depths up to 1.5 m including painting cover and frame.	No	1		
F.7.4	SD L 8.2.19	Paint marking for: a) Valves (blue)	No	4		
F.7.5		b) Hydrant (yellow)	No	6		
F.7.6	SD L 8.2.16	Locate, cut into and connect including all special pieces to existing watermain: 110 mm dia connection	No	1		
F.8	SANS 1200 LF	ERF CONNECTIONS				
F.8.1	SD L 8.2.1	Supply, lay and bed HDPE PE100 PN16 pipes on Class C bedding complete with couplings, test and disinfect the following pipes:				
TOTAL CARRIED FORWARD						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
BROUGHT FORWARD						R -
F.8.1.1	SD L 8.2.2	20 mm dia	m	20		
F.8.1.2		50 mm dia	m	70		
		Extra-over item L.8.2.1 for specials				
		Saddles for HDPE pipes on uPVC main pipes				
F.8.1.3		20 mm on 110 mm diam	No	1		
F.8.1.4		50 mm on 110 mm diam	No	1		
		Lockable ferrules for HDPE pipes				
F.8.1.5		20 mm on 110 mm diam	No	1		
F.8.1.6		50 mm on 110 mm diam	No	1		
		Male elbows for HDPE pipes				
F.8.1.7		20 mm x 3/4" diam	No	32		
F.8.1.8		50 mm x 3/4" diam	No	16		
		Pressure Fittings				
F.8.1.9		50x20mm Reducer Tee	No	10		
		End caps for HDPE pipes				
F.8.1.10	SD L 8.2.18	20 mm	No	2		
F.8.1.11		50 mm	No	1		
		Marker Posts				
F.8.1.12		a) Erf Connections	No.	53		
TOTAL CARRIED FORWARD TO SUMMARY						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
G.1	SANS 1200 DB	<u>SCHEDULE G: STORMWATER DRAINAGE</u>				
	SD DB 8.3.2(a)	<u>EXCAVATIONS</u>				
		Trench excavations in all materials, backfilling, compacting and removal of surplus material for pipes:				
		with a nominal diameter of 110 mm (subsoils) for the following depths:				
G.1.1		a) 0,00 - 1,00 m	m	45		
G.2	SANS 1200 LB	<u>BEDDING (PIPES)</u>				
		Supply and compact bedding to 100% Mod.AASHTO-density with material:				
	8.2.2.3	from commercial sources:				
G.2.1		a) Bedding	m³	140		
G.2.2		b) Blanket	m³	200		
G.3	SANS 1200 LE	<u>PIPEWORK</u>				
	SD LE 8.2.1	Supply, handle, lay and bed (Class C bedding) uPVC pipes, type Spigot & Socket:				
G.3.1		110 mm dia Class 34	m	45		
	SD LE 8.2.4	Extra over Item G.5.1 for cutting ends of pipe on site for the following dia:				
G.3.2		100 mm dia Class 34	No	2		
G.4	SD LE 8.2.8	<u>STRUCTURES</u>				
G.4.1		110mm diam outlet HW as per detail on Drg. No. 2104161/C/600	No	1		
G.4.2		450 x 450 stormwater manhole as per detail on Drg. No. 2104161/C/600	No	1		
G.5		<u>SUBSURFACE DRAINS</u>				
	SD LE 8.2.14(a)	Subsurface drainage: Supply and install subsurface drains complete as per detail on Drg. No. 2104161/C/600 for:				
G.5.1		a) 110mm pipe	m	80		
G.6		<u>OVERLAND CHANNELS</u>				
	SD LE 8.2.21	Construct unlined open drain, including excavations, trimming, etc. as per specification				
G.6.1		Construct trapezoidal drainage channel complete (unlined) drainage channel 0.6m(bottom width) x 2.0 m (top width)	m	85		
TOTAL CARRIED FORWARD						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
H.1	SANS 1200 DB	<u>SCHEDULE H: CABLE DUCTS (SLEEVES) - ELECTRICAL</u> <u>EXCAVATIONS</u>				
	SD DB 8.3.2 (a)	Trench excavations in all materials, backfill, compact and removal of surplus material for Electrical ducts for the following depth: a) 0,50 m - 1,00 m for				
H.1.1		1 x 110 duct	m	100		
H.1.2		1 x 160mm, 1 x 110 duct	m	30		
H.1.3	SD DB 8.3.2 (d)	Excavation by hand to expose existing services	m³	5		
H.2	SABS 1200 LB	BEDDING (PIPES)				
	8.2.2.3	From commercial sources:				
H.2.1		a) Bedding	m³	15		
H.2.2		b) Blanket	m³	55		
H.3	SABS 1200 LC	CABLE DUCTS				
	SD LC 8.2.5(a)	Supply, lay, bed (on Class C bedding) and joint pipes for electrical services:				
H.3.1		1 x 110 mm dia uPVC Class 6 pipes or similar	m	100		
H.3.2		1 x 160, 1 x 110 mm dia uPVC Class 6 pipes or similar	m	30		
H.4	SD LC 8.2.8	CABLE MARKERS				
		a) Duct and Kerb Markers				
H.4.1		Electrical ducts	No	8		
	SD L 8.2.18	Marker posts				
H.4.2		a) Erf connections	No.	8		
H.5	SD LC 8.2.7	DRAW BOX				
		Construct complete to detail drawing for the following structures:				
H.5.1		a) Draw Box as per detail on Drg. No. 2104161/C/600	No	6		
TOTAL CARRIED FORWARD TO SUMMARY						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
I.1	SANS 1200 ME	<u>SCHEDULE I: SUBBASE & BASE</u> <u>SUBBASE</u> Construct subbase compacted to 95% MOD.AASHTO-density with material from a commercial source, as indicated on the typical cross-sections of the road prism				
I.1.1	ME 8.3.3	150mm thick (for roads and parking areas (C4-cement stabilised material crushed stone) - compacted to 98% MOD AASHTO density	m³	300		
I.1.2	ME 8.3.3	150mm thick (for roads and parking areas (G5-material crushed stone) - compacted to 95% MOD AASHTO density	m³	300		
I.1.3	ME 8.3.3	75mm thick (for walkways) (G5-material crushed stone) - compacted to 95% MOD AASHTO density	m³	25		
		-				
TOTAL CARRIED FORWARD TO SUMMARY						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
	SANS 1200 MK	<u>SCHEDULE J: KERBING AND CHANNELLING</u>				
	SD MK 8.2.1	Precast concrete edge kerb (E3) on concrete bedding according to detail on Drg. No. 2104161/C/600:				
J.1		a) Radius to 20 m	m	5		
J.2		b) Radius greater than 20 m and straight	m	30		
	SD MK 8.2.1	Precast concrete barrier kerb (BK2) on concrete bedding according to detail on Drg. No. 2104161/C/600:				
J.3		a) Radius to 20 m	m	75		
J.4		b) Radius greater than 20 m and straight	m	220		
	SD MK 8.2.1	Precast concrete v-channel (C1-C1) on concrete bedding according to detail on Drg. No. 2104161/C/600:				
J.5		a) Radius to 20 m	m	17		
J.6		b) Radius greater than 20 m and straight	m	13		
J.7	SD MK 8.2.16	Transition Kerb:				
J.7.1		i) BK2 - E3	No	2		
TOTAL CARRIED FORWARD TO SUMMARY						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
		<u>SCHEDULE K: SURFACING</u>				
	SANS 1200 MJ	SEGMENTED PAVING				
	8.2.2	Construction of paving complete to detail for the following areas:				
K.1		PAVED SURFACES				
K.1.1	SD MJ 8.2.6(i)	203x102x70mm Grey Interlocker Class 40/2.6 concrete pavers in herringbone pattern on 20mm sand bedding on paved areas	m ²	2200		
	8.2.3	Cutting units to fit edge restraints				
K.1.2		a) Straight	m	250		
K.1.3		b) Curved	m	75		
K.1.4	8.2.4	Rolling to locked up condition	m ²	2200		
K.2	SABS 1200 G	CONCRETE SURFACES				
K.2.1		200mm thick reinforced concrete slab surface for storage of compacted bales. 20Mpa concrete with MESH Ref 888 placed centrally. Saw cut joints at a ratio of 1 : 1.25 (width: length)	m ³	77		
TOTAL CARRIED FORWARD TO SUMMARY						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
	SANS 1200 MM	<u>SCHEDULE L: ANCILLARY ROADWORKS</u>				
L.1	SD MM 8.3.8	Road signs constructed from Chromadek sheeting (2.0 mm thick) as per specification				
L.1.1		b) Type R2 - 600 mm sides(Yield sign)	No	1		
L.2	SD MM 8.3.3	Sign supports for the following heights (clearance to final road level):				
L.2.2		2.1 m	No	6		
L.3		FENCING				
L.3.1		Supply and install 2.4m high "BETA FENCE" or similar approved clear view type fencing with no underdig protection with top spikes.	m	190		
L.3.2		Supply and install 5.0m wide at 2.4m high "BETA FENCE" or similar approved type fencing, double leaf gate as per manufacturers specifications fitted complete with top spikes, sliding bolt and lock mechanism.	No.	1		
TOTAL CARRIED FORWARD TO SUMMARY						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
		<u>SCHEDULE M: BUILDINGS & STRUCTURAL</u>				
		MATERIAL SORTING BUILDING				
M.1	8.3.1.1	Preparation of shop detail drawings for all steel fabricated members	Sum	1		
M.2	SABS 1200 D	EXCAVATIONS				
	8.3.3	Restricted excavation				
M.2.1		i) Footings of Building	m³	300		
M.2.2		ii) stockpile selected material within 5.0m and maintain for backfill.	m³	300		
M.2.3	SD D 8.3.14	Backfill or fill material from maintained stockpiles against structure:				
M.2.3.1		i) Restricted backfill for foundations	m³	85		
M.2.3.2		ii) Restricted backfill under surface beds	m³	215		
M.3	SD D 8.3.1	Preparation of in-situ material before fill	m²	150		
M.4	8.2	FORMWORK				
	8.2.1	Rough: (Degree of Accuracy III)				
M.4.1		a) Vertical, inside of retaining walls:	m²	89		
M.4.2		b) Vertical, footings:	m²	43		
M.4.3		c) Vertical edges of surface beds:	m²	16		
	8.2.2	Smooth: (Degree of Accuracy II)				
M.4.5		a) Vertical, free standing columns:	m²	78		
M.4.6		b) Vertical, retaining wall outside edge:	m²	89		
M.4.7		b) E/O for 25x25mm chamfer to top edges of retaining walls	m	100		
M.5	8.3	REINFORCEMENT				
	8.3.1	Steel Bars:				
M.5.1		(a) Mild steel bars	t	13		
M.5.2		(b) High tensile bars	t	26		
		Fabric Reinforcement				
M.5.3		(a) Mesh ref 617 in concrete cavity retaining wall	m²	250		
M.5.4		(b) Mesh ref 617 in concrete surface bed	m²	110		
M.5	SABS 1200 G	CONCRETE				
	8.4.3	Strength concrete: 30 MPa/20mm:				
M.6.1		i) In 1500x1500x300mm RC bases.	m³	20		
M.6.2		ii) In 1150x300mm RC foundation for retaining walls	m³	25		
M.6.3		iii) In 1150x300mm RC foundation for ramps	m³	10		
M.6.4		iv) In 750x300 RC Strip footing for brick walls	m³	20		
M.6.5		v) Free standing columns:	m³	10		
TOTAL CARRIED FORWARD						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
TOTAL BROUGHT FORWARD						
M.6.6		vi) 300mm RC retaining wall	m³	27		
M.6.7		i) Surface Beds	m³	110		
	8.4.4	Unformed surface finishes:				
M.6.8		i) Steel-floated finish (Degree of Accuracy II)				
M.6.8.1		a) Top of walls	m²			
M.6.8.2		b) Slabs	m²	690		
M.6.8.3	SD G 8.4.7	No-fines concrete	m³	5		
M.9	SD G 8.10	SUNDRY CONCRETE ITEMS				
M.9.1		i) Black plastic bond breaker under floor, 250 micro meter membrane	m²	690		
M.9.2		ii) 38mm uPVC drainage pipes (weepholes) at 2000mm c/c along entire length of all retaining walls as per Drg. No. 2104161/S/007	No.	20		
M.9.3		iii) 230 brick walls from 222 x 106 x 73 "Corobrick - Golden wheat" or similar approved face brick, built according to dwg 2104161/S/007.	m²	295		
M.9.4		iv) 75x50x8 RSA with Y10 lugs welded to it and cast into surface bed as specified on Drg. No. 2104161/S/007.	m	45		
M.9.5		v) 345 cavity infill brick walls retainer as per detail on Drg. No. 2104161/S/007.	m	140		
M.10		JOINTS				
M.10.1		i) Construct joints in slabs, complete as per detail and in positions indicated on Drg. No. 2104161-S-007	m	40		
M.10.2		ii) Saw cut joints in floor as per Drg. No. 2104161-S-007	m	334		
M.10.3		iii) Expansion joints in walls completed as per Drg. No. 2104161-S-007	m	81		
M.11	SANS 1200H	STRUCTURAL STEELWORK				
M.11.1	8.3.1	Supply and Fabrication of Steelwork				
M.11.2	8.3.1	i) Structural Steel for Portal Frame (Grade S355 JR:)				
M.11.2.1		a) 175 x 175 x 20 x 3 CFLC	t	1.5		
M.11.2.2		b) 175 x 175 x 20x 3 CFLC	t	1.5		
M.11.2.3		c) 254 x 146 x 37 I SECTION	t	9.5		
M.11.2.4		e) 152 x 152 x 37 H SECTION	t	2.5		
M.11.2.5		f) 60 x 60 x 4 RSA	t	0.5		
M.11.2.6		g) 50 x 50 x 3 RSA	t	0.5		
M.11.2.7		h) 30 x 30 x 3 RSA	t	0.5		
M.11.2.8		i) 88.9 x 3.5 CHS	t	2.0		
M.11.2.9		j) 101.6 x 3.5 CHS	t	2.0		
M.11.2.10		Grating stair treads - 40x4.5mm Mild Steel Bearing Bar Type 8 series VEZ for the length of stair and 80x6mm Mild Steel Bearing Bar Type 8 side plate for stair width. Finish to be hot dip galvanised.	m²	20.0		
TOTAL CARRIED FORWARD						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
TOTAL BROUGHT FORWARD						
M.11.2.11		2mm Vastrap Floor Plate	m²	35.0		
M.11.3		ii) Base plates	t	0.5		
M.11.4		iii) Stiffeners and end plates	t	2.5		
M.11.5		iv) All other connection elements	t	1.5		
M.11.6	8.3.2	Delivery to Site:				
M.11.6.1	8.3.2.1	Normal Delivery	t	25		
M.11.6.2	8.3.3	Erection on Site	t	25		
M.11.7		Erection Bolts - supply and install				
M.11.7.1		a) M10 to M20 bolts & nuts - Grade 8.8 and including Hot-dipped galvanised zinc coating in accordance to SANS 763(Refer to drawing 2104161/S/005)	t	1.25		
M.11.8		Holding-Down (HD) Bolts - supply and install				
M.11.8.1		a) HD Galv. Bolts of Grade 8.8 of size M16 and M20 including Hot-dipped galvanised zinc coating in accordance to SANS 763((Refer to drawing 2104161/S/005)	No	100.00		
M.12	SANS 1200HB	CLADDING AND SHEETING				
	8.2.2	Supply and install cladding and sheeting (Zincalume 0.53mm, Profile: IBR):				
M.12.1		i) Roof sheeting - Colourbond, Colonial Green colour	m²	645		
M.12.2		ii) Bullnose Sheeting - Colourbond, Colonial Green colour	m	40		
M.12.3		iii) Wall Cladding:				
M.12.3.1		a) Clear sheeting as windows	m²	30		
M.12.3.2		b) Colourbond, Colonial Green colour	m²	690		
M.12.4	8.2.3	Supply and install ancillaries for bullnose sheeting (Radius of 500mm)	m	40		
M.13		VENTILATION				
M.13.1		Aluminium zinc coated steel SFL4 fixed louvres in AZ 150/200 square louvres, 1500x1500mm, mounted in a metal surround frame into cladding, flashed according to manufacturers' recommendation or similar approved.	No	9		
TOTAL CARRIED FORWARD						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
TOTAL BROUGHT FORWARD						
M.14	SABS 1200 H 8.3.7	Handrails				
M.14.1		i) Handrail Type 1 assembly complete as per detail/cross section on Drg. No. 2104161/S/007	No.	1		
M.14.2		ii) Handrail Type 2 assembly complete as per detail/cross section on Drg. No. 2104161S/007	No.	1		
M.14.3		iii) Handrail Type 3 assembly complete as per detail/cross section on Drg. No. 2104161/S/007	No.	1		
M.14.4		vi) Handrail Type 4 assembly complete as per detail/cross section on Drg. No. 2104161/S/007	No.	1		
M.14.5		vi) Handrail Type 5 assembly complete as per detail/cross section on Drg. No. 2104161/S/007	No.	1		
M.14.6		vi) Handrail Type 6 assembly complete as per detail/cross section on Drg. No. 2104161/S/007	No.	1		
TOTAL CARRIED FORWARD						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
TOTAL BROUGHT FORWARD						
M.15	SABS 1200 D	ABLUTION BLOCK AND LUNCH ROOM				
	8.3.3	EXCAVATIONS				
		Restricted excavation				
M.15.1		i) Footings of Building	m ³	30		
M.15.2		ii) stockpile selected material within 5.0m and maintain for backfill.	m ³	30		
	SD D 8.3.14	Backfill or fill material from maintained stockpiles against structure:				
M.15.3		i) Restricted backfill for foundations	m ³	16		
M.15.4		ii) Restricted backfill under surface beds	m ³	14		
	SD D 8.3.1	Preparation of in-situ material before fill	m ²	45		
M.16	8.3	REINFORCEMENT				
	8.3.1	Steel Bars:				
M.16.1		i) Mild steel bars	t	0.5		
M.16.2		ii) High tensile bars	t	1.0		
		Fabric Reinforcement				
M.16.3		i) Mesh ref 193 in concrete surface bed	m ²	45		
M.17	SABS 1200 G	CONCRETE				
	8.4.3	Strength concrete: 30 MPa/20mm:				
M.17.1		i) In 750x250 RC Strip footing for brick walls	m ³	8		
M.17.2		ii) Surface Beds	m ³	45		
M.18		WALLS				
M.18.1		i) Foundation brickwork with ROK bricks min 14.0Mpa strength	m ²	30		
M.18.2		ii) 230 brick walls from 222 x 106 x 73 "Corobrick - Golden wheat" or similar approved face brick, built according to dwg 2104161/S/00.	m ²	95		
M.19		ROOFING				
M.19.1		i) Design and Supply of prefabricated roof trusses to suit roof design as per Drg. No. 2104161-A-004 from treated timber grade 5 SA-Pine	Sum	1		
M.19.2		ii) Erection of roof trusses complete including all wall plates, holding down traps, nailing and associated fixtures. Spacing of trusses at 700 mm C/C or as per manufacturer's recommendations.	No.	38		
M.19.3		iii) Supply and install complete purlins from 75x38 treated timber grade 5 SA-Pine	m	200		
TOTAL CARRIED FORWARD						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
TOTAL BROUGHT FORWARD						R -
M.20	SANS 1200HB	CLADDING AND SHEETING				
	8.2.2	Supply and install cladding and sheeting (colorbond, Zinkalume AZ150 0.53mm, Profile: IBR, Colonial Green):				
M.20.1		i) Roof sheeting	m²	645		
M.20.2		ii) Fascia board, Nutec 12mm thick x 225mm high	m	50		
M.20.3		iii) Marley uPVC streamline double-flo gutter	m	50		
M.20.4		iv) Gutter downpipe complete 80mm x 80mm square with specials as shown on Drg. No.2104161/A/004	No	6		
M.21		GLAZING				
		Windows including galvanised and painted frame fitted complete, including handles				
M.21.1		i) W1 as per Drg. No. 2104161-A-004	No	4		
M.21.2		ii) W2 as per Drg. No. 2104161-A-004	No	4		
M.21.3		iii) W3 as per Drg. No. 2104161-A-004	No	2		
M.21.4		iv) W4 as per Drg. No. 2104161-A-004	No	5		
M.22		CARPENTRY				
		Pine slated doors including frames, varnished, fitted complete with hinges, handles and 3 lever "Union" lock or similar approved.				
M.22.1		i) D1 as per Drg. No. 2104161-C_A-004	No	5		
		Fire door including all fittings and the like, installed as per manufacturer's specifications.				
M.22.2		i) D2 as per Drg. No. 2104161/A/002	No	3		
M.22.3		Supply and install "Pelican Systems T1" or similar approved Toilet Partition System comprising of 16mm thick particle board panels, laminated both sides with Melawood or Formica (specify colour), edged all round with 22 x 22mm lipped channel and fixed into position by means of full height vertical aluminium receiving channels fixed to the abutting wall, floor or pilaster. Pilasters and end partitions are stabilized by a continuous 25 x 25mm aluminium transom section over doors and supplied with a complete set of standard ironmongery comprising of indicator bolts, hat and coat hooks, door stops, toilet roll holders and rubber buffers. Aluminium surrounds, receiving channels and transom sections shall be white.	No	4		
M.22.4		Wall mounted slated wood benches, 900x340mm, to be installed next to shower.	No	2		
M.23		IRONMONGERY				
M.23.1		Hand railing: 60x60x6 Angle Stanchion 60mm diameter solid ball welded to the top of the Stanchion/hand and knee rails, 25mm solid. 1m high, 6.8kg or similar approved.	m			
		Stone guarding including all fittings with 3mm steel tubing and expanded steel mesh.				
M.23.2		i) 700x700mmx150mm stone guarding	No	8		
M.23.2		ii) 1800x700mmx150mm stone guarding	No	3		
M.23.3		iii) 1800x1300mmx150mm stone guarding	No	3		
TOTAL CARRIED FORWARD						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
TOTAL BROUGHT FORWARD						
M.24		FIXTURES & SANITARY WARE				
M.24.1		i) Cobra showerhead vandal proof Bc, Round Rose or similar approved.	No	2		
M.24.2		ii) Cobra Metsi stop tap or similar approved.	No	4		
M.24.3		iii) Cobra Metsi pillar tap 15 or similar approved.	No	8		
M.24.4		iv) Cobra Metsi sink mixer Wt or similar approved.	No	1		
M.24.5		v) Lecico Atlas pan, floor mounted toilet or similar approved.	No	4		
M.24.6		vi) Vaal Lavatera urinal including all fittings or similar approved.	No	2		
M.24.7		vii) Lecico Sanaa 45cm basin or similar approved.	No	4		
M.24.8		viii) Livinox Contract double sink or similar approved.	No	1		
M.25		TILING				
		Showers:				
M.25.1		i) Waterproofing to shower walls with "SIKA Rain Tite®" or similar approved waterproofing system	m²	20		
M.25.2		ii) Tiling for shower with 150mm x 150mm white glazed tile	m²	20		
		Basins splashbacks				
M.25.3		i) Tiling for shower with 150mm x 150mm white glazed tile	m²	3		
TOTAL CARRIED FORWARD TO SUMMARY						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
		<u>SCHEDULE N: MECHANICAL SERVICES</u>				
		WATER RETICULATION				
N.1		16mm PN16 PIPE WORK				
N.1.1		16 X 16 X 16 mm Male T-Piece	No.	6		
N.1.2		16mm 90° PPR Elbow	No.	25		
N.1.3		15mm Male High Pressure Hose with 90° Valve	No.	11		
N.1.4		PPR Isolator Valve with copper adaptor 70 % Local Supplied	No.	22		
N.1.5		Female Wall Plate Elbow	No.	15		
N.1.6		16mm Cold Water Pipe	m	58		
N.1.7		16mm Hot Water Pipe Insulated to R value 1	m	16		
N.1.8		Pipe Clip	No.	74		
N.2		20mm PIPE WORK				
N.2.1		20 X 16 X 20 mm Male T-Piece	No.	7		
N.2.2		20 x 16 x 20 T Piece	No.	3		
N.2.3		20mm Cold Water Pipe	m	5		
N.2.4		20mm Hot Water Pipe Insulated to R value 1	m	12		
N.2.5		Pipe Clip	No.	17		
N.2.6		20 x 20 x 20 T Piece	No.	3		
N.2.7		20 X 16 Reducer	No.	5		
N.3		25mm PIPE WORK				
N.3.1		Cold Water Pipe	m	3		
N.3.2		Hot Water Pipe Insulated to R value 1	m	3		
N.3.3		90° Elbow	No.	7		
N.3.4		25 x 20 Reducer	No.	3		
N.3.5		Reducing Tee 25 x 20 x 25	No.	3		
N.3.6		Pipe Clip	No.	6		
N.3.7		Isolator Valve with male to PPR fitting, both sides. 70% locally supplied	No.	3		
N.4		32mm PIPE WORK				
N.4.1		Cold Water Pipe	m	17		
N.4.2		90° Elbow	No.	3		
N.4.3		Reducing Tee 32 x 25 x 32	No.	2		
N.4.4		Isolator Valve with male to PPR fitting, both sides. 70% locally supplied	No.	2		
N.4.5		Pipe Clip	No.	17		
N.5		HOT WATER GENERATION AND STORAGE				
N.5.1		Horizontal Indirect Solar Geyser, 150L, as per drawing schedule	No.	1		
N.5.2		Solar Collector Panel, as per drawing schedule	No.	2		
N.5.3		Plant electrical connection	No.	1		
N.5.4		32 mm Water Meter incl Strainer and Shut of Valves	No.	1		
N.5.5		Commissioning	Sum	1		
TOTAL CARRIED FORWARD						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
TOTAL BROUGHT FORWARD						
N.6		FIRE INSTALLATION				
N.6.1		Fire Hose Reel	No.	2		
N.6.2		Fire Hydrant	No.	2		
N.6.3		Photo Luminescent Signs 190 x 190	No.	38		
N.6.4		9 kg Dry Chemical Powder Fire Extinguisher	No.	7		
N.6.5		Isolator Valve	No.	1		
N.6.6		32 mm Black Mild Steel Pipe	m	109		
N.6.7		32 mm- equal T Piece	No.	1		
N.6.8		32mm - 90° Bend	No.	20		
N.6.9		32mm - pipe hanger	No.	20		
N.6.10		Paint exposed risers red	No.	1		
		DRAINAGE				
N.7		40mm PVC				
N.7.1		90° Bend	No.	17		
N.7.2		45° Plain Bend	No.	9		
N.7.3		40mm PVC Pipe	No.	25		
N.8		110 mm PVC				
N.8.1		45° Plain Bend	No.	9		
N.8.2		45° Access Bend	No.	3		
N.8.3		Pan Connector	No.	5		
N.8.4		110mm PVC Pipe	m	24		
N.8.5		Rodding Eye	No.	4		
N.8.6		110mm STOP END ACCESS	No.	4		
N.9		160 mm PVC				
N.9.1		160mm PVC Pipe	m	18		
N.9.2		Trench and Backfill 800x600mm	m	28		
N.10	SABS 1200 A 8.5	SUMS STATED PROVISIONALLY BY ENGINEER				
N.10.1	SD A 8.5 (A)	Sums Stated Provisionally by Engineer for work done by Contractor or Selected Sub-Contractor				
		i) Installation of mechanical processing plant to material sorting facility	Prov. Sum	1	2 950 000.00	R 2 950 000.00
N.10.2	SD A 8.5 (b)	Percentage Allowed for Supervision, Management and Co-Operation with Selected Sub-Contractor	%	2950000		
TOTAL CARRIED FORWARD TO SUMMARY						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
		<u>SCHEDULE O: ELECTRICAL SERVICES</u>				
		<u>SECTION 1: LV RETICULATION, DB'S AND WIREWAYS</u>				
O.1		LV CABLES (600/1000V, PVC/PVC/SWA/PVC) LV cables installed in sleeves, on cable tray or within trenches. Aberrant cables or similar and equally approved.				
O.1.1		25mm²/4C/CU: SDB- G	m	200		
O.1.2		16mm²/4C/CU: SDB- k	m	100		
O.2		LV CABLE TERMINATIONS Include glands, shrouds, lugs and all sundries to facilitate neat termination of cables.				
O.2.1		25mm²/4C/CU	No	2		
O.2.2		16mm²/4C/CU	No	2		
O.3		EARTH CONDUCTOR TERMINATIONS Include lugs and all sundries to facilitate neat termination of earth conductors.				
O.3.1		16mm²	No	2		
O.3.2		10mm²	No	2		
O.4		CONDUCTORS Supply and install 600/1000Volt PVC insulated stranded copper conductors drawn into conduits, etc.				
O.4.1		2.5mm² Earth Wire	m	3500		
O.4.2		2.5mm²	m	3500		
O.5		SUPPLY & INSTALL PVC SLEEVES				
O.5.1		75 diameter	m	100		
O.5.2		110 diameter for Electronic	m	90		
O.6		TRENCHING AND EXCAVATIONS (600mm wide & 800mm deep)				
O.6.1		Pickable soil	m	200		
O.6.2		Bedding	m	200		
O.6.3		Backfilling	m	100		
O.7		DRAW PITS, ETC Draw pits, manholes, including covers				
O.7.1		Install 600x600x800mm manhole as per Drg. No. 2104161/C/600	No	2		
O.8		DISTRIBUTION BOARDS Supply and install Distribution board as indicated on the drawings.. Install and connect the following distribution boards as per single-line diagrams. All DB's to comply with the quality and general technical specifications.				
O.8.1		SDB- A	No	1		
O.8.2		SDB- K	No	1		
O.8.3		Allowance for upgrading of the existing electrical supply	Sum	1		
TOTAL CARRIED FORWARD						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
TOTAL BROUGHT FORWARD						
O.9		BONDING Water, hot to cold water pipes, roof and steel building structure and gutters and downpipes.				
O.9.1		Earthing and bonding	Sum	1		
O.10		SECTION 2: LIGHTING, SMALL POWER AND AUXILIARY LIGHTING INSTALLATION (Rate / Point) Include installation of luminaire and lamps, hoisting equipment, fixing materials, wastage, cutting of downlighter holes where required, conduiting, wiring, termination and connection, sundries.) All lighting circuits to be wired in 2.5mm² Live, Neutral and Earth unless otherwise shown ECG denotes electronic control gear; EMG denotes emergency battery pack and control gear.				
O.10.1		1.5m Fluorescent fitting open channel type with 2x36W LED lamp and Electronic Control Gear.	No	3		
O.10.2		250 Watt MV Hi-Bay Fitting (Open Fitting: Fitting to include, ignitor, Ballast, capacitor & Bulb) High Level	No	21		
O.10.3		17W LED die-cast aluminium bulkhead, rectangular, black, acrylic diffuser, IP66	No	16		
O.10.4		36W/840 LED BATTEN, DIFFUSED, SURFACE	No	2		
O.10.5		200 Watt MV floodlight fitting incl Lamp	No	2		
O.10.6		17W LED decorative ceiling mounted luminaires	No	8		
		Ablutions Light Switches: Switches, etc complete with cover plates fixed in and including galvanised outlet boxes to suit any number, size or type of entries, fixed to conduit Crabtree or similar and equally approved.				
O.10.6		16A Single-lever one-way switch, white cover, recessed	No	3		
O.10.7		16A Two-lever Two-way switch, white cover, recessed	No	4		
O.10.8		20A Photo-electric daylight-sensitive switch - 15A rated photocell fitted inside a waterproof bulkhead type fitting.	No	2		
O.11		SMALL POWER INSTALLATION (Rate / Point) Pricing to include supply, installation and connection conduiting, outlet box, crade, cover plate, termination and connection, fixing material, wastage and sundries. All SSO circuits to be wired in 2.5mm² Live, Neutral and Earth unless otherwise shown AC circuits shall be wired in 4 mm² unless otherwise shown. Crabtree or similar and equally approved.				
O.11.1		1x16A Normal SSO Euro Plug, Recessed	No	5		
O.11.2		New 5 Amp single unswitched Socket (on 60mm steel round box for light fittings)	No	35		
TOTAL CARRIED FORWARD						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
TOTAL BROUGHT FORWARD						
O.12		SECTION 3: GENERAL				
O.12.1		AS BUILT DOCUMENTATION				
		Allow for the mark up of record drawings, submission of 3 sets of as-built files containing material specifications, DB workshop drawings, COC's, IR scanning report, etc. Files to comply with the Electrical Engineer's specification and requirements.	Sum	1		
O.13		INFRARED PHOTOGRAPHIC SCANNING				
O.13.1		Allow for infrared photographic scanning of all DB's and submission of report to Engineer	Sum	1		
O.14		LABELLING				
O.14.1		Allow for labelling of all light and plug circuits and Isolators	Sum	1		
O.15		REPAIR OF INCIDENTAL DAMAGE				
O.15.1		Allow for the repair of incidental damage.	Sum	1		
O.16		INSPECTION, TESTING AND COMMISSIONING				
O.16.1		Inspection, testing and handing over of the complete installation in the presence of Engineer and certify the results on the Certificate of compliances by an accredited (Master Installation Electrician).	Sum	1		
TOTAL CARRIED FORWARD TO SUMMARY						

SUMMARY

SCHEDULE	DESCRIPTION	FROM PAGE	BILLED AMOUNT R
A	PRELIMINARY AND GENERAL	4	
B	SITE CLEARANCE	5	
C	EARTHWORKS GENERAL	6	
D	EARTHWORKS STREETS	7	
E	SEWERAGE	9	
F	WATER RETICULATION	12	
G	STORMWATER DRAINAGE	13	
H	CABLE DUCTS (SLEEVES) - ELECTRICAL	14	
I	SUBBASE & BASE	15	
J	KERBING AND CHANNELLING	16	
K	SURFACING	17	
L	ANCILLARY ROADWORKS	18	
M	BUILDING & STRUCTURAL	25	
N	MECHANICAL SERVICES	27	
O	ELECTRICAL SERVICES	30	
SUB TOTAL			
CONTINGENCIES			
Allow the sum of 10% (ten percent) of the above Sub-total for Contingencies to be spent as the Engineer may direct and to be deducted in whole or in part if not required.			
TOTAL INCLUDING CONTINGENCIES			
VALUE ADDED TAX (VAT)			
ADD: VAT at the rate of 15%			
Carried to Part C1.1 – Form of Offer & Acceptance			

DECLARATION (In respect of completeness of Tender)

To:

The Municipal Manager
Langeberg Municipality
Po Box 20
Langeberg
6740

I/we, the undersigned, do hereby declare that these are the properly priced Bills of Quantities forming Part C2.2 of this Contract Document containing **30 pages** in consecutive order upon which my/our tender for **TENDER 37/2022: CONSTRUCTION OF A NEW MATERIALS RECOVERY FACILITY, ASHTON, LANGEBERG MUNICIPALITY**

SIGNATURE OF TENDERER/S

DATE

Part C3: Scope of Work

	<u>Pages</u>
C3.1 Description of the Works.....	C3.1-1 – C3.1-5
C3.2 Engineering	C3.2-1
C3.3 Procurement.....	C3.3-1 – C3.3-2
C3.4 Construction.....	C3.4-1 – C3.4-69
C3.5 Management	C3.5-1 – C3.5-7
C3.6 Annexes	C3.6

Status

Should any requirement of provision in the parts of the Scope of Works conflict with any requirement of any Standardised Specification, particular specification or any drawings, the order of precedence, unless otherwise specified, is:

- Drawings
- Scope of work
- SANS/ Standardised Specifications

This **Scope of Works** is set out as follows:

C 3.1: DESCRIPTION OF THE WORKS covers a general description of the works or project and the facilities available.

C 3.2: ENGINEERING covers a list of drawings and standard drawings supplied separately and/or bound with the tender document

C 3.3: CONSTRUCTION covers variations and additions to the standard specifications that are applicable to the contract, as well as Particular Specifications that is applicable.

All clauses in the Specification Data are preceded with "SD" followed by the relevant letter(s) and number of the relevant clause of the standard specifications. This will replace, amend or add to the standard specification with the same number. For a new clause the numbers follow on from the last clause number used in the relevant specification.

Any clause referred to in the standard specification will also include the relevant Specification Data.

The Particular Specifications are the Environmental and Health & Safety Specifications.

C 3.4: MANAGEMENT cover the applicable standards and the methods and procedures to be followed in managing the works to the requirements of the Engineer and the Employer.

C 3.5: ANNEXURES covers the Locality Plan and other drawings issued to Tenderers

C3.1 Description of the Works

<u>CONTENTS</u>	<u>PAGES</u>
1. EMPLOYER'S OBJECTIVES	C3.1-1
2. OVERVIEW OF THE WORKS	C3.1-1
3. SCOPE OF THE CONTRACT	C3.1-2
4. CONSTRUCTION TIME PERIOD	C3.1-2
5. CONTRACTOR'S CAMP SITE, POWER SUPPLY AND SERVICES	C3.1-3
6. CONSTRUCTION IN CONFINED AREAS	C3.1-3
7. WATER FOR CONSTRUCTION PURPOSES	C3.1-3
8. FEATURES REQUIRING SPECIAL ATTENTION	C3.1-3
9. ACCOMMODATION OF TRAFFIC	C3.1-4
10. ENVIRONMENTAL REQUIREMENTS	C3.1-5
11. LIMITED FUNDS	C3.1-5

1 **EMPLOYER'S OBJECTIVES**

The Employer's objectives for this contract are the construction of a new Materials Recovery Facility in Ashton, Langeberg Municipality.

The description of the project contained in the Scope of Work is merely an outline of the Contract Works and shall not limit the work to be carried out by the Contractor under this Contract. Details of some of the major items are given in this section and approximate detailed quantities for each type of work to be carried out in accordance with the Contract Documents are included in the Bill of Quantities.

2 **OVERVIEW OF THE WORKS**

2.1 **General Description**

The Employer for the Project is Langeberg Municipality.

The site is situated at the end of Industria Street and the site proposed for the construction of the facility is adjacent to the existing Waste Drop-off Facility. The proposed site is earmarked to have a size of approximately 680m² which will house the recovery plant and equipment building and external storage space.

2.2 **Description of Site and Access**

Access to the construction site via the controlled access point of the existing Ashton Waste Transfer Facility on Industria Street.

The Contractor must take note of the fact that transport equipment to be used on existing roads is limited to the allowed legal axle-loads in accordance with the Road-Ordinance of the relevant Authority. The Contractor shall use temporary bypass roads where necessary. No additional payment shall be made in this regard and any additional costs shall be regarded to be included in relevant supplied rates.

The Contractor is made aware that except for payment item 8.3.2.2 of SABS 1200 A regarding access, no other payment will be made for access to the site of works, borrow pits and dumping sites.

2.3 **Nature of Ground and Subsoil Conditions**

The Contractor is responsible for obtaining all spoil sites.

The proposed site area within the proposed fence line is approximately 3030m². The site is made up of open areas with dense vegetative growth. Vegetation has been classified as least threatened and clearing thereof would not trigger any environmental considerations or impacts.

The insitu material grading ranges between G5 – G10. The DCP Testing previously done on the Waste Transfer Facility will be used as the basis for the new facility. The testing indicates that the insitu material has a bearing capacity of between 200kPa and 800kPa.

2.3 Occupation of the site

Access to the site of the works will be given to the Contractor on the Commencement Date.

The site of the works is on a recreational area which is used by the public, which will remain in use during the course of the work. No road may be closed (unless authorized in writing by the Engineer) and traffic shall be accommodated as specified.

3. SCOPE OF THE CONTRACT

3.1 Principal Contract

The description of the project contained in this Scope of Work is merely an outline of the Contract Works and shall not limit the work to be carried out by the Contractor under this Contract. Details of some of the major items are given in this section and detailed quantities for each type of work to be carried out in accordance with the Contract Documents are included in the Bill of Quantities.

The scope of this principal contract includes, amongst other, the following activities:

Civil Services:

- a) Establishment of the Contractor's personnel and plant.
- b) Site clearance
- c) Construction of bulk earthworks for the shaping of the site
- d) Construction of hard surfaced areas including excavation/box cut and road layerworks
- e) Rerouting of an existing road including the layerworks
- f) Construction of a stormwater earth drain
- g) Installation of sewer and water services including pipes, manholes, fittings, etc.
- h) Installation of paving and kerbing.

Buildings:

- a) Building of a waste material sorting building as shown on the drawings.
- b) Installation of mechanical plant for the processing of sorted waste materials by nominated sub-contractor.
- c) Building of an ablution block and lunchroom facility as shown on the drawings.
- d) Installation of fencing.
- e) Installation of wet services
- f) Installation of electrical reticulation services.

The Contractor is made aware that except for payment item 8.3.2.2 of the SANS 1200 A regarding access, no other payment will be made for access to the site of works, borrow pits and dumping sites.

4 CONSTRUCTION TIME PERIOD

The time period specified for completion by the Engineer, as stated in the Contract Data in terms of Clause 1.1.1.14 of the Conditions of Contract, is **8 months** exclusive of all special non-working days and year end break (builder's holidays). The Contractor shall plan and programme his construction sequence for completion within the time period specified.

4.1 Construction work programme

The Contractor shall take note of various factors contained in these specifications, which will have a significant influence on the compilation of the construction work programme. Prominent items are those which might require a lead time for ordering the equipment or which might entail a special manufacturing period.

The specified contract period is **8 months**. The Contractor shall take the above into consideration when drawing up his programme and no claims will be entertained in this regard. The contractor shall programme his works in relation with the budget and financial year constraints set out by the Municipality.

5. CONTRACTOR'S CAMP SITE, POWER SUPPLY AND OTHER SERVICES

The Contractor must make his own arrangements for a camp site.

"The camp site area must be fenced off with a temporary 1.8m high 100% shade cloth fence. The cost to erect, maintain and remove and all related costs will be deemed to be included in his tendered rates".

The Contractor shall make his own arrangements concerning the provision of water, electricity and other services for the campsite and office facilities.

No direct payment will be made for the provision of electrical and other services. The cost thereof shall be deemed to be included in the rates and amounts tendered for the various items of work for which these services are required.

6. CONSTRUCTION IN CONFINED AREAS

It will be necessary for the Contractor to work within confined and restricted areas. The method of construction in these confined areas largely depend on the contractor's constructional plant.

Regardless, measurement and payment will be in accordance with the specified cross-sections and dimensions only, irrespective of the method used for achieving these cross-sections and dimensions. It is deemed that the rates tendered in the Pricing Schedule / Priced Bill / Schedule of Quantities include full compensation for all special equipment and construction methods and for all difficulties encountered when working in confined areas and narrow widths, and at or around obstructions. **No additional payment will be made nor will any claim for payment be considered for work done in such confined areas, despite indications to the contrary in the Standard Specifications.**

7. WATER FOR CONSTRUCTION PURPOSES

The Contractor must make adequate provision in his tender for all negotiations and procurement of water for construction activities and all related costs will be deemed to be included in his tendered rates.

8. FEATURES REQUIRING SPECIAL ATTENTION

8.1 Existing Services

Any work requiring the excavation of existing road pavements, sidewalks and verges will require the necessary wayleaves be obtained from the relevant service authorities (Telkom, Electrical Department / Eskom, Roads & Stormwater Department, Waterworks Department and Drainage & Sewerage Department).

Prior to commencing work, the Contractor shall confer with all Authorities and Departments concerned and obtain the necessary wayleaves for both overhead and underground services affected by the Works and shall satisfy himself that he has obtained all the relevant information required to complete the Contract. The Contractor will be liable for obtaining all the necessary wayleaves and work permits from the relevant service authorities prior to the commencement of work within the road reserve.

The Contractor shall carry out the works with the minimum interference to existing services and it shall be clearly understood that obtaining the necessary wayleaves, will be at his own cost. The cost of repairing any damage to services, due to miscalculations or negligence on the part of the Contractor or his failure to carry out the duties set out in this Clause, shall be borne by the Contractor.

8.2 Health and Safety Plan

Prior to commencing work, the Contractor shall submit a Health and Safety Plan, compiled in accordance with the Health and Safety Specifications in Part E of the Works Specifications to the Engineer for approval. The Contractor may not commence construction without the Engineer's approval of the Health and Safety Plan.

8.3 Standard of Materials, Workmanship, Testing and Performance

The attention of Tenderers is particularly drawn to the high standard of materials, workmanship, testing and performance applicable to his Contract as a whole and he shall convey this requirement to his proposed Sub-Contractors.

The Contractor will carry out control testing of materials and workmanship as required in terms of the specifications. Where necessary, the Engineer may carry out acceptance control testing. The Employer will not pay claims or grant extension of time for delays to the works resulting from the awaiting of test results. Testing as required by the Engineer will be effected as promptly as possible but it is in the Contractors own interest to submit

material samples and other components of workmanship for testing in good time to assist in avoiding or minimising delays.

8.4 Weatherproof Protection for Workers

All staff required to continue working during rain shall be provided with oilskins and rubber knee boots, or other approved protective clothing and footwear.

8.5 Night Work and Work on Public Holidays

Where the Contractor requires staff to work overtime, he shall make the necessary arrangements with the Client and obtain written approval from the Client. No work will be allowed on public holidays and Sundays. The Contractor shall bear the cost of his overtime work. Normal working hours shall be between 08:00 and 17:00 on weekdays from Mondays to Fridays and between 8:00 and 14:00 on Saturdays.

8.6 Other Contractors

The Contractor's attention is drawn to the fact that there will be other contractors working on the Site of the Works. In accordance with Clause 4.8 of the General Conditions of Contract, the Contractor shall note and make due allowance for reasonable access to and for the adjacent operations of these other contractors on the site of the works.

9. ACCOMMODATION OF TRAFFIC

- (i) The safety and convenience of the travelling public is to be considered of utmost importance and every effort must be made to ensure that all temporary road signs, cones, flagmen and speed controls are maintained and effective, and that courtesy is extended to the public at all times.
- (ii) It is important that the traffic accommodation requirements described in these specifications are adhered to and that all installations meet with the approval of the relevant traffic authority i.e. the Traffic Manager of the LANGEBOURG MUNICIPALITY.
- (iii) Work, including the erection and removal of traffic control facilities, shall be executed between sunrise and sunset on Monday to Saturday, inclusive. Occupation of existing traffic lanes will only be allowed during daylight hours on normal working days, which are defined as Monday to Saturday, inclusive. The existing number of lanes for each traffic movement affected by construction shall not be reduced without the written authorization of the Engineer.
- (iv) It should be noted that Sundays are specified as "Special non-working days" in the Contract Data. In terms of Clause 5.8 of the General Conditions of Contract the Engineer's permission has to be obtained for work to be carried out on special non-working days, for which permission shall be applied for at least one (1) week prior to the day.
- (v) The travelling public has the right of way on public roads, and the Contractor shall make use of approved methods to control the movement of his equipment and vehicles so as not to constitute a hazard on public roads.
- (vi) Failure to maintain road signs, warning signs or flicker lights, etc, in good condition shall constitute ample reason for the Engineer to bring the works to a stop until the road signs, etc, have been repaired to his satisfaction.
- (vii) The Contractor may not commence constructional activities before adequate provision has been made to accommodate traffic in accordance with the requirements of these specifications and Chapter 13 of Volume 2 of the South African Road Traffic Signs Manual (SARTSM).
- (viii) The Contractor shall submit proposals in connection with all signs and accommodation of traffic to the Engineer for approval.

The traffic shall be accommodated on the existing surfaced carriageway and shoulders. No bypasses or temporary deviations shall be constructed. Accommodation of traffic will generally be carried out by closing off one lane of traffic at a time and accommodating the traffic on the other lane(s). During non-working days the Contractor will be required to shut down normal construction activities and only emergency work will be allowed. The traffic safety officer will be required to patrol during these non-working periods and ensure that all temporary traffic-control facilities are in place and functional.

10. ENVIRONMENTAL REQUIREMENTS

The Contractor shall take particular note of the environmental requirements contained in the Works Specifications.

Personnel and plant shall not enter property beyond the road reserve boundary irrespective of whether or not the boundary is fenced. The Contractor shall take every precaution to avoid damage to vegetation within that area of the road reserve which falls outside the designated work area is indicated on the drawings. Any damage caused is to be repaired at the Contractor's expense.

Storage and stockpiling of materials within the road reserve will not be permitted without the written consent of the Engineer. Excess material from excavations and waste material shall be spoiled off site at suitable locations.

11. LIMITED FUNDS

While the Employer has every intent to complete the full scope of works, the Employer reserves the right to reduce or increase the scope of works according to the dictates of the budget, or to terminate this contract, with adjustment to the agreed rates, sums or fees and without payment of any penalty in this regard. The Service Provider shall however be entitled to pro-rata payment for all services carried out in terms of any adjustment to the Scope of Work or, in the case of termination, remuneration and/or reimbursement.

Should the total Contract Value not be available for construction, the scope of work will be reduced in line with the available funding. The time related preliminary and general items will be adjusted pro-rata to the pro-rata adjusted contract duration.

C3.2 Engineering

Drawings

The drawings listed below are attached in order to give an overview of the project. Additional construction drawings will, in terms of the General Conditions of Contract, be issued to the Contractor by the Engineer/Employer on the commencement date and from time to time as required.

The Works shall be carried out in accordance with the drawings listed in C5 of the tender documents and included in Volume 4 : Drawings and form part of the contract documents.

The reduced drawings that form part of the tender documents shall be used for tender purposes only.

The Contractor will be supplied with 3 unreduced paper prints of each of the drawings required for construction. These copies are issued free of charge and the Contractor shall make any additional copies he may require at his own cost.

Only figured dimensions shall be used and drawings shall not be scaled unless otherwise instructed.

The Contractor shall ensure that accurate as-built records are kept of all infrastructure installed or relocated during the contract. The position of pipe bends, junction boxes, duct ends and all other underground infrastructure shall be given by either co-ordinates, or stake value and offset. Where necessary, levels shall also be given. A marked-up set of drawings shall also be kept and updated by the Contractor. This information shall be supplied to the Engineer's Representative on a regular basis.

All information in the possession of the Contractor, which the Engineer requires to complete his record drawings shall be supplied to the Engineer's Representative before a certificate of completion will be issued.

The drawings prepared by the Employer for the permanent Works are listed. The Employer reserves the right to issue amended and/or additional drawings during the contract.

C3.3 Procurement

<u>CONTENTS</u>	<u>PAGES</u>
3.3.1. TARGETED CONSTRUCTION PROCUREMENT	C3.3 - 1
3.3.2 SUBCONTRACTING	C3.3 - 1

3.3.1. TARGETED CONSTRUCTION PROCUREMENT

3.3.1.1 Objective

The Employer applies and promotes the principles of Targeted Construction Procurement. In terms of Employer's current procurement policy this project provides for the following objectives to be actively pursued:

- the provision of opportunities for Small, Medium and Micro- Business Enterprises (SMMEs).
- the provision of work opportunities for local labour.
- the maximising of job creation by adopting labour-intensive construction methods wherever physically feasible and economically justifiable.

3.3.1.2 Contract requirements

No information

3.3.1.3 Labour workforce

100% of unskilled labour to be sourced locally, meaning within the boundary of the Langeberg municipal area from Ward 9 or 10. South African Citizen shall be given preference for work opportunities.

3.3.1.4 Labour-intensive construction

Where practical and economically feasible, construction work should be undertaken using labour-intensive methods. The Contractor shall employ labourers, artisans and subcontractors for the execution and completion of this work.

Some of the activities, which may be considered as being suitable to be undertaken by labour-intensive methods include the following:

- shallow excavations
- construction of fence
- cleaning and trimming of site

3.3.2. SUBCONTRACTING

3.3.2.1 General

The Contractor may subcontract portions of the Works included in the Contract. Clause 4.4 of the General Conditions of Contract makes provision for subcontracting.

Subcontract work provides opportunities for small or specialist businesses and can also be used to secure contract participation goal credits for HDI participation or other specific goals, where applicable. In the interests of all parties, the Contractor shall enter into a written subcontract agreement with each Subcontractor.

Where participation credits are claimed by the Contractor in respect of subcontractors, suppliers, manufacturers and/or service providers, the Contractor shall ensure that all such are registered and verified on the Western Cape Supplier Database. The Employer shall not accept any claim for participation in respect of subcontractors, etc. unless they are registered and verified.

Notwithstanding the above, contract participation goal credits may not be claimed for work undertaken in respect of provisional sums and prime cost items.

Where monetary allowances for provisional sums or prime costs items have been allowed and the monetary allowance is less than R200 000, the Contractor shall invite three quotations from suitably qualified subcontractors, etc. for the required scope of works. The selection of the Subcontractors, etc. shall be approved by the Engineer.

Where monetary allowances for provisional sums or prime cost items have been allowed and the monetary allowance is greater than R200 000, an open tender process will have to be followed in respect of a subcontractor for this work. In such cases the tender will be issued by the Engineer on behalf of the Contractor.

3.3.2.2 Selected Subcontractors

With reference to subcontractors selected by the Contractor in consultation with the Employer, Clause 4.4.4 (GCC 2015) of the General Conditions of Contract states that this shall be done in accordance with the requirements of "a procedure set out in the Scope of Work."

The procedure for Selected Sub-contractors as referred to in Subclause 4.4.4 (GCC 2015) of the General Conditions of Contract and Contract Data shall be:

All specialist merchants, tradesmen and others executing any work or supplying any goods for which provisional or prime cost sums are provided in the Bill / Schedule of Quantities and who are selected for this purpose by the Contractor as specified hereafter, shall in the execution of such work be subcontractors of the Contractor and are herein referred to as "Selected Subcontractors".

Unless another procedure is specified, Selected Subcontractors are chosen and appointed as follows. The Employer and the Contractor shall compile a list of firms or persons acceptable to both and who will be invited to submit tenders for certain work or goods to be supplied by Selected Subcontractors. Before the closing date of such tenders the Contractor shall furnish the Employer with a sealed list in which is indicated the price increase required by the Contractor regarding the handling and appointment of every tenderer as Selected Subcontractor. No price increase requested by the Contractor in such list may be higher than the percentage or amount the Contractor has tendered in the main Contract against the provisional or prime cost item concerned. The list is then opened with the tenders and on the basis thereof the Employer shall indicate which tender he wishes to accept. The Contractor shall accept the tenderer and appoint him as Selected Subcontractor.

The Contractor shall incorporate in the subcontract provisions that:

- (a) In respect of the work or the goods that are the subject of the subcontract the Selected Subcontractor undertakes to the Contractor mutatis mutandis the obligations and liabilities as are imposed upon the Contractor to the Employer in terms of the Contract, and holds the Contractor harmless from and indemnifies him against the same and in respect of all claims, demands, lawsuits, damages, costs, charges and expenses whatsoever arising out of or in connection therewith, or arising out of or in connection with any failure to perform such obligations or to fulfil such liabilities, and,
- (c) The Selected Subcontractor holds the Contractor harmless and indemnifies him against:
 - (i) Shortcomings in the subcontract works if and where the works were designed by the Selected Subcontractor;
 - (ii) defects in the goods if and where the goods were manufactured and/or supplied by the Selected Subcontractor;
 - (iii) any negligence by the Selected Subcontractor, his agents, workmen and servants;
 - (iv) any misuse by the Selected Subcontractor of any Constructional Plant, Temporary Works or materials provided by the Contractor for the purposes of the Contract;
 - (v) any claims as aforesaid.

C3.4 Construction – Works specification

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PART A: STANDARD SPECIFICATIONS

The **Standard Specifications for Civil Engineering Construction, SANS 1200**, which the tenderer shall obtain/purchase from the South African Institution of Civil Engineering (SAICE), Private Bag X200, Halfway House 1685, Tel: (011) 805 5947, Fax: (011) 805 5971, e-mail: civilinfo@saice.org.za.

The following relevant standardised specifications, as listed below, shall form the Standard Specifications and apply to this contract:

SECTION	DESCRIPTION
A	GENERAL
AB	ENGINEER'S OFFICE
C	SITE CLEARANCE
D	EARTHWORKS
DB	EARTHWORKS (PIPE TRENCHES)
G	CONCRETE (STRUCTURAL)
L	MEDIUM PRESSURE PIPELINES
LB	BEDDING (PIPES)
LC	CABLE DUCTS
LD	SEWERS
LE	STORMWATER DRAINAGE
ME	SUBBASE
MJ	SEGMENTED PAVING
MK	KERBING AND CHANNELLING
MM	ANCILLARY ROADWORKS

PART B: PROJECT PARTICULAR SPECIFICATIONS

Amendments to the standard specifications are included in this Part B: Project Specifications.

- (i) The project specifications form an integral part of the contract documents and supplement the standard specifications.
- (ii) In the event of any discrepancy between the project specifications and a part of the standard specifications, the schedule of quantities, or the drawings, the project specifications shall take precedence.
- (iii) The standard specifications, which form part of this contract, have been written to cover all phases of work normally required for road contracts, and they may therefore cover items not applicable to this particular contract.

In certain clauses the standard specifications allow a choice to be specified in the project specifications between alternative materials or methods of construction and for additional requirements to be specified to suit a particular contract. Details of such alternatives or additional requirements applicable to this contract are contained in this part of the project specifications. It also contains some additional specifications required for this particular contract.

The number of each clause and each payment item in this part of the project specifications consists of the prefix SD followed by a number corresponding to the number of the relevant clause or payment item in the standard specifications. The number of a new clause or a payment item which does not form part of a clause or a payment item in the standard specifications and which is included here, is also prefixed by SD followed by a new number. The new numbers follow on the last clause or item number used in the relevant section of the standard specifications.

Amendments to the standard specifications are bound in the contract documents. The following relevant section off the Standard Specifications, as listed below, shall apply to this contract:

The following variations and additions to the SABS 1200 Standardized Specifications referred to in clause SD 24 will be valid for this contract. The prefix "SD A" indicates an amendment to SANS 1200 A, "SD C" to SANS 1200 C, etc. The numbers following these prefixes are the relevant clause numbers in SANS 1200.

A: GENERAL

SD A 1: SCOPE

Replace subclause 1.1 with the following:

"This specification covers requirements, principles and responsibilities of a general nature which are normally applicable to all civil engineering contracts as well as the requirements for the contractor's establishment on site."

SD A 2: INTERPRETATIONS

SD A 2.2: Applicable edition of standards

Add at the beginning of Subclause 2.2:

"Unless a specific edition is specified (see the List of Applicable Specifications)"

SD A 2.3: Definitions

(a) General

Add the following definitions:

"General conditions: The general conditions of contract specified for use with this contract and the special conditions of contract as applicable.

Specified: As specified in the standardized specifications, the drawings or the Specification Data. Specifications shall have the corresponding meaning."

(b) Measurement and payment

Replace the definitions for fixed charge, time-related charge and value-related charge with the following:

"Fixed charge: A charge that is not subject to adjustment on account of variation in the value of the contract amount or the contract time of completion.

Time-related charge: A charge, the amount of which is varied in accordance with the time for completion of the work as adjusted in accordance with the provisions of the contract.

Value-related charge: A charge, the amount of which is varied pro rata the final value of the measured work executed and valued in accordance with the provisions of the contract."

The terms "ESCOM", "ESC" and "Electricity Supply Commission" shall mean "Eskom".

The terms "GPO", "P&T", "Department of Posts and Telecommunications" and "Telkom" shall mean "Telkom SA Limited".

The terms "South African Railways", "SAR", "South African Transport Services", "SATS" shall mean "Transnet Limited".

Except for references to the Bureau itself, or to the (official) SABS mark, the term "SABS" shall mean "SANS".

SD A 2.4: Abbreviations

(a) Abbreviations relating to standard documents

Add the following abbreviations:

"CKS: SABS Co-ordinating Specification."

"MAMDD: Modified AASHTO maximum dry density".

A3: MATERIALS

SD A 3: Quality

Substitute the second sentence of the first paragraph of A3.1 with the following:

"Where a material to be used in this Contract is specified to comply with the requirements of an SABS Standard Specification, and such material is available with the official SABS mark, the material used shall bear the official mark."

Substitute the second paragraph with the following:

"Samples on which control testing is required by the Engineer, shall be delivered free of charge to a SANAS approved commercial laboratory. The Contractor is responsible for the cost of all testing to ascertain that the materials do comply with the relevant minimum requirements and all such costs shall be deemed to be included in the tendered rates. The cost of control test done by the Engineer and of which the results do not comply with the minimum requirements shall be for the Contractor's account.

The Contractor shall inform the Engineer of any control testing to be done at least 48 hours before such test are required and must allow in his programme for the time necessary for the tests and the processing of the results thereof."

Add the following sub-clause to Clause A3:

SD A 3.3: Ordering of materials

The quantities set out in the Bill of Materials have been determined from calculations based on data available at the time and should therefore be considered to be only approximate quantities. The contractor shall therefore, verify the quantities before ordering materials of any kind. No liability or responsibility whatsoever shall be attached to the employer for materials ordered by the contractor except if they have been ordered in accordance with written confirmation issued by the Engineer.

The Contractor shall satisfy himself of the continuous availability of material. No extension of time or additional compensation will be granted if material cannot be obtained locally or has to be sourced elsewhere."

A 4: PLANT

SD A 4.2: Contractor's Office, Stores and Services

Add the following paragraph before the first paragraph:

"The Contractor's construction camp shall be fenced off and shall contain all offices, stores, workshops, testing laboratories, toilet facilities, etc. The camp shall always be kept in a neat and tidy condition.

Add the following the second paragraph:

"One toilet per 10 workmen shall be provided and must be screened from public view and their use shall be enforced. The suitable sanitary services shall be of the bucket or chemical type and shall be readily accessible to workers at all areas of the site. The Contractor shall make all the necessary arrangements with the relevant local authority for the disposal of the contents of the toilets on a regular basis."

The contractor shall make arrangements if necessary for the removal of any soil.

Add the following to A 4.2:

"The Contractor's Construction Manager or representative must be contactable at all times by phone. Should use be made of radio and or cellular-phones, these must be operational at all times with sufficient back-up batteries or recharging facilities.

There exists no housing facilities for the Contractor's work force, and arrangements must be made by the Contractor to accomplish that as well as transport. The Contractor is solely responsible for their housing, or the arranging thereof, and no payment or extension of time will be allowed because of any delay and/or work damage that may arise. No personnel will be allowed to reside on the site. Only night-watchmen may be on the site after hours.

SD A 4.3: Medical facilities and safety equipment

The suitable first aid services required in terms of Subclause 4.2 of SANS 1200 A shall include, inter alia, a First Aid cabinet fully equipped and maintained with at least the minimum contents as listed in the Annexure (Regulation 3) to the General Safety Regulations of the Occupational Health and Safety Act, 1993 (Act 85 of 1993), to deal with accidents and ailments which are likely to occur during the construction period.

The Contractor shall provide personal safety equipment and facilities as required by Regulation 2 of the General Safety Regulations of the Occupational Health and Safety Act, 1993 (Act 85 of 1993)."

On completion of the Works the Contractor shall scarify all disturbed areas where offices, stores, etc., were located and all temporary roads and tracks, and he shall place a 100 mm thick layer of approved topsoil over all such areas. These areas shall then be seeded with an approved indigenous grass or other approved seed, watered and fertilized in an approved manner and in such quantity as to promote rapid growth. The cost for placing the 100mm layer of top soil shall be deemed to be included in the rates tendered for the site facilities.

A 5: CONSTRUCTION

A 5.1: Survey

SD A 5.1.1: Setting out of the Works

Add the following to A 5.1.1:

Benchmarks as well as reference pegs have been placed on the Site and these will be used to set out the Works. Setting out of the works is the sole responsibility of the Contractor and shall be done from survey pegs along the road reserve boundaries and from benchmarks as indicated on the drawings. The positions and values of these pegs are given on the drawings.

The Contractor shall within two (2) weeks after the land surveyor has set out pegs, check levels over all reference pegs and benchmarks and line pegs. This must be done before the Contractor intends constructing any portion of the Works influenced by such pegs or benchmarks. The Engineer shall be informed in writing of any discrepancy discovered in the positions or levels immediately on discovery but in any event at least 7 days before such construction is due to start. The Contractor shall advise the Engineer of any conflict between the position of any part of the Works and an existing feature. Any costs or subsequent costs arising from discrepancies, which have not been reported to the Engineer within the aforementioned period, shall be the sole responsibility of the Contractor. If no written statement is received from the Contractor it will be held that the Contractor has satisfied himself that the positions and levels of the reference pegs and benchmarks are correct.

"The Contractor shall be responsible for the true and proper setting out of the Works and for the correctness of the position, levels, dimensions and alignment of all parts of the Works and for the provisions of all necessary instruments, appliances and labour in connection therewith.

The Contractor shall carefully protect and preserve all benchmarks, sight-rails, pegs and other things used in setting out the Works.

The checking of any setting-out or of any line or level by the Engineer shall not relieve the Contractor of his responsibility for the correctness thereof.

If at any time during the progress of the Works, any error shall appear or arise in the position, levels, dimensions or alignment of any part of the Works, the Contractor, on being required to do so by the Engineer, shall at his own expense rectify such error to the satisfaction of the Engineer, but if such error is based on incorrect data supplied in writing by the Engineer or if there is any delay in providing the particulars required, the Contractor shall, in respect of that delay and the Cost of such rectification, be entitled to make a claim in accordance with General Condition of Contract."

SD A 5.1.2: Preservation and replacement of beacons and pegs subject to the land survey act

Add the following to A 5.1.2:

"Immediately upon taking over the site the Contractor shall identify and mark all relevant cadastral boundary pegs. After the completion of mass earthworks, the Contractor shall, under the direction of the Engineer, search for these pegs and compile a list of such pegs that are apparently in their correct positions. The Contractor shall certify this list for future reference.

In the case where cadastral boundary pegs have already been placed, these pegs will be pointed out and handed over to the Contractor and he shall take all precautions necessary to ensure that such pegs and the pegs referred to in SD A 5.1.1 are not disturbed or destroyed. Any costs in connection with the replacement of pegs for which the Contractor is responsible in terms of Sub-clause 5.1.2 will be recoverable from the Contractor by deduction from the monthly certificate of payment.

A Land Surveyor shall verify all cadastral boundary pegs after the completion of all operations. All disturbed pegs shall be replaced at the Contractors expense."

SD A 5.2: Watching, Barricading, Electric Lighting and Traffic Crossing

Add the following to A 5.2:

"The crossing of existing entrances to sites and streets must be done so that free access is ensured at all times.

The crossing of roads with services must be done in half-widths to ensure vehicular access at all times. Traffic control shall be done with Stop/Go sign control with the relevant road signs during daytime. The Contractor must use hazard lights to warn traffic at night. All excavations must be marked with reflective delineators, reflecting tape and warning signs to satisfaction of the Engineer.

Road traffic signs shall comply with the requirements of the "South African Road Traffic Signs Manual" and shall be approved by the Engineer before construction commences."

"The Contractor shall, in connection with the Works, provide and maintain all signs signboards, lights, barriers, barricades, fencing and watching when and where

- a) specified in or reasonably to be inferred from the Contract, or
- b) required by any competent statutory or other authority, or
- c) required by the Engineer for the protection of the Works or for the safety or convenience of the public or others;

provided that, if the Engineer shall instruct the Contractor to provide any sign, signboard, light, barrier, barricade, fencing or watching not included in paragraphs (a), (b) or (c), such requirement shall constitute a variation by the Engineer in terms of Clause 6.4 of the General Conditions of Contract (Third Edition 2015)."

SD A 5.3: Protection of structures

Add the following to A 5.2:

"Before commencing work in an area, the Contractor shall make sketches as directed by, and to the satisfaction of the Engineer, and, if so directed, take photos of the fences, walls and structures within the working width, in order that the standard after completion of the Works can be compared with the original standard, and shall submit the sketches and photos to the Engineer.

If the Engineer issues a written instruction to remove existing fences, walls or other structures or parts thereof, the Contractor shall dismantle and recover the various components and store them in a security area. As soon as possible after completion of the work in the area, the Contractor shall, if so directed, re-erect the fences, walls or other structures to a standard at least equal to the original, using the recovered material as far as possible and, if necessary, new material of a type and quality equivalent to the original."

SD A 5.4: Protection of the overhead and underground services

Add the following to A 5.4:

"The Contractor shall as soon as possible after handing over of the site, commence with the detection of existing services, continuously without interruptions and finalize it at least 7 days before excavation starts at that particular section.

Provision must be made for the protection and maintenance of existing services for the duration of the contract. No payment will be made in respect of this and all costs must be included in the tendered rates. All such services, the positions of which have been located at the critical points, shall be designated as "known" services and their positions shall be indicated on a separate set of drawings, a copy of which shall be furnished to the engineer.

While he is in occupation of the site, the contractor shall be liable for all damage caused by him to known services as well as for consequential damage arising there from, whether caused directly by his operations or by lack of proper protection."

Various services are known to exist on the site. Their approximate positions are shown on the drawings but, although they are based on the best information available, their accuracy cannot be guaranteed. It is likely that other services that are not shown on the drawings exist along the route of the pipeline.

All services, in particular cables, shall be treated as live until proven otherwise.

Before the commencement of any excavation the Contractor shall confirm the name and telephone number of the relevant officials directly concerned with the known or suspected services, shall acquaint himself with the position of the control points of the services and shall have readily available the equipment necessary to shut-off and isolate any such service. The Contractor shall liaise with the relevant authorities or controlling bodies for the necessary temporary closure of any services during construction.

Before any work that involves services to any property is carried out, the Contractor shall serve notice on the resident, occupier and/or owner of every property, at least 7 working days in advance of any temporary disconnection, advising the nature, time and duration.

In addition to the requirements of Subclause 5.4 the Contractor shall deal with the crossing of known existing services by the pipelines by:

- a) Notifying to the Engineer's Representative and the relevant authority 48 hours prior to executing the work.
- b) Serving notice on the resident, occupier and/or owner of every property affected at least 36 hours in advance of any temporary disconnection, advising the nature, time and duration.
- c) Excavating by hand, under the supervision of the Engineer's Representative and/or the authority involved, on the line of the trench up to 2 m, or such for the distance as may be necessary, in both directions from the indicated position to locate the exact position of the services.

Work done by service authorities:

The Contractor shall give assistance to service authorities with the location, protection, alteration and/or removal of services controlled by that authority.

Electricity cables:

The Contractors shall at all times accept that all underground and overhead cables are live and that Langeberg Municipality nor Eskom nor Telkom, in their capacity as either the Employer or the owner of the service shall not be held liable for injury or death of any person due to the live electricity cables exposed under the Contract.

SD A 5.6: Pollution

The Contractor's attention is drawn specifically to dust disturbance, due to the fact that the works takes place near an existing residential area (See SD D 5.1.4.1).

SD A 5.8 Ground and access to works

Add to Subclause 5.8:

"The Contractor shall not use the Site or land connected with the Works or cut down trees or vegetation, for any purpose whatsoever other than for the proper carrying out of the Works and shall locate any facilities that may be required for the Contract on the Site in such areas as the Engineer shall stipulate."

The Contractor shall not operate outside the "working width" or construction area as defined on the drawings, and he will be held wholly responsible for any damage or nuisance caused by himself, his plant, vehicles or staff throughout the period of the Contract.

The Contractor shall:

- a) During construction of the Works:
 - i. improve and maintain to a standard that will ensure the safe execution of the Works, any existing access roads, or roads built under this contract and required by him for the works,
 - ii. construct and maintain additional roads as necessary for his purposes to and along the working width of the channel route, to a standard required for the efficient construction of the Works,
 - iii. keep all roads and access tracks used by him watered to minimise dust. The frequency of the watering shall be at least daily when roads and tracks are used by the Contractor, unless it is sufficiently damp after rain.
- b) Immediately on completion of each section of the Works:
 - i. reinstate all private roads used by him, other than those under (ii) below, to at least their original condition,
 - ii. scarify all roads constructed by him for construction purposes and which are not required by the property owner or the Employer.

Add the following new items

SD A 5.9: Workmen's Compensation Act

Add the following after A 5.8:

Compensation for Occupational Injuries and Disease Act (COID)

All labour employed on the site shall be covered by the COID Act. The Contractor shall pay in full, including the payment of the necessary levies, such amounts as are due in terms of the Act. The manner in which Compensation will be handled shall be resolved by the Contractor at the commencement of the Contract.

SD A 5.10: Drawings and details

Tender drawings shall not be used for construction purposes. Construction drawings and additional detailed information will be made available to the Contractor as and when required by him.

The originals of all Drawings and Specifications prepared by or on behalf of the Engineer shall remain in his custody and references herein to delivery to the Contractor of Drawings or specifications shall relate to true copies thereof.

The Contractor shall be entitled to receive free of charge, to the extent provided in the Contract, copies of each such Drawing and specification and to receive, at the cost of reproduction, such additional copies as he shall reasonably require.

One copy of all documents constituting the Contract shall be kept on the Site and be available for perusal by the Engineer or any person authorised by him.

The Contractor shall, in accordance with the Engineer's instructions, maintain a register on the Site of all drawings and revisions thereof in the chronological order in which they are delivered to him.

SD A 5.11 Connections to existing live water services

All connections to any existing live systems will be undertaken by the relevant authority. This work may have to be done at night in order to minimise inconvenience to users. The Contractor shall supply all materials required to undertake the connections to existing services and provide any other assistance that may be required.

A7: TESTING**SD A 7.4: Statistical analysis of control tests**

Replace A 7.4 with the following:

"Test results will not be analysed by statistical methods, and all results must comply with the minimum requirements of the materials concerned."

A 8: MEASUREMENT AND PAYMENT**A 8.1: Measurement**

In the second line of Subclause 8.1.1, after words "standardized specification or in" add: "the measurement and payment clause of the standard specification, particular specification or".

Add the following sub clause to A 8.1.1:

Free haul and Overhaul

Notwithstanding any clauses in any of the Standard Specifications or Project Specification Section dealing with the definition, no measurement and/or payment for overhaul will be made. All haulage will be considered to be free haul and the cost thereof will be deemed to be covered by other rates in the Bill of Quantities."

SD A 8.2: Payment**SD A 8.2.5: Adjusted payment for time-related items**

The payment to the Contractor for time-related items shall be adjusted in accordance with the following formula in the event of the contract being extended:

$$\text{Sum of Tendered amounts for time-related items} \times \frac{\text{Extended Contract Period As Authorised By Variation Order}}{\text{Tender contract period}}$$

The abovementioned adjustment of the payment for time-related items shall be made in the Completion Payment Certificate and shall be the only payment for additional time-related costs.

Notwithstanding the stipulation of Sub-clause 8.2.2, an approved extension of time will only entitle the Contractor to payment in terms of the General Conditions of Contract (Third Edition 2015).

SD A 8.3.2.1 Facilities for Engineer

Add the following to A 8.3.2.1:

(d) Carport..... Unit: Sum
(e) Meeting room Unit: Sum

SD A 8.3.2.3: Access

Add the following to A 8.3.2.3:

In addition to the above, the tendered rates for A 8.3.2.2 (i) must also include all costs including materials for the building, gravelling and maintenance of access roads to the works, borrow pits and spoil sites, as well as the breaking up and, the removing or clearing and tidying up of such roads on completion of the works, in addition to keeping all spoil routes clean throughout the contract."

SD A 8.3.3.2: Dealing with water

The cost of supplying and operating the equipment for dewatering of excavations and controlling of stormwater will be held to be included in the tendered sums for Items A1.14 and A2.15 and no separate payment will be made for this work.

The sums shall cover all costs with regard to the preventive measures that must be taken with regard to water and the repair of damaged portions of the Works, as well as all costs for supplying and operating the equipment to keep excavations dry and to control stormwater.

SD A 8.4.2.1: Facilities for Engineer

Add the following to A 8.4.2.1:

(d) Carport.....	Unit: Sum
(e) Meeting room	Unit: Sum

SD A 8.5(a): Sums Stated Provisionally by Engineer for work done by Contractor or Selected Sub-Contractor Unit: Prov Sum

Add the following to A 8.5(b)(i):

“Payment will be in accordance with Clause 6.6.1.1 or 6.6.1.2 of the General Conditions of Contract (Third Edition 2015), whichever is relevant.”

SD A8.5(b): Percentage Allowed for Supervision, Management and Co-Operation with Selected Sub-Contractor Unit: %

Add the following to A8.5(b)(ii):

“The tender percentage includes full compensation for supervision and control over the nominated sub-contractor, delays, profits, etc.

The percentage will be calculated on the final amount paid under SD 8.5.”

SD A 8.7: Day work

Add the following:

“Day work will be paid according to the percentage allowance method for items not included in a Schedule of Day work rates. In this case, for calculating the total remuneration the General Conditions of Contract for the Construction of Civil Engineering Work (Third Edition 2015) shall apply, with the amendments as in the appropriate special conditions of contract, which are bound into this document. A day work schedule will be provided for filling in the necessary information. A working day will consist of 9.25 hours per day only.”

Provisional items for Daywork are scheduled as follows:

- a) Labour at hourly rates for skilled, semi-skilled and unskilled labourers.
- b) Material as a Provisional Sum with a percentage allowance on the net cost.
- c) The Contractor's own plant as a Provisional Sum.

Tendered unit rates or unit rates that are agreed in terms of the General Conditions of Contract (Third Edition 2015) for the Contractor's own plant used for Daywork shall cover the full cost of the use of such plant and shall therefore, in addition to the items listed in Sub-clause 8.7, cover the cost of plant operators, consumable stores, fuel and maintenance.

- d) Hired plant as a Provisional Sum with a percentage allowance on the net cost.

The Contractor will be paid the actual net cost of plant hired by him for Daywork and in addition will be paid a percentage allowance on the net cost of such hire, which allowance will cover the Contractor's own overhead costs and profit.

Add the following sub-clause to A8.7:

SD A 8.7.1: Standing time costs

- a) equipment **Unit: working day**
 b) labour **Unit: working day**
 c) other resources (to be specified by Contractor) **Unit: working day**

The tendered sum for each item shall include full compensation for all standing time costs of the specified resource of whatever nature and approved by the Engineer, which are not recoverable by way of the provision made in SD A 8.2.5 for the adjusted payment of time-related items.

For purpose of calculating the total standing time cost, a working week shall be held to consist of five working days and a working day of 9,25 hours.

Payment for the partial standing of any of the scheduled resources for a day or part thereof, or the standing of a complete resource for part of a day, will be made pro-rata in proportion to an appropriate factor assessed by the Engineer.

The amounts by which the standing time costs are adjusted shall be subject to the contract price adjustment formula as defined in the conditions of contract.

The Contractor shall take note that this payment item shall only apply to delays, which **in the opinion of the Engineer**, are incurred as a result of riot, commotion, politically motivated sabotage and acts of terrorism or disorder outside the Contractor's control. This item shall also apply to standing time incurred as a result of labour boycotts, except that only sub-items (a) and (c), as applicable, will be paid where the Contractor did not pay his labour for the time of boycott. Costs for delays incurred for all other circumstances shall be treated as provided for in the conditions of contract.

The provision of this clause shall in now way prejudice the right of either the Employer or the Contractor to determine the contract in terms of the provisions of clause 9 of the General Conditions of Contract (Third Edition 2015).

The Contractor shall take note that no payment will be considered for additional cost or time lost for any daily removal of plant and equipment from the site, any additional costs incurred in protecting his plant and site establishment, or loss incurred in protecting his equipment and site establishment, or loss incurred in respect of damage to construction plant, equipment and materials supplied and the works.

In the event that Clause 5.13.1 of the General Conditions of Contract (Third Edition 2015) becomes applicable, the time on which such penalties are calculated shall be reduced by the total standing time approved by the Engineer.

SD A 8.8.1 Dealing with access (Subclause 8.8.1)

The Contractor will be held to have satisfied himself with regard to the accessibility of the sites and the standard of access available via the existing main roads and minor roads. The tendered sums shall cover the cost of the maintenance of existing access.

The cost of maintenance of all existing access roads shall be included in the amounts allowed for Items A.1.15 and A.2.17.

SD A 8.8.2: Accommodation of traffic..... Unit: Sum

Add the following to A 8.8.2:

For all of these items the tendered rate covers all costs in respect of the supplying, erection, moving, re-erection and maintenance of all temporary barricades, road signs, lights and flagmen that are required for the protection and safe guarding of the works (all as per the S.A. Road Traffic Signs manual) road note 13, for making the necessary traffic arrangements and arrangements with regards to the regulations in respect of moving and/or the re-erection of existing road signs, as well as other costs that may arise during construction in respect of the traffic. No old style signs shall be permitted."

SD A 8.8.5: Survey beacons, bench marks, boundary pegs – locate and protect Unit: Sum

Replace A 8.8.5 with the following:

"The amount covers all costs in respect of labour, materials and equipment needed for the finding, noting and compilation of a list and protecting of pegs, all of which are described in Clause 5.1.2 of SANS 1200 A."

SD A 8.9: Implementation and Adherence to the Occupational Safety and Health Act..... Unit: Sum

The tendered sum for each item shall include full compensation to cover all requirements as specified in the Health and Safety Specifications – Part D of Part C3.4.

SD A 8.10: Environmental Control Unit: Sum

The tendered sum for each item shall include full compensation to cover all requirements as specified in the Environmental Management Plan & Specifications – Part C of Part C3.4.

SD A 8.11 Freehaul and overhaul

Notwithstanding any clauses in any Standardized Specification or Standard Specification Section dealing with the definition, measurement and/or payment for transport, freehaul and/or overhaul, no measurement nor payment for overhaul will be made. All haulage will be considered to be freehaul and the cost thereof will be deemed to be covered by the rates for the provision or disposal of the applicable material.

SD A 8.12 Survey**SD A 8.12.1 Setting out**

The cost of setting out, including the cost of establishing temporary bench marks and pegs in terms of SD A 5.1.1, will be held to be covered by the rates tendered for the fixed charge and time-related items in Section A of the Bill of Quantities.

SD A 8.12.2 Survey beacons and boundary pegs

Any costs in connection with the replacement of beacons or pegs for which the Contractor is responsible in terms of Subclause 5.1.2 will be recoverable from the Contractor by deduction from the monthly certificate of payment.

SD A 8.13 Dealing with authorities and others

The rates for dealing with authorities and others shall cover the cost of liaison with the relevant Authority and others to their requirements and will be measured and paid as a lump sum for each Authority and others.

SD A 8.14 Removal of site establishment

The tendered rate for the removal of the Site establishment and the Engineer's site offices shall, in addition to Subclause 8.3.4, cover the cost of the work specified in SD A 4.2 and the cost of complying with Clause 19.1 of the General Conditions of Contract (First Edition 2004).

SD A 8.15 Fencing of Contractor's site

The fencing of the Contractor's site will be held to have been covered by the tendered rates for the establishment and removal of site facilities.

SD A 8.16 Protection and/or moving of structures and fences

The structures to be protected or moved will be measured by the sum for each structure scheduled.

The tendered sum shall cover the cost of either protecting or moving and replacing the structure or for the additional cost of working in close proximity to such structure as the case may be.

Structures not scheduled will be held to have been covered by the tendered rates for other scheduled items.

SD A 8.17 Alterations to existing services

Permanent alterations made to existing services by the Contractor will be measured and paid under the relevant scheduled items. The length of service that is re-laid will be measured in its final position.

SD A 8.18 Miscellaneous items

An item which, in the payment clause column of the Bill of Quantities, refers to this clause (SD A 8.18), will be measured in the unit scheduled.

The sum or rate for such item shall cover the cost of all materials, labour and plant required to execute and complete the work as specified, described in the Schedule of Quantities or shown on the drawing(s).

SD A 8.19 Wayleaves..... Unit: Sum

The Contractor shall ensure that, where required, work permits, and wayleaves are in place prior to commencing work.

The Contractor shall document his applications for work permits and wayleaves (i.e. date, to whom etc.) and the obtaining of wayleaves and permits shall be indicated on his programme.

The rate shall include all overheads and administrative costs in the application of and obtaining the necessary wayleaves. The rate shall also include an costs associated to the transfer of existing wayleaves from Engineer to the Contractor, if any. The rate shall also make provision for any and all deposits required for the receipt of wayleaves, permits and the like.

AB ENGINEERS OFFICE**AB 3: MATERIAL****SD AB 3.1: Name boards**

Substitute "South African Institution of Civil Engineers" in the first paragraph of AB 3.1 with "South African Association of Consulting Engineers".

Name boards must be erected on site, situated as specified by the Engineer. The board will be as specified on the standard detail drawing no. 140129/W/602.

Two nameboards, manufactured as specified in Subclause 3.1 and as shown on the drawings, shall be provided, and shall be erected, plumb and level, in position as directed by the Engineer.

SD AB 3.2 Office Buildings

Add the following to AB 3.2

- i. 1 Fire extinguisher
- ii. 9000 BTU air conditioner unit
- iii. Suitable power supply for computer, lighting & air conditioning unit.

SD AB 3.3 Carports

The Contractor shall provide, maintain and service a parking facility for the use of the Engineer and his personnel. The facility shall consist of one covered carports with closed sides. The carport shall measure at least 6.0 x 3.5m and shall have a roof 2.4m above a free draining gravelled surface.

SD AB 3.4 Protective clothing

The Contractor shall provide and replace when necessary one set of rubber wellington boots (of sizes as required), reflective safety jacket and hard hat to the Engineer and Engineer's Representative.

SD AB 3.5 Meeting Room

The Contractor shall provide and furnish one meeting room (as scheduled) for the use of the Engineer. The meeting room shall consist of one room with a floor area of at least 12m² and a ceiling height of at least 2.5m.

The meeting room shall be weatherproof, shall have a wooden boarded floor that is at least 150mm above the ground and shall be provided with a ceiling and a lining to the walls, or equivalent insulation, with an acceptable type of door with a secure lock and two opening windows of glazed area at least 3m². The meeting room shall be well ventilated and shall be so insulated as to provide comfortable working conditions. The internal furnishings of the meeting room shall include:

- One table seating 10 people
- Ten chairs
- 1x fire extinguisher
- 9000BTU air-conditioner unit
- Suitable power supply for lighting and air conditioner unit.

On completion of the Works, ownership of the buildings and their furnishings shall revert to the Contractor who shall remove them from the Site.

SD AB 4.2 Medical facilities and safety equipment

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

AB 5: CONSTRUCTION**SD AB 5.1: Name boards**

Add the following to AB 5.1:

The name boards shall be erected within a month of the commencement date of the contract and shall be placed at the positions indicated by the Engineer. Any damage to these boards shall be repaired within fourteen days of a written instruction issued by the Engineer. No payment shall be made in terms of the contract prior to the erection of the name boards.

Site instruction book

Throughout the construction period the Contractor shall supply an A4 carbon triplicate book as a site instruction book.

This book shall be kept on Site and shall be accessible to both the Contractor and the Engineer at all times. It shall be used:

- a) by the Contractor for providing the Engineer with any information regarding the construction of the Works which may be requested, and giving notification in writing of inspections, drawings, etc, required by the Contractor, and
- b) by the Engineer for the purpose of writing day-to-day instructions and confirming any verbal information or instructions given to the Contractor.

One copy of each site note issued shall remain in the book.

SD AB 5.2 Key personnel

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

SD AB 5.5: Survey Assistants

Replace paragraph 5.5 with :

“one suitable, trained and experienced workman to be used as a survey assistant shall be made available to the Engineer during working hours as and when required. As far as practical the same assistant, shall be allocated to the Engineer for the full duration of construction.”

SD AB 5.6: Survey Equipment

The Contractor shall provide the following tested and approved survey equipment on site for the duration of the contract and for the use of the Engineer whenever needed:

- a) 1 x engineer's automatic level with tripod,
- b) 1 x level staff with staff bubble,
- c) 2 x ranging rods,
- d) 1 x builder's spirit level of length 900 mm,
- e) 1 x steel tape of length 30 m,
- f) 1 x pocket tape of length 3 m,
- g) 1 x steel level transfer plate, and
- h) all steel and wood pegs, concrete, hammers, picks, etc., that the Engineer may require.

The above-mentioned equipment may by arrangement be shared between the Contractor and the Engineer's representative.

The Contractor shall provide proof, at the start of the contract, that an acceptable institution has recently serviced the tachometer and level.

The Contractor shall keep the equipment continuously insured against any loss, damage or breakage, and he shall indemnify the Engineer and the Employer against any claims in this regard.

The Contractor shall maintain the equipment in good working order and keep it clean throughout the contract period.

SD AB 5.7 Medical facilities and safety equipment

The Contractor shall make the first aid services and such personal safety equipment and facilities as are required in terms of SD A 4.2 available to the Engineer and his site staff.

AB 8: PAYMENT

SD AB 8.2.2: Telephone, Fax machine, Photocopy machine, Survey Assistants, Equipment, etc.

No payment will be made in respect of the above-mentioned, and all the costs concerned will be deemed covered by the unit prices for the Contractors' facilities.

C: SITE CLEARANCE**SD C 3: MATERIAL****SD C 3.1: Disposal of material**

Substitute the first sentence of C 3.1 with the following:

“Material obtained from clearing and grubbing, demolition of concrete structures and brickwork, dismantling of pipes and removal of any items shall be disposed of off-site at a spoil site to be identified and procured by the Contractor. Materials qualifying for disposal on site will be spoiled where indicated by the Engineer. All transport costs shall be included in the rates tendered for site clearance.”

SD C 5: CONSTRUCTION**SD C 5.1: Areas to be cleared and grubbed**

Substitute the first sentence of C 5.1 with the following:

Only areas as directed by the Engineer shall be cleared and grubbed where necessary. The Contractor may proceed with clearing and grubbing after handing over of the site only in areas as approved by the Engineer.

Excavation for structures and pipe trenches should generally allow for a sufficiently wide strip equal to the trench width or structural area plus the estimated allowance for side slopes plus the width of stockpiled backfill and an area for placing material alongside the excavation shall be cleared of vegetation.

The vegetation cleared shall be disposed of off-site to an approved spoil site approved by the relevant authority, or used as ordered by the Engineer.

Measurement and payment for clearing and grubbing shall only occur for areas as required in writing by the Engineer.

Substitute the last paragraph with the following:

The Contractor shall program his work in such a way that re-clearing will not be necessary. The cost of re-clearing shall be borne by the Contractor.

SD C 5.2.3.2: Individual trees

Add the following to C 5.2.3.2:

Trees outside the reservoir area and pipeline routes must be left standing and undamaged, except where otherwise ordered in writing by the Engineer.

SD C 5.3: Clearing

Add the following to C 5.2:

Damages that occur to the removed fence shall be at the Contractors expense and no additional payment shall be made in this regard.

SD C 5.6: Conservation of Topsoil

Add the following sentence to C 5.6:

All topsoil removed to a nominal depth of 150 mm shall be preserved for re-use and erosion thereof shall be prevented. Measurement and payment shall be in accordance to C 8.2.10.

Until required for spreading, the stockpiles of topsoil shall be stabilized by watering or other approved means.

SD C 5.9: Topsoiling

Upon completion of construction, a 150mm thick topsoil layer from the stockpile shall be placed and watered until germination of natural seeds in the soil is achieved. Measurement and payment shall be in accordance to SD C 8.2.12.

C 8: MEASUREMENT AND PAYMENT**C 8.2: SCHEDULED ITEMS**

Add the following payment items:

SD C 8.2.1: Clear and Grub in:.....Unit: m² or m or No.

Separate items will be listed for the clearing operations and the rate shall cover all associated activities for the clearing of the separate items. If the item states "carefully remove" the Contractor will handle the removed material with care and store the material at the Contractor's camp site for later re-use. If cleared material is to be stockpiled, the material will be stored at the Contractor's camp site and maintained for later re-use.

SD C 8.2.11: Extra over items above for the removal of cleared material to an offsite spoil location ... Unit: m³

The rate shall cover the cost of removal, loading, transporting of rubble and undesirable material generated by the site clearance activities to a dump site identified by the Contractor, and the finishing of the area to the Engineers satisfaction.

SD C 8.2.12: Remove from site and dispose of rubble and undesirable material at a site identified by the contractor..... Unit: m³

The rate shall cover the cost of excavating, removal, loading, transporting of rubble and undesirable material found and identified on site before the commencement of the works, to a dump site identified by the Contractor, and the finishing/reinstating of the area to the Engineers satisfaction.

Add the following payment item:

SD C 8.2.13 (a): Services that intersect site clearance activities Unit: No

Existing services with a depth of cover exceeding 300 mm, measured from the bottom of excavation to the top of the existing service shall not be measured and paid for. There will be distinguished between existing trunk services and existing erf connection.

The rate shall also allow for the cost of the following:

- (i) Full protection of the existing service listed and ensuring that the service remains in working order during the construction in the proximity of the service until work in the area has been completed.
- (ii) Sufficient photo's of existing services being taken and handed over to the Engineer before they are being crossed, if there is a possibility of a difference in opinion over the condition of those services.
- (iii) Reinstatement of existing services damaged by the Contractor.
- (iv) Reinstallation of services which were removed by the Contractor.

Add the following payment item:

SD C 8.2.13 (b): Services that adjoin site clearance activitiesUnit: No or m

The unit "number" will only be used for services such as manholes, poles and trees, etc.

The rate shall cover the full protection of the existing service listed and ensuring that the service remains in working order during the construction in the proximity of the service until work in the area has been completed. The cost for shoring shall be deemed as covered by the listed items and no additional payment will be made for this.

No payment will be made for overhead services that do not directly rest on the ground except where allowance is made for this in the schedule of quantities.

Existing services that rest directly on the ground e.g. poles, trees, walls and structures are handled in the same way as underground services, but the axis of the services will be determined as follows:

The vertical axis is defined as the nearest side or corner of the existing structure to the excavation, measured at the point where the structure and natural ground level intersect.

The horizontal axis will be at the point where the structure and the natural ground level intersects. In this instance, where the excavation falls above the 45° line but within 1,0 meter horizontally from the structure, the service will also be measured as adjoining.

If the structure, according to the abovementioned does not qualify as an adjoining service but the foundation of the structure is such that if a 45° line drawn from the nearest bottom corner thereof cuts through the excavation, the structure will be measured as an adjoining service if approved by the Engineer.

If there is more than one service adjoining the same trench and such a service is on the same side of the trench, payment will only be made for the nearest service to the trench, or if they are the same distance from the trench for the top one. The maximum number of services that will be paid for, is therefore one on each side.

D: EARTHWORKS**SD D 2: INTERPRETATIONS****SD D 2.1: Supporting Specifications**

Replace subclause 2.1.2 with the following:

"SD D 2.1.2: Any of the other SANS 1200 specifications may form part of the contract documents."

SD D 2.3: Definition

Replace the definition "Specified density" with the following:

"Specified density: The specified dry density expressed as a percentage of modified AASHTO dry density."

Replace the definition "Stockpile" with the following:

"Stockpile (Verb): The process of selecting and, as maybe necessary, loading, transporting and off-loading material in a designated area for later use and a specific purpose."

Add the following definitions:

"Fill: An embankment or terrace constructed from material obtained from excavations or borrow. In roads it includes the earthworks up to below the selected subgrade level.

Fill (material): Material used for the construction of an embankment or terrace.

Roadbed: The in situ material on which a fill is to be constructed.

Placing: Placing shall mean spreading of backfilling material, watering, mixing, compacting, final grading, complying with the required tolerances and providing for testing, all in accordance with the requirements of the specification."

D3: MATERIALS**D 3.1: Classification for Excavation purposes****SD D 3.1.2: Classes of excavation**

Add the following to D3.1.2:

For the purposes of measurement and payment in this contract, intermediate and boulder excavation are to be classified as soft excavation, Hard Rock remains as classified in this clause.

D 3.2: Classification for placing purposes**SD D 3.2.1: Material suitable for embankments and terraces**

Add the following to D 3.2.1:

Boulders may be used in fill for embankments, provided that no voids result and that the material around the boulders is compacted to the required density containing unsuitable material that is to be spoiled.

D 3.3 Selection**SD D 3.3.1: General**

Substitute the second paragraph of D 3.3.1 with the following:

The Contractor shall deal selectively with material from general excavation. Any imported material in road reserves that does not comply with the minimum requirements for the respective layers, shall be removed and replaced with suitable material, all at the Contractor's expense.

The Contractor shall deal in such a way with materials from all excavations for streets, channels or pipe trenches to ensure that usable material is not contaminated with unsuitable material. If usable material is contaminated, such contaminated material shall be removed and replaced with suitable material, all at the Contractor's expense. No additional payment shall be made in respect of this and all relevant costs shall be deemed to be included in the tendered rates.

All unsuitable material shall be removed prior to importing fill material to such areas. Prior to commencing with earthworks, the Contractor shall make trial holes at positions and to depths ordered by the Engineer, to determine the area.

D5: CONSTRUCTION

D 5.1 Precautions

SD D 5.1.2.2: Detection, location and exposure

Add the following to D 5.1.2.2:

If existing services are not shown on the drawings but the existence thereof can be reasonably expected, the Contractor shall, in conjunction with all relevant authorities, determine the exact depth and location of such services before commencing with construction. After locating the exact position of services the Contractor shall be liable for all costs and subsequent costs arising from the damage thereof as a result of the Contractor's activities. These services must also be indicated on the record drawings.

SD D 5.1.2.3 Protection of Cables

Substitute "estimated position" in the second sentence of D 5.1.2.3 with "actual or exposed position".

SD D 5.1.4.1 : Dust nuisance

Add the following to D 5.1.4.1:

The Contractor is responsible for dust control and is responsible for all claims which may arise from dust disturbance from the date of site handover to the date of completion of the contract. No payment will be made in respect of the above mentioned and all costs will be deemed as covered by the tendered rates.

SD D 5.1.6: Road traffic control

Add the following to D 5.1.6:

- a) Sufficient road signs must be erected in such a way that motorists are warned well in advance of works, e.g. at the closing of a street sufficient signs to direct traffic must be erected at the preceding intersection.
- b) Bypasses and/or road signs shall be provided and/or erected at all locations where the free flow of traffic is obstructed and shall be approved by the Engineer before the commencement of construction. Where main roads are crossed, detours and temporary traffic signs must be provided.
- c) Where a trench crosses a street or wherever a trench crosses the direction of traffic flow, reflective delineators must be placed in the street, and not just along the sides of the street, with warning tape in between.
- d) Delineators shall be reflective, TW401/402 as necessary and provided with retro-reflective warning tape between and around them. Delineators shall be plastic with plastic basis. The delineator size will be 150mm x 600mm.
- e) The spacing and placement of delineators must be according to Table 13.4 of SARTSM Volume 2 and must be visible from all directions.

D 5.2: Methods and Procedures

SD D 5.2.2.3: Disposal

Substitute the second sentence of D 5.2.2.3 with the following:

All surplus and unsuitable material shall be dumped and neatly finished off to the levels as instructed by the Engineer at the dump site (dump site must be **off-site** and must adhere to the environmental requests) which is to be identified by the Contractor, and agreed to by the Engineer.

SD D 5.2.2.4 Excavation by hand around existing services

Where hand excavation is required around existing services it shall be done within 3,0 m above and on both sides of cables and within 500 mm above and on both sides of pipes, as well as underneath the services.

D 5.2.3: Placing and Compaction**SD D 5.2.3.2: Backfilling and Filling against structures**

Add the following to D 5.2.3.2:

"After construction of the structures, backfilling and compaction of material against the structure shall commence as follows

- a) General: Selected backfill material, free of rocks or rubble larger than 300mm in diameter, shall be placed in layers of maximum thickness 500mm, and each layer shall be compacted to 90 % Mod AASHTO.
- b) Restricted: Restricted backfill material, free of rocks larger than 150mm in diameter, vegetation matter or other rubble, shall be placed in layers of maximum thickness 300mm, and each layer compacted to 90 % Mod AASHTO.

The tendered rates shall include all costs for selecting and loading from stockpiles, hauling, backfilling, spreading and compacting material as applicable."

SD D 5.2.8: Imported Materials

The imported fill material shall be similar to the sandy material on site

D 8: MEASUREMENT AND PAYMENT**D 8.3: Scheduled items****SD D 8.3.2: Bulk Excavation**

- a) **Excavate in all materials and use for embankment or backfill or dispose, as orderedUnit: m³**

Add the following to D 8.3.2 (a):

Payment shall be irrespective of the depth of excavation. No differentiation shall be made between material containing rubble and material not containing rubble.

No payment shall be made for stockpiling of imported fill material where such stockpiling is necessitated by non-removal of unsuitable material.

SD D 8.3.2(b): Extra over for

- i) **Hard rock excavation (methods other than blasting)Unit: m³**

This payment item shall be for hard rock excavation by methods other than blasting.

SD D 8.3.3: Restricted ExcavationUnit: m³

- (a) Excavate for restricted foundations and footings in all materials below bulk excavation line, separate from general backfill and stockpile and maintain for backfill

Add the following to D 8.3.3 (a):

"Excavation and trimming of remaining 75mm beyond bulk excavation line to neat profiles in all materials. Over- excavation shall not be paid for, unless specifically directed by the engineer.

The rate shall cover all costs for excavation in trimming to neat profiles, costs due to excavation and disposal of material described in SD D 5.2.2.3.

Payment shall be for the cubic metre of excavation beyond the bulk excavation line."

SD D 8.3.4: Importing of materials

Add the following payment item:

a) Extra over for importation of sand from commercial sourcesUnit: m³

The rate shall cover all additional material, labour and plant costs for the supply from a commercial source in addition to SD D 8.3.2 and SD D 8.3.3. Sand as described in SD DB 3.5 (b) will be used.

SD D 8.3.7 Additional Lateral SupportUnit: m²

Add the following to D 8.3.7:

The depth of shoring will be measured from the bottom of excavation to the top of excavation that requires support. Additional lateral support shall be measured in depth increments where necessary.

D 8.3.8: Existing Services**SD D 8.3.8.1: Location****SD D 8.3.8.1 b) The use of specialist equipment for detectionUnit: Hour**

Add the following to D 8.3.8.1(b):

The rate shall cover the cost of lease of equipment, supply and deliver of all material and labour necessary for the detection of the existing services once only, as well as for operating the equipment.

The rate shall also cover all costs for labour and equipment to determine the position, direction, level and diameter of the service. This information must be indicated on the "as-built" drawings.

SD D 8.3.8.1 c) Excavate by hand in soft material to expose servicesUnit: m³

Add the following to D 8.3.8.1(c):

Excavation by hand to expose existing services shall only be measured and paid for if so ordered in writing by the Engineer. After the excavation of trial holes to determine the exact position and depth of existing services, at intervals as required by the Engineer, the excavation to a level of 300 mm above such services shall be measured and paid for as normal excavation, independent of the depth of such excavation. Only excavation within 300 mm of the existing services will be measured and paid for as excavation by hand and then only if ordered in writing by the Engineer. The rate shall include the required backfilling and compaction.

D 8.3.9: Backfill of Material from Maintained Stockpiles Against StructureUnit: m³

- a) Restricted backfill of soil from stockpile against structures constructed under ground level and compact in layers as specified in SD D 5.2.3.2.

DB EARTHWORKS (PIPE TRENCHES)**SD DB 3.1: Classes of excavation**

Add the following to DB 3.1:

For the purposes of measurement and payment in this contract, intermediate and boulder excavation are to be classified as soft excavation. Hard Rock remains as classified in this clause.

SD DB 3.5: Backfill Materials

b) Substitute "from trenches" in DB 3.5(a) with "from trenches, channels or street excavations".

Add the following to DB 3.5.

b) All pipe trenches underneath the roadway must be backfilled with sand of upper selected layer quality compacted to 100% of the modified AASHTO maximum density. Sand is defined as non-plastic material and complies with the following sieve analysis:

	% passing
4.740 mm sieve	95% minimum
0.425 mm sieve	50% minimum
0.075 mm sieve	10% maximum

DB 3.6: Materials for reinstatement of roads and paved areas**SD DB 3.6.1: Subbase and Base**

Substitute DB 3.6.1 with the following:

Where trenches cross or run adjacent to surfaced roads and paved areas of which the surfaces are scheduled to be reinstated, the material excavated from the existing base and/or subbase pavement layer(s) shall be set aside and used in the reconstruction of the subbase layer. Where applicable, new material complying with the requirements of SANS 1200 MF shall be used for the reconstruction of the base layer. Any shortfall in material for the reconstruction of the subbase layer shall be made up by the use of material complying with the requirements of SANS 1200 ME.

SD DB 3.7: Selection

Add the following to sub clause DB 3.7:

The Contractor shall deal selectively with material from general excavation. Any material that does not comply with the minimum requirements for the respective layers, shall be removed and replaced with suitable material, all at the Contractor's expense.

The Contractor shall deal in such a way with materials from all excavations to ensure that usable material is not contaminated with unsuitable material. If usable material is contaminated, such contaminated material shall be removed and replaced with suitable material, all at the Contractor's expense. No additional payment shall be made in respect of this and all relevant costs shall be deemed to be included in the tendered rates.

All unsuitable material shall be removed prior to importing fill material to such areas.

Prior to commencing with earthworks, the Contractor shall make trial holes at positions and to depths ordered by the Engineer, to determine the area containing unsuitable material that is to be spoiled.

SD DB 3.8: Geotextiles for unstable trench-bottom conditions

The following products are acceptable: A4 Geotextile.

Alternatives may be submitted to the Engineer for approval.

DB 4: PLANT**SD DB 4.1: Excavation equipment**

Add the following to DB 4.1:

All excavations exceeding the specified widths, shall be backfilled with approved selected material. No payment shall be made for this and all relevant costs shall be deemed to be included in the tendered rates.

DB 5: CONSTRUCTION**SD DB 5.1: Precautions****SD DB 5.1.: Stormwater, seepage and dewatering of excavations**

The Engineer may instruct the Contractor to place a layer of crushed stone bedding (150 mm minimum thickness) on the bed of the trench. If the conditions remain unstable due to the condition of the material and degree of saturation, the Engineer may instruct the Contractor to place a geotextile membrane underneath the layer of crushed stone.

After placement of the stone bedding, geotextiles must be folded over with a minimum overlap of 300 mm to form a closed subsoil drain. The crushed stone bedding and geotextile will only be measured when instructed in writing by the Engineer.

SD DB 5.2: Minimum base widths specified

Substitute paragraph (b) of DB 5.2 with the following:

The minimum base width for all pipes and ducts with a diameter less than 125 mm shall be 600 mm plus the outside diameter of the pipe or duct, irrespective of the depth at which they are laid, except for subsurface drains where the width shall be 400 mm and for house water connections where the width shall be 600 mm. Bedding is required for all pipes and ducts irrespective of the diameter, except for subsurface drain pipes.

The payment for bedding, blanket and other volumetric based items will be based on the minimum base width specified above irrespective of the equipment used by the Contractor, which may result in wider trenches (Also refer to SD DB 4.1). For example, if a pipe with a 400mm outside diameter is laid the width for the calculation of the volume of the bedding, blanket and selected backfill will be 1000mm (2x 300mm + 400mm) irrespective of the equipment used for the excavation. If the wider trench necessitates wider bedding, blanket or backfill material, the costs of the extra material will be deemed to be included in the tendered rate.

SD DB 5.4: Excavation

Add the following to DB 5.4:

Excavation and backfilling of pipe trenches on sidewalks in the residential area shall be done in such a way as to ensure the least possible disruption to the public and entrances to properties. No additional payment shall be made for this and all relevant costs shall be deemed to be included in the tendered rates. The tendered rate for trench excavations shall also include the cost to backfill trenches to provide access to adjacent private properties on daily basis.

The maximum length of continuous open trenches may not exceed 100m the total length of open trench on site may not exceed 150m at any given time.

SD DB 5.5: Trench bottom

Substitute "90%" in the second paragraph of DB 5.5 with "93% (100% for sand)".

SD DB 5.6: Backfilling**SD DB 5.6.2: Material for backfilling**

Substitute "from trench excavations" in the first paragraph for DB 5.6.2 with "from trench, channel, road reserve or other excavations on the site of works".

Add the following:

All trenches underlying or adjacent to streets shall be backfilled with sand compacted to 100% of Mod AASHTO density, to the bottom of the subbase.

SD DB 5.6.3: Disposal of Soft Excavation Material

Add the following to DB 5.6.3:

All surplus and unsuitable material as described in DB 5.6.3 shall be disposed of at the spoil site, (as described in SD D 5.2.2.3) and levelled off.

DB 5.7: Compaction

SD DB 5.7.2: Areas subject to traffic loads

Add the following to DB 5.7.2:

All pipe trenches that fall in the street reserves, will be regarded as areas subject to traffic loads.

Sand backfilling shall be compacted to 100% of Mod.AASHTO density.

DB 5.9 Reinstatement of surface

SD DB 5.9.4: Bitumen Roads : Subbase and Base

Add the following to DB 5.9.4:

Any additional imported material required for the reinstatement of selected layers, subbase or base shall comply with the requirements of the relevant standardised and/or specification data for this contract.

DB 8: MEASUREMENT AND PAYMENT

SD DB 8.1: Basic principles

Delete "along the route of the pipeline" in DB 8.1.1.

SD DB 8.1.2 (b) *Replace the depth increments of 1 m with 0.5 m for excavation, where applicable.*

DB 8.2: Computation of quantities

SD DB 8.2.4: Shoring

Add the following to DB 8.2.4:

No payment will be made in respect of this and all costs will be deemed as covered by the rate for excavation. Shoring will only be measured and paid for if written approval is given by the Engineer before it is installed.

DB 8.3: Scheduled items

SD DB 8.3.2: Excavation

SD DB 8.3.2 (a): Excavate in materials for trenches, backfill, compact and dispose of surplus materialUnit: m

Add the following to DB 8.3.2 (a):

The depth of excavation in street reserves shall be measured from the final finished level of the road reserve profile to the invert level of the pipe. Additional excavations required for bedding of pipes must also be included in this rate.

The rates for trench excavation must also include any actions needed to deal with any water in the excavations, as well as loading and transportation of material to a spoil site, spoiling and compacting the material to 90% (100% for sand) of Mod AASHTO at a spoil site as described in SD D 5.2.2.3. The backfill material must be compacted to 93% of Mod AASHTO (100% for sand) in all backfilling of trenches.

The rate for excavation for subsurface drains shall cover the costs of excavation and spoil of surplus material and the supply of suitable free draining sand to be placed directly above the geotextile up to 200mm below the final surface levels.

The rate shall also provide for the fact that the excavation width in sand/boulders will be wider than normal.

For duct excavations the tender shall refer to the section where all the types, diameters and pipe combinations are listed to determine trench width and depth detail.

The rates are to allow for excavation in the classes of material as referred to in SD D 3.1.2 as well as excavation and disposal of unsuitable material from the trench bottom. There will be no extra-over payment in terms of intermediate or boulder excavation, but only for hard-rock excavation.

Add the following to DB 8.3.2 (b):

SD DB 8.3.2(b): Extra over for excavation in:

In accordance with SD DB 3.1, all classes of excavation will be paid for under item SD DB 8.3.2 (a), except for hard rock that will be paid for under this item.

- 1) **Hard rock excavation.....Unit: m³**
- 2) **Hard rock excavation (methods other than blasting)Unit: m³**

This payment item shall be for hard rock excavation by methods other than blasting.

SD DB 8.3.2(c): Excavate unsuitable material from trench bottomUnit: m³

Delete "and the disposal" in the heading of DB 8.3.2 (c) and in the last paragraph.

SD DB 8.3.2(d): Hand excavation and backfillUnit: m³

The provisions of DB 8.3.2(a), DB 8.3.2(b) and DB 8.3.2(c) shall apply mutatis mutandis for hand excavation.

Payment shall only be made if so ordered by the Engineer.

SD DB 8.3.2(e) Extra-over SD DB 8.3.2(a) for temporary stockpiling of materialUnit: m³

Temporary stockpiling of material will only be measured and paid for if ordered so in writing by the Engineer and if it is not contaminated with unsuitable material.

The rate shall provide for the handling and stockpiling of the material within the free haul distance.

SD DB 8.3.2(f) Extra-over item SD DB 8.3.2(a) for restricted excavation for pipe trenches in all materials and use for backfilling, fill or disposalUnit: m³

Restricted excavation will be measured and paid as an extra over ordinary excavation in cases where the work space is insufficient to place excavated material alongside the trench, and some or all excavated material has to be temporary removed.

Restricted excavation will only be paid when approved in writing by the Engineer.

Restricted excavation will be measured and paid where work space problems occur whether shoring is installed in the trench or not. Where no shoring is installed, the natural slope of the in-situ and excavated material as contained in SANS 0120 Part 5 DB 3.1.3 will be considered when determining the available space for placing the excavated material.

Should excavated material be unsuitable as backfill material and has to be removed, then no restricted excavation will be measured and paid, but payment will be made under the item for the removal of unsuitable material.

Measurement and payment for restricted excavation will only be made according to the nominal trench excavation and not the volume of excavated material. The rate for restricted excavation must allow for trench walls that collapse where no shoring is installed. The rate must also allow for handling excavated material twice, load, transport, off-load, temporary storage and/or stockpiling, load, transport back to the required position and off-load/placing.

Restricted excavation will be paid according to the discretion of the Engineer in cases where there is enough space for excavated material, but not enough space to place pipe material directly next to the trench.

No overhaul will be measured or paid and all haulage will be regarded as free haul.

Restricted excavation will be measured according to the percentage of the nominal trench excavation that needs to be removed.

The stipulations of Clauses DB 8.3.2(a), DB 8.3.2(b) and SD DB 8.3.2(c) shall apply mutatis mutandis.

SD DB 8.3.2(g) Extra-over item SD DB 8.3.2(a) for hand excavation and backfill around existing servicesUnit: m³

Hand excavation around existing services as described in SD D 5.2.2.4 will be measured as an extra over machine excavation. The rate must include the standing time cost of the machine while hand excavation around the service is executed.

SD DB 8.3.3.3: Compaction in road reservesUnit: m³

Add the following to DB 8.3.3.3:

This item is only applicable to the backfill above the bedding and fill blanket. The volume measured for payment under this item will be determined from the final finished level. No payment will be made where sand, compacted to 100% of Mod AASHTO is used for backfill. All type A3 sands will qualify as sand. This item is only payable if the compaction effort requirement is greater than that specified in SD DB 8.3.2. This item is applicable only to the pipe trenches that cross the roads.

SD DB 8.3.3.4: Overhaul Unit: m³ or m³ km

No overhaul will be measured or paid and all haulage will be regarded as free haul.

DB 8.3.5: Existing services that intersect or adjoin a pipe trench

SD DB 8.3.5 (a): Services that intersect a trench Unit: No

Add the following to DB 8.3.5 (a):

Existing services with a depth of cover exceeding 300 mm, measured from the bottom of excavation to the top of the existing service shall not be measured and paid for. There will be distinguished between existing trunk services and existing erf connection.

The rate shall also allow for the cost of the following:

- (i) Sufficient photo's of existing services being taken and handed over to the Engineer before they are being crossed, if there is a possibility of a difference in opinion over the condition of those services.
- (ii) Reinstatement of existing services damaged by the Contractor.
- (iii) Reinstallation of services which were removed by the Contractor.

SD DB 8.3.5 (b): Services that adjoin a trenchUnit: No or m

Add the following to DB 8.3.5 (b):

The unit "number" will only be used for services such as poles and trees.

The cost for shoring shall be deemed as covered by the listed items and no additional payment will be made for this.

No payment will be made for overhead services that do not directly rest on the ground except where allowance is made for this in the schedule of quantities.

Existing services that rest directly on the ground e.g. poles, trees, walls and structures are handled in the same way as underground services, but the axis of the services will be determined as follows:

The vertical axis is defined as the nearest side or corner of the existing structure to the excavation, measured at the point where the structure and natural ground level intersect.

The horizontal axis will be at the point where the structure and the natural ground level intersects. In this instance, where the excavation falls above the 45° line but within 1,0 meter horizontally from the structure, the service will also be measured as adjoining.

If the structure, according to the abovementioned does not qualify as an adjoining service but the foundation of the structure is such that if a 45° line drawn from the nearest bottom corner thereof cuts through the excavation, the structure will be measured as an adjoining service if approved by the Engineer.

If there is more than one service adjoining the same trench and such a service is on the same side of the trench, payment will only be made for the nearest service to the trench, or if they are the same distance from the trench for the top one. The maximum number of services that will be paid for, is therefore one on each side.

SD DB 8.3.6.1: Reinstate road surfaces, complete with all coursesUnit: m²

Add the following to clause DB 8.3.6.1

The layerworks to be allowed for under this item are as follows below. The costs of the imported material to be used in terms of SD DB 3.6.1 and SD DB 5.9.4, and for surfacing to be included in this rate are:

For Asphalt roads	40mm	Medium continuously graded premix
	150mm	G4 base coarse compacted to 98% MOD AASTHO density
	150mm	G5 subbase compacted to 95% MOD AASTHO density
	150mm	G7 upper selected compacted to 93% MOD AASTHO density
For Paved Areas	150mm	G9 lower selected compacted to 90% MOD AASTHO density
	15mm	Fine continuously graded premix
	100mm	G5 subbase course compacted to 95% MOD AASTHO density
	100mm	G7 upper selected compacted to 93% MOD AASTHO density
For gravel roads type 1	80mm	80mm Concrete Interlocking paver on 20mm sand
	150mm	G5 subbase compacted to 95% MOD AASTHO density
	150mm	G7 upper selected compacted to 93% MOD AASTHO density
	150mm	G9 lower selected compacted to 90% MOD AASTHO density
For gravel roads type 2	150mm	G5 gravel wearing coarse compacted to 95% MOD AASTHO density
	150mm	G7 upper selected compacted to 93% MOD AASTHO density
For gravel roads type 2	150mm	Rip and recompact to 93% MOD AASTHO density
	150mm	G5 gravel wearing coarse compacted to 95% MOD AASTHO density

Should the layerworks for reinstatement at certain locations be changed, on instruction by the Engineer to suit the existing, the rate will be adjusted accordingly.

No additional payment for a selected layer or any work relating to a selected layer shall be made, since the backfill material in road reserves shall be as per SD DB 3.5. Should level control of the backfill material be required, it is deemed to be included in the tendered rate.

The tendered rate shall be for reinstating the actual width of road layers damaged including provision for the fact that the excavation width in sand and wet conditions will be wider than normal as well as for benching each layer with 150mm. The rate shall also include material, labour and equipment for cutting back the damaged premix layer to form a neat straight line parallel to the kerb line with no steps for at least 20m per section. The rate shall also include the removing of the old premix by hand and replacing it with new premix. The rate shall also include the sealing of joints between existing and new premix with a via seal.

However, where actual reinstatement is specified in the Bill of Quantities, no additional allowances need to be considered since the actual reinstated dimensions will be measured for payment. This will only be done on the instruction of the Engineer for other areas indicated by the Engineer.

The rate shall also include the removal of excess material (including asphalt) and dumping at a site identified by the contractor.

SD DB 8.3.8: Handling of ground water in trenches

The rates for excavation must include any costs for action needed to deal with water in the excavation.

Where instructed by the Engineer, a layer of crushed stone will be put down to stabilize the trench bed. The volume will be calculated according to the length of the trench, the specified minimum width and prescribed thickness.

The tendered rate shall provide for all additional excavations, and the preparation of the trench bed to allow for the layer of stone, the removal of unsuitable material, the provision and placing of 150 mm layer of crushed stone for the prescribed width as well as any other action need to stabilize the trench.

If the Engineer instructs the use of geotextile, it will be measured per area.

The rate must include all costs for the provision and placing of material and losses for excavation that are bigger than prescribed.

- a) Provision and placing of crushed stoneUnit: m³
b) Provision and placing of geotextileUnit: m²

SANS 1200 G: CONCRETE (STRUCTURAL)**SD G 3: MATERIAL****SD G 3.2: CEMENT****SD G 3.2.1: Applicable Specifications**

Replace G 3.2.1 with the following:

Concrete with the minimum and maximum cement contents of 325 kg/m³ and 400 kg/m³ respectively shall be used. For concrete containing PFA the maximum cementitious content shall be 450 kg/m³. The water cement ratio shall not exceed 0.50. All concrete mix designs shall be approved by the Engineer in advance. Strength of concrete is as shown on the drawings.

The mix design and casting procedure shall be approved by the Engineer prior to casting.

Portland Cement I5FA ("PC I5FA") compliant with the requirements of SANS 831 can be used. The fly-ash cement obtained by blending of the OPC and Pulverised Fly Ash (PFA) shall comply with the requirements of SANS 1466-1988. No other types of cement (e.g. Rapid Hardening Cement, Portland Blast furnace Cement) may be used. If aggregates to be used in this contract are alkali-reactive, the OPC used on this Contract shall not have an alkali content $Na_2O + 0,656K_2O$ which exceeds 0.6% by mass of the cement. For the cement used in conjunction with the selected additional aggregates the alkali content per cubic metre of concrete shall not exceed 2,1kg. The Contractor shall submit the necessary test results to prove the above.

Add the following to G 3.2.1:

"In accordance with the new SANS, all Portland cement (OPC or RH) shall be in accordance with SANS ENV 197-1 (CEM II) except for non-structural concrete where CEM I 32.5 is acceptable. Pulverized fly ash (PFA) shall conform to the requirements of SANS 1491-2."

SD G 3.2.2: Alternative types of cement

Replace the contents of G 3.2.2 with the following:

Only ordinary Portland cement (OPC) may be used. Should the Contractor wish to use any other type of cement, he shall obtain the Engineer's prior written approval (see G 8.1.3.2 and 8.1.3.3).

SD G 3.2.3: Storage of cement

Add the following to G 3.2.3:

Cement shall not be kept in storage for more than 10 weeks without the Engineer's permission.

SD G 3.4: AGGREGATES**SD G 3.4.1: Applicable Specification**

Replace G 3.4.1 with the following:

The stone size for all concrete shall be as shown on the drawings.

The maximum water absorption of the coarse aggregate shall not exceed 1% and the flakiness index shall not exceed 25%. The maximum water demand of the fine aggregate shall be 190 l/m³ and the aggregate shall comply with the requirements of SANS 1083.

Aggregates to be used in this contract shall be tested in accordance with subsection C-15 of SANS 1083 to determine whether they are potentially alkali-reactive. If they are alkali-reactive they shall either be replaced with aggregates that are non-reactive. The fineness modulus of the sand must be between 1,7 and 2,8 with a standard deviation of not more than 0,1.

At tender stage the Contractor shall assure himself by means of tests and test mixes by an accredited laboratory that the fine and coarse aggregates that he intends to use comply with the specification. The tendered rates shall therefore be deemed to allow for the importation of aggregates that do comply with the Specification.

The Contractor shall be responsible for locating the sources of all aggregates.

SD G 3.4.3: Storage of aggregates

Where aggregates of differing chloride content are stockpiled on the site, strict control shall be exercised over their use for differing classes of concrete.

Add the following new sub-clause to G 3.5:

SD G 3.5.3: Mixing Water

Only potable water shall be used for mixing water.

SD G 4: PLANT

SD G 4.3.1: General Requirements for Mixing Plant

Add the following to sub-clause G 4.3.1:

All concrete shall be weight batched.

SD G 4.4: Vibrators

Add the following to clause G 4.4:

All concrete shall be compacted by vibrators and a spare vibrator in working order shall be available on Site for use at all times.

SD G 4.5: Formwork

SD G 4.5.3: Ties

Add the following to G 4.5.3:

Form work ties in water-retaining structures shall be of the 12mm Extended Coil Tie with Water-Bar-type of Form-scaff. No ferrules or ferrule pipes may be used in structural elements of water-retaining structures. The Contractor shall allow in his rates for the specified formwork ties and ensure that his formwork is compatible with these ties.

After removal of plastic cones from concrete, the openings in the concrete shall be made rough with a mechanical wire brush. Thereafter the openings shall be painted with cement mortar and filled with a shrinkage-free grout such as "M Bed Standard" from Sternson or a similar approved non-toxic product compatible with the chemicals used in the water. The grout filling shall be applied in such a way as to protect the ties against corrosion.

SD G 5: CONSTRUCTION

SD G 5.1: Reinforcement

SD G 5.1.2: Fixing of reinforcement and spacer-blocks.

Add the following to clause G 5.12:

The welding of reinforcement steel is not permitted.

Spacer-blocks must be of an approved design.

Where mortar blocks are used, they must be properly shaped so that they do not slip out of position and they must be made of the same mortar mix as the concrete into which it is cast. The mortar must be compacted by using approved methods in order to give blocks that have a density of at least 2 300 kg per m³ and that are free of honey-combing. They must be cured in water for at least 7 days.

SD G 5.1.3: Cover

Replace G 5.1.3 with the following:

The minimum concrete cover for water-retaining and non-water retaining structures are indicated on the drawings.

The cover blocks for water-retaining structures shall be made of 30 MPa/13 mm concrete using "PC 15FA" cement. The size of the cover blocks shall be 50mm x 50mm, with a thickness equal to the specified cover. Wires shall be cast into the blocks to enable them to be fixed to the reinforcement. The concrete shall be thoroughly compacted and the blocks shall be protected against early drying and shrinkage due to sun and wind, by frequent wetting while still in the mould. After the blocks have been removed from the mould they shall be kept in water until used.

SD G 5.1.4: Splicing

Add the following to G 5.1.4:

Splice lengths for water-retaining structures shall not be less than 45 diameters and in non-water-retaining structures not less than 40 diameters. Where applicable in water-retaining structures, splices shall be staggered so that they are evenly spread throughout the structure.

SD G 5.2: Formwork**SD G 5.2.1: Classification of finishes**

Add the following to clause G 5.2.1(b):

Wherever it is indicated on the drawings, exposed concrete surfaces above final ground level and inside the valve chambers and pump building must have a smooth surface finish. The forms used shall be unblemished and the panels regular. In the case of circular surfaces to be formed, a "Flexform system" or similar approved curved formwork system shall be used. Joints shall be a feature of the pattern and shall be handled with care. The finished concrete shall be accurate to Degree of Accuracy II. After removing the formwork, the surfaces must receive no after-treatment except in the positions of the formwork anchor bolts. These must be placed in a regular and precise pattern.

Add the following sub-clauses to G 5.2.1:

c) Special off-shutter finish

The special off-shutter finish is applicable to all visible concrete. Form work panels shall be made of steel panels. Approved laminated wooden board inserts to steel framed panels shall only be used in confined places and the use thereof will be subject to approval by the Engineer. The panels shall be free from rust, ridges, fins, bulges, imperfections, irregularities, air bubbles, honeycomb or surface discolourations. Grout checks and chamfers shall be used at all construction joints and corners.

Joints between panels shall be sealed tightly to prevent local honeycombing or leaching of concrete. Joints between panels shall form straight horizontal and vertical lines which shall be spaced evenly on the formed concrete surface, and shall be even and smooth and require minimal or no finishing. The layout of all form work panels and construction joints shall be discussed with the Engineer before application, and approved in writing.

d) Finish on blinding layers

A blinding layer or 15 MPa/13mm concrete with a minimum thickness as shown on the drawings shall be used.

e) Concrete finish

All unformed concrete to have a wood-floated finish unless indicated different on the drawings.

f) Visible corners

Visible corners shall have a 25mm x 25 mm chamfer. No additional payment will be made for this and it will be deemed to be included in the tendered rates.

g) Smooth Finishes

Wherever it is indicated on the drawings, exposed concrete surfaces above final ground level and inside the valve chambers and pump station building must have a smooth surface finish. The forms used shall be unblemished and the panels regular. Joints shall be a feature of the pattern and shall be handled with care. The finished concrete shall be accurate to Degree of Accuracy II. After removing the formwork, the surfaces must receive no after-treatment except in the positions of the formwork anchor bolts. These must be placed in a regular and precise pattern.

SD G 5.2.5: Removal of Formwork

Add the following to sub-clause G 5.2.5:

The Contractor shall make provision for the continued support of beams and slabs while the formwork is being removed and/or for back propping of beams, slabs, etc. The propping may be required simultaneously on more than one level directly underneath one another. The requirements for continuous propping and/or back propping shall be calculated to a theoretical model that is acceptable to the Engineer, and details shall be submitted for the Engineer's approval. Data required for such calculations, e.g. design loads and structural dimensions, will be supplied by the Engineer on request.

Add the following new sub-clause to G 5.2:

SD G 5.2.6: Chamfers and Fillets

All internal and external corners in the concrete must be formed with chamfers or fillets, except where otherwise specified or instructed. This requirement is normally not shown on drawings. This item shall not be measure and paid separately and the costs thereof shall be allowed for in the formwork rates.

SD G 5.3: Holes, chases and fixing blocks

Add the following to clause G 5.3:

Fixing blocks and fixtures may be embedded in concrete, provided that the strength or any other desirable feature (such as the appearance of the member) is not, in the opinion of the Engineer, impaired thereby.

SD G 5.5: Concrete**SD G 5.5.1.3: Workability**

Replace G 5.5.1.3 with the following:

The workability range for all PFA concrete (slump) shall be between 60mm and 90mm for a pump mix and between 50mm and 60mm for a non-pump mix.

SD G 5.5.1.5: Durability

The exposure conditions for concrete are classified as "Severe".

Replace G 5.5.1.5 with the following:

The maximum water/cement ratio for moderate sections, general reinforced concrete, exterior portions of mass concrete, as well as for internal concrete in buildings under conditions of moderate exposure, is 0,50.

The maximum water/cement ratio for concrete slabs on the ground under very severe conditions, is 0,45.

SD G 5.5.1.7: Strength concrete

Add the following to sub-clause G 5.5.1.7:

- c) Due to the design approach and assumptions adopted for this Contract, it is of the utmost importance that good strength concrete with consistent quality and composition is used throughout. All possible measures to limit shrinkage shall be applied.

- d) In addition to the requirement that the Contractor design the mixes to the specified strengths, the cementitious material content shall be within the limits of 325 kg/m³ to 400 kg/m³ for Strength 35MPa reinforced concrete. For concrete containing PFA the maximum cement content shall be 450 kg/m³.
- e) All concrete shall be based on designed mixes. Trial mixes shall be made by an approved laboratory with suitable experience in the design of PFA concrete mixes. No concrete shall be cast before the design mix and casting procedures has been approved by the Engineer. The Engineer may at any time request that the concrete mix must be revised.
- f) The concrete mix, which is used in water retaining structures, must have a cement water ratio of at least 2.0, and to ensure workability, water reducing agents of approved manufacture may be used. The concrete mix design must be prepared in an approved laboratory and must be presented to the Engineer for approval. In the design of the concrete mix, special attention must be given to the fact the concrete is to be used in a water retaining structure, and should therefore be a very dense mix.

Add the following new clause to G 5.5.1:

SD G 5.5.3.2: Ready-mixed concrete

Add the following to G 5.5.3.2:

The use of ready-mixed concrete for this Contract will only be permitted if adequate proof of quality control for the specific design mix can be provided to the Engineer.

SD G 5.5.5: Placing

Add the following to sub-clause G 5.5.5.1:

The Contractor shall give the Engineer at least 24 hours notice of his intention to cast concrete.

Add the following to sub-clause G 5.5.5.5:

Concrete in water-retaining structures shall not be allowed to fall freely through a height of more than 2.4m. This implies that walls in these structures may not be cast in lifts of more than 2,4m in height.

SD G 5.5.7: Construction Joints

Add the following to sub-clause G 5.5.7.1:

Construction joints may only be placed where shown on drawings. Should the Contractor wish to deviate from the Engineer's placement of the construction joints, he shall indicate his positioning of the construction joints on the drawings before construction work commences and submit these to the Engineer for comment and approval.

SD G 5.5.8: Curing and Protection

Add the following to this clause:

- a) Floor and wall footings
Abovementioned structural elements shall be protected with approved plastic sheets that comply with the requirements as specified below immediately after the prescribed surface finishing has been completed. When the concrete has gained sufficient strength to prevent damage to the surface thereof, the plastic sheets shall be removed on a regular basis to allow the application of more water to the concrete to ensure that it is kept moist continuously. Plastic sheets shall be reinstalled after each wetting of the concrete. The curing period shall be at least 10 days.
- b) Wall and columns
Structural elements other than horizontal elements, such as walls, columns etc shall be thoroughly sprayed with water immediately after the removal of form work. Immediately after this the concrete shall be covered with approved plastic sheets. These shall be removed on a regular basis to allow the application of more water to the concrete to ensure that it is kept moist continuously. Plastic sheets shall be reinstalled after each wetting of the concrete. Abovementioned shall be cured by means of this method for at least 10 days.

Plastic sheets used for curing shall be waterproof and may not be torn or otherwise discontinuous. It shall be white or lightly coloured. Black or other dark coloured plastic sheets shall under no circumstances be allowed. Sheets shall be held down or fixed securely to the elements being cured and joints in sheets shall be taped to prevent loss of moisture from the concrete. Care shall be exercised to prevent staining of exposed concrete.

Notwithstanding the preceding specifications, the Contractor shall also ensure that the concrete shall not be exposed to thermal shocks during the first 28 days after casting and he shall take the necessary, additional precautionary measures to shield the concrete with plastic sheets or hessian during extreme warm, cold or windy weather conditions. Hessian shall be wetted should the conditions necessitate this. Curing methods shall be such that saturation and subsequent damage to soil foundations is prevented. The Contractor shall make allowance in his rates for the abovementioned curing methods.

SD G 5.5.10: Concrete Surfaces

Add the following to sub-clause G 5.5.10.2:

(a) Wood-floated Finish

When a wood-floated finish is specified, the surface shall first be treated as specified in sub-clause 5.5.10.1, and after the concrete has hardened sufficiently, it shall be floated to a uniform surface free from trowel marks. The levelled surface shall be wood floated either by hand or by machine only, to remove trowel marks.

(b) Steel-floated Finish

When a steel-floated finish is specified, the surface shall be treated as specified for a wood-floated finish above, except that when the bleed water has disappeared and the concrete has hardened sufficiently to prevent the migration of concrete foam to the surface, the levelled surface shall be floated with a steel trowel on which a firm uniform pressure shall be applied to provide a dense, smooth, uniform surface of high quality free from trowel marks.

SD G 5.5.13: Grouting

Add the following to replace G 5.5.13:

SD G 5.5.13.1: Materials

SD G 5.5.13.2: Water

Water for grout shall comply with the requirements given in Sub-clause 3.3 of SANS 1200 G.

SD G 5.5.13.3: Aggregates

Notwithstanding the requirements of Sub-clause 3.4.1 of SANS 1200 G, the grading of fine aggregate (sand) and coarse aggregate (stone or pea gravel) shall conform to the gradings given in Tables 1 and 2, respectively, hereafter.

SD G 5.5.13.4: Cement

Cement shall be ordinary Portland cement complying with the requirements of SANS 471.

SD G 5.5.13.5: Admixtures

Admixtures shall comply with the requirements of Sub-clause 3.5 of SANS 1200 G and shall have a proven record of satisfactory performance. All admixtures to be approved by Engineer.

SD G 5.5.13.6: Proprietary grouting materials

Unless otherwise approved by the Engineer, proprietary grouting materials shall be obtained ready mixed in sealed pockets as supplied by the manufacturers.

Table 1	
1	2
Test sieve nominal aperture size, mm	% Passing (by mass)
9.5	100
4.75	95-100
1.18	46-65
0.3 9 (300 µm)	5-15
0.15 (150 µm)	0-5

Table 2	
1	2
Test sieve nominal aperture size, mm	% Passing (by mass)
9.5	100
4.75	95-100
2.36	0-5

SD G 5.5.14: Defects

Add the following sub-clause G 5.5.14.1:

The method of repair of defects in the concrete shall be by approved epoxy primer, epoxy and filler applied strictly according to the manufacturer's specifications or such other methods acceptable to the Engineer. Cementitious mortar may not be used for such remedial works. All repair materials shall be of an equivalent thermal and structural elasticity to concrete.

Add the following new sub-clauses to G 5:

SD G 5.6: Joints**SD G5.6.4: Construction Joints in the Walls (Horizontal)**

This clause is to be read in conjunction with G 5.5.7. Construction joints in the walls are permitted. Allowable positions of these joints are shown on drawings or shall be to the approval of the Engineer.

The payment unit shall be for the linear metre. The tendered rate shall include supply and casting-in of waterstop, the sealant and the forming and preparation of concrete at the joint as per detail drawings.

SD G 6: TOLERANCES**SD G 6.1: Basis of measurement****SD G 6.1.1: General**

A Degree of Accuracy II shall apply in general, except for smooth shuttering (exposed wall and inside valve chambers) which must have a Degree of Accuracy I.

SD G 6.2: Permissible deviations**SD G 6.2.3: Specified permissible deviations**

Add the following to G 6.2.3:

Degrees of Accuracy shall apply as specified in SD G 6.1.1. Each specified permissible deviation shall be binding by itself. No cumulative effect of permissible deviations will be considered.

The specified permissible deviations also apply to slip-form concrete, unless the Engineer has accepted another set of permissible deviations in writing beforehand. Such amended permissible deviations shall clearly make provision for interfaces between structures erected with the aid of conventional concrete.

The maximum permissible deviation from a 3 m long straight line connecting two points on the surface of a finished floor is 5 mm.

Add the following to G 6.2.3 b):

Monolithic finishes should be laid in panels of the same size as those of the base. For separate bonded finishes, the area of a panel should not exceed 9,0 m². Where a concrete overslab is used to provide a concrete wearing surface over a damp-proof membrane (i.e. separate unbonded construction), joint spacing should not exceed the lesser 30 times the slab thickness, and 4,5 m.

The general pattern of the panels will depend upon such aspects as the shape of the floor area and the position of columns. Wherever possible, panels should be square, or the length of a panel should be limited to 1.25 times its width, to reduce the tendency to crack.

SD G 7: TESTS

SD G 7.2: Testing

SD G 7.2.1: General

Add the following:

The Contractor shall allow for all the costs for testing in his rates.

SD G 7.3: Acceptance criteria for strength concrete

SD G 7.3.2: Criteria for Three Valid Test Results

Add the following to G 7.3.2:

Test results obtained by a ready-mixed concrete production plant as part of its quality-control system are not acceptable for evaluation purposes in terms of sub-clause G 7.3, but test samples shall be taken from ready-mixed concrete on location.

Cubes shall be taken on all pours in accordance with G 7.3. All costs hereof shall be deemed to be included in the rate tendered for the supply of concrete. Where cubes are not taken during a pour no payment shall be made for that particular pour.

Add the following new item to clause G 7:

SANS 1200 L: MEDIUM PRESSURE PIPELINES

L3: MATERIAL

SD L 3.1: General

Substitute the first sentence of L3.1 with the following:

Types and classes of pipes shall be as specified on the drawings.

All bends, T-pieces, reducers and other fittings for uPVC pipes, excluding couplings, shall be Ductile Iron to EN 12842, fusion bonded thermoplastic coated internally and externally with Plascoat PPA 571 HES, to minimum 0.25mm coating thickness with EPDM rubber insert seal. The only exception here are pressure bends for uPVC pipes up to class 16, which must comply with the requirements of SANS 966 1976 Class 16.

All mild steel specials shall after manufacture be hot dip galvanized and coated internally and externally with Plascoat PPA 571 HES, to minimum 0.25mm coating thickness or carboline 891 (3 coats, minimum 125 microns/coat) to the manufacturers specification.

Only stainless steel bolts and nuts shall be used on all fittings such as saddles, flanges, short collar couplings, etc.

All brass fittings shall be SANS approved and manufactured from DZR brass.

Compression fittings for HDPE pipes must be in accordance with the Particular Specifications.

SD L 3.3: C.I. pipes, fittings and specials

In the second sentence:

Change "AC pipes" to "AC or uPVC pipes"

SD L 3.8: Jointing materials

SD L 3.8.1: uPVC pipes

Add the following to L 3.8.1:

Cast iron fittings, valves and hydrants must be joined to AC pipes with short collar couplings. If the pipe differs from the class of the cast iron fittings, class to class adaptors shall be used and the cost shall be included in the cost of the fitting.

SD L 3.4: Steel pipes, fittings and specials

SD L 3.4.2 Pipes of Nominal Bore up to 150 mm

Replace L 3.4.2 with the following:

All steel pipes with a nominal bore up to 150 mm shall be flanged and heavy duty and shall comply with the applicable requirements of SANS 62. According to this standard, the minimum wall thickness will be as indicated in the table below.

ND	Wall Min (mm)
80	4.2
100	4.7
125	4.7
150	4.7

All mild steel pipes and specials, except puddle pipes, shall after manufacture be hot dip galvanized and coated internally and externally with Plascoat PPA 571 HES, to minimum 0.25mm coating thickness or carboline 891 (3 coats, minimum 125 microns/coat) to the manufacturers specification.

SD L 3.4.3 Steel pipes of nominal bore over 150 mm

Replace L 3.4.3 with the following:

All mild steel pipes with a nominal bore over shall be flanged and manufactured from Grade B steel and shall have a wall thickness of at least 6.0 mm, except where otherwise specified. The pipes and specials are to be welded and manufactured according to the requirements of SANS 719 Grade B.

All mild steel pipes and specials, except puddle pipes, shall after manufacture be hot dip galvanized and coated internally and externally with Plascoat PPA 571 HES, to minimum 0.25mm coating thickness or carboline 891 (3 coats, minimum 125 microns/coat) to the manufacturers specification.

Hydraulics tests, according to SANS 719, shall be carried out on all pipes prior to dispatch from the manufacturers workshops. The welding protective painting etc. shall be inspected and tested by the SANS or an approved independent inspection company. The test certificate shall be submitted to the Engineer upon delivery of the pipes to site.

SD L 3.8: Jointing materials

The jointing material used on all flange joints shall be of a suitable compressed mineral fibre at least 3 mm thick complying respectively with BS EN 681 or BS EN ISO 23936, as applicable. All gaskets shall be full face.

SD L 3.8.3: Flanges and Accessories

Change "SANS 1123 to "the applicable table in SANS 1123" and delete the words "or BS 4504"

SD L 3.8.4: Loose flanges

Substitute the first sentence of the last paragraph of L 3.8.4 with the following:

Bolts and nuts shall comply with the requirements of SANS 135.

SD L 3.9.5: Joints, Bolts, Nuts and Washers

Substitute L 3.9.5 with the following:

All joints, bolts, nuts and washers shall be stainless steel 316.

SD L 3.9.7: Contact between Dissimilar metals

Isolating bolt units shall be supplied.

Add the following to L 3.10

SD L 3.10.1: Valves

1. All valves shall be of the AVK Type or approved similar and shall comply with the requirements of SANS 664, shall bear the SANS mark, and the pressure rating shall be as per the relevant drawings.
2. Valves shall have non-rising spindles and the direction for opening and closing shall be permanently engraved on the valve casing and shall close clockwise.
3. Valves shall be fitted with cast iron tops, secured with retaining bolts or as specified on the drawings.
4. Only valves supplied with minimum thickness of 250 micron Copon KSIR 88 epoxy paint applied to all internal and external surfaces after it has been thoroughly cleaned by grit blastings to SA 2.5 finish in compliance with requirements of SIS 050900 or valves with similar approved coatings will be acceptable.
5. All flanged valves shall be drilled according to the applicable table in SANS 1123.
6. Pipes shall not be tested against a closed valve.
7. Thrust blocks for test sections shall be approved by the Engineer prior to testing of pipes.
8. Butterfly valves shall have actuators or geared handwheels or cast iron tops as specified on the drawings.

9. Butterfly valves shall be eccentric valves or as specified on the drawings.

SD L 3.10.2: Flow meters

The flow meter shall be an electromagnetic flow meter Endress Hauser, Siemens or similar approved and shall comply to the following basic technical specification:

- The readout unit should indicate the flow rate as well as totalizer readings
- 4-20 mA current output signal for the flow rate
- Pulse/Frequency output for alarm conditions as well as a active/passive output for the flow totalizer
- Forward, reverse and total flow counters
- Low flow cut off function
- Empty pipe detection function
- Operating pressure will not exceed 16/20 Bar
- Unit shall have a IP 68 rating
- Accuracy to be 0.5% or better
- Modbus RTU communication module
- Meter to be flanged in accordance with Table 1600/3
- Calibration certificate
- Body to have a polyurethane coating or similar approved
- Liner to be resistant to corrosivity of the operating environment.

SD L 3.10.3: Pressure Gauges

The pressure gauges to be used shall be of the Bourdon Tube type and shall comply to the following basic technical specification:

- Stainless Steel casing with Brass Internals
- Glycerine filled
- Gauges shall be accurate to 5 %
- The size of the face shall be 100 mm
- The size of the connection shall be 10 mm BSP
- Shut off valve to be included
- Gauges shall be calibrated in meters water head
- Ranged 0-200m
- If specified, gauges shall be supplied with marking pointers
- Gauge cocks shall be of the three-way type allowing venting to atmosphere.

SD L 3.10.4 Air Valves

Air valves for potable water shall be suitable for a working pressure of PN12 or PN20 as per drawings and schedule of quantities. All air valves shall be double action air valves of Vent-o-mat series RBX or similar approved.

The branch pipe diameter of the tee on the main pipe shall be equal to the main pipe.

All air valve installations shall be supplied with an isolating valve and distance piece between the air valve and the branch of the tee, and other fittings shown on the drawings.

Double-acting air valves shall have large as well as small orifices. The large orifice shall have a rubber bed, and the small orifice a brass bed on which the balls can shut. Double-acting air valves shall be flanged and supplied with flanged isolating valves. Air valves shall be designed to remain open until all the air has escaped and shall not close due to the speed of the escaping air.

SD L 3.10.5 Pipeline Scour valves

Scour valves shall be suitable for a working pressure of PN12 or PN20 as per drawings and schedule of quantities.

Scour valves shall consist of a flanged gate valve of 200mm diameter coupled horizontally to a flanged scour tee. The outlet pipe shall be a 200mm nominal diameter galvanised steel pipe with 6mm wall thickness. The outlet shall discharge above ground level in the direction of the fall of the natural ground surface, perpendicular to the main pipe. The outlet end of the pipe shall be cut diagonally and supplied with a cover that is hinged and that will remain closed unless it is forced open by the water. The hinge shall be non-removable.

SD L 3.10.6 Control Valves

The Control Valve shall be Bermad or approved similar. The casing of the control valves shall be manufactured from close-grained cast iron and the flanges shall be drilled according to applicable SANS 1123 Table.

The valves shall be of the diaphragm single bed ball-type controlled hydraulically by a pilot valve. The main valves shall be fixed on three sides with single removable bronze beds and synthetic rubber disks with a rectangular cross-section, with disk clamps. No packing material will be allowed and repairs must be done without removing the valve from the pipeline.

The design must be such that no water can come from the main valve into the pilot valve system.

SD L 3.10.7 Non-Return Valves

Non-return valves shall be Bermad non slam or approved similar, fully flanged valves. The valve pressure class shall be as specified on the drawing.

L 3.11: Manholes and surface boxes**SD L 3.11.6: Surface boxes**

Add the following to L 3.11.6:

The type of boxes shall be as specified on the drawings.

L 4: PLANT**SD L 4.3: Testing**

Add the following to L 4.3:

The Contractor must ensure that the test equipment is in good order and that it is supplied with a calibration certificate upon request of the Engineer.

L5: CONSTRUCTION**L 5.1: Laying****L 5.6: Valve and hydrant chambers****SD L 5.6.1: General**

Substitute the first sentence of L 5.6.1 with the following:

The drawings of valve and hydrant chambers shall supersede the corresponding drawings in the standard specification.

SD L 5.11: Manholes, inspection chambers etc**SD L 5.11.1: General**

Refer to SANS 1200 LD and substitute LD 5.7.1 with the following:

Manholes shall be constructed as follows:

1. Final cover levels of manholes in streets and paved areas shall be to the same level as the street or paved area.
2. In the veld 200 mm above natural ground level.

If a manhole is positioned at a low point or in a hollow where storm water infiltration may occur the manhole cover level must be raised to a level to avoid the danger of infiltration, or to a level as agreed with the Engineer.

The joint between the manhole and the concrete roof slab shall be sealed effectively with sealant, to the prescriptions of the manufacturers and approval of the Engineer, to prevent the infiltration of subsurface water or storm water. Lifting holes shall be sealed off effectively with approved epoxy after installation and before backfilling.

In the case of only one inlet pipe with the same diameter as the outlet pipe and with a deviation of less than 45° from the straight, the invert level of the outlet pipe shall be 10 mm lower than that of the inlet pipe.

Where the angle between the inlet and outlet of the manhole deviates by 45° or more from the straight or where more than one inlet enters a manhole, the following will be applicable.

- Where the inlet of the main line has the same diameter as the outlet, the invert level of the outlet pipe shall be 30 mm lower than that of the main inlet pipe.
- Where the inlet of the main line has a smaller diameter than the outlet, the soffits of the two pipes shall be the same level.
- The level difference between the various inlet levels will be as indicated on the plan.

Complete, full-length standard pre-fabricated units for splits will be used to minimize junctions manhole channel. No channel will be made up by short sections where a full-length split section can be used.

If junctions between splits can be reduced by shortening the full-length section, it should be considered. The gap between split sections and between the split and the in- and outlet pipe will not be more than 3 mm and must be grouted with epoxy.

The end of the inlet and outlet pipe must be cut, flush with the inside of the manhole wall to prevent debris to accumulate on top of the pipe wall.

SD L 5.11.3: Step Irons

Refer to SANS 1200 LD and add the following to LD 5.6.3:

Calcamite step irons shall only be installed in manholes deeper than 1,2 m.

Calcamite step irons must be installed above the outgoing pipe.

SD L 5.11.4: Brick Manholes

Refer to SANS 1200 LD and add the following to LD 5.6.4.3:

Walls of brick manholes, as well as the extension of manholes above the concrete roof slab, shall be plastered internally as shown on drawing LD-3. External plaster work shall extend to at least 150 mm below ground level. Manholes shall not be extended above the concrete roof slab by more than 300 mm with brickwork.

If manhole covers are raised with bricks, a half-brick recess, as a foothold, shall be left directly above the concrete slab above the step irons.

SD L 7: TESTING

SD L 7.3: Standard hydraulic pipe test

SD L 7.3.1: Test pressure and time of test

Add the following to L 7.3.1.1:

Pipes shall not be tested against isolating valves. Special blank flanges or end caps, fully anchored, shall be provided for testing.

Substitute L 7.3.1.2 with the following:

The test pressure for field testing shall be 1,5 times the rated maximum working pressure of the pipe e.g. class 12 AC pipe (0,6 MPa rated working pressure) shall be tested to 0,9 MPa and class C AC pipe (0,9 MPa rated working pressure) to 1,35 MPa.

Substitute L 7.3.1.3 with the following:

The test pressure applied according to L 7.3.1.2, must, with allowance for any level differences along the pipe line, be such that the pressure at any point in the pipe will be at least 1,25 times and not more than 1,5 times the rated working pressure of the pipe.

SD L 8: MEASUREMENT AND PAYMENT

SD L 8.2: Scheduled items

SD L 8.2.1: Supply, lay and bed pipes complete with couplings

Add the following to L 8.2.1:

“The tendered rates shall also include full compensation for the cost of all labour, material, Construction equipment, chemicals and overheads for the complete sterilization of the entire potable water reticulation system and the disposal of the sterilizing solution as approved by the engineer.”

SD L 8.2.5: Supply, and place pipes, valves and specials

Add the following to L 8.2.5:

“The tendered rates shall also include full compensation for the cost of commissioning of the valves and actuators.

SD L 8.2.11: Anchor/Thrust blocks and pedestalsUnit: m³

Substitute L8.2.11 with the following:

Anchor and thrust blocks shall be measured per cubic metre concrete and the tendered rate shall include for all formwork and reinforcement (where specified) for the required dimensions.

SD L 8.2.13: Valve and hydrant chambers Unit: No

Add the following to L 8.2.13:

“The tendered rate shall be an all-inclusive rate for the complete valve chamber as per the relevant drawing. Included in the tendered rate shall be, among other, clear and grub, excavation, backfill, shoring, dewatering, protection of existing services, access ladders or stepping rings, blinding where required, concrete and/or brickwork, reinforcing, formwork, manhole cover and frame with locking mechanism as specified, ventilation pipes, lifting hooks/holes, finishing of structure.

The allowance for reinforcing steel shall be as specified on the detail drawings. If not specified on the drawing, a weight of 125kg/m³ concrete shall be allowed in the tendered rate.

The rate for the valve chamber shall exclude supply and installation of all pipework, gauges, equipment, valves and specials as shown on the drawings and in the drawing's pipe schedule.

The tendered rate shall also include all labour, material and plant required to perform the work.”

SD L 8.2.16: Connect and cut into existing watermain Unit: No

The cutting into existing mains shall be measured by the number of each type and diameter of pipe cut into.

The tendered rate shall include full compensation for all arrangement with the relevant authorities, providing a detailed method statement, isolating the main, cutting into the main to accommodate the connecting fitting, dewatering, excavating, removing of excess material, taking steps to prevent the ingress of soil, stones and other material into the main as well as all material and labour to connect to the pipe.

SD L 8.2.17: Marker posts..... Unit: No

The tendered rate shall allow for the following:

- a) uPVC pipe as per standard detail

LB BEDDING (PIPES)**LB 3: MATERIALS****SD LB 3.1: Selected granular material**

Substitute LB 3.1 with the following:

Selected granular material shall be an aggregate, sand or granular material, all of a non-cohesive nature and free from any organic material, of which the grading analysis shows 100% passing a 13,2 mm sieve and not more than 5% passing a 0,075 mm sieve.

SD LB 3.2: Selected fill material

Substitute LB 3.2 with the following:

The requirements of SD LB 3.1 shall apply mutatis mutandis.

SD LB 3.3: Bedding

Add the following to LB 3.3:

All pipes shall be classified as rigid pipes and shall be laid on a Class C bedding except water connections which shall be classified as flexible pipes.

SD LB 3.4.1: Suitable material available from trench excavation

Replace the first sentence of LB 3.4.1 with:

Irrespective the requirements of subclause 3.7 of SANS 1200 DB and subclause 3.4.1 of SANS 1200 LB regarding the use of selective methods of excavation, the Contractor must use selective methods of excavation and supply and use plant that will avoid burying or contaminating material that is suitable and required for bedding or covering the pipeline.

LB 5: CONSTRUCTION**LB 5.1: General****SD LB 5.1.4: Compacting**

Substitute "90% of MAASTHO" in LB 5.1.4 with "93% of Mod.AASHTO (100% for sand)".

LB 8: MEASUREMENT AND PAYMENT**LB 8.1: Principles****SD LB 8.1.1: Supply of bedding materials measured separately**

Add the following to LB 8.1.1:

Payment for bedding material and selected fill material is only made if the selected trench-excavation material cannot be used in the same position as bedding material but has to be obtained from another part of the site of works or designated borrow pits, or from commercial sources.

SD LB 8.1.3: Supply of bedding materials measured separately

Add the following to LB 8.1.3:

Where the Contractor uses plant, which will result in a width of the trench wider than the width as per S D DB 5.2, the volume of the bedding will be determined on the width (pipe diameter + 600 mm) specified and not the wider width. The rate tendered must make provision for this and no additional payment will be made.

SD LB 8.1.4: Separate items for cradle and blanket

Substitute LB 8.1.4 with the following:

Although distinction may be made as regards items for the bedding cradle and selected fill blanket, the material in both cases shall comply with the requirements for material for bedding cradle.

SD LB 8.1.5: Disposal of displaced material

Add the following to LB 8.1.5:

Excess displacement material must be disposed of at the dumping site as specified in clause SD D 5.2.2.3.

LC: CABLE DUCTS**LC 3: MATERIALS****SD LC 3.1: Ducts**

Add the following to LC 3.1:

Class 6 uPVC pipes to SANS 966 shall be used as ducts for electric cables under streets.

Ducts for Telkom shall be as follows:

In Municipal road reserves:

- 110mm Corflo pipes

SD LC 3.2: Bedding

Substitute LC 3.2 with the following:

The provisions of SANS 1200 LB: Bedding (Pipes) and the relevant SPECIFICATION DATA shall apply mutatis mutandis and payment shall be made under the appropriate payment clauses of SANS 1200 LB.

SD LC 3.3: Backfill

Substitute LC 3.3 with the following:

The provisions of SANS 1200 DB: Earthworks (Pipe Trenches) and the relevant SPECIFICATION DATA shall apply mutatis mutandis and payment shall be made under the appropriate payment clauses of SANS 1200 DB.

SD LC 3.4: Cable duct markers

Add the following to LC 3.4:

Cable duct markers shall be provided as specified in SD LC 5.10.

LC 5: CONSTRUCTION**LC 5.1: Excavation of trenches****SD LC 5.1: Trench widths and depths**

Add the following to LC 5.1.1:

Trench widths shall be in accordance with the provisions of SANS 1200 DB: Earthworks (Pipe Trenches).

The minimum depth of cover over ducts shall be 600 mm from the final road level.

SD LC 5.1.3: Excavation of trenches at road crossings

The minimum depth of cover over ducts shall be 300 mm where construction traffic is liable to cross them. Road crossing shall therefore be constructed after the construction of the roadworks has reached the stage where the required cover is available.

SD LC 5.2: Bedding and compaction of bedding

Substitute LC 5.2.1 and LC 5.2.2 with the following:

All ducts shall be laid on a Class C bedding according to the provisions of SANS 1200 LB: Bedding (Pipes). Backfilling shall be according to the provisions of SANS 1200 DB: Earthworks (Pipe Trenches).

SD LC 5.4: Backfilling and compaction

Add the following to LC 5.4:

Road crossings shall be backfilled with sand from designated borrow pits, the site or commercial sources, whichever is applicable, up to underneath the subbase, and compacted to a minimum of 100% of Mod.AASHTO density.

SD LC 5.6: Laying of cables with other services

Add the following to LC 5.6:

“For Telkom cables the following will apply:

The trench shall be excavated in such a position that pipes can be laid at least 300 mm from the power cables. Where this is not possible, pipes shall be separated from power cables by concrete or paving slabs placed vertically.”

SD LC 5.8: Road crossings

Substitute "0,5 m" in the last sentence of LC 5.8 with "1,0 m" and add the following:

Ducts for road crossings shall be effectively sealed by means of end caps.

SD LC 5.10: Position to be marked

Change the following in LC 5.10

The draw wire, as specified in LC 5.3.3, shall be secured to a service marker as per the detailed drawing and a uPVC end cap will be fitted to prevent any moisture or soil from entering the duct

Electrical duct positions must be marked with a 5 mm deep 75 mm “E” letter grinded on the kerb both sides of the road and painted Red. Poly Acrylic paint will be used on concrete surfaces

Telkom duct positions must be marked with a 5 mm deep 75 mm “T” letter grinded on the kerb both sides of the road and painted green. Poly Acrylic paint will be used on concrete surfaces

LC 7: TESTING**SD LC 7.2: Compaction tests**

Substitute LC 7.2 with the following:

The Contractor shall submit for all road crossings, density tests to the Employer's Agent at his own expense.

LC 8: MEASUREMENTS AND PAYMENT**LC 8.2: Scheduled items****SD LC 8.2.5(a): Supply, lay, bed and provide duct Unit: m**

Substitute “GPO” in LC 8.2.5 (a) with “Telkom”.

SD LC 8.2.7: Draw pits / Manholes

Amend Item to read:

MANHOLES AND ACCESSIBLE JUNCTION BOXES

Construct complete to drawings for the following structures:

- a) Accessible Junction Box (600mm x 600mm) as per drawing no. ST/T/1 Unit: No
b) Telecoms Draw Box as per drawing ST/T/2..... Unit: No

SD LC 8.2.8: Kerb Paint Markings Unit: No

"The tendered rate shall allow for a 12mm diameter hole drilled 5mm deep into the kerb. The hole will be blown clean and free of residual dust. The holes will be filled using road marking paint with the specific colour code for each individual service.

Colour code:

Red	-	Sewer
Blue	-	Water
Green	-	Irrigation
Cyan	-	Telecoms
Orange	-	Electrical"

SD LC 8.2.9: Marker posts..... Unit: No

The tendered rate shall allow for the following:

- a) House connection marker post as per detail drawing

SD LC 8.2.10: Connection to existing telecommunications network Unit: Sum

The tendered rate must allow for all associated work to break into an existing network and the coupling of the old and new system. The excavation for the pipeline, the backfilling and all materials and spoil of excess materials will be included in the rate.

LD: SEWERS**LD 3: MATERIALS****SD LD 3: Pipes, fittings and pipe joints**

Add the following:

Types and class shall be as specified on the drawings.

SD LD 3.5: Manholes, chambers, etc.**SD LD 3.5.7: Step irons**

Substitute LD 3.5.7 with the following:

Step irons shall be installed in all manholes deeper than 1,0 m. Step irons be manufactured from polypropylene with high tensile steel reinforcement, such as Calcamite or similar approved. The minimum overall length shall be 150mm. The installation of the step iron shall be in accordance with the specification of the manufacturer.

SD LD 3.5.8: Manhole covers and frames

Replace clause 3.5.8 with the following:

All manhole covers and frames shall be Heavy Duty ductile iron with hinged cover in compliance with EN124-D400.

SD LD 3.6: Marker posts

Add the following to LD 3.6:

Service marker posts shall be planted directly above of the end cap at the connection point. One end of the post must extend to 100 mm above the natural ground level and shall be painted brown with a Poly Acrylic paint used on concrete surfaces. The bottom end of the marker post shall be connected to the end cap with a piece of wire.

The marker post will be as per the detail drawing.

The payment item for marker posts will also include the cutting of a 4 mm deep 75 mm long and 5mm thick groove and the kerb face painted brown with a Poly Acrylic paint used on concrete surfaces

LD 5: CONSTRUCTION**LD 5.4: Connections to manholes**

Add the following to LD 5.4:

If the gradient of a pipe is more than 1:10, a vertical bend shall be used to connect up to the manhole. The Contractor shall take care that no low point is formed in the pipe as a result of the bend. If a pipe lies at a gradient of 1:10 (5,71°), A 11,25° bend cannot be used since a bend with an angle larger than the grade of the pipe will result in a low point. It is then responsibility of the Contractor to shorten the bend in order to create the required angle. For pipes with a gradient of up to 1:10, the angle can be taken up by a joint in the manhole and if required, also by the joint between the short-length and first full pipe.

LD 5.6: Manholes, inspection chambers, etc.**SD LD 5.6.1: General**

Substitute LD 5.6.1 (a) with the following:

Manholes shall be constructed in accordance with the drawings.

1. Final cover levels of manholes in streets and paved areas shall be to the same level as the street or paved area.

2. On sidewalks, lawns and garden areas the cover level shall be 20 mm above the final ground level.
3. In midblock sewers it shall be 50 mm minimum above ground level.
4. In the veld 100 mm above normal ground level.

Where FC manholes are specified they must be bitumen dipped and if the manhole needs to be raised by more than 300 mm, FC sections with the same diameter shall be installed and sealed with epoxy.

Dolomite aggregate and low alkali sulphate resistant cement to SANS 471 shall be used for all concrete, mortar or screeding.

All joints to be sealed with Sika Pro 2 HP or similar approved.

All external joints between concrete rings to be wrapped with a 300mm denso tape or similar approved.

All brickwork to be plastered internally and externally (minimum 13mm thick) and sealed with two coats Flintkote 3 (ABE) and one coat Silvakote (ABE).

All manholes shall be watertight.

Lifting holes to be plugged with Sika Pro 2 HP or similar approved.

Maximum chimney height of 400mm will be acceptable.

Hinge of the lid must be positioned on the side of the approaching traffic in the lane, or at right angles to the direction of the flow.

SD LD 5.6.2: Benching

Add the following to LD 5.6.2.3:

Benching for all manholes except those with sandtraps shall be in accordance with the drawings.

SD LD 5.6.3: Step irons

Add the following to LD 5.6.3:

Step irons shall only be installed in manholes deeper than 1,0 m.

SD LD 5.6.4: Brick manholes

Add the following to LD 5.6.4.3:

Walls of brick manholes shall be plastered internally and externally (minimum 13mm thick) and sealed with two coats Flintkote 3 (ABE) and one coat Silvakote (ABE). All manholes shall be watertight and shall not be extended above the concrete roof slab by more than 400 mm with brickwork.

Add the following to LD 5.6:

SD LD 5.11: Internal erf connections

All sewer connections shall be laid at a minimum gradient of 1:60, except where otherwise ordered by the Employer's Agent. Where steeper gradients can be achieved, the levels of other services must be taken into account. Connections should not be shallower than 1.0 m at a point 1.0 m inside the erf unless minimum grades do not allow this, in which case permission is required from the Employer's Agent.

SDLD 5.12: Backfilling around manholes

Material used to backfill around manholes that fall within the road reserve must comply with SANS 1200 LB Subclause 3.1. Material used to backfill around other manholes must comply with SANS 1200 DB Subclause 3.5.

Material adjacent to the walls of the manholes must be watered and mixed to its optimum moisture content and compacted in layers not exceeding 150 mm in the compacted state. Compaction must be minimum 100% MOD AASHTO for non-cohesive material, and minimum 93% of MOD AASHTO density for cohesive materials.

Backfilling around the structure must be carried out in even layers to avoid uneven side forces."

LD 7: TESTS**SD LD 7.1: General**

Add the following to LD 7.1.5:

All tests shall be repeated after the completion of backfilling of pipe trenches.

SD LD 7.2: Tests and Acceptance/Rejection criteria**SD LD 7.2.6: Water tightness of Manholes**

Add the following LD 7.2.6:

"Manholes will be inspected at the end of the first winter after completion. No ingress of groundwater into the manhole will be allowed.

Should any manhole fail to pass the inspection to the satisfaction of the Employer's Agent, the fault or faults shall be made good by the Contractor at his own expense according to methods approved by the Employer's Agent and the work shall be inspected again. The cost of all extra work and inspection shall be borne by the Contractor."

SD LD 7.2.7: Visual Water Tightness of Pipelines

No visual leakage or seepage of groundwater must be visible inside the pipe between two manholes after construction of the line.

SD LD 7.2.8: Inspection of all foul sewer mains by means of CCTV camera as required by the local authority

The tendered rate shall include full compensation for locating the manholes, CCTV videoing of each foul sewer pipe with diameters greater than 100 mm diameter, providing such video material in a presentable way to the Employer's Agent and Local Authorities. The rate shall also include to cover any other related cost deemed necessary

LD 8: MEASUREMENT AND PAYMENT**LD 8.2: Scheduled items****SD LD 8.2.3: Manholes Unit: No**

Add the following to LD 8.2.3:

The unit of measurement shall be the number of each, for the type of manhole specified (e.g. in-situ built reinforced concrete or precast FC manholes) and in the depth increments as scheduled, fully installed in accordance with the details shown on the drawings.

The depth of the manhole will be measured from the cover level (top of concrete of roof slab) to the invert of the pipe in the centre of the manhole.

Manholes shall be measured complete as indicated on the drawings. The rate shall cover the cost of all necessary excavations and backfilling with approved selected material compacted to 93% of Mod AASHTO density (100% for sand), supplying and installing of all material and accessories complete as shown on the drawings, transporting precast concrete elements from stacks, as well as for the removal and spoil of all surplus material.

The rate shall also include the cutting of short lengths of pipe where necessary and the supply and installation of flexible fittings and/or couplings as indicated on the drawings and the connection of the pipe to manholes, catchpits, etc. and of building pipes into the walls of such structures.

The rate for manholes shall also cover the cost of providing and installing the specified covering grids and/or cover and frame and locking devices, where required and as specified on the drawings.

The rate for in-situ cast reinforced concrete manholes, shall exclude the supply and installation of reinforcement, which will be measured elsewhere.

The rate shall cover the cost of additional excavation, roof slabs, reinforcement, brickwork, plaster, concrete, benching, step irons where required, Heavy Duty ductile iron with hinged cover in compliance with EN124-D400, short sections of inlet and outlet pipes, and backfilling, as well as supply and transport of the manhole from the yard, if applicable. The depth of the manhole shall be measured from the final finish level of the road reserve profile to the invert level of the pipe.

SD LD 8.2.4: Extra over Item 8.2.3 for backdrops, etc Unit: no

Add the following to LD 8.2.4:

a) Backdrop:

Backdrops will be measured in different depth categories. The rate must include for all additional excavation, backfilling, pipe couplings, special fittings, bedding, selected backfill, concrete, compaction of fill and disposing of excess material. The depth category will be measured from the invert of the upper sewer main entering the manhole to the invert of the manhole as explained in SD LA 8.2.3. All back-drops 500mm and less must be made good by means of benching.

b) Concrete footings

All FC manholes deeper than 1.5 m must be constructed with an additional concrete footing as shown on the drawing. The Employer's Agent must issue the Contractor with a written instruction to construct the additional concrete footing.

The tendered rate must allow for all additional excavations, concrete shuttering, backfilling and disposing of excess material as well as any other activity required to construct the concrete footing.

c) Uniflow Manhole Covers and Frames

The Employer's Agent must issue the Contractor with a written instruction or alternatively a drawing, detailing which manholes are to be constructed with the Uniform Type Covers and Frames.

SD LD 8.2.7: Concrete encasement.....Unit: m³

The rate shall cover the complete cost for supply, transport, shuttering and to encase the pipe with a minimum concrete cover of 150mm around the pipe. The concrete strength must be 15 MPa.

SD LD 8.2.11: Connect to existing sewer manhole Unit: No

The tendered rate must allow for all associated work to break into existing manhole and connect new sewer pipe, make good benching, and accommodate the sewer flow. The excavation for the pipeline, the backfilling and all materials and spoil of excess materials will be included in the rate.

SD LD 8.2.13: End Caps Unit: No

The tendered rate must allow for the supply and fitting of the end-cap for the following diameters:

- a) 110 mm dia uPVC Class 34
- b) 160 mm dia uPVC Class 34
- c) 250 mm dia uPVC Class 34

SD LD 8.2.14: Extra –over item 8.2.3 for uPVC erf connection directly into new manhole Unit: No

The extra over rate shall be paid for erf connections which are not located on the main sewer line, (i.e. those not cut into the line) but which are connected directly into the manhole measured under Item 8.2.3. The rate tendered shall cover all costs to install the erf connection into the manhole, the provision of benching in the manhole to accommodate the erf connection and all other cost in relation to the item. The cost of the pipe is measured under Item 8.2.1 and the cost of the end cap under Item 8.2.13.

SD LD 8.2.15: Connection to existing sewer pipe Unit: No

The tendered rate must allow for all associated work to locate pipe, remove end cap, accommodate the sewer flow, connect pipes and make good after connection per connection point. The excavation for the pipeline, the backfilling and all materials and spoil of excess materials will be included in the rate.

SD LD 8.2.16: uPVC and HDPE Specials, Supply lay, handle, bed (Class C bedding), joint including cut pipes to lengths where required, test and disinfect for..... Unit: No

Bends and specials for the material specified for the following:

- a) Bends
- b) T-Pieces
- c) End Caps
- d) Ranger and Flange Adaptors
- e) Other as specified

The tendered rate shall allow for supply lay, handle, bed (Class C bedding), joint including cut pipes to lengths where required, test and disinfect. Excavation for the pipeline, backfilling, all materials and spoil of excess materials will be included in the rate.

SD LD 8.2.18: Marker posts..... Unit: No

The tendered rate shall allow for the following:

- a) House connection marker post as per detail drawing

LE: STORMWATER DRAINAGE**LE 3: MATERIALS****LE 3.1: Culvert units and pipes**

Add the following:

Types and classes shall be as specified on the drawings.

SD LE 3.1 (d): Skewed Ends

Substitute LE 3.1 (d) with the following:

Where pipe culverts are to be constructed with a skew angle of more than 20°, the skew ends shall be cut on site.

SD LE 3.4: Manholes, catchpits and accessories**SD LE 3.4.3: Manhole covers, grid inlets, etc.**

Substitute the last sentence in LE 3.4.3 with the following:

Covers and frames for manholes shall comply with EN124-D400 and shall be Heavy Duty ductile iron with hinged cover where the hinge of the lid must be positioned on the side of the approaching traffic in the lane, or at right angles to the direction of the flow.

Side inlet catchpits will be constructed with a precast concrete cover slab with cover and frame to withstand the loading requirements of SANS for heavy duty applications.

Grid inlets shall be heavy duty ductile iron with hinged cover in compliance with EN124, Class B125.

SD LE 3: Geofabric blanket

Replace LE 3.5 with the following:

The geotextile blanket shall be made of a polymer material which has been processed to achieve a homogeneous permeability. A geotextile blanket made from polyamide is not acceptable as this material is sensitive to varying temperatures and moisture absorption.

a) Testing

Testing must be done in accordance with the standard test-methods approved by the Provincial Administration: Department of Roads. A copy of these methods, hereafter called Appendix A, are available for inspection at the engineer's offices.

b) Classification

The geotextiles used for subsoil-drainage are classified into two grades (Grade 2 and 3) as well as four classes. The grade is mainly determined by the required tensile strength and resistance to puncture needed whereas the class determines the permeability and the equivalent opening sizes (EOS) required. Geotextiles used for protection work shall be a Grade 1 (greater tensile strength, CBR strength and better resistance to puncture) and classified as Class B.

c) Tensile strength

The minimum tensile strengths per meter width for the various grades as determined by test-method 8 of appendix A are:

Grade 1:15000 N/m
Grade 2:10000 N/m
Grade 3:5000 N/m

d) Elongation at breakpoint

The average elongation at breakpoint shall be determined according to test-method 8 of Appendix A, expressed as a percentage of the original length and presented to the Employer's Agent for approval with respect to Grade 2 and 3. The minimum average elongation at breakpoint for Grade 1 is 50%.

e) Resistance to puncture

The resistance to puncture shall be determined according to test-method 9 of Appendix A and expressed as the average diameter hole formed by a 45° cone having a mass of 1 kg and dropped from a height of 500 mm above the outstretched geotextile being:

Grade 1: 14 mm maximum

Grade 2: 26 mm maximum

Grade 3: 32 mm maximum

f) Mass

The minimum mass for Grade 1, Class B geotextile, determined according to test-method 6 of Appendix A shall be 320 gr/m².

g) Porosity

The porosity for Grade 1, Class B geotextile determined according to test-method 5 of Appendix A shall be 80% ± 10%.

h) CBR strength or penetration joints

The minimum tensile strength for a Grade 1 geotextile, determined according to test-method 7 of Appendix A shall be 25 000 N/m at breakpoint.

i) Filtration

The minimum rate of filtration determined according to test-method 11 of Appendix A, shall be 30 l/s per square meter for a constant water pressure head of 100 mm.

j) Equivalent opening size (EOS)

The class division according to EOS is as follows:

<u>Class</u>	<u>EOS (0₉₅) mm</u>
A	0.02 - 0.06
B	0.06 - 0.20
C	0.20 - 0.60
D	0.60 - 0.80

k) Chemical reaction

The geotextile shall not show any perceptible signs of weakening after submersion in the following chemicals:

- i) an Alkaline-solution with a minimum pH of 12 at 50°C.
- ii) an Acid-solution with a pH of 3 at 50°C.

l) Ultra-violet light

The geotextile shall, after exposure to direct sunlight for 1500 hours, have at least 80% of the original strength.

m) Decay

The geotextile must be totally decay resistant and must not promote algae growth.

SD LE 3.6: Subsurface drains**SD LE 3.6.1: Pipes**

Add the following to LE 3:

Pipes for subsurface drains shall be uPVC "Corflo" pipes (or similar approved) complying with the requirements of SANS 1601 and shall be perforated or slotted with smooth internal bore.

Perforations shall be spaced in two rows for 110 mm pipes and in three rows for 160 mm pipes. The arrangement of perforations and slots shall be subject to the Employer's Agent's approval.

Pipes without slots or perforations required for conveying ground water from the subsoil drainage proper to the point of discharge, shall be unperforated uPVC pipes as specified above.

"Core-drain" pipes will not be accepted.

SD LE 3.6.2: Geotextile blanket

Geotextile blanket around subsurface drains shall comply with the requirements of SD LE 3.5 and shall be "Kaytech Bidim A2" or similar approved.

SD LE 3.6.3: Crushed stone

Crushed stone in subsurface drains shall be 9.5 mm nominal size stone complying with the grading requirements of SANS 1083.

SD LE 3.6.4 Sand backfilling

Sand for backfilling subsurface drains shall be clean, hard, free-draining sand from approved borrow pits.

LE 5: CONSTRUCTION**LE 5.1: Trench bottom****SD LE 5.1.3: Unsuitable founding conditions**

Substitute "90% of MAASTHO maximum density" in LE 5.1.3 with "93% of Mod.AASHTO maximum density (100% for sand)".

LE 5.2: Bedding and laying**SD LE 5.2.2: Pipe culverts**

Add the following to LE 5.2.2:

All pipes shall be laid on a Class C bedding, as specified in SANS 1200 LB.

Spigot and socket pipes are to be used or as specified on the drawings.

LE 5.5: Catchpits, manholes, inlets and outlet structures**SD LE 5.5.1: General**

Add the following to LE 5.5.1:

Manholes and inlet and outlet structures shall be constructed in accordance with the details as shown on the drawings.

Dolomite aggregate and low alkali sulphate resistant cement to SANS 471 shall be used for all concrete, mortar or screeding.

All joints to be sealed with Sika Pro 2 HP or similar approved.

All external joints between concrete rings to be wrapped with a 300mm denso tape or similar approved.

All manholes shall be watertight.

Lifting holes to be plugged with Sika Pro 2 HP or similar approved.

Maximum chimney height of 400mm will be acceptable.

SD LE 5.5.5 Precast manholes and SD LE 5.5.7: Precast inlet and outlet structures

Substitute LE 5.5.5 and LE 5.5.7 with the following:

Manholes and inlet and outlet structures shall be constructed in accordance with the details as shown on the drawings.

SD LE 5.8 : Backfilling around Structures

Add the following to LE 5:

Material used to backfill around manholes that fall within the road reserve must comply with SANS 1200 LB Subclause 3.1. Material used to backfill around other manholes must comply with SANS 1200 DB Subclause 3.5.

Material adjacent to the walls of the manholes must be watered and mixed to its optimum moisture content and compacted in layers not exceeding 150 mm in the compacted state. Compaction must be minimum 100% MOD AASHTO for non-cohesive material, and minimum 93% of MOD AASHTO density for cohesive materials.

Backfilling around the structure must be carried out in even layers to avoid uneven side forces."

LE 8: MEASUREMENT AND PAYMENT

LE 8.2: Scheduled items

SD LE 8.2.1: Supply, handle, lay and bed concrete pipes Unit: m

Add the following to LE 8.2.1:

The provisions of LE 8.2.1 shall apply mutatis mutandis to uPVC pipes.

SD LE 8.2.4: Extra-over items LE 8.2.1 for cutting end units for pipes on site Unit: No

Add the following to LE 8.2.4:

Payment shall be made only for skew cuts greater than 20° at manholes, kerb inlets and inlet and outlet structures.

SD LE 8.2.8: Supply and install manholes, catchpits, and the like Unit: No

Substitute LE 8.2.8 with the following:

The unit of measurement shall be the number of each, in the depth increments as scheduled, fully installed in accordance with the details shown on the drawings.

The rate shall cover the cost of excavating and backfilling with approved selected material compacted to 93% of Mod.AASHTO density (100% for sand), supplying and installing of all material and accessories transporting precast concrete elements from stacks, the inlet kerbs (with transition kerb if applicable) and the channel adjacent thereto as well as for the removal and spoil of all surplus material. The rate shall also include the connection of pipe to manholes, catchpits, etc. and of building pipes into the walls of such structures, but not for the cutting of skewed ends.

The rate for manholes shall also cover the cost of providing and installing the specified cover and frame and locking devices if specified. The depth of the manhole, catch pit, and the like shall be measured from the final finish level of the road reserve profile to the invert level of the pipe.

The unit of measurement shall be the number of each, for the type of manhole specified (e.g. in-situ built reinforced concrete or precast FC manholes) and in the depth increments as scheduled, fully installed in accordance with the details shown on the drawings.

The depth of the manhole will be measured from the cover level to the invert of the pipe in the centre of the manhole.

Manholes shall be measured complete as indicated on the drawings. The rate shall cover the cost of all necessary excavating and backfilling with approved selected material compacted to 93% of Mod AASHTO density (100% for sand), supplying and installing of all material and accessories complete as shown on the drawings, transporting precast concrete elements from stacks, as well as for the removal and spoil of all surplus material.

Add the following to LE 8.2:

SD LE 8.2.10(d)i: Accessories Unit: No

Add the following to LE 8.2.10 (d) for Rodding eyes:

The rate tendered for the items shall include all costs (labour, materials and overhead costs) to install the rodding eyes indicated on the detail drawing ST/R/4. The rate shall include, but will not be limited to the

SD LE 8.2.14a): Supply and install subsurface drains according to drawings Unit: m

The length shall be measured on the centre line of the completed subsurface drain.

The rate shall cover the cost of supplying, transporting, off-loading and installing all materials, including perforated pipes, crushed stone and geotextile blanket and filter sand as well as for cutting, wasting, overlapping and installing of the materials where applicable.

SD LE 8.2.15a): Connecting subsurface drains to manholes and inlet structures Unit: No

The number is the number of subsurface drain pipes built in at manholes or inlets structures.

The rate shall cover the cost of labour, plant and materials necessary to connect the subsurface drain to manholes and/or kerb inlets, and making the structure watertight, all as shown on the drawings.

SD LE 8.2.16: Erosion protection Unit: m²

The tendered rate must allow for procuring, transporting and placing of the armour flex to the levels and the excavation and spoil of surplus material to obtain the cross-section dimension as per the detail drawings.

The openings in the armour flex must be filled with topsoil and the third bottom (measured in vertical) grouted with a 1:3 cement sand mix.

The armour flex must be laid on top of a geotextile blanket "A4 Geotextile" or similar approved and the cost of the geotextile will be covered under this item.

The rate must also cover all labour and other activities required to complete the channels to the satisfaction of the Employer's Agent.

SD LE 8.2.17: Break into and connect to existing structures and make good benching Unit: No

The tendered rate must allow for all associated work to break into an existing manhole, the handling of the water flow in the existing system when necessary, the coupling of the old and new system, and the adapting of the benching. The excavation for the pipeline, the backfilling and all materials and spoil of excess materials will be included in the rate.

SD LE 8.2.18: Construct Armor flex channels complete to as per details on drawing Unit: m

The rate tendered for the items shall include all costs (labour, plant, materials and overhead costs) to construct the channel as indicated on the detail drawing. The rate shall include, but will not be limited to the following:

The excavation of the channels and spoiling of material to a designated area on the site.

The preparation of the channel area by grading it to the required level and compacting the area to 90% Mod AASHTO density

Construction of a 150mm G5 Subbase and compacted to 95% MOD AASHTO density.

Provision of Armor flex 140 blocks laid to supplier's specification on A4 Geotextile layer or similar approved.

Removal of all rubble and excess material on completion

SD LE 8.2.19a) Extra over on (item no.) for installation of uPVC Class 51 bends and fittings on the sub-soil pipework for the following Unit: No

Separate items will be listed as required by the designs and drawings. The rates shall cover the cost of supply and installation of uPVC Class 51 bends and fittings as specified by the design and drawings, as part of the installation of sub-soil drains. The rate must cover all costs for labour, plant, equipment and material associated thereto.

SD LE 8.2.19b): Construct Overland Escape Route and Emergency Overflow complete, including excavations, trimming, lining, etc. Unit: m²

The rate tendered for the items shall include all costs (labour, plant, materials and overhead costs) to construct the Overland SW Escape Route and Emergency Overflow complete as indicated on the Retention Dam detail drawings. The rate shall include the supply and install, but will not be limited to the following:

The excavation to the required depth and preparation of the area for the Overland SW Escape Route and Emergency Overflow and removal of all rubble and excess material on completion.

The Armorflex 140 blocks, laid to supplier's specification on A4 Geotextile layer or similar approved.

Wiring up in situ Armorflex blocks with 3.1 mm diameter galvanized fencing wire or a 5mm diameter polyester rope or similar approved material, laid to supplier's specification.

Amor flex need to be permanent anchored to supplier's specification with steel or wooden pegs through the top cable loops.

SD LE 8.2.20: Connect telecoms manhole to existing structures and/or sub-surface drains as per detail Unit: No.

The tendered rate must allow for all associated work connect telecommunications manhole or drawbox to the stormwater drainage system. The finishing of around the 110mm drainage pipe, adapting of the benching and any other work to connect to the stormwater infrastructure will be deemed to be included in the tendered rate. The excavation for the pipeline, the laying of the connection pipe between the telecommunication manhole and the stormwater infrastructure, where the pipe tie-in and the backfilling is to be included. Making good the stormwater infrastructure after connection is completed must also be included. All the necessary plant, equipment and labour associated to the works is to be included in the rate.

SD LE 8.2.21: Construct unlined open drain, including excavations, trimming, etc. as per specification**Construct trapezoidal drainage channel complete (unlined) drainage channel 0.8m(bottom width) x 4.5 m (top width) Unit: m**

The rate tendered for the items shall include all costs (labour, plant, materials and overhead costs) to construct the drainage channel as indicated in the specification. The rate shall include, but will not be limited to the following:

- Excavation for the channel, to the required depth and grade;
- Trimming of battered faces to grade;
- Disposing of the excavated material at a site identified by the Contractor
- The preparation of the swale area by grading it to the required level and compacting the area to 93% Mod AASHTO density
- Removal of all rubble and excess material on completion.
- Trimming surrounds to suit designed levels/NGL.

ME: SUBBASE**ME 3: MATERIALS****ME 3.2: Physical Properties****SD ME 3.2.: Subbase Material (G5 quality according to TRH 14)**

Substitute the requirements for unstabilized subbase in ME 3.2.1 with the following;

Materials for use in the unstabilized subbase shall comply with the following requirements:

i) Maximum size of aggregate after compaction	63 mm
ii) Maximum liquid limit	30
iii) Maximum plasticity index (PI)	10
iv) Maximum linear shrinkage	5%
v) Minimum CBR at 95% of Mod.AASHTO density	45
vi) Maximum CBR swell at 100 % of Mod.AASHTO density	0.5%
vii) Maximum group index	0
viii) Minimum grading modulus (GM)	1.5%

No crushed building rubble will be accepted as a subbase material

ME 5.4: Placing and Compaction**SD ME 5.4.1: Placing**

Substitute "the project specification" in the second paragraph of ME 5.4.1 with "ME 6.1.4".

SD ME 5.4.4.3: Penetration

Add the following new sub-clause to ME 5.4.4:

The Contractor must provide for the penetration of the subbase material in the selected layer. The specified layer thickness will be a net homogenous layer. Only the homogenous layer will be measured for payment.

ME 5.7: Transport**SD ME 5.7.1: Free haul**

Substitute ME 5.7.1 with the following:

An unlimited free haul distance shall apply to subbase material.

ME 7: TESTING**ME 7.2: Process control and routine inspection and testing****SD ME 7.2.1: Process control**

Substitute "1500 m²" with "1200 m²" and "5000 m²" with "3500 m²" in Table 2 of ME 7.2.1.

SD ME 7.2.2: Routine inspection and testing

Substitute the second sentence of ME 7.2.2 with the following:

No density shall be less than the specified minimum density for the relevant layer.

ME 8: MEASUREMENT AND PAYMENT**SD ME 8.2: Computation of Quantities**

Substitute ME 8.2 with the following:

Measurement and payment shall be to the exact dimensions as shown on the drawings.

MJ: SEGMENTED PAVING**MJ 3 MATERIAL****MJ 3.1 UNITS****SD MJ 3.1.1 General****SD MJ 3.1.1 Class, Strength and Type**

Replace points the first paragraph and a – c with the following:

"All paving units to be Class 40/2.0."

SD MJ 3.3 SAND FOR BEDDING AND JOINTING

Replace the content of this subclause with the following:

"Sand for bedding and jointing shall be free from substances that may be deleterious to blocks. In addition, the grading of the sand shall conform to that given (a) or (b) below, as applicable.

a) Bedding sand

Normal sieve size (mm)	% passing
9,52	100
4,75	95-100
2,36	80-100
1,18	50-85
0,600	25-60
0,300	10-30
0,150	5-15
0,075	0-10

b) Jointing sand shall pass a 1,18 mm sieve and shall contain 10-50 % (m/m) of material that passes a 0,075 mm sieve."

MJ 8.1 MEASUREMENT AND PAYMENT

Add the following new paragraph

SD MJ 8.2.6 Construction of paving complete to detail for the following areas:

Grey 40/2.6 interlocking concrete pavers in herringbone pattern on 20mm sand bedding-colour.....Unit: m²

The rate shall cover the cost of supplying units, placing the bedding layer, laying the units, compacting the pavement, filling the gaps, filling joints, locking up the pavement and removing excess sand.

MK. KERBING AND CHANELLING**MK 3: MATERIALS****MK 3.2: Precast kerbing and channelling****SD MK 3.2.3: Strength**

Substitute MK 3.2.3 with the following:

Precast kerbs, edging and channels shall be of grade 25 MPa/19 mm concrete.

SD MK 3.9: Bedding material

Substitute MK 3.9 with the following:

The material on which concrete kerbs, channels and edging are bedded, shall be in accordance with the dimensions shown on the drawings and shall consist of a 15 mPa concrete mix with a 6.7 mm single size coarse aggregate.

MK 5: CONSTRUCTION**SD MK 5.1: Excavation and bedding**

Substitute "90%" in MK 5.1 with "93% (100% for sand)".

SD MK 5.2: Precast concrete kerbing and channelling

Substitute the first sentence of MK 5.2 with the following:

Precast concrete kerbing and channelling shall be laid and bedded on a concrete bedding complying with the requirements of SD MK 3.9 and to the dimensions shown on the drawings. Kerb lines shall have expansion joints every 10m, sealed with "JOINTEX" or similar approved sealer and capped with 10mm thick polyurethane, elastomeric sealant "SIKAFLEX 11 FC" or similar approved product.

SD MK 5.10: Protection

Substitute the word "bad" in the second sentence with the following:

"no chipped or patched kerbs will be accepted"

SD MK 5.11: Transition sections and inlet and outlet structures

Substitute the first sentence of the second paragraph of MK 5.11 with the following:

Inlet and outlet structures shall be in accordance with the details shown on the drawings.

SD MK 5.13: Street name, kerbs

Street name kerbs as detailed in the drawings must be installed in the positions as shown on the drawings. The recessed letters must be painted with an approved paint.

The street names will be supplied by the Engineer.

MK 7: TESTING

Add the following paragraph:

SD MK 7.2: Water testing of kerbs

A water test must be done on all kerbs, inlets and channels after installation to ensure good drainage. This test must be done after the application of the prime coat but before the placing of asphalt or a bituminous surface treatment. The channels and inlets must be cleaned before the water test is done. All alterations to kerbs, channels and inlets must be done before the placing of the final layer. No payment will be made for the water testing of kerbs.

MK 8: MEASUREMENT AND PAYMENT**SD MK 8.1: Basic principles**

Substitute the second sentence of MK 8.1.1 with the following:

Deductions will be made for catchpits, etc.

Add the following to MK 8.1.1:

Payment shall include the provision of expansion joints as specified.

MK 8.2: Scheduled items**SD MK 8.2.1: Concrete kerbing Unit: m**

Add the following to MK 8.2.1(b):

The tendered rate includes the supply, from site within freehaul distance, and placing of material of upper selected layer quality for backfill behind the kerbs. The rate shall also cover the cost of constructing expansion joints as described in SD MK 5.2.

SD MK 8.2.2: Concrete kerbing and channelling combined Unit: m

Add the following to MK 8.2.2:

The rate also cover the cost of transport of kerbs and channels from stacks.

SD MK 8.2.14: Street name and transition kerbs Unit: No

The provisions of MK 8.2.1 (b) shall apply mutatis mutandis.

The rate shall also cover the cost of transport of kerbs from stacks.

SD MK 8.2.16: Transition kerbs Unit: No

Where a transition is at a catchpit, and/or street name kerbs it will not be regarded as a transition and therefore no extra payment will be made.

MM: ANCILLARY ROADWORKS**MM 3: MATERIALS****MM 3.2: Road signs****SD MM 3.2.1: General**

Add the following to MM 3.2.1:

All road signs and road markings shall be in accordance with the SA Road Traffic Signs Manual and as shown on the drawings.

No special breakaway devices are required.

Sign board to be constructed using 2mm Chromadek. Sign face to be retro-reflective class 2 background and with class 3 lettering, symbols and borders.

SD MM 3.2.2: Structural steel

Substitute the second paragraph of MM 3.2.2 with the following:

All structural steel, including steel tubes, shall have a hot-dip (galvanized) zinc coating that complies with the requirements of SANS 763 for coatings of type A1 or B1 articles, as applicable.

SD MM 3.3.1.1: Non-reflectorized paint

Add the following to MM 3.3.1.1:

Paint to be used must be suitable for concrete and paving surfaces and must be approved by the Engineer.

MM 5: CONSTRUCTION**MM 5.2: Road signs****SD MM 5.2.1.6: Galvanizing**

Substitute the second paragraph of MM 5.2.1.6 with the following:

Galvanized mild steel support for road signs shall be painted in accordance with SD MM 5.2.2.4.

MM 5.2.2: Painting**SD MM 5.2.2.4: Painting of structural steelwork**

The provisions of MM 5.2.2.4 shall apply mutatis mutandis to the painting of galvanized surfaces, except for the following:

a) Surface preparation

Galvanized surfaces shall be thoroughly scrubbed down using an approved galvanized iron cleaning agent to remove all traces of the resin protective coating.

The surface shall be washed down and scrubbed to remove all traces of grease, oil, dirt, etc.;

b) Priming

Two coats of calcium plumbate primer shall be applied to a dry film thickness of at least 25 microns. The undercoat shall follow within one week after the priming.

c) Finishing coat

The colour of the finishing coat shall be dark grey, as specified in MM 3.2.8.2.

SD MM 5.3.2: Surface Preparation

Substitute "48 h" in MM 5.3.2 with "7 days (168 h)".

MM 8: MEASUREMENT AND PAYMENT

SD MM 8.4.1: Non-Reflectorized paint applied at nominal rate of 0.42 l/m Unit: m or m²
Add the following to MH 8.4.1:

All markings (except for parking markings) shall be of the non-reflectorized type. Markings for parking bays shall be measured and paid for as "characters and symbols"

PART C: ENVIRONMENTAL SPECIFICATION

Refer to Annexure 3.

PART D: HEALTH AND SAFETY SPECIFICATION

Also refer to Annexure 4.

Health and Safety Requirements

Before starting work on site the Contractor shall present to the Engineer or his agent his Health and Safety Plan for approval. He shall also appoint a Health and Safety Officer in writing and give a copy of the letter of appointment to the Employer.

The Health and Safety Specifications are included in Part D and must be referred to when compiling the Health and Safety Plan.

The Contractor is to implement measures and adhere to these conditions for the duration of the contract. The tendered rates shall be an all-inclusive sum for adhering to the Health and Safety Specification and Health and Safety Plan.

Safety

The Contractor must take the safety of the residents and their property into account during the planning and execution of the works. All open trenches, services, material and machines must be protected and clearly marked.

Access to Site by Public

The contractor shall erect fences and employ sufficient security personnel to prevent unauthorised access to the site by members of the public. Notices prohibiting access to the site shall be clearly displayed at all access points.

The notice shall be in English, Afrikaans and the most commonly used local language.

Barricades and Lighting

All excavations and openings in walls and slabs into or through which a person may fall shall be securely barricaded at all times in accordance with the requirements of the applicable Occupational Health and Safety Regulations.

C3.5 Management

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3.5.1 CONTRACT ADMINISTRATION	C3.5-1
3.5.2 PARTICIPATION OF TARGETED ENTERPRISES.....	C3.5-1 – C3.5-2
3.5.3 PLANNING AND PROGRAMMING	C3.5-2 – C3.5-3
3.5.4 METHOD AND PRECAUTIONS	C3.5-3 – C3.5-7

3.5.1. CONTRACT ADMINISTRATION

The Contractor shall submit with each monthly statement for payment, the following returns – the format of which are: are included in C3.6 : Annexes.

Annex 1: B-BBEE Sub-contract Expenditure Report

Annex 2: Project Labour Report

The Project Labour Report must include details of all labour (including that of sub-contractors) from within the Langeberg Municipal Area on this contract in the month in question.

3.5.2. PARTICIPATION OF TARGETED ENTERPRISES

It is a requirement of this contract that enterprises located within the target area, as defined, be engaged by the Contractor for the provision of supplies, services or works necessary for the performance of this contract.

3.5.2.1 Minimum Targeted Enterprises contract participation

To this end, a minimum targeted enterprises contract participation goal (CPG_{2E}) set by the Employer for this Contract is specified in Section 3.3.3 of Part C3.3 : Procurement in the Scope of Work, which shall be achieved by the Contractor in the performance of the contract, failing which, penalties as described will be applied.

The Contractor shall engage targeted enterprises directly or indirectly in the performance of the contract to the extent that the total monetary value of such engagements (exclusive of VAT), expressed as a percentage of the value of the contract, is sufficient to achieve the specified minimum targeted enterprises contract participation (CPG_{2E}). The Contractor shall, within 5 working days of being requested by the Engineer to do so, submit details of his/her plan to achieve the minimum targeted enterprises contract participation (CPG_{2E}).

3.5.2.2 Records

Credits towards achieving the minimum targeted enterprises contract participation goal (CPG_{2E}) shall be granted by converting the total monetary value (exclusive of VAT) of the agreements between the Contractor, or Contractor's sub-contractors, and targeted enterprises, to a percentage of the value of the contract.

No credits shall be accorded should the Contractor (or sub-contractors):

- make direct payment to third parties in connection with the contract on behalf of targeted enterprises, when such payment is recovered by making deductions from payments due to the targeted enterprise;
- fail to enter into written contractual agreements with the relevant targeted enterprises.

Credits claimed towards the contract participation goal shall be denied where such written contractual agreements contain any of the following:

- conditions which are more onerous than those that exist in the prime contract (this contract);
- payment procedures based on a pay when paid system;
- authoritarian rights given to the employing contractor, with no recourse to independent adjudication in the event of a dispute arising.

No credits may be claimed in respect of targeted enterprises that do not adhere to statutory labour practices. No credits shall be accorded in respect of targeted enterprises engaged on work in respect of provisional sums or prime cost items.

In the event that a targeted enterprise sub-contracts to another targeted enterprise, only the value of the higher level sub-contract shall be granted as credit towards achieving the specified minimum CPG_{2E}.

In addition to the form required for contract administration (the Targeted Enterprises Contract Participation Expenditure Report), the Contractor shall furnish the Engineer, upon written request, with documentary evidence that the targeted enterprises have their base of operations in the target area, copies of the contractual agreements with the various targeted enterprises, as well as documentary proof of payments made to the various targeted enterprises.

C3.5.3 PLANNING AND PROGRAMMING

C3.5.3.1 Programming

The Contractor must submit his construction programme within the time stated in the Contract Data and the Engineer shall be empowered to withhold all payment certificates until the Contractor has complied with his obligations in terms of this clause.

The programme is subject to the Engineers approval and remains so for the duration of the contract. If necessary, the Engineer may instruct the contractor to adjust his programme to suit other activities.

This programme shall be in the form of a sloping bar chart or other time/activity form acceptable to the Engineer. The programme shall clearly show the anticipated quantities and values of works performed each month.

The unit of measurement in respect of the time periods of activities will be a week. The programme shall reflect at least the following information:

- (i) A description of each of the major activities, which are to be carried out during the contract and the sequence in which they will be done.
- (ii) The programmed time for carrying out each activity.
- (iii) The dependencies which exist between the various activities and whether these are time-related or resources-limited or both.
- (iv) The critical path of activities on which final completion of the Works is dependent.
- (v) The amount of slack time for non-critical activities.

The following details shall also accompany the programme:

- (i) Proposed number of working hours per day, working days per week, "pay weekends": if any, and any proposed holiday or other shut down periods.
- (ii) Schedule of proposed labour resources (giving a breakdown of engineers/technicians, foremen, supervisions, artisans, skilled and unskilled labour) for each major activity.
- (iii) Schedule of proposed plant resources (giving a breakdown of description and number of units) for each major activity.

A network-based programme according to the precedence method shall also be provided showing the various activities in such detail as may be required by the Engineer. The programme shall be updated monthly in accordance with the progress made by the contractor.

If, during the progress of the work, the quantities of work performed per month fall below those shown on the programme, or if the sequence of operations is altered, or if the programme is deviated from in any other way, the contractor shall, within one week of being notified by the Engineer, submit a revised programme and network.

If the programme has to be revised by reason of the contractor falling behind his programme, he shall produce a revised programme showing how he intends to regain lost time in order to ensure completion of the works within the time for completion as defined in Clause 5.12 of the General Conditions of Contract (Third Edition 2015) or any granted extension of time. Any proposal to increase the tempo of work must be accompanied by positive steps to increase production by either providing more labour and plant on site, or using the available labour and plant in a more efficient manner.

Failure on the part of the contractor to submit or to work according to the programme or revised programmes shall be sufficient reason for the Engineer to take steps as provided in Clause 9.2 of the General Conditions of Contract (Third Edition 2015).

The approval by the Engineer of any programme shall have no contractual significance other than that the Engineer will be satisfied if the work is carried out according to such programme and that the contractor undertakes to carry out the work in accordance with the programme. It shall not limit the right of the Engineer to instruct the contractor to vary the programme should circumstances make this necessary.

It is in the Contractor's interest to give as much information as possible about times allowed for construction as well as resource or other limitations on programme times, since this programme will form the basis for any contractual negotiations about extensions of time once the contract is commenced. Failure to comply with any of these requirements will entitle the Engineer to use a programme based on his own assumptions to evaluate claims for extension of time for the completion of the work and/or for additional compensation.

Once approved by the Engineer in writing, this programme shall be known as the contract programme and shall be revised only as described below. Minor revisions to the contract programme may be introduced from time to time by mutual agreement between the Contractor and the Engineer. Should the Engineer require a major revision to the contract programme for whatever reason, the Contractor shall be notified in writing and such revision shall be submitted for approval to the Engineer within two weeks of receipt of such notification.

If a revised programme is issued, the effect on the initial critical path must be clearly indicated to the Engineer as must the steps required to be taken to ensure the completion of the contract within the stated Time of Completion.

The Contractor shall submit to the Engineer, at least three working days before each monthly site meeting, one paper print of the contract programme with detailed programmes (as described below) duly marked up to reflect the actual progress up to that date.

C.3.5.3.2 Reporting

The Contractor shall submit to the Engineer at least three working days before each monthly site meeting a monthly progress report, which shall include the following:

- (i) A summary of progress on site over the month immediately preceding the monthly site meeting. This shall be in the form of a detailed narrative to the contract programme.
- (ii) Highlight activities running late, indicating what steps have (or will) be taken (e.g. reprogramming), additional plant and/or labour resources, etc.) to ensure that the specified date of completion is not overrun.
- (iii) Status report of all plant employed on site.
- (iv) Status report of all labour resources employed on site.
- (v) Status report of all material on site.

No separate payment will be made for observing these requirements as it is deemed to be included in the amounts tendered for Section A: Preliminary and General

C3.5.4 METHODS AND PRECAUTION

3.5.4.1 Methods

Construction methods must be of such a nature that no person, property or improvements in the vicinity of the works is endangered. The Employer accepts no responsibility for any work executed without written permission outside the site of Works.

C3.5.4.2 Site Instruction Book

A triplicate book supplied by the Engineer to be used for site instructions shall at all times be kept on the site and is only for the use of the Engineer.

C3.5.4.3 Site Correspondence Book

A triplicate book supplied by the Contractor to be used for site correspondence shall at all times be kept on the site and is only for the use of the parties associated with the execution of the Works and that is represented on the monthly contractual meeting.

C3.5.4.4 Dealing with Water

The Contractor is responsible for the control of storm water from adjoining areas, the site and groundwater. No additional payment will be made and it will be deemed to be included in the rates of the relevant items.

C3.5.4.5 Survey Beacons

The Engineer will provide benchmarks with levels and coordinates. The Contractor's attention is drawn to clause 5.1.2 of SANS 1200 A. The Contractor must confirm the correctness and accuracy of the benchmarks provided before the commencement of any construction works and must confirm acceptance of the benchmarks in the site correspondence book. The Employer accepts no responsibility for incorrect benchmarks in the event that the Contractor failed to follow the above checking and acceptance procedure.

C3.5.4.6 Setting out of Work

The Engineer at the commencement of the Contract will show reference and level beacons to the Contractor and the Contractor will be responsible for transferring the data to the Site of Works.

The Contractor shall check the condition and accuracy of all reference and level beacons and satisfy himself that they have not been disturbed and are true with regard to position and level. A beacon that has been disturbed shall not be used until its true position and level have been re-established and the Engineer has certified the new values. The Contractor shall thereafter be held entirely responsible for the protection of all reference and level beacons.

The Contractor shall employ a capable surveyor to set out the Works to the required lines and levels. The Engineer shall be informed immediately should any discrepancy be discovered between the levels or dimensions obtained by the Contractor and those shown on the drawings.

Where a beacon is likely to be disturbed during construction operations, the Contractor shall establish suitable reference beacons at locations where they will not be disturbed during construction. No beacons shall be covered over, disturbed or destroyed before accurate reference beacons have been established and details of the positions and levels of such beacons have been submitted to the Engineer. The Contractor's reference beacons shall be of at least the same accuracy and sturdiness of construction as the existing beacons.

The Contractor shall submit the method of setting out he proposes to employ to the Engineer. The Contractor shall provide accurate control offset and level at all stages of construction.

The Engineer may check work set out by the Contractor and the Contractor at his own expense shall rectify any errors found. The Contractor shall supply any instrument, equipment, material and labour required by the Engineer for this survey work. Any assistance, including checking given to the Contractor by the Engineer or any setting out done by the Engineer for Contractor shall not be held as relieving the Contractor of his responsibility for the accurate construction of the Works.

The Contractor's survey instruments and survey equipment shall be suitable for the accurate setting out of the Works and shall be subject to the approval of the Engineer. They shall furthermore be checked and correctly adjusted by the authorized agents before the commencement of the contract and subsequently when required by the Engineer and when otherwise necessary.

When required the Contractor shall, at his own expense, provide one labourer to assist the Engineer. The Engineer shall have the sole right of approving of such a labourer.

Survey work shall not be measured and paid for directly and compensation for the work involved in setting out shall be deemed to be covered by the rates tendered and paid for the various items of work included under the contract.

C3.5.4.7 Drawings

Only figured dimensions shall be used and drawings shall not be scaled unless so instructed by the Engineer. The Engineer will supply any figured dimensions, which may have been omitted from the drawings.

C3.5.4.8 Record Drawings

As the Works proceed the Contractor must keep detailed records of all changes to the plans. The actual position of all new and existing services must be indicated on the set of drawings supplied free of charge for this purpose.

Any information in the possession of the Contractor, which is necessary for the Resident Engineer to complete his "record" drawings, must be submitted to the Resident Engineer.

The certificate of completion will only be issued once the Engineer has received the record drawings with data compiled by a registered land surveyor. No separate payment will be made for this and it will be deemed to be included in the rates for the relevant items.

C3.5.4.9 Existing Services

The positions of existing services are shown on the drawings. The Contractor shall note that although the drawings have been prepared using available information they show only the approximate positions of existing services and shall be a guide only. The Contractor's attention is drawn to clause 5.4 of SANS 1200 A.

Before the Contractor commences operations, he must discuss with and have the approval of the Employer, authority or owner concerned regarding the method he proposes to use for relocating or safe-guarding any services and existing works he may encounter during construction.

The positions of existing services shown on the Drawings are given in good faith and no guarantee can be given that:

- these services actually are in the approximate positions indicated.
- that these are the only services in the vicinity, and
- that the nature and description of these services are correct.

The Contractor shall be responsible to locate and safeguard any existing service or work he may encounter during construction and shall obtain clearance from the Employer, authority and the Engineer before commencing work in the proximity of existing services or works.

The Contractor shall be responsible for any damage to such existing services and works in the execution of this contract and shall reimburse the Employer, authority or the owner concerned for any repairs required and for damages.

The Contractor shall be responsible for immediately notifying the Engineer and the authorities concerned regarding any damage caused to public services and existing works.

The Authority concerned shall carry out any alternations to public services unless the Contractor is instructed otherwise.

The Contractor shall provide the necessary assistance during any operations necessary in connection with the removal, alternations or safeguarding of any public service.

C3.5.4.10 Testing and Quality Control

The Contractor shall supply the Engineer with a quality plan within 14 days after being appointed, showing how quality assurance will be managed on site.

The contractor shall engage the services of an approved independent testing laboratory for the testing of materials and the quality testing of layer works, to ensure that his work conforms to the specifications. No separate payment will be made for such testing by an approved laboratory, the costs of which will be deemed to be included in the contractor's tendered rates for the various items of work requiring testing in accordance with the specifications.

C3.5.4.11 Certificates of Payment

The statement to be submitted by the Contractor in terms of clause 6.10 of the General Conditions of Contract (Third Edition 2015) shall be prepared in accordance with the standard payment certificate prescribed by the Engineer and shall consist of at least four sets of A4-sized paper copies.

All costs resulting from the preparation and submission of the statements shall be borne by the contractor.

C3.5.4.12 Construction in Limited Areas

In certain cases working space may be limited. The method of construction in these restricted areas will depend largely on the contractor's plant. However, the contractor must note that measurement and payment will be according to the specified cross-sections and dimensions irrespective of the method used to achieve these cross-sections and dimensions, and that the rates and prices tendered shall be deemed to include full compensation for any difficulty encountered while working in limited areas and narrow widths, and that no extra payment will be made, nor will any claim for payment due to these difficulties be considered.

C3.5.4.13 Spoil Material

All spoil material shall be spoil off-site at a site which is to be identified by the Contractor and approved by the Engineer.

C3.5.4.14 Length of Trenches

Where no limitations are imposed by construction stages and unless otherwise permitted in writing by the Engineer, not more than 100m of trench in any one place shall be opened in advance of pipe laying operations.

No trench may be left open over the builders' holidays or weekends.

C3.5.4.15 Samples

The Contractor shall at his own cost, supply all samples that may be required. Material or work not conforming to the approved samples shall be rejected. The Engineer reserves to himself the right to submit samples to any test to ensure that the material represented by the sample conforms to the requirements of the specifications.

C3.5.4.16 Manufacturer's Instructions

The recommendations of the manufacturers of patented materials must be strictly adhered to regarding the use, mixing, application, fastening, etc. thereof except when otherwise instructed in writing by the Engineer.

C3.5.4.17 Proprietary Materials

Where proprietary materials are specified it is to indicate the quality or type of materials or articles required, and where the terms "or other approved" or "or approved equivalent" are used in connection with proprietary materials or articles, it is to be understood that the approval shall be at the sole discretion of the Engineer.

C3.5.4.18 Notices, Signs, Barricades and Advertisements

The Contractor shall erect the necessary signs, notices and barricades for the duration of the contract in order to safeguard both the works and the public.

Notice, the Contractor may use signs and barricades as well as advertisements only upon approval, and the Contractor shall be responsible for their supply, erection, maintenance and ultimate removal and shall make provision for this in his tendered rates.

The Engineer shall have the right to have any sign, notice or advertisement moved to another position or to have it removed from the site of the works, should it in any way prove to be unsatisfactory, inconvenient or dangerous to the general public.

Such notices, signs and barricades shall be provided and erected at the Contractor's own expense.

The standard name board of the South African Association of Consulting Engineers is specified, the cost of which shall be included in the rates tendered for the item Section 1: Preliminaries of the Bill of Materials

C3.5.4.19 Workmanship and Quality Control

The onus to produce work which conforms in quality and accuracy of detail to the requirements of the specifications and drawings rests with the contractor, and the contractor shall, at his own expense, institute a quality-control system and provide experienced engineers, foremen, surveyors, materials technicians, other technicians and technical staff, together with all transport, instruments and equipment, to ensure adequate supervision and positive control of the works at all times.

The costs of all supervision and process control, including testing thus carried out by the contractor shall be deemed to be included in the rates tendered for the related items of work.

The contractor's attention is drawn to the provisions of the various standardized specifications regarding the minimum frequency of testing that will be required for process control. The contractor shall, at his own discretion, increase this frequency where necessary to ensure adequate control.

On completion of every part of the work and submission thereof to the Engineer for examination, the contractor shall furnish the Engineer with the results of all relevant tests, measurements and levels to indicate compliance with the specifications.

C3.5.4.20 Transport of Material

All costs of transporting material, including overhaul, shall be included in the applicable tendered rates. All references in the specifications to transport, overhaul and haul distances shall be deleted irrespective of whether or not the deletion is included in these Specification Data.

C3.5.4.21 Liaison with Local authorities

The contractor will have to liaise with local authorities regarding the following matters:

- (a) Dealing with traffic.
- (b) Locating of existing underground services.
- (c) Protection of existing services during construction.

All the relevant authorities were notified of above operations. It is then the contractor's onus to immediately contact all these authorities and to accommodate their involvement in his programme of work. The contractor should also warn the authorities at least 48 hours before the actual work commence. Compensation for delays, losses or accidents will not be considered should the contractor at any time have failed to keep the local authorities informed.

The engineer or employer must immediately be notified, should the contractor experience any problem regarding work, which involves a local authority.

C3.5.4.22 Format of communication

All communication regarding the contract shall be channelled through the Engineer and / or his duly authorised representative.

C3.5.4.23 Management meeting

Management meetings shall be held once a month for the duration of the contract on dates and times to be agreed.

C3.5.4.24 Daily records

Daily records of site activities must be kept accurately. This would include record of plant, personnel, site and weather conditions.

C3.5.4.25 Interference with Municipal staff and operations

The Contractor shall ensure that none of his staff interfere in any way with any municipal staff member or their functions.

Any member of the Contractor's staff found to be interfering with municipal staff or operations in any way shall be removed from the site and shall not be allowed to return.

C3.6 Annexes

CONTENTS

Annexure 1:	B-BBEE Sub-contractor Expenditure Report
Annexure 2:	Project Labour Report
Annexure 3:	Environmental Specification
Annexure 4:	Health and Safety Specification
Annexure 5:	Geotechnical Information
Annexure 6:	Electrical Standard Specifications

ANNEXURE 1

CONTRACT NO. AND NAME:

CONTRACTOR:

B-BBEE SUB-CONTRACT EXPENDITURE REPORT BASED ON PAYMENT CERTIFICATE NO.

Value of the contract (as defined in Schedule 21: Preferencing Schedule) (P*)	R	B-BBEE Status Level of Prime Contractor	
---	---	---	--

Name of Sub-contractor (list all Sub-contractors)	B-BBEE Status Level of Sub-contractor ¹	Total Value of Sub-contract (Excl VAT) ¹	Value of Sub-contract work to date (Excl VAT)	Value of Sub-contract work to Sub-contractors with a lower B-BBEE Status Level than Prime Contractor
Sub-contractor A				
Sub-contractor B				
Sub-contractor C				
¹ Documentary evidence to be provided			Total:	
			Expressed as a percentage of P*	%

Signatures

Contractor:

Date:

Engineer/
Engineer's
Representative:

.....

Date:

ANNEXURE 2**Project Labour Report**

Project/Contract Name:						Budget: (tick one)		Capital	✓	Operating	
Project/Contract Number:						WBS No./Cost Centre No.:					
Contractor:						Project/Contract Start Date:					
Consultant:						Project/Contract End Date:					
CLO Name:			CLO ID Number:			Project/Contract Value (incl. allowance for escalation/excl. VAT):					
Month:						Project Labour Intensity Target/ Specified Minimum Targeted Labour Contract Participation Goal:					
Total value of work done to date (incl. escalation/excl. VAT):											
Number of workers	Name	Surname	ID Number/DOB	Targeted Labour (Y/N)	Daily Rate	Number of days worked this month (incl. training)	Disabled (Y/N)	Number of training days this month	Course Name	Training Service Provider	
1											
2											
3											
4											
5											
6											
7											
8											
9											
10											
11											
	Totals for sheet										
	Sheet of										

Signatures

Contractor: _____
 Consultant/Project Manager: _____

Date _____
 Date _____

ANNEXURE 3: ENVIRONMENTAL SPECIFICATION

ANNEXURE 4: HEALTH AND SAFETY SPECIFICATIONS

ANNEXURE 5: GEOTECHNICAL INFORMATION

ANNEXURE 6: ELECTRICAL SPECIFICATIONS

C4 Site Information

Site information is discussed in part C3.1

C5 Drawings

The Works shall be carried out in accordance with the following drawings which are included in Volume 4: Drawings and form part of the contract documents:

Drawing No.	Plan Description	Rev
2104161/A/001	MATERIALS SORTING BUILDING PLAN LAYOUT DETAIL	A
2104161/A/002	MATERIALS SORTING BUILDING ELEVATIONS	A
2104161/A/003	MATERIALS SORTING BUILDING CONVEYOR LAYOUT	A
2104161/A/004	ABLUTION BLOCK AND LUNCHROOM BUILDING	A
2104161/C/000	EXISTING SERVICES LAYOUT	A
2104161/C/001	BULK EARTHWORKS LAYOUT	A
2104161/C/100	CIVIL SERVICES LAYOUT	C
2104161/C/101	ROAD SURFACING LAYOUT AND SETTING OUT DATA	A
2104161/C/600	GENERAL DETAILS	A
2104161/E/001	ASHTON MATERIAL RECOVERY FACILITY LIGHTING AND POWER	A
2104161/E/002	ABLUTION BLOCK & LUNCHROOM LIGHTING & POWER	A
2104161/E/003	SITE PLAN BULK ELECTRICAL LAYOUT	A
2104161/S/000	GENERAL NOTES & SPECIFICATION	B
2104161/S/001	FOUNDATION LAYOUT	B
2104161/S/002	GROUND FLOOR LAYOUT	B
2104161/S/003	ROOF LAYOUT & SECTIONS	B
2104161/S/004	SECTIONAL ELEVATIONS	B
2104161/S/005	PORTAL FRAME DETAILS	B
2104161/S/006	ELEVATIONS	A
2104161/S/007	STANDARD DETAILS AND SECTIONS	A
2104161/S/008	PERSPECTIVE VIEW	B
2104161/M/200	MRF BUILDING FIRE PROTECTION PLAN LAYOUT	A
2104161/M/300	ABLUTION BLOCK & LUNCHROOM PLUMBING LAYOUT	A
2104161/M/400	ABLUTION BLOCK & LUNCHROOM DRAINAGE LAYOUT	A