



CLUSTER

Human Settlement, Engineering, and Transport

UNIT

Engineering

DEPARTMENT

Roads Provision

PROCUREMENT DOCUMENT

INFRASTRUCTURE

Documents are to be obtained, free of charge, in electronic format, from the National Treasury's eTenders website or the eThekweni Municipality's website.

Contract No: 1R-23883

Contract Title: FLOOD DAMAGE REMEDIATION OF BHUBESI DRIVE – INANDA WARD 55

Est. CIDB Grade/ Class: 4 CE

CLARIFICATION MEETING AND QUERIES

Clarification Meeting: Compulsory Clarification Meeting

Meeting Location, Date, Time: A compulsory clarification meeting will be held at Bhubezi Road and Jakalase Road sports grounds, 26 May 2023 at 10h00.

Gert Lombard

Queries can be addressed to: Tel: 031 311 7630

The Employer's Agent's: eMail: gert.lombard@durban.gov.za

Representative: email queries to be submitted by 26 May 2023 and consolidated questions and answers to be uploaded by 29 May 2023

TENDER SUBMISSION

The Tender Box in the foyer of the Municipal Building
Delivery Location: 166 KE Masinga Road, Durban

Closing Date/ Time: Friday, 02 June 2023 at 11h00

FACSIMILE, eMAIL, or POSTED TENDERS WILL NOT BE ACCEPTED

Issued by:

ETHEKWINI MUNICIPALITY

Deputy Head: Roads Provision

Date of Issue: 19/05/2023

Document Version 24/02/2023(a)

FOR OFFICIAL USE ONLY

Tenderer Name:			VAT Registered: Yes No
	Price (excl)	VAT	Price (incl)
Submitted: R		R	R
Corrected: R		R	R

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PART T1: TENDERING PROCEDURES**T1.1.1: TENDER NOTICE AND INVITATION TO TENDER**

Tenders are hereby invited for the works to assist in the remediation of Bhubesi Drive in Inanda as it was severely damaged in the April floods of 2022. The scope of works includes the removal of debris, re-construction of washed away roadways, the construction of retaining structures in areas where the embankments are unstable as well as the installation of stormwater drainage.

Subject	Description	Tender Data Ref.
Employer	The Employer is the eThekweni Municipality as represented by: Deputy Head: Roads Provision	F.1.1.1
Tender Documents	Documents can only be obtained in electronic format, issued by the eThekweni Municipality. Documentation can be downloaded from the National Treasury's eTenders website or the eThekweni Municipality's Website . The <u>entire document</u> should be printed (on A4 paper) and suitably bound by the tenderer.	F.1.2
Eligibility	It is <u>estimated</u> that tenderers should have a CIDB contractor grading designation of 4 CE (or higher). The CIDB provisions in relation to a Contractor's Potentially Emerging (PE) status <u>do not</u> apply.	F.2.1.1
Clarification Meeting	A compulsory clarification meeting will be held at Bhubezi Road and Jakalase Road sports grounds, 26 May 2023 at 10h00.	F.2.7
Seek Clarification	Queries relating to these documents are to be addressed to the Employer's Agent's Representative whose contact details are: Gert Lombard Tel: 031 311 7630 eMail: gert.lombard@durban.gov.za email queries to be submitted by 26 May 2023 and consolidated questions and answers to be uploaded by 29 May 2023	F.2.8
Submitting a Tender Offer	Tender offers shall be delivered to: The Tender Box in the foyer of the Municipal Building 166 KE Masinga Road, Durban	F.2.13
Closing Time	Tender offers shall be delivered on or before Friday, 02 June 2023 at or before 11h00 .	F.2.15
Evaluation of Tender Offers	The 80/20 Price Preference Point System, as specified in the PPPFA Regulations 2022 will be applied in the evaluation of tenders. Refer to Clause F.3.11 of the Tender Data for the Specific Goal(S) for the awarding of Preference Points, and other related evaluation requirements.	F.3.11

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

PART T1: TENDERING PROCEDURES

T1.2: TENDER DATA

T1.2.1 STANDARD CONDITIONS OF TENDER

The conditions of tender are the Standard Conditions of Tender as contained in Annex F of the CIDB Standard for Uniformity in Construction Procurement (July 2015) as published in Government Gazette No 38960, Board Notice 136 of 2015 of 10 July 2015.

The Standard Conditions of Tender make several references to the Tender Data for details that apply specifically to this tender. The Tender Data shall have precedence in the interpretation of any ambiguity or inconsistency between it and the Standard Conditions of Tender.

T1.2.2 TENDER DATA

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

F.1: GENERAL

F.1.1 The employer: The Employer for this Contract is the eThekwin Municipality as represented by: Deputy Head: **Roads Provision**

F.1.2 Tender documents: The Tender Documents issued by the Employer comprise:

- 1) This procurement document.
- 2) "General Conditions of Contract for Construction Works – 3rd Edition 2015" issued by the South African Institution of Civil Engineering (GCC 2015). This document is obtainable separately, and Tenderers shall obtain their own copies.
- 3) "City of Durban Technical Specifications" hereinafter referred to as the Standard Engineering Specifications. This document is obtainable separately, and Tenderers shall obtain their own copies of the applicable Sections.
- 4) Drawings, issued separately from this document, or bound in Section C3.4 (as an Annexure).
- 5) In addition, Tenderers are advised, in their own interest, to obtain their own copies of the following acts, regulations, and standards referred to in this document as they are essential for the Tenderer to get acquainted with the basics of construction management, the implementation of preferential construction procurement policies, and the participation of targeted enterprise and labour.
 - The Employer's current (as at advertising date) Supply Chain Management Policy.
 - The Preferential Procurement Policy Framework Act No 5 of 2000, and the Preferential Procurement Policy Framework Act Regulations (2022).
 - The Occupational Health and Safety Act No 85 and Amendment Act No 181 of 1993, and the Construction Regulations (2014).
 - The Construction Industry Development Board Act No 38 of 2000 and the Regulations issued in terms of the Act (July 2013).
 - SANS 1921:2004 – Construction and Management Requirements for Works Contract, Parts 1-3.
 - Any other eThekwin Policy documents referenced in the Tender Documents.

Electronically downloaded documentation is obtainable from the National Treasury's **eTenders Website** or the **eThekwini Municipality's Website** at URLs:

- <https://www.etenders.gov.za/>
- <https://www.durban.gov.za/pages/business/procurement>

The entire downloaded document should be printed on white A4 paper (single-sided) and suitably bound by the tenderer.

F.1.4 Communication and employer's agent: The Employer's Agent's Representative is:

Gert Lombard

Tel: 031 311 7630

eMail: gert.lombard@durban.gov.za

email queries to be submitted by 26 May 2023 and consolidated questions and answers to be uploaded by 29 May 2023

The Tenderer's contact details, as indicated in the Contract Data: Clause C1.2.2.2 "Data to Be Provided by Contractor", shall be deemed as the only valid contact details for the Tenderer for use in communications between the Employer's Agent and the Tenderer.

F.2: TENDERER'S OBLIGATIONS

F.2.1 Eligibility: General

A Tenderer will not be eligible to submit a tender if:

- (a) the Tenderer does not comply with the legal requirements as stated in the Employer's current SCM Policy.
- (b) the Tenderer cannot provide proof that he is in good standing with respect to duties, taxes, levies and contributions required in terms of legislation applicable to the work in the contract.
- (c) In the event of a Compulsory Clarification Meeting:
 - i) the Tenderer fails to attend the Compulsory Clarification Meeting.
 - ii) the Tenderer fails to have form "Certificate of Attendance at Clarification Meeting / Site Inspection" (in T2.2) signed by the Employer's Agent or his representative.
- (d) in the case of JV submissions, two or more JV entities have common directors / shareholders or common entities tendering for the same works.
- (e) at the time of closing of tenders, the Tenderer is not registered on the National Treasury Central Supplier Database (CSD) as a service provider. In the case of a Joint Venture, this requirement will apply individually to each party in the Joint Venture.
- (f) The tenderer has not submitted, with this tender, a valid Letter of Good Standing from the Compensation Commissioner as proof of being registered and in good standing with the compensation fund. Reference is to be made to Returnable Document T2.2.13.
- (g) The tender fails to complete and sign the Declaration of Municipal Fees in T2.2: "Returnable Documents" and submits the required documentation. Reference is to be made to Returnable Document T2.2.12.

SCM Policy (Cl.14(4)) requires suppliers/ service providers/ contractors to be registered on the

eThekwini Municipality Central Supplier Database or be in a position to be so before the award.

In the event of the Tenderer not being registered on the eThekwini Municipality's Central Supplier Database, the tenderer must register on the internet at www.durban.gov.za by following these links:

- Business
- Supply Chain Management (SCM)
- Accredited Supplier and Contractor's Database.

The following are to be noted:

- (a) The information for registration as in the possession of the eThekwini Municipality will apply.
- (b) It is the Tenderer's responsibility to ensure that the details as submitted to the Municipality are correct.
- (c) Tenderers are to register prior to the submission of tenders.

F.2.1.1 Eligibility: CIDB

Only those tenderers who are registered (as "Active") with the CIDB (at time of tender closing), in a contractor grading designation equal to or higher than a contractor grading designation determined in accordance with the sum tendered, or a value determined in accordance with Regulation 25 (1B) or 25(7A) of the Construction Industry Development Regulations, for a **CE** class of construction work, are eligible to have their tenders evaluated.

Joint ventures are eligible to submit tenders provided that:

- (a) Every member of the joint venture is registered (as "Active") with the CIDB (at time of tender closing),
- (b) The lead partner has a contractor grading designation in the **CE** class of construction work and has a grading designation of not lower than one level below the required grading designation, and
- (c) The combined contractor grading designation calculated in accordance with the Construction Industry Development Regulations (2013) is equal to or higher than a contractor grading designation determined in accordance with the sum tendered for a **CE** class of construction work or a value determined in accordance with Regulation 25 (1B) or 25(7A) of the Construction Industry Development Regulations.

It should be noted that this contract is not part of a Targeted Development Programme (TDP). The CIDB provisions in relation to a Contractor's Potentially Emerging (PE) status do not apply.

F.2.1.2 Eligibility: Tenderer's Experience

Only those tenderers that can demonstrate experience, by the submission of the specified returnable document in T.2.2 (duplicated for each experience submission), and supply the associated documentation/ information, in works of a similar nature, within the past 7 years, will be eligible to have their tenders evaluated in terms of Clause F.3.11.

Tenderers must submit experience gained as Main Contractors.

Returnable form T2.2.16: “Eligibility: Experience of Tenderer” is to be duplicated for each experience submission, as may be required.

Contact details of the Client, is required to be provided on the above-mentioned form. The contact details may be used by the Employer to verify the information, pertaining to the experience submission, as provided by the Tenderer. Should the Employer's reasonable attempts to make contact with the Client, to verify the information provided, fail (for whatever reason), that specific experience submission will be considered invalid.

Where works are still in progress the value of completed work as detailed on the most recent payment to the Contractor is to be used in the experience submission.

In the event of a Joint Venture (JV) tendering for this contract, experience gained by the separate entities making up the JV may be used as experience provided that the experience requirement, as stipulated in **Table 2**, is satisfied, and that the required documentation/ information is provided.

The documentation/ information that is required is specified on **Table 1**: “Documentation / Information Requirements” (which includes the Notes below the table), and the experience requirement is as stated on **Table 2**: “Tenderer’s Experience Requirement”.

Table 1: Documentation / Information Requirements

Note: an “X” in this table indicates that the associated documentation must be provided, if applicable.	Proof of Sub-Contract Agreement	Letter of Award OR Form of Offer & Acceptance	Most recent Payment Certificate OR Invoice with Quantities summary	Final Payment Certificate OR Invoice with Quantities summary	Completion Certificate	NB Scope of Work
	Note 1	Note 2	Note 3	Note 4	Note 5	Note 6
Works as Sub-Contractor						
Current Contracts	X		X			X
Completed Contracts	X			X		X
Works as Main Contractor						
Current Contracts		X	X			X
Completed Contracts		X		X	X	X
Failure to submit the returnable form in T2.2, and provide the above supporting documentation/ information, for each submission of experience, will invalidate that experience submission						

Table 1: NOTES

Note 1	Must include the names of the parties, the managing entity's name, the effective dates, and the signature(s) page, all pertaining to the agreement.
Note 2	Issued by the Client / Employer.
Note 3	Proof of the most recent payment received from the Main Contractor or Client/ Employer, OR most recent submitted INVOICE, with a summary breakdown of quantities.
Note 4	Proof of the final payment received from the Main Contractor or Client/ Employer, OR most recent submitted INVOICE, with a summary breakdown of quantities.
Note 5	Issued by the Client/ Employer.
Note 6	<p>NB: Without this information the experience submission cannot be considered.</p> <ul style="list-style-type: none"> This submission must indicate how the works carried out, either as a Sub-Contractor or a Main Contractor, is similar (see Table 2: Tenderer’s Experience Requirement) to the Scope-of-Work of this specific tender. If executed as a Sub-Contractor, the Scope-of-Work should be indicative of only the works carried out by the Sub-Contractor, and not the overall Scope-of-Work of the main contract. If executed as a Main Contractor, the overall contract Scope-of-Work is to be provided. The description of the Scope-of-Work is to be inserted into the returnable form in T2.2, or if available as a hard copy (max. 2 pages) attached to the form with the other relevant, associated, supporting documentation.

Table 2: Tenderer's Experience Requirement

<p>Provision or Maintenance of Road-Related Structures</p> <p>Projects of a similar nature that will be considered will be one, or a combination of, the following types of projects:</p> <ol style="list-style-type: none"> 1. Retaining walls (reinforced concrete, masonry, gabion, proprietary block systems etc). 2. Reinforced concrete construction. 3. Reinforced concrete repairs (spalling, member replacement, use of specialist products etc). 4. Structural steel construction and repairs and application of steel protection systems. 5. Specialist proprietary product repair systems or approved product applicator for specific specialist proprietary products. 6. Reinforced concrete pedestrian bridges. 7. Structural steel pedestrian bridges. 8. Reinforced and prestressed concrete pedestrian and road bridges and culverts. 9. Reinstatement/ repair/ re-construction of road layer works and roadways
<p>Experience Requirement: Contract(s) with works of a similar nature, within the past 7 years</p> <p>A minimum of 3 contracts, <u>each</u> with a value of 50% of the tender value submitted for this tender. Contracts must have been executed as the Main Contractor.</p>

Note: The failure to complete the relevant returnable form in T2.2 for each submission of experience AND supply the associated, relevant, documentation (as specified on Table 1) will invalidate the experience submission.

F.2.2.2 The cost of the tender documents: Replace this paragraph with the following:

"Documents are to be obtained, free of charge, in electronic format, from the **National Treasury's eTenders website** or the **eThekweni Municipality's Website**. The entire electronically downloaded document should be printed on white A4 paper (single-sided) and suitably bound by the tenderer.

F.2.6 Acknowledge addenda: Add the following paragraphs to the clause:

"Addenda will be published, in electronic format, on the National Treasury's eTenders website (see F.2.2.2 above). Tenderers are to ensure that the eTenders website is consulted for any published addenda pertaining to this tender up to three days before the tender closing time as stated in the Tender Data."

"Acknowledgement of receipt of the addenda will be by the return of the relevant completed, dated, and signed portion of the addenda, to the physical or email address as specified on the addenda. Failure of the tenderer to comply with the requirements of the addenda may result in the tender submission being made non-responsive."

F.2.7 Clarification meeting:

A compulsory clarification meeting will be held at Bhubezi Road and Jakalase Road sports grounds, 26 May 2023 at 10h00.

In the event of a Compulsory Clarification Meeting, Tenderers must sign the attendance register in the name of the tendering entity. The Tenderer's representative(s) at the clarification meeting must be able to clearly convey the discussions at the meeting to the person(s) responsible for compiling the entity's tender offer.

F.2.12 Alternative tender offers: No alternative tender offers will be considered.

F.2.13 Submitting a tender offer: Submissions must be submitted on official submission documentation issued (either in hard copy or in electronic format) by the eThekweni Municipality.

Identification details to be shown on each tender offer package are:

- Contract No. : **1R-23883**
- Contract Title : **FLOOD DAMAGE REMEDIATION OF BHUBESI DRIVE – INANDA WARD**

The Employer's address for delivery of tender offers is:

**The Tender Box in the foyer of the Municipal Building
166 KE Masinga Road, Durban**

Telephonic, telegraphic, telex, facsimile or e-mailed tender offers will not be accepted.

F.2.15 Closing time: The closing time for delivery of tender offers is:

- Date : **Friday, 02 June 2023**
- Time : **11h00**

F.2.16 Tender offer validity: The Tender Offer validity period is 120 Days from the closing date for submission of tenders.

F.2.23 Certificates: Refer to T2.1 for a listing of certificates that must be provided with the tender. All certificates must be valid at the time of tender closing.

Tenderers are to include, at the back of their tender submission document, a printout of the required documents/ certificates.

The Form of Offer (C1.1.1), Data to be provided by the Contractor (C1.2.2.2), and the Bill of Quantities (C2.2) are also required to be completed in full.

CIDB Registration

Refer also to returnable form in T2.2: "Eligibility: Verification of CIDB Registration and Status".

Tenderers are to include with their submission a printout of their **CIDB Registration**, obtained from the CIDB website (<https://registers.cidb.org.za/PublicContractors/ContractorSearch>).

The Joint Venture Grading Designation Calculator should be used when submitting as a Joint Venture (<https://registers.cidb.org.za/PublicContractors/JVGradingDesignationCalc>).

The date of obtaining the above printout(s) is to be indicated on the printout. Registration with the CIDB must be reflected as "Active" at time of tender closing.

Tax Clearance

Refer also to returnable form in T2.2: "Tax Compliance Status PIN/ Tax Clearance Certificate".

SARS has introduced a new Tax Compliance Status System. Tenderers must submit a **Tax Compliance Status PIN** (TCS PIN) instead of an original Tax Clearance Certificate. This TCS PIN can be used by third parties to certify the taxpayer's real-time compliance status. This TCS PIN is to be entered on Returnable Document T2.2.1: "Compulsory Enterprise Questionnaire". Separate Tax Clearance Certificates / TCS PINs are required for each entity in a Joint Venture.

Failure to comply will make the tender non-responsive.

Central Supplier Database (CSD)

Refer also to returnable form in T2.2: "Eligibility: CSD Registration Report".

The entities (full) **CSD Registration Report**, obtained from the National Treasury Central Supplier Database, is to be included in the tender submission (<https://secure.csd.gov.za>).

Separate CSD Registration Reports are required for each entity in a Joint Venture.

Compensation Commissioner

Refer also to returnable form in T2.2: "Eligibility: Registration with Compensation Commissioner".

The tenderer is to supply proof of being registered and in good standing with the compensation fund by submitting a valid **Letter of Good Standing** from the Compensation Commissioner.

Failure to comply will make the tender non-responsive.

F.3: THE EMPLOYER'S UNDERTAKINGS

F.3.1.1 Respond to requests from the tenderer: Replace the words "five working days" with "three working days".

F.3.2 Issue addenda: Add the following paragraph: "Addenda will be published, in electronic format, on the same platform(s) as the Tender Notification (refer to F.1.2).

F.3.4 Opening of Tender Submissions: Tenders will be opened immediately after the closing time for tenders. The public reading of tenders will take place in the SCM Boardroom, 6th Floor, Engineering Unit Building, 166 KE Masinga Road, Durban.

F.3.11 Evaluation of Tender Offers:

Eligibility

Tenders will be checked for compliance with the ELIGIBILITY requirements, as specified in T1.2.2 Clause F.2.1. Tenderers not in compliance will be deemed non-responsive.

Preference Point System

The procedure for the evaluation of responsive tenders is **PRICE AND PREFERENCE** in accordance with the Employer's current SCM Policy, the Preferential Procurement Policy Framework Act (5 of 2000), and the Preferential Procurement Policy Framework Act Regulations (2022).

Price Points

The **80/20** preference points system will be applied. The Formula used to calculate the **Price Points (max. 80)** will be according to that specified Regulation 4.1.

Preference Points

Refer also to T2.2: "MBD 6.1: Preference Points Claim".

The Preference Points 20 will be derived from points allocated/ claimed for **Specific Goals** as indicated in the table(s) below, according to the specified **Goal Weightings**.

- **Ownership Goal**

Goal Weighting: 80%

The tendering entity's **Percentage Ownership**, in terms of the **Ownership Category(s)** listed below, is to be used in the determination of the tenderer's claim for **Preference Points**.

Ownership Categories	Criteria	80/20
Race: Black (w1)	Equals 0%	0
	Between 0% and 51%	4.8
	Greater or equal to 51% and less than 100%	9.6
	Equals 100%	12
Gender: Female (w2)	Equals 0%	0
	Between 0% and 51%	1.6
	Greater or equal to 51% and less than 100%	3.2
	Equals 100%	4
Disabilities (w3)	Equals 0%	-
	Between 0% and 51%	-
	Greater or equal to 51% and less than 100%	-
	Equals 100%	-
Maximum Ownership Goal Points:		16

The **Weightings** of the **Ownership Categories** will be:

- $w1 = 75\%$, $w2=25\%$, $w3=0\%$ (where: $w1 + w2 + w3 = 100\%$)

Proof of claim as declared on MBD 6.1 (1 or more of the following will be used in verifying the tenderer's status)

- Companies and Intellectual Property Commission registration document (CIPC)
- CSD report.
- B-BBEE Certificate of the tendering entity.
- Consolidated BBBEE Certificate if the tendering entity is a Consortium, Joint Venture, or Trust (Issued by verification agency accredited by the South African Accreditation System).
- Agreement for a Consortium, Joint Venture, or Trust.

- **RDP Goal: The promotion of South African owned enterprises**

Goal Weighting: 20%

The tendering entity's **Address** (as stated on the National Treasury Central Supplier Database (CSD) or on the eThekweni Municipality Vendor Portal) is to be used in the determination of the tenderer's claim for **Preference Points** for this Specific Goal.

Location	80/20
Not in South Africa	0
South Africa	1
Kwa Zulu Natal	2
eThekweni Municipality	4
Maximum RDP Goal Points:	4

Proof of claim as declared on MBD 6.1 (1 or more of the following will be used in verifying the tenderer's status)

- CSD report

F.3.13 Acceptance of tender offer: In addition to the requirements of Clause F.3.13 of the Standard Conditions of Tender, tender offers will only be accepted if:

- (a) The tenderer submits a **valid Tax Clearance Certificate OR Tax Compliance Status PIN**, issued by the TCS System of the South African Revenue Services, or has made arrangements to meet outstanding tax obligations.
- (b) The tenderer is **registered, and “Active”, with the Construction Industry Development Board**, at time of tender closing, in an appropriate contractor grading designation.
- (c) The tenderer or any of its directors/shareholders is **not listed on the Register of Tender Defaulters** in terms of the Prevention and Combating of Corrupt Activities Act of 2004 as a person prohibited from doing business with the public sector.
- (d) The tenderer has not:
 - Abused the Employer’s Supply Chain Management System; or
 - Failed to perform on any previous contract and has been given a written notice to this effect.
- (e) 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.
- (f) The tenderer is **registered and in good standing with the compensation fund or with a licensed compensation insurer**.
- (g) 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 resources to carry out the work safely**.

The Municipality does not bind itself to accept the lowest or any tender. It reserves the right to accept the whole or any part of a tender to place orders. Bidders shall not bind the Municipality to any minimum quantity per order. The successful Tenderer (s) shall be bound to provide any quantities stipulated in the specification.

Notwithstanding clause F.1.1.3 of the Standard Conditions of Tender the municipality reserves the right to award or not award the tender based on the municipalities available budget. The municipality has a firm intention to proceed with the work, subject to funding being identified.

F.3.15 Complete adjudicator’s contract: Refer to the **General Conditions of Contract** and the **Contract Data**.

F.3.17 Copies of contract: The number of paper copies of the signed contract to be provided by the Employer is **ONE (1)**.

T1.2.3 ADDITIONAL CONDITIONS OF TENDER**T1.2.3.1 Appeals**

In terms of Regulation 49 of the Municipal Supply Chain Management Regulations persons aggrieved by decisions or actions taken by the Municipality, may lodge an appeal within 14 days of the decision or action, in writing to the Municipality. All appeals (clearly setting out the reasons for the appeal) and queries with regard to the decision of award are to be directed to:

The City Manager
Attention Ms S. Pillay **eMail: Simone.Pillay@durban.gov.za**
P O Box 1394
DURBAN, 4000

T1.2.3.2 Prohibition on awards to persons in the service of the state

Clause 44 of the Supply Chain Management Regulations states that the Municipality or Municipal Entity may not make any award to a person:

- (a) Who is in the service of the State;
- (b) If that person is not a natural person, of which a director, manager, principal shareholder or stakeholder is a person in the service of the state; or
- (c) Who is an advisor or consultant contracted with the municipality or a municipal entity.

Should a contract be awarded, and it is subsequently established that Clause 44 has been breached, the Employer shall have the right to terminate the contract with immediate effect.

T1.2.3.3 Code of Conduct and Local Labour

The Tenderers shall make themselves familiar with the requirements of the following policies that are available on web address: <ftp://ftp.durban.gov.za/cesu/StdContractDocs/>:

- Code of Conduct;
- The Use of CLOs and Local Labour.

T1.2.3.4 Targeted Procurement

Targeted Procurement provisions are not applicable to this tender.

T1.2.3.5 Functionality Specification

Functionality Evaluation is not applicable to this tender.

PART T2: RETURNABLE DOCUMENTS

T2.1 LIST OF RETURNABLE DOCUMENTS

T2.1.1 General

The Tender Submission Documentation must be submitted in its entirety. All forms must be properly completed as required.

The Tenderer is required to complete each and every Schedule and Form listed below to the best of their ability as the evaluation of tenders and the eventual contract will be based on the information provided by the Tenderer. Failure of a Tenderer to complete the Schedules and Forms to the satisfaction of the Employer will inevitably prejudice the tender and may lead to rejection on the grounds that the tender is non-responsive.

T2.1.2 Returnable Schedules, Forms and Certificates

Entity Specific

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T2.2 RETURNABLE SCHEDULES, FORMS, AND CERTIFICATES

The returnable schedules, forms, and certificates, as listed in T2.1.2, can be found on pages [15](#) to [33](#).

NOTE

The **Form of Offer** (C1.1.1), The **Data to be Provided by Contractor** (C1.2.2.2), and the **Bill of Quantities** (C2.2) are also required to be completed by the tenderer.

T2.2.1 COMPULSORY ENTERPRISE QUESTIONNAIRE

Ref	Description	Complete or Circle Applicable
1.1	Name of enterprise	
1.2	Name of enterprise's representative	
1.3	ID Number of enterprise's representative	
1.4	Position enterprise's representative occupies in the enterprise	
1.5	National Treasury Central Supplier Database Registration number	MAAA
1.6	eThekwini Supplier Database: Reference number (PR), if any:	PR
1.7	VAT registration number, if any:	
1.8	CIDB registration number, if any:	
1.9	Department of Labour: Registration number	
1.10	Department of Labour: Letter of Good Standing Certificate number	
2.0	Particulars of sole proprietors and partners in partnerships (attach separate pages if more than 4 partners)	
	Full Name	Identity No.
		Personal income tax No. *
2.1		
2.2		
2.3		
2.4		
3.0	Particulars of companies and close corporations	
3.1	Company registration number, if applicable:	
3.2	Close corporation number, if applicable:	
3.3	Tax Reference number, if any:	
3.4	South African Revenue Service: Tax Compliance Status PIN:	

4.0 Record in the service of the state (Insert on a separate page if necessary)

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:

- | | |
|---|--|
| <input type="checkbox"/> a member of any municipal council | <input type="checkbox"/> a member of any provincial legislature |
| <input type="checkbox"/> an official of any municipality or municipal entity | <input type="checkbox"/> a member of an accounting authority of any national or provincial public entity |
| <input type="checkbox"/> a member of the board of directors of any municipal entity | <input type="checkbox"/> a member of the National Assembly or the National Council of Province |
| <input type="checkbox"/> 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) | <input type="checkbox"/> an employee of Parliament or a provincial legislature |

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 mths

5.0 Record of spouses, children and parents in the service of the state (Insert on a separate page if necessary)

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 in the service of any of the following:

- | | |
|---|--|
| <input type="checkbox"/> a member of any municipal council | <input type="checkbox"/> a member of any provincial legislature |
| <input type="checkbox"/> an official of any municipality or municipal entity | <input type="checkbox"/> a member of an accounting authority of any national or provincial public entity |
| <input type="checkbox"/> a member of the board of directors of any municipal entity | <input type="checkbox"/> a member of the National Assembly or the National Council of Province |
| <input type="checkbox"/> 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) | <input type="checkbox"/> 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 mths

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

- authorizes the employer to verify the tenderers tax clearance status from the South African Revenue Services that it is in order.
- confirms that the 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.
- 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.
- 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.
- confirms that the contents of this questionnaire are within my personal knowledge and are to the best of my belief both true and correct.

NAME (Block Capitals):

Date

SIGNATURE:

T2.2.2 CERTIFICATE OF ATTENDANCE AT CLARIFICATION MEETING / SITE INSPECTION

Reference is to be made to Clauses F.2.1(c) and F.2.7 of the Tender Data.

This is to certify that:

(tenderer name):

of (address):

was represented by the person(s) named below at the Clarification Meeting held for all tenderers, the details of which are stated in the Tender Data (F.2.7).

I / We acknowledge that the purpose of the meeting was to acquaint myself / ourselves with the site of the works and / or matters incidental to doing the work specified in the tender documents in order for me / 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: Name:

Signature: Signature:

Capacity: Capacity:

Attendance of the above person(s) at the meeting is confirmed by the Employer's Agent's Representative, namely:

Name:

Signature:

Date:

T2.2.3 TAX COMPLIANCE STATUS PIN / TAX CLEARANCE CERTIFICATE

Reference is to be made to Clauses F.2.23 and F.3.13(a) of the Tender Data.

SARS has introduced a new Tax Compliance Status System. Tenderers can submit a Tax Compliance Status PIN (TCS PIN) instead of an original Tax Clearance Certificate. This TCS PIN can be used by third parties to certify the taxpayer's real-time compliance status.

Separate Tax Clearance Certificates / TCS PINs are required for each entity in a Joint Venture.

The TCS PIN(s) are to be entered under item 3.4 on form **T2.1.2.1: Compulsory Enterprise Questionnaire**.

Tenderers are to include, at the back of their tender submission document, a printout of their Tax Compliance Status PIN (TCS PIN) OR an original Tax Clearance Certificate.

Failure to include the required document will make the tender submission non-responsive.

*I, the undersigned, who warrants that they are authorised to sign on behalf of the Tenderer, confirms that the information contained in this form is within my personal knowledge and is to the best of my belief both true and correct, **and that the requested documentation has been included in the tender submission.***

NAME (Block Capitals):

Date

SIGNATURE:

T2.2.4 CONTRACTOR'S HEALTH AND SAFETY DECLARATION

If Functionality is applicable as part of tender evaluation, reference is to be made to Clause F3.11.9 of the of the Conditions of Tender.

Reference is to be made to Clauses F.2.1(e) and F.2.23 of the Tender Data.

In terms of Clause 5(1)(h) of the OHSA 1993 Construction Regulations 2014 (referred to as "the Regulations" hereafter), a Principal Contractor may only be appointed to perform construction work if the Client is satisfied that the Principal Contractor has the necessary competencies and resources to carry out the work safely in accordance with the Occupational Health and Safety Act No 85 of 1993 and the OHSA 1993 Construction Regulations 2014.

To that effect, a person duly authorised by the tenderer, must complete and sign the declaration hereafter in detail.

Declaration by Tenderer

- 1 I, the undersigned, hereby declare and confirm that I am fully conversant with the Occupational Health and Safety Act No 85 of 1993 (as amended by the Occupational Health and Safety Amendment Act No 181 of 1993), and the OHSA 1993 Construction Regulations 2014.
- 2 I hereby declare that my company has the competence and the necessary resources to safely carry out the construction work under this contract in compliance with the Construction Regulations and the Employer's Health and Safety Specifications.
- 3 I propose to achieve compliance with the Regulations by one of the following **(Tenderers are to Circle Applicable - Yes or No)**:

(a) From my own competent resources as detailed in 4(a) hereafter.

(b) From my own resources still to be appointed or trained until competency is achieved, as detailed in 4(b) hereafter:

(c) From outside sources by appointment of competent specialist Subcontractors as detailed in 4(c) hereafter:

Circle Applicable	
Yes	NO
Yes	NO
YES	NO

- 4 Details of resources I propose:

(Note: Competent resources shall include safety personnel such as a construction supervisor and construction safety officer as defined in Regulation 8, and competent persons as defined in Regulations 9, 10, 11, 12, 13, 14, 16, 17, 20, 21, 22, 23(1), 24, 25, 26, 27, 28 and 29, as applicable).

- (a) Details of the competent and qualified key persons from my company's own resources, who will form part of the contract team:

NAMES OF COMPETENT PERSONS	POSITIONS TO BE FILLED BY COMPETENT PERSONS

(b) Details of training of persons from my company's own resources (or to be hired) who still have to be trained to achieve the necessary competency:

- (i) By whom will training be provided?
(ii) When will training be undertaken?
(iii) Positions to be filled by persons to be trained or hired:

(c) Details of competent resources to be appointed as subcontractors if competent persons cannot be supplied from own company:

Name of proposed subcontractor:

Qualifications or details of competency of the subcontractor:

- 5 I, the undersigned, hereby undertake, if this tender is accepted, to provide, before commencement of the works under the contract, a suitable and sufficiently documented Health and Safety Plan in accordance with Regulation 7(1) of the Construction Regulations, which plan shall be subject to approval by the Client.
- 6 I, the undersigned, confirm that copies of this company's approved Health and Safety Plan, the Client's Safety Specifications as well as the OHSA 1993 Construction Regulations 2014 will be provided on site and will at all times be available for inspection by the Principal Contractor's personnel, the Client's personnel, the Employer's Agent, visitors, and officials and inspectors of the Department of Labour.
- 7 I, the undersigned, hereby confirm that adequate provision has been made in the tendered rates and prices in the Bill of Quantities to cover the cost of all resources, actions, training and all health and safety measures envisaged in the OHSA 1993 Construction Regulations 2014, and that I will be liable for any penalties that may be applied by the Client in terms of the said Regulations (Regulation 33) for failure on the Principal Contractor's part to comply with the provisions of the Act and the Regulations.
- 8 I, the undersigned, agree that failure to complete and execute this declaration to the satisfaction of the Client will mean that this company is unable to comply with the requirements of the OHSA 1993 Construction Regulations (2014) and accept that this tender will be prejudiced and may be rejected at the discretion of the Client.

I, the undersigned, who warrants that they are authorised to sign on behalf of the Tenderer, confirms that the information contained in this form is within my personal knowledge and is to the best of my belief both true and correct.

NAME (Block Capitals):

Date

SIGNATURE:

T2.2.5 MBD 4: DECLARATION OF INTEREST

MSCM Regulations: “**in the service of the state**” means to be:

- (a) a member of:
 - (i) any municipal council.
 - (ii) any provincial legislature.
 - (iii) the national Assembly or the national Council of provinces.
- (b) a member of the board of directors of any municipal enterprise.
- (c) an official of any municipality or municipal enterprise.
- (d) an employee of any national or provincial department, national or provincial public enterprise 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 enterprise.
- (f) an employee of Parliament or a provincial legislature.

“**Shareholder**” means a person who owns shares in the company and is actively involved in the management of the company or business and exercises control over the company.

- 1 No bid will be accepted from persons **in the service of the state**¹.
- 2 Any person, having a kinship with persons **in the service of the state**, including a blood relationship, may make an offer or offers in terms of this invitation to bid. In view of possible allegations of favouritism, should the resulting bid, or part thereof, be awarded to persons connected with or related to **persons in service of the state**, it is required that the bidder or their authorised representative declare their position in relation to the evaluating/adjudicating authority and/or take an oath declaring his/her interest.
- 3 In order to give effect to the above, the following questionnaire must be completed and submitted with the bid.

3.1 Name of enterprise	Complete T2.1.2.1 Item 1.1
Name of enterprise's representative	Complete T2.1.2.1 Item 1.2
3.2 ID Number of enterprise's representative	Complete T2.1.2.1 Item 1.3
3.3 Position enterprise's representative occupies in the enterprise	Complete T2.1.2.1 Item 1.4
3.4 Company Registration number	Complete T2.1.2.1 Item 3.1 or 3.2
3.5 Tax Reference number	Complete T2.1.2.1 Item 3.3
3.6 VAT registration number	Complete T2.1.2.1 Item 1.7
3.7 The names of all directors / trustees / shareholders / members / sole proprietors / partners in partnerships, their individual identity numbers and state employee numbers must be indicated in paragraph 4 below. In the case of a joint venture, information in respect of each partnering enterprise must be completed and submitted.	
<div> <div>Circle Applicable</div> <div> <div>YES</div> <div>NO</div> </div> </div>	
3.8 Are you presently in the service of the state?	
If yes, furnish particulars:	
3.9 Have you been in the service of the state for the past twelve months?	
If yes, furnish particulars:	

3.10 Do you have any relationship (family, friend, other) with persons in the service of the state and who may be involved with the evaluation and or adjudication of this bid?

YES

NO

If yes, furnish particulars:

.....

3.11 Are you, aware of any relationship (family, friend, other) between any other bidder and any persons in the service of the state who may be involved with the evaluation and or adjudication of this bid?

YES

NO

If yes, furnish particulars:

.....

3.12 Are any of the company's directors, trustees, managers, principle shareholders or stakeholders in service of the state?

YES

NO

If yes, furnish particulars:

.....

3.13 Are any spouse, child or parent of the company's directors, trustees, managers, principle shareholders or stakeholders in service of the state?

YES

NO

If yes, furnish particulars:

.....

3.14 Do you or any of the directors, trustees, managers, principle shareholders, or stakeholders of this company have any interest in any other related companies or business whether or not they are bidding for this contract?

YES

NO

If yes, furnish particulars:

.....

- 4 The names of all directors / trustees / shareholders / members / sole proprietors / partners in partnerships, their individual identity numbers and state employee numbers must be indicated below. In the case of a joint venture, information in respect of each partnering enterprise must be completed and submitted

Full Name	Identity No.	State Employee No.	Personal income tax No.
Use additional pages if necessary			

I, the undersigned, who warrants that they are authorised to sign on behalf of the Tenderer, confirms that the information contained in this form is within my personal knowledge and is to the best of my belief both true and correct.

NAME (Block Capitals):

Date

SIGNATURE:

T2.2.6 MBD 5: DECLARATION FOR PROCUREMENT ABOVE R10 MILLION
(ALL APPLICABLE TAXES INCLUDED)

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

Circle Applicable	
YES	NO
1.0 Are you by law required to prepare annual financial statements for auditing?	
1.1 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.	
2.0 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?	
2.1 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.	
2.2 If YES, provide particulars. <div style="border-bottom: 1px dotted black; height: 1.2em; margin-top: 5px;"></div> <div style="border-bottom: 1px dotted black; height: 1.2em; margin-top: 5px;"></div>	
3.0 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?	
3.1 If YES, provide particulars. <div style="border-bottom: 1px dotted black; height: 1.2em; margin-top: 5px;"></div> <div style="border-bottom: 1px dotted black; height: 1.2em; margin-top: 5px;"></div>	
4.0 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?	
4.1 If YES, provide particulars. <div style="border-bottom: 1px dotted black; height: 1.2em; margin-top: 5px;"></div> <div style="border-bottom: 1px dotted black; height: 1.2em; margin-top: 5px;"></div>	

If required by 1.1 above, tenderers are to include, at the back of their tender submission document, a printout of their audited annual financial statements.

I, the undersigned, who warrants that they are authorised to sign on behalf of the Tenderer, confirms that the information contained in this form is within my personal knowledge and is to the best of my belief both true and correct, and, if required, that the requested documentation has been included in the tender submission.

NAME (Block Capitals):

Date

SIGNATURE:

T2.2.7 MBD 6.1: PREFERENCE POINTS CLAIM
In terms of THE PREFERENTIAL PROCUREMENT REGULATIONS (2022)

Reference is to be made to Clause F.3.11 of the Tender Data.

This preference form must form part of all tenders invited. It contains general information and serves as a claim form for preference points for specific goals.

NB: BEFORE COMPLETING THIS FORM, TENDERERS MUST STUDY THE GENERAL CONDITIONS, DEFINITIONS AND DIRECTIVES APPLICABLE IN RESPECT OF THE TENDER AND PREFERENTIAL PROCUREMENT REGULATIONS, 2022

1.0 GENERAL CONDITIONS

1.1 The following preference point systems are applicable to invitations to tender:

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

1.2 The applicable preference point system for this tender is the 80/20 preference point system.

1.3 Preference Points for this tender shall be awarded for:

- **Price and Specific Goals:** 80 for price and 20 for specific goals, in terms of 1.2 above.
- The total Preference Points, for Price and Specific Goals, is 100.

1.4 Failure on the part of the tenderer to submit the required proof or documentation, in terms of the requirements in the Conditions of Tender for claiming specific goal preference points, will be interpreted that preference points for specific goals are not claimed.

1.5 The Municipality reserves the right to require of a tenderer, either before a tender is adjudicated or at any time subsequently, to substantiate any claim in regard of preferences, in any manner required by the Municipality.

2.0 DEFINITIONS

2.1 “**tender**” means a written offer in the form determined by an organ of state in response to an invitation to provide goods or services through price quotations, competitive tendering process or any other method envisaged in legislation.

2.2 “**price**” means an amount of money tendered for goods or services, and includes all applicable taxes less all unconditional discounts.

2.3 “**rand value**” means the total estimated value of a contract in Rand, calculated at the time of bid invitation, and includes all applicable taxes.

2.4 “**tender for income-generating contracts**” means a written offer in the form determined by Municipality in response to an invitation for the origination of income-generating contracts through any method envisaged in legislation that will result in a legal agreement between the Municipality and a third party that produces revenue for the Municipality, and includes, but is not limited to, leasing and disposal of assets and concession contracts, excluding direct sales and disposal of assets through public auctions.

2.5 “**the Act**” means the Preferential Procurement Policy Framework Act, 2000 (Act No. 5 of 2000).

3.0 FORMULA FOR CALCULATION OF PREFERENCE PRICE POINTS

3.1 PROCUREMENT OF GOODS AND SERVICES

POINTS AWARDED FOR PRICE: A maximum of 80 points is allocated for price on the following basis:

80 / 20 Points System

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

Where:

P_s = Points scored for price of tender under consideration

P_t = Price of tender under consideration

P_{min} = Price of lowest acceptable tender

4.0 POINTS AWARDED FOR SPECIFIC GOALS

- 4.1 In terms of Regulation 4(2); 5(2); 6(2) and 7(2) of the Preferential Procurement Regulations, preference points must be awarded for specific goals stated in the tender. For the purposes of this tender the tenderer will be allocated points based on the goal(s) stated in **Table 1** below, as supported by proof/ documentation stated in the **Conditions of Tender**:
- 4.2 In cases where organs of state intend to use Regulation 3(2) of the Regulations, which states that if it is unclear whether the 80/20 preference point system applies, an organ of state must, in the tender documents, stipulate in the case of:
- (a) an invitation for tender for income-generating contracts, that the 80/20 preference point system will apply and that the highest acceptable tender will be used to determine the applicable preference point system, or
 - (b) any other invitation for tender, that the 80/20 preference point system will apply and that the lowest acceptable tender will be used to determine the applicable preference point system,
- then the organ of state must indicate the points allocated for specific goals for 80/20 preference point system.

TABLE 1: Specific Goals for the tender and maximum points for each goal are indicated per the table below.

Tenderers are to reference the Tender Data in F.3.11 for guidance on completing this claim form.

Tenderers are to indicate their points claim for each of the Specific Goals in the shaded blocks.

The Specific Goals to be allocated points in terms of this tender	Maximum Number of points ALLOCATED (80/20 system)	Number of points CLAIMED (80/20 system). Tenderer to complete
Ownership Goal: Race (black)	12	
Ownership Goal: Gender (female)	4	
Ownership Goal: Disabilities	-	
RDP Goal: The promotion of South African owned enterprises.	4	
Total CLAIMED Points (20 Maximum)		

I, the undersigned, who warrants that they are authorised to sign on behalf of the Tenderer, certify that the points claimed, based on the specific goals as specified in the tender, qualifies the tendering entity for the preference(s) shown.

I acknowledge that:

- 1) The information furnished is true and correct.
- 2) The preference points claimed are in accordance with the General Conditions as indicated in paragraph 1 of this form.
- 3) In the event of a contract being awarded as a result of points claimed as shown in paragraphs 1.4 and 4.2, the contractor may be required to furnish documentary proof to the satisfaction of the organ of state that the claims are correct.
- 4) If the specific goals have been claimed or obtained on a fraudulent basis, or any of the conditions of contract have not been fulfilled, the organ of state may, in addition to any other remedy it may have:
 - (a) disqualify the person from the tendering 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 tenderer or contractor, its shareholders and directors, or only the shareholders and directors who acted on a fraudulent basis, be restricted 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, if deemed necessary.

NAME (Block Capitals):

Date

SIGNATURE:

T2.2.8 MBD 8: DECLARATION OF BIDDER'S PAST SUPPLY CHAIN MANAGEMENT PRACTICES

- 1.0 This Municipal Bidding Document must form part of all bids invited.
- 2.0 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.
- 3.0 The bid of any bidder may be rejected if that bidder, or any of its directors have:
- a) abused the 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.
 - 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).
- 4.0 In order to give effect to the above, the following questions must be completed and submitted with the bid.

- 4.1 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 audi alteram partem 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.

Circle Applicable	
YES	NO

- 4.1.1 If YES, provide particulars.

.....

.....

- 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)?

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
-----	----

- 4.2.1 If YES, provide particulars.

.....

.....

- 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?

YES	NO
-----	----

- 4.3.1 If YES, provide particulars.

.....

.....

4.4 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

4.4.1 If YES, provide particulars.

.....

.....

4.5 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

4.5.1 If YES, provide particulars.

.....

.....

I, the undersigned, who warrants that they are authorised to sign on behalf of the Tenderer, confirms that the information contained in this form is within my personal knowledge and is to the best of my belief both 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.

NAME (Block Capitals):

Date

SIGNATURE:

T2.2.9 MBD 9: CERTIFICATE OF INDEPENDENT BID DETERMINATION**NOTES**

- 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.

- 1.0 This Municipal Bidding Document (MBD) must form part of all **bids**¹ invited.
- 2.0 Section 4 (1) (b) (iii) of the Competition Act No. 89 of 1998, as amended, prohibits an agreement between, or concerted practice by, firms, or a decision by an association of firms, if it is between parties in a horizontal relationship and if it involves collusive bidding (or **bid rigging**).² Collusive bidding is a *pe se* prohibition meaning that it cannot be justified under any grounds.
- 3.0 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.
- 4.0 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**.
- 5.0 In order to give effect to the above, the attached Certificate of Bid Determination (MBD 9) must be completed and submitted with the bid.

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 statements that I certify to be true and complete in every respect.

I certify, on behalf of:

(Name of Bidder)

that:

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.
 - (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.
 - (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.

NAME (Block Capitals):

Date

SIGNATURE:

T2.2.10 JOINT VENTURES AGREEMENTS

Joint Venture agreement and Power of Attorney Agreements to be attached here (if applicable).

T2.2.11 RECORD OF ADDENDA TO TENDER DOCUMENTS

I / We confirm that the following communications received from the Employer or his representative before the date of submission of this tender offer, amending the tender documents, have been taken into account in this tender offer.

ADD.No	DATE	TITLE OR DETAILS
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		

I, the undersigned, who warrants that they are authorised to sign on behalf of the Tenderer, confirms that the information contained in this form is within my personal knowledge and is to the best of my belief both true and correct.

It is also confirmed that the requirements, as stated on the Addenda, have been complied with.

NAME (Block Capitals):

Date

SIGNATURE:

T2.2.12 ELIGIBILITY: DECLARATION OF MUNICIPAL FEES

Reference is to be made to Clause F.2.1(f)(ii) of the Tender Data.

I, the undersigned, do hereby declare that the Municipal fees of:

.....
(full name of Company / Close Corporation / partnership / sole proprietary/Joint Venture)

(hereinafter referred to as the TENDERER) are, as at the date hereunder, fully paid or an Acknowledgement of Debt has been concluded with the Municipality to pay the said charges in instalments.

The following account details relate to property of the said TENDERER:

<u>Account</u>	<u>Account Number: to be completed by tenderer</u>											
Consolidated Account												
Electricity												
Water												
Rates												
JSB Levies												
Other												

I acknowledge that should the aforesaid Municipal charges fall into arrears, the Municipality may take such remedial action as is required, including termination of any contract, and any payments due to the Contractor by the Municipality shall be first set off against such arrears.

- Where the tenderer's place of business or business interests are outside the jurisdiction of eThekweni municipality, a copy of the accounts/ agreements from the relevant municipality are to be provided.
- Where the tenderer's Municipal Accounts are part of their lease agreement, then a copy of the agreement, or an official letter to that effect, is to be provided.

Tenderers are to include, at the back of their tender submission document, a printout of the above account's and or agreements signed with the municipality.

Failure to include the required document will make the tender submission non-responsive.

*I, the undersigned, who warrants that they are authorised to sign on behalf of the Tenderer, confirms that the information contained in this form is within my personal knowledge and is to the best of my belief both true and correct, **and that the requested documentation has been included in the tender submission.***

NAME (Block Capitals): _____

Date

SIGNATURE: _____

T2.2.13 ELIGIBILITY: REGISTRATION WITH COMPENSATION COMMISSIONER

Reference is to be made to Clause F.2.1(f)(i) of the Tender Data.

The Occupational Injuries and Diseases Act (130 of 1993 as amended) (the Act) refers. A summary of the pertinent Clauses are listed below. The act is to be referenced for the full text of the clauses.

Clause 80: Employer to register with commissioner and furnish him with particulars

The Act requires that an employer carrying out business in the Republic to register with the Compensation Commissioner. Any person who fails to comply with the provisions of the this clause is guilty of an offence.

Clause 82: Employer to furnish returns of earnings

The Act requires an employer to furnish the commissioner with a return showing:

- The amount of earnings paid by him to his employees.
- Any further information as may be prescribed or as the commissioner may require.

Any employer who fails to comply with the provisions of the this clause is guilty of an offence.

Clause 86: Assessment to be paid by an employer to commissioner

The Act states that an employer will receive notices of assessment from the commissioner. The employer must pay the commissioner the assessment amount on the notices.

Clause 89: Mandators and contractors

The Act requires a contractor (a person with a contract with a mandator) to register as an employer in accordance with the provisions of the Act and pay the necessary assessments. Failing registration or payment of assessments, the mandator is required to pay the assessments in respect of the employees of the contractor. The mandator is allowed to recover the assessment amounts paid from the contractor.

The Department of labour issues contractors with a **Letter of Good Standing** if the contractor has complied with the requirement(s) of the Act and is in "good standing" with the Compensation Fund. Employers can check the validity of such Letters of Good Standing on the internet (<https://cfoonline.labour.gov.za/VerifyLOGS>).

Tenderers are to include, at the back of their tender submission document, a printout of their most recent Letter of Good Standing from the Department of Labour.

Failure to include the required document will make the tender submission non-responsive.

*I, the undersigned, who warrants that they are authorised to sign on behalf of the Tenderer, confirms that the information contained in this form is within my personal knowledge and is to the best of my belief both true and correct, **and that the requested documentation has been included in the tender submission.***

NAME (Block Capitals): _____

Date

SIGNATURE: _____

T2.2.14 ELIGIBILITY: CSD REGISTRATION REPORT


Reference is to be made to Clauses F.2.1(e) and F.2.23 of the Tender Data.

The Conditions of Tender, Clause F.2.1: Eligibility, requires a tenderer to be registered, at the time of tender closing, on the **National Treasury Central Supplier Database (CSD)** as a service provider.

CSD Registration Reports can be obtained from the National Treasury's CSD website at <https://secure.csd.gov.za/Account/Login>.

The date of obtaining the printout is to be indicated on the printout.

The following is an example of the beginning of the printout obtained from the above website.

 CENTRAL SUPPLIER DATABASE FOR GOVERNMENT	Report Date:
	Report Ran By:
CSD REGISTRATION REPORT	
SUPPLIER IDENTIFICATION	
Supplier number	Have Bank Account
Is supplier active?	Total annual turnover
Supplier type	Financial year start date
Supplier sub-type	Registration date
Legal name	Created by
Trading name	Created date
Identification type	Edit by
Government breakdown	Edit date
Business status	Restricted Supplier
Country of origin	Restriction Last Verification Date
South African company/CC registration number	

Tenderers are to include, at the back of their tender submission document, a printout of their (full) CSD Registration Report.

I, the undersigned, who warrants that they are authorised to sign on behalf of the Tenderer, confirms that the information contained in this form is within my personal knowledge and is to the best of my belief both true and correct, and that the requested documentation has been included in the tender submission.

NAME (Block Capitals):

Date

SIGNATURE:

T2.2.15 ELIGIBILITY: VERIFICATION OF CIDB REGISTRATION AND STATUS

Reference is to be made to Clause F.2.1.1 and F.2.23 of the Tender Data.

The Conditions of Tender, **Clause F.2.1.1: Eligibility**, requires a tenderer to be registered, as "Active", with the CIDB (at time of tender closing), in a contractor grading designation equal to or higher than a contractor grading designation determined in accordance with the sum tendered, or a value determined in accordance with Regulation 25 (1B) or 25(7A) of the Construction Industry Development Regulations. The required class of construction work is specified in Clause F.2.1.1.

CIDB Registrations can be obtained from the CIDB website at <https://registers.cidb.org.za/PublicContractors/ContractorSearch>. The date of obtaining the printout is to be indicated on the printout.

The following is an example of the beginning of the printout obtained from the above website.

Home

Contractor Detail Print

Contractor Detail

CRS Number: Type of Enterprise:

Contractor Name: Registration Date:

Trading Name: Expiry Date:

Status:

Contractor Grades

Grade:

Back

Copyright © cidb 2011. All rights reserved
Website technical enquires: contact

01/01/2017

Tenderers are to include, at the back of their tender submission document, a printout of their registration with the CIDB.

I, the undersigned, who warrants that they are authorised to sign on behalf of the Tenderer, confirms that the information contained in this form is within my personal knowledge and is to the best of my belief both true and correct, and that the requested documentation has been included in the tender submission.

NAME (Block Capitals):

Date

SIGNATURE:

T2.2.16 ELIGIBILITY: EXPERIENCE OF TENDERER

Reference is to be made to Clause F.2.1.2 of the Tender Data.

This form is to be copied and used for each submission of experience, as may be required.

Where options are provided (), only one (1) selected option should be clearly marked with an "X".

Tenderer's CIDB Grade:	1*	2*	3*	4*	5*	6*	7*	8*	9*	Experience as a:	Sub-Contractor*	Main Contractor*
Client / Employer:	Entity Name:											
	Contact Name:											
	Contact Tel:											
	Contact Cell:											
	Contact email / other:											
Client OR Main Contractor's Details Should the Employer's reasonable attempts to make contact, to verify the information provided, fail (for whatever reason) this experience submission will be considered invalid.	Entity Name:											
	Contact Name:											
	Contact Tel:											
	Contact Cell:											
	Contact email / other:											
Contract Details	Contract Number:											
	Contract Title:											
	Has this Contract been completed?									Y*	N*	
Tendered Value (Contract Sum) OR Sub-Contract Value:	R									Final Contract Price OR Final Value of Sub-Contract:		

Contract Scope-of-Work (Description of Works components)	If available in hard copy, the Scope-of-Work can be attached. Only include the Scope-of-Work (contract description). <u>The Specification is not required.</u>

In addition to the Scope-of-Work (entered above or attached) the following documentation / information is required to be attached to the back of this form.					
Contractor Type and Contract Status	Proof of Sub-Contract Agreement	Letter of Award OR Form of Offer & Acceptance	Most recent Payment Certificate, OR most recent INVOICE, with Quantities summary	Final Payment Certificate, OR most recent INVOICE, with Quantities summary	Completion Certificate
Current Contract as Sub-Contractor	X		X		
Completed Contract as Sub-Contractor	X			X	
Current Contract as Main Contractor		X	X		
Completed Contract as Main Contractor		X		X	X
Failure to submit this returnable form, and provide the above supporting documentation/ information, for each submission of experience, will invalidate that experience submission					

I, the undersigned, who warrants that they are authorised to sign on behalf of the Tenderer, confirms that the information contained in this form is within my personal knowledge and is to the best of my belief both true and correct, and that the requested documentation has been included in the tender submission.

NAME (Block Capitals):

Date

SIGNATURE:

PART C1: AGREEMENT AND CONTRACT DATA**C1.1: FORM OF OFFER AND ACCEPTANCE****C1.1.1: OFFER**

The Employer, identified in the Acceptance signature block, has solicited offers to enter into a contract in respect of the following works:

Contract No: **1R-23883**

Contract Title: **FLOOD DAMAGE REMEDIATION OF BHUBESI DRIVE – INANDA WARD 55**

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 authorised, 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:**

R..... (In words
.....)

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 the Conditions of Contract identified in the Contract Data.

For the Tenderer:

*** Name of Tenderer (organisation)** :

*** Signature (of person authorized to sign the tender)** :

*** Name (of signatory in capitals)** :

Capacity (of Signatory) :

Address :

:

Telephone :

Witness:

Signature : **Date** :

Name (in capitals) :

Notes:

*** Indicates what information is mandatory.**

Failure to complete the mandatory information and sign this form will invalidate the tender.

C1.1: FORM OF OFFER AND ACCEPTANCE**C1.1.2: FORM OF ACCEPTANCE****This Form will be completed by the Employer**

By signing this part of the 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 an 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 : Agreement and Contract Data, (which includes this Agreement)
- Part C2 : Pricing Data, including the Bill of Quantities
- Part C3 : Scope of Work
- Part C4 : Site Information

and the schedules, forms, 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 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 contained in this Schedule, which must be duly signed by the authorised representatives of both parties.

The Tenderer shall within two weeks after receiving a completed copy of this Agreement, including the Schedule of Deviations (if any), contact the Employer's agent (whose details are given in the Contract Data) to arrange the delivery of 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 at, or just after, the date this Agreement comes into effect. Failure to fulfill any of these 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 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.

Signature (*person authorized to sign the acceptance*) :

Name (*of signatory in capitals*) :

Capacity (*of Signatory*) :

Name of Employer (*organisation*) :

Address :

:

Witness:

Signature : **Date** :

Name(*in capitals*) : :

C1.1: FORM OF OFFER AND ACCEPTANCE**C1.1.3: SCHEDULE OF DEVIATIONS**

This form will be completed by THE EMPLOYER and ONLY THE SUCCESSFUL TENDERER

1. **Subject** :
- Details** :
- :
2. **Subject** :
- Details** :
- :
3. **Subject** :
- Details** :
- :

By the duly authorised 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 change 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 (<i>in capitals</i>)
.....	Capacity
.....	Name and Address of
.....	Organisation
.....	
.....	Witness Signature
.....	Witness Name
.....	Date

C1.2: CONTRACT DATA**C1.2.1 CONDITIONS OF CONTRACT****C1.2.1.1 GENERAL CONDITIONS OF CONTRACT**

The Conditions of Contract are the General Conditions of Contract for Construction Works (2015 3rd Edition), (GCC 2015) published by the South African Institution of Civil Engineering. Copies of these conditions of contract may be obtained from the South African Institution of Civil Engineering (Tel: 011-805-5947, Fax: 011-805-5971, E-mail: civilinfo@saice.org.za).

The Contract Data (including variations and additions) shall amplify, modify, or supersede, the GCC 2015 to the extent specified below, and shall take precedence and shall govern.

Each item of data given below is cross-referenced to the clause in the GCC 2015 to which it mainly applies.

C1.2.2 CONTRACT DATA**C1.2.2.1 DATA TO BE PROVIDED BY THE EMPLOYER**

1.1.1.13 The **Defects Liability Period**, from the date of the Certificate of Completion, is **1 Year**

1.1.1.14 The **time for achieving Practical Completion**, from the Commencement Date is **24 Weeks (6 months)**. The period as stated in 5.3.2, and the 7 days referred to in 5.3.3, are included in the above time for achieving Practical Completion. The special non-working days as stated in 5.8.1 are excluded from the above time for achieving Practical Completion.

1.1.1.15 The Employer is the eThekweni Municipality as represented by:
Deputy Head: **Roads Provision**

1.2.1.2 The address of the Employer is:
Physical: 166 K.E Masinga Road, Durban, 4001
Postal: PO Box 680, Durban, 4000
Telephone: 031 322 2879
Fax: 031 311 7321
E-Mail: sandile.masondo@durban.gov.za

1.1.1.16 The **name of the Employer's Agent** is Balan Govender Pr. Tech Eng

1.2.1.2 The address of the Employer' Agent is:
Physical: 30 Archie Gumede Place, Durban, 4001
Postal: PO Box 680, Durban, 4000
Telephone: 031 322 2861
Fax: 031 311 7321
E-Mail: balan.govender@durban.gov.za

1.1.1.26 The **Pricing Strategy** is by **Re-measurement Contract**.

3.2.3 The Employer's Agent shall obtain the **specific approval of the Employer** before executing any of his functions or duties according to the following Clauses of the General Conditions of Contract:

- 6.3: Council approval in order to authorise any expenditure in excess of the Tender Sum plus **15%** contingencies.

- 5.3.1 The **documentation required** before commencement with Works execution are:
- Health and Safety Plan (refer to Clause 4.3)
 - Initial Programme (refer to Clause 5.6)
 - Security (refer to Clause 6.2)
 - Insurance (refer to Clause 8.6)
 - CV(s) of Key Site Staff (refer to Clause 4.11.1)
 - CPG Implementation Plan (if applicable)
- 5.3.2 The **time to submit the documentation** required before commencement with Works is **14 / 21 / 28 Days**.
- 5.3.3 Add the following paragraph:
- “If a construction work permit, in terms of Clause 3(1) of the Construction Regulations (2014), is applicable, the instruction to commence carrying out of the works may only be issued once the construction work permit has been obtained by the Employer’s Agent. If a construction work permit is applicable, the contractor shall allow for a minimum period of 37 days, after the submission (or re-submission) of the documentation referred to in Clause 5.3.1., for the issuing of the construction work permit.”
- 5.4.2 The access and possession of Site shall not be exclusive to the Contractor but as set out in the Site Information.
- 5.8.1 The **non-working days** are **Saturdays and Sundays**.
- (5.1.1) The **special non-working days** are:
- All statutory holidays as declared by National or Regional Government.
 - The year-end break:
 - Commencing on the first working day after 15 December.
 - Work resumes on the first working day after 5 January of the next year.
- 5.8.1 Delete the words “sunset and sunrise” and replace with “17:00 and 07:00”.
- 5.12.2.2 **Abnormal Climatic Conditions (Rain Delays)** - The numbers of days per month, on which work is expected not to be possible as a result of rainfall, for which the Contractor shall make provision, is given in the table below. During the execution of the Works, the Employer’s Agent’s Representative will certify a day lost due to rainfall only if at least 75% of the work force and plant on site could not work during that specific working day.
- Extension of time as a result of rainfall shall be calculated monthly being equal to the number days certified by the Employer’s Agent’s Representative as lost due to rainfall, less the number of days allowed for as in table below, which could result in a negative figure for certain months. The total extension of time for which the Contractor may apply, shall be the cumulative algebraic sum of the monthly extensions. Should the sum thus obtained be negative, the extension of time shall be taken as NIL.

<u>Month</u>	<u>Days Lost</u>	<u>Average Rainfall</u>	<u>Month</u>	<u>Days Lost</u>	<u>Average Rainfall</u>
January	4*	134	July	1	39
February	3	113	August	2	62
March	3	120	September	2	73
April	2	73	October	3	98
May	2	59	November	3	108
June	1	28	December	1*	102
TOTAL	27	1009mm	* = The number of working days lost allows for the annual statutory Construction holiday in December and January of each year.		

5.13.1 The **penalty for delay** in failing to complete the Works is **R 2500.00 (per Day)**.

5.14.1 The **requirements for achieving Practical Completion** will be determined by the Employer's Agent (in consultation with the Contractor) and recorded in the minutes of the first Site Meeting / Handover Meeting. (Refer to 1.1.1.24 for a generic definition.) The requirements are to be regularly reviewed with respect to any variations to the Contract.

5.16.3 The **latent defect liability** period is **10 Years**.

6.2.1 **Security (Performance Guarantee):** Delete the word "selected" and replace it with "stated".

The liability of the Performance Guarantee shall be as per the following table:

Value of Contract (incl. VAT)	Performance Guarantee Required
Less than or equal to R 1m	Nil
Greater than R 1m and less than or equal to R 10m	5% of the Contract Sum
Greater than R 10m	10% of the Contract Sum

6.5.1.2.3 The **percentage allowance** to cover overhead charges for daywork are as follows:

- **80%** of the gross remuneration of workmen and foremen actually engaged in the daywork;
- **20%** on the net cost of materials actually used in the completed work.

No allowance will be made for work done, or for materials and equipment for which daywork rates have been quoted at tender stage.

6.8.2 **Contract Price Adjustment Factor:** The value of the certificates issued shall be adjusted in accordance with the Contract Price Adjustment Schedule (GCC 2015 - page 86) with the following Indices / Descriptions / Coefficients:

- The proportion not subject to adjustment: **x = 0.10**.
- The base month will be the month prior to the month in which tenders close.
- The Index for Labour, Plant, and Materials shall be based on **December 2021 = 100**.
- The Index for Fuel shall be based on **December 2020 = 100**.

	STATS SA Statistical Release	Table	Description	Coefficient
• "L" is the "Labour Index"	P0141	Table A	Geographic Indices; CPI per Province; Kwa-Zulu Natal	a = 0.28
• "P" is the • "Contractor's Equipment Index"	P0151.1	Table 4	Plant and Equipment	b = 0.28
• "M" is the "Materials Index"	P0151.1	Table 6	Civil Engineering Material (excluding bitumen)	c = 0.38
• "F" is the "Fuel Index"	P0142.1	Table 1	Coke, petroleum, chemical, rubber and plastic products; Coal and petroleum products; Diesel	d = 0.06

6.8.3 Price adjustments for **variation in the cost of the special material(s)** listed below, will be allowed.

Bitumen - escalation will be calculated using the "Rise and Fall" method as determined by the Employer. The base price for bitumen on this contract shall be the ruling price of 50/70 grade bitumen based on the "Shell Whole Sale List Selling Price for Penetration Grade Bitumen", seven (7) days prior to the closing date of tenders.

6.10.1.5 The **percentage advance** on materials not yet built into the Permanent Works is **80%**.

The **percentage advance** on Plant not yet supplied to Site: **Not Required**

6.10.3 **Retention Money:** Delete the word "selected".

The percentage retention on the amounts due to the Contractor is 10%.

The limit of "retention money" is 5% of the Contract Sum.

Should the Contract Price exceed the Contract Sum then the limit of "retention money" is 5% of the Contract Price.

Interest will not be paid on retention withheld by the Employer.

8.6.1.1.2 The **value of Plant and materials** supplied by the Employer to be included in the insurance sum: **Not Required**

8.6.1.1.3 The **amount to cover professional fees** for repairing damage and loss to be included in the insurance sum: **Not Required**

8.6.1.2 **SASRIA Coupon Policy** for Special Risks to be issued in joint names of Council and Contractor for the full value of the works (including VAT).

8.6.1.3 The limit of indemnity for **liability insurance**: **R 10 000 000.00**.

8.6.1.4 **Ground Support Insurance:**

- Minimum amount for any one occurrence, unlimited as to the number of occurrences, against any claim for damages or loss caused by vibration and / or removal of lateral support: **R1 000 000.00**.
- Maximum first excess: **R 10 000.00**.

8.6.1.5 Furthermore, the insurance cover effected by the Contractor shall meet the following requirements:

Third Party Insurance (Public Liability)

- Minimum amount for any one occurrence, unlimited as to the number of occurrences, for the period of the contract, inclusive of the maintenance period: **R 1 000 000.00**.
- Consequential loss to be covered by policy: **Yes**
- Liability section of policy to be extended to cover blasting: **Nil**
- Maximum excess per claim or series of claims arising out of any one occurrence: **R20 000.00**.

Principal's own surrounding Property Insurance

- Minimum amount for any one occurrence unlimited as to the number of occurrences against any claim for damage which may occur to the Council's own surrounding property: **R500 000.00**.
- Maximum first excess: **R 10 000.00**.

Insurance of Works

- Minimum amount for additional removal of debris (no damage): **Nil**
- Minimum amount for temporary storage of materials off site, excluding Contractor's own premises: **Nil**
- Minimum amount for transit of materials to site: **Nil**

8.6.5 **Approval by Employer:** At the end of the sub-clause, add the following paragraph:

"Except where otherwise provided in the Special Conditions of Contract, the insurance cover effected by the Contractor in terms of this clause shall not carry a first loss amount greater than those set out below:

Contract Price	First Loss
Less than R 100,000	R 5,000
R 100,000 to R 500,000	R 10,000
R 500,000 to R 1,000,000	R 20,000
R 1,000,000 to R 2,000,000	R 30,000
R 2,000,000 to R 4,000,000	R 40,000
Greater than R 4,000,000	R 50,000

The insurance policy shall contain a specific provision whereby cancellation of the policy prior to the end of the period referred to in Cause 8.2.1 cannot take place without the prior written approval of the Employer."

10.7.1 Failing ad-hoc adjudication, the determination of disputes shall be by arbitration.

C1.2.2.2 DATA TO BE PROVIDED BY CONTRACTOR

1.1.1.9 The legal name of Contractor is:

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

1.2.1.2 The Physical address of the Contractor is:

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

The Postal address of the Contractor is:

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

The contact numbers of the Contractor are:

Telephone:

Fax:

The E-Mail address of the Contractor is:

.....

C1.2.3 ADDITIONAL CONDITIONS OF CONTRACT

C1.2.3.1 COMMUNITY LIAISON OFFICER

The Ward Councillor(s) in whose ward(s) work is to be done will, collectively, identify a community liaison officer (CLO) for the project and make the person known to the Contractor within two days of being requested to do so. The Contractor will be required to enter a written contract with the CLO that specifies:

- The hours of work and the wage rate of the CLO (200% of the Civil Engineering Industry minimum wage).
- The duration of the appointment.
- The duties to be undertaken by the CLO which could include:
 - Assisting in all respects relating to the recruitment of local labour.
 - Acting as a source of information for the community and councillors on issues related to the contract.
 - Keeping the Contractor advised on community issues and issues pertaining to local security.
 - Assisting in setting up any meetings or negotiations with affected parties.
 - Keeping a written record of any labour or community issue that may arise.
 - Any other duties that may be required by the Contractor.

Responsibility for the identification of a pool of suitable labour shall rest with the CLO who resides in **Ward 55**, although the Contractor shall have the right to choose from that pool. The Contractor shall have the right to determine the total number labourers required at any one time and this may vary during the contract.

The Contractor shall have the right to replace labour that is not performing adequately. Should such occasion arise, it must be done in conjunction with the CLO.

Payment: The CLO will be reimbursed from the PC Sum item in the Preliminary & General Section of the Bill of Quantities.

C1.2.3.2 EMPLOYMENT OF LOCAL LABOUR

It is a condition of contract that the contractor will be required to employ local labour as specified in eThekweni Council Policy "The use of CLOs and Local Labour". The contractor will be required to ensure that a minimum of 50% of the labour force is made up of local labour. For the purposes of this contract, "Local labour" will be deemed to be any **persons who reside within Ward(s) 55**. The contractor will be required to provide proof of authenticity of local labour. Signed confirmation by the appointed CLO will suffice for this.

No additional costs will be entertained due to this Particular Specification. The contractor will remain responsible for providing proper supervision of all labour and will be responsible for the quality of work produced.

C1.2.3.3 CONTRACTOR PARTICIPATION GOAL (CPG)

It is a condition of contract that the contractor must allow for a minimum of **15%** of the contract value (excluding PC Sum items and Fixed Cost allowances) to be subcontracted to contractors who are **>51% PPG** (Priority Population Group) owned. Proof of payment to the subcontractors will be required to verify that the minimum has been achieved.

The penalty for not achieving the specified CPG will be 0.5% of the contract value (excluding PC Sum items and Fixed Cost allowances) for every 1% of CPG not achieved.

C1.2.3.4 FTE (Full Time Equivalent) EMPLOYMENT INFORMATION

It is a condition of contract that the Contractor supplies the Employer's Agent's Representative with information in respect of the employment of all foremen, artisans and labour (skilled and unskilled) employed to work on this contract. The information required is:

- Initials (per ID doc)
- Last Name (per ID doc)
- ID Number
- Disability (y / n)
- Education Level

Level 1 Unknown	Level 2 No Schooling	Level 3 Grade 1-3	Level 4 Grade 4	Level 5 Grade 5-6
Level 6 Grade 7-8	Level 7 Grade 9	Level 8 Grade 10-11	Level 9 Grade 12	Level 10 Post Matric

- Category of Employment

Category A: Employed as Local Labour for this contract only Category B: Temporarily employed by the Contractor Category C: Permanently employed by the Contractor
--

In addition, the following information is required in respect of each person listed above, on a monthly basis:

- Number of days worked during the month;
- Daily wage rate;
- Number of training days during the month.

The information is to be forwarded in a format acceptable to the Employer's Agent's Representative, but preferably in the form of an emailed EXCEL file (an original file, to be used as a template, will be issued to the Contractor). Contractors without computer facilities will be required to submit a hard copy of the information in a format as agreed to between the Contractor and the Employer's Agent's Representative.

In addition to the tax invoice, to be submitted by the Contractor with his monthly statement, mentioned in Clause 6.10.4 of GCC 2015, the Employer reserves the right to withhold payment until the monthly FTE information has been forwarded to the Employer's Agent's Representative. No additional payment for complying with the above will be made and the Contractor is to make allowance for complying through the time related P & G items (sum) under Part AA: Preliminaries, of the Bill of Quantities.

C1.2.3.5 PERFORMANCE MONITORING OF SERVICE PROVIDERS

[For contract awards over R10m] The Contractor shall be subjected to "Performance Monitoring" assessments in terms of the applicable Section (S.53) of the Employer's Supply Chain Management Policy.

Key Performance Indicators (KPIs) are specified in the C3: Scope of Works or will be discussed and agreed with the Contractor before commencement of the contract.

C1.2.3.6 EXCEPTED RISKS (Clause 8.3)

Pursuant to Clause 8.3 of the Conditions of Contract (GCC 2015), the Employer shall not be liable for the payment of standing time costs as a result of the occurrence of any of the "Excepted Risks" as defined under Clause 8.3.

However, the Employer shall reimburse the Contractor in respect of plant de-establishment and re-establishment costs as a result of "Excepted risks" when a written instruction to de-establish is issued to the Contractor.

C1.2.3.7 SUBCONTRACTING AS CONDITION OF CONTRACT

It is a condition of contract that the contractor must allow for a minimum of **15%** of the contract value (excluding PC Sum items and Fixed Cost allowances) to be subcontracted.

The Contractor is best suited to manage his apportionment of the CPG component. This apportionment shall be solely at the discretion of the Contractor in order to best mitigate his risks associated with Clause 8.3 of the Conditions of Contract (GCC 2015). The Employer accepts no liability for any such event/s in terms of Clause 8.3 that may arise out of the Contractor's appointment/s, management, payment and mentorship of the CPG sub-contractor/s, business forums and local labour.

The Contractor shall make adequate allowance in his tendered rates for:

- Dealing with aspiring sub-contractors
- Engaging with sub-contractors and mutually agreeing rates and scope of works for each of the sub-contract packages
- Assigning work to sub-contractors in a way that mitigates his (the Contractor's) risk in terms of Clause 8.3
- Monitoring and mentoring sub-contractors
- Training and skills development
- Timeous payments
- Any other factors to best manage his risks under Clause 8.3

There will be no liability in the form of extension of time, Preliminary and General payment items and standing time costs attributable to the Employer in terms of any disruption arising from the actions of CPG sub-contractors, business forums, military veterans, local labour etc.

C2.1: PRICING ASSUMPTIONS / INSTRUCTIONS

C2.1.1 GENERAL

The Bill of Quantities forms part of the Contract Documents and must be read and priced in conjunction with all the other documents comprising the Contract Documents (refer to F.1.2 of the Tender Data).

C2.1.2 PRICING INSTRUCTIONS AND DESCRIPTION OF ITEMS IN THE SCHEDULE

Measurement and payment shall be in accordance with the relevant provisions of **Clause 8 of each of the Standard Engineering Specifications** referred to in the Scope of Work. The Preliminary and General items shall be measured in accordance with the provisions of **C2.1.8**.

The descriptions of the items in the Bill of Quantities are for identification purposes only and comply generally with those in the Standard Engineering Specification.

Clause 8 of each Standard Engineering Specification, read together with the relevant clauses of the Scope of the works, set out what ancillary or associated work and activities are included in the rates for the operations specified. Should any requirements of the measurement and payment clause of the applicable Standard Engineering Specification, or the Scope of the works, conflict with the Bill of Quantities, the requirements of the Standard Engineering Specification or Scope of the work, as applicable, shall prevail.

C2.1.3 QUANTITIES REFLECTED IN THE SCHEDULE

The quantities given in the Bill of Quantities are estimates only, and subject to re-measuring during the execution of the work. The Contractor shall obtain the Employer's Agent's detailed instructions for all work before ordering any materials or executing work or making arrangements for it.

The Works as finally completed in accordance with the Contract shall be measured and paid for as specified in the Bill of Quantities and in accordance with the General and Special Conditions of Contract, the Specifications and Project Specifications and the Drawings. Unless otherwise stated, items are measured

net in accordance with the Drawings, and no allowance has been made for waste.

The validity of the contract will in no way be affected by differences between the quantities in the Bill of Quantities and the quantities finally certified for payment.

C2.1.5 MONTHLY PAYMENTS

Unless otherwise specified in the Specifications and Project Specifications, progress payments in Interim Certificates, referred to in **Clause 6.10.1 of the General Conditions of Contract**, in respect of "sum" items in the Bill of Quantities shall be by means of interim progress instalments assessed by the Employer's Agent and based on the measure in which the work actually carried out relates to the extent of the work to be done by the Contractor.

C2.1.4 PROVISIONAL SUMS / PRIME COST SUMS

Where Provisional Sums or Prime Cost sums (PC Sum) are provided for items in the Bill of Quantities, payment for the work done under such items will be made in accordance with **Clause 6.6 of the General Conditions of Contract**. The Employer reserves the right, during the execution of the works, to adjust the stated amounts upwards or downwards according to the work actually done under the item, or the item may be omitted altogether, without affecting the validity of the Contract.

The Tenderer shall not under any circumstances whatsoever delete or amend any of the sums inserted in the "Amount" column of the Bill of Quantities and in the Summary of the Bill of Quantities unless ordered or authorized in writing by the Employer before closure of tenders. Any unauthorized changes made by the Tenderer to provisional items in the schedule, or to the provisional percentages and sums in the Summary of the Bill of Quantities, will be treated as arithmetical errors.

C2.1.6 PRICING OF THE BILL OF QUANTITIES

The prices and rates to be inserted by the Tenderer in the Bill of Quantities shall be the full inclusive prices to be paid by the Employer for the work described under

the several items, and shall include full compensation for all costs and expenses that may be required in and for the completion and maintenance during the defects liability period of all the work described and as shown on the drawings as well as all overheads, profits, incidentals and the cost of all general risks, liabilities and obligations set forth or implied in the documents on which the Tender is based.

Each item shall be priced and extended to the "Total" column by the Tenderer, with the exception of the items for which only rates are required (Rate Only), or items which already have Prime Cost or Provisional Sums affixed thereto. If the Contractor omits to price any items in the Bill of Quantities, then these items will be considered to have a nil rate or price.

All items for which terminology such as "inclusive" or "not applicable" have been added by the Tenderer will be regarded as having a nil rate which shall be valid irrespective of any change in quantities during the execution of the Contract.

All rates and amounts quoted in the Bill of Quantities shall be in Rands and Cents and shall include all levies and taxes (other than VAT). VAT will be added in the Summary of the Bill of Quantities.

C2.1.7 "RATE ONLY" ITEMS

The Tenderer shall fill in rates for all items where the words "Rate Only" appear in the "Total" column. "Rate Only" items have been included where:

- (a) an alternative item or material is contemplated;
- (b) variations of specified components in the make-up of a pay item may be expected; and
- (c) no work under the item is foreseen at tender stage but the possibility that such work may be required is not excluded.

For "Rate Only" items no quantities are given in the "Quantity" column but the quoted rate shall apply in the event of work under this item being required. The Tenderer shall however note that in terms of the

Tender Data the Tenderer may be asked to reconsider any such rates which the Employer may regard as unbalanced.

C2.1.8 PRELIMINARY AND GENERAL

The Preliminary and General Section is provided to cover the Contractor's expenses incurred in complying with the requirements of the tender documents and consists of the following parts:

- Part AA: Preliminaries
- Part AB: General Specifications
- Part AH: Occupational Health and Safety

Fixed Charge Items: Each item should be priced separately and, subject to the Engineer certifying in terms of **Clause 6.7 of the General Conditions of Contract** that the work has been done, payment will be made as follows:

- (i) the total amount due when the certified value fixed charge items in this section is less than 5% of the net contract price;
- (ii) when the certified value of fixed charge items in this section is greater than 5% of the net contract price, payment will be limited to 5% of the net contract price. The remainder will be paid when the value of the work done under the contract, excluding the value of fixed charge items in this section, is greater than 50% of the net contract price, excluding the value of fixed charge items in this section.

Time Related Items: Any Time Related items not priced shall be deemed to be covered by the prices of other items in the section.

Payment of Time Related items in this section will be made throughout the contract period, the amount per month being the value of the item divided by the completion in months or, if specified in weeks, the equivalent number of months, in terms of **Clause 5.5 of the General Conditions of Contract**. The final monthly increment will only be paid upon the issue of a completion certificate.

C2.2: BILL OF QUANTITIES

The Bill of Quantities follows and comprises of 11 pages.

PART C3: SCOPE OF WORK

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C3.1: PROJECT DESCRIPTION AND SCOPE OF CONTRACT

C3.1.1 Description of Works

This project is an emergency response to the flooding that occurred in April 2022, which left many communities such as Inanda in devastation. Bhubesi Drive is located in Inanda, Ward 55. The remediation works required (but not limited to) include the removal of debris and rubble; reconstruction of road layer works; reconstruction and retaining of embankments; reconstruction of culvert bridge and repairing of wing walls.

- (a) Road deviations and Traffic control
 - Construction of road deviations and pedestrian safety
 - Provide, erect, and maintain traffic controls
- (b) Site Clearance
 - Clearing and grubbing in the area of work
 - Removal of selected items from the area of works
- (c) Concrete Works
 - Embankment retaining structures
- (d) Layer Works
 - i) 150mm Concrete layer 40MPa
 - ii) 150mm G4 crushed stone base
 - iii) 150mm G7 insitu/selected layer
- (e) Drainage
 - i) Construction of mountable kerb and channel
 - ii) Construction of stormwater inlets
 - iii) Installation of stormwater pipes
- (f) Protection Works
 - i) Topsoiling and grassing
 - ii) Gabions
- (g) Services
 - i) Proving of services
 - ii) Relocation and installation of services
 - iii) Installation of service ducts

The contractor is to liaise with each of the service owners to identify service management strategies, irrespective of it being new or existing. The works sequence may require revision to accommodate any delay that may be experienced by the contractor in managing the service. This will require a revision of the contract programme without a change in contract duration or end dates.

The mechanisms to deal with service relocations may be one or a combination of the following processes:

- 1) Identification of service relocation/renewal scope of work in consultation with the service owner.
- 2) Preparation of a tender and bill of quantities for service management in consultation with service owner or the employer's agent.
- 3) Sourcing prices for the works done through a process directed by the employer's agent that

subscribes to a fair, transparent and equitable practices.

- 4) Enter into a sub-contract relationship with selected sub-contractor.
- 5) Manage the workflow process, risk, time, cost, quality of the sub-contractor.
- 6) Where the service provider chooses to undertake the service management at their own accord, then the contractor will facilitate payment after agreement with the Employer's Agent. The contractor is also required to manage the process of risk, time, cost, quality of the service provider.

The contractor must take note that the above procedures are aimed at putting the responsibility of the service management in the hands of the contractor, who is best suited to mitigate contract risk in this regard. This contract will not make provisions for any extension of time or delay relating to service management. The contract programme must reflect a realistic timeline that attends to the service management scope of this project.

C3.1.2 Description of Site and Access

Access to the site can be obtained off King Bhekuzulu Drive or Kudu Road which comes off King Bhekuzulu Drive and transitions into Bhubesi Drive.

GPS co-ordinates for the site are:

Latitude: S 29.71455° Longitude: E 30.93880° or

Latitude: S 29.71196° Longitude: E 30.94814°

Refer to Item C4.1: Locality Sketch.

C3.1.3 Nature of Ground and Subsoil Conditions

Refer to Item C4.2: Conditions on Site

C3.2: PROJECT SPECIFICATION

PREAMBLE

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

C3.2.1 GENERAL

PS.1 PROGRAMME, METHOD OF WORK, AND ACCOMMODATION OF TRAFFIC

This Clause is to be read in conjunction with the provisions and obligations as contained in **SANS 1921-1 and SANS 1921-2**.

PS.1.1 Preliminary Programme

The Contractor shall include with his tender a preliminary programme on the prescribed form (**see T2.2: Preliminary Programme**) to be completed by all Tenderers. The programme shall be in the form of a simplified bar chart with sufficient details to show clearly how the works will be performed within the time for completion as stated in the Contract Data.

Tenderers may submit tenders for an alternative Time for Completion in addition to a tender based on the specified Time for Completion. Each such alternative tender shall include a preliminary programme similar to the programme above for the execution of the works, and shall motivate his proposal clearly by stating all the financial implications of the alternative completion time.

The Contractor shall be deemed to have allowed fully in his tendered rates and prices as well as in his programme for all possible delays due to normal adverse **weather conditions (refer to Clause 5.12.2.2)** and special non-working days (**refer to Clause 5.1.1.1**) as specified in the in the Contract Data.

PS.1.2 Programme in Terms of Clause 5.6 of the General Conditions of Contract

It is essential that the construction programme, which shall conform in all respects to **Clause 5.6 of the General Conditions of Contract**, be furnished within the time stated in the Contract Data (**refer to Clause 5.3.1/2**).

The preliminary programme to be submitted with the tender shall be used as basis for this programme.

The Tenderer's attention is drawn to the fact that a number of factors will affect the programming of and method of carrying out the works. The more important of these are:

[Detail any factors which may affect the programming of the project]

(1) Time required for service relocations.

- (2) Time allowances to be made for the ordering of special items.
- (3) Notification required by service organisations.
- (4) Any special sequence in which work must be carried out. Must certain areas of work be finished before work commences on others?
- (5) If delays are anticipated with service relocations the contractor should be asked to allow time.
- (6) Is work required out of normal hours? (eg. to accesses).
- (7) Vehicular access to private property is to be maintained.
- (8) Traffic restrictions.

Those known, existing services in the area of the works have been depicted on the contract drawings. It is evident, however, that the status of existing service records as far as can be ascertained might not reflect the actual situation in the field. As such, due allowance has been made in the Bill of Quantities for the proving of services where directed by the Engineer.

PS.1.3 Requirements for Accommodation of Traffic

PS.1.3.1 General

Accommodation of traffic, where applicable, shall comply with **SANS 1921-2: 2004: Construction and Management Requirements for Works Contracts, Part 2: Accommodation of Traffic on Public Roads occupied by the Contractor**. The Contractor shall obtain this specification from Standards South Africa if accommodation of traffic will be involved on any part of the construction works.

Clause 4.10.4 of SANS 1921-2: 2004 shall be replaced with the following:

“Road signs and markings shall comply with the requirements of the **“SADC Road Traffic Signs Manual - Volume 2: Roadworks Signing”**.”

PS.1.3.2 Basic Requirements

The travelling public shall have 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 the road.

The Contractor shall ensure that all road signs, barricades, delineators, flagmen and speed controls are effective, and that courtesy is extended to the public at all times.

Failure to maintain road signs, warning signs or flicker lights, etc, in a good condition shall constitute ample reason for the Employer's Agent to suspend the work until the road signs, etc, have been repaired to his satisfaction.

The Contractor may not commence constructional activities affecting existing roads before adequate provision has been made to accommodate traffic in accordance with the requirements of this document and the South African Road Traffic Signs Manual.

The Contractor shall construct and maintain all temporary drainage works necessary for temporary deviations. The Contractor shall ensure that the existing property accesses are maintained at all times. Where necessary the Contractor shall make allowance in the rates for completing the work required to the accesses out of normal hours.

PS.1.3.3 Traffic Safety Officer

Where warranted by traffic conditions on or near the site, the Contractor shall nominate a suitable member of his staff as traffic safety officer to be responsible for the arrangement and maintenance of all the measures for the accommodation of traffic for the duration of the project. Duties of the traffic safety officer shall be in compliance with the Occupational Health and Safety Act 1993 and the Construction Regulations 2014.

PS.1.3.4 Payment

The Contractor's tendered rates for the relevant items in the Bill of Quantities shall include full compensation for all possible additional costs which may arise from this, and no claims for extra payment due to inconvenience as a result of the modus operandi will be considered.

PS.1.3.5 Pedestrian Movement

The Contractor shall make provision for accommodating all pedestrian movements in the area of the works. Allowance shall be made in the relevant rates for any barricades and signs required.

PS.1.3.6 Temporary Reinstatement

Provided always that if in the course or for the purpose of the execution of the works or any part thereof any road or way shall have been broken up, then notwithstanding anything herein contained:

- (a) if the permanent reinstatement of such road or way is to be carried out by the appropriate authority or by some person other than the contractor (or any subcontractor to him), the contractor shall at his own cost and independently of any requirement of or notice from the Engineer be responsible for the making good of any subsidence or shrinkage or other defect, imperfection or fault in the temporary reinstatement of such road or way, and for the execution of any necessary repair or amendment thereof from whatever cause the necessity arises, until the end of the period of maintenance in respect of works beneath such road or way until the authority or other person as aforesaid shall have taken possession of the site for the purpose of carrying out permanent reinstatement (whichever is the earlier), and shall indemnify and save harmless that Council against and from any damage or injury to the Council or to third parties arising out of or in consequence of any neglect or failure of the Contractor to comply with the foregoing obligations or any of them and against and from all claims, demands, proceedings, damages, costs, charges and expenses whatsoever in respect thereof or in relation thereto.
- (b) where the authority or person as aforesaid shall take possession of the site as aforesaid in sections or lengths, the responsibility of the contractor under paragraph (a) of this sub-clause shall cease in regard to any such section or length at the time possession thereof is so taken, but shall during the continuance of the said period of maintenance continue in regard to any length of which possession has not been taken and the indemnity given by the contractor under the said paragraph shall be construed and have effect accordingly.

PS.2 SERVICES

This Clause is to be read in conjunction with the provisions and obligations as contained in **SANS 1921-1 and SANS 1921-2**.

General

The payment of the PC sum items to deal with service relocations may be one or a combination of the following processes:

- 1) Identification of service relocation/renewal scope of work in consultation with the service owner.
- 2) Preparation of a tender and bill of quantities for service management in consultation with service owner or the employer's agent.
- 3) Sourcing prices for the works done through a process directed by the employer's agent that subscribes to a fair, transparent and equitable practices.
- 4) The Contractor will appoint and manage the sub-contractor
- 5) Manage the workflow process, risk, time, cost, quality of the sub-contractor.
- 6) Where the service provider chooses to undertake the service management at their own accord, then the contractor will facilitate payment after agreement with the Employer's Agent. The contractor is also required to manage the process of risk, time, cost, quality of the service provider.

It is noted that the above procedures are aimed at putting the responsibility of the service management in the hands of the contractor, who is best suited to mitigate contract risk in this regard.

This contract will not make provisions for any extension of time or delay relating to service management. The contract programme must reflect a realistic timeline that attends to the service management scope of this project.

PS.2.1 Existing Services

The Tenderer's attention is drawn to the existing services in the area. Although every effort has been made to depict these services accurately the positions shown must be regarded as approximate.

Major services are Electrical HV/MV/LV, Traffic Signals (ETA) and numerous fibre lines. There will be numerous service providers to consult regarding the existing fibre service such as Liquid Telecom / CMAS Projects / DFA / AVS Telecom / Jelani Consulting / Link Africa / Telkom (Openserve) / U2 Networks / Huawei / Shanti Africa / Jintec Electronics (Pty) Ltd / Vodacom / MTN / Vumatel / Neotel and others who have services in different coloured ducts / pipes off and along the numerous main lines , that exist within and on both sides of the road carriageways, including Water, Stormwater and Sewer pipes and associated property connections.

PS.2.2 Proving Underground Services

This clause shall cover all earthworks operations whether for trenching or bulk earthworks, in the vicinity of underground services.

It is stressed that all services in a particular area must be proven before commencing work in that area. Relocations shall run concurrently with programmed activities. No delay costs will be entertained resulting from failure of service owners to timeously and suitably relocate / lower their affected service. Delays shall be adjusted and accommodated in the project's construction period.

All service relocations shall be completed and finalised within the contract period or sooner. No delay / disruption / standing time claims will be entertained for service relocations, known and unknown, inter-alia service department liaison / design drawing preparation, procurement of

materials, installation / relocation, backfilling, coordinating / protecting the service, damages to services. It is reiterated that the Contractor is fully responsible for all service relocations, liaison and verification / design in consultation with the Employer's Agent's Representative for approval, followed by the associated programming and execution.

The identification, protection, relocation and renewal of any underground and overhead service forms part of the scope of this contract. Accordingly, the responsibility of dealing with these services in whatever way deemed necessary by the service owner or employer's agent, belongs to the contractor.

The contractor is to liaise with each of the service owners to identify service management strategies, irrespective of it being new or existing. The works sequence may require revision to accommodate any delay that may be experienced by the contractor in managing the service. This will require a revision of the contract programme without a change in contract duration or end dates. Meetings, communication, timeframes, correspondence and records of reference shall be collated and accurately recorded and stored or filed.

Insofar as bulk earthworks are concerned, where services are indicated on the drawings or where from site observations can reasonably be expected that such services are likely to exist where excavations are to take place, the Contractor shall without instructions from the Employer's Agent carefully excavate by hand to expose and prove their positions.

The cost of the proving trenches is to be included in the rates for excavation.

When a service is not located in its expected position the Contractor shall immediately report such circumstances to the Employer's Agent who will decide what further searching or other necessary action is to be carried out and shall instruct the Contractor accordingly. The cost for this work shall be paid under C2.1.2.5.

Should any service be damaged by the Contractor in carrying out the works and should it be found that the procedure as laid down in this clause has not been followed then all costs in connection with the repair of the service will be to the Contractor's account.

When electrical cables are not in the positions shown on drawings of eThekweni Electricity and cannot be found after proving trenches have been put down, assistance may be obtained by calling an official of the Works Branch on Telephone No. 311-1111 during office hours, or by contacting Control on Telephone No. 305-7171 after hours.

It should be noted that 33,000 Volt and 132,000 Volt cables may only be exposed by the eThekweni Electricity's personnel. The cables are usually protected by concrete covering slabs, and therefore if the slabs are inadvertently exposed, excavation work must stop, and the eThekweni Electricity shall be contacted immediately on the above telephone numbers.

Proving of services shall be completed at least two weeks in advance of the actual programmed date for commencing work in the area. The position of these services located must be co-ordinated and levelled by the Contractor, and the information given in writing to the Employer's Agent's Representative. No delay claims / stoppages etc. for affected services will be entertained for any service relocations, known and unknown, inter-alia service department liaison / design drawing preparation, procurement of materials, installation / relocation, backfilling, coordinating / protecting the service, damages to services.

The requirements of this clause do not relieve the Contractor of any obligations as detailed in the Conditions of Contract or under Clause 4.17 of SANS 1921-1.

PS.2.3 New Services and Relocation of Existing

This clause shall be read in conjunction with **Clause PS.1.**

New services are either to be installed by the Contractor as part of the contract or by others during the contract period. In the latter case excavation and subsequent backfilling of the trench from the top of the bedding layer shall generally be carried out by the Contractor.

Relocation of services shall generally be carried out by the relevant services organisation. Generally their work shall include the excavating and bedding the service which will include backfilling to a depth of approximately 300 mm above the service. The remainder of the backfilling shall be carried out by the Contractor.

Generally, work shall only commence on the installation of new services once the bulk earthworks have been completed and roughly trimmed to level along a substantial portion of the services route. In addition, no sidewalk, verge, median or island shall be surfaced or top soiled until all work on the services has been completed. Contractor shall liaise timeframes and relocations during the construction phase. Relocations shall run concurrently with programmed activities. No delay costs will be entertained resulting from failure of service department to timeously and suitably relocate / lower their affected service. Delays shall be adjusted and accommodated in the project's construction period. All service relocations shall be completed and finalised within 2 months or sooner of the commencement date. No delay / disruption / standing time claims will be entertained during this period for service relocations, known and unknown, inter-alia service department liaison / design drawing preparation, procurement of materials, installation / relocation, backfilling, coordinating / protecting the service, damages to services. Further to that no delay / disruption / standing time claims will be entertained during the rest of the construction period for service relocations up to the practical completion date. It is reiterated that the Contractor is fully responsible for all service relocations, liaison and verification / design in consultation with the Employer's Agent's Representative for approval, followed by the associated programming and execution.

The identification, protection, relocation and renewal of any underground and overhead service forms part of the scope of this contract. Accordingly, the responsibility of dealing with these services in whatever way deemed necessary by the service owner or employer's agent, belongs to the contractor.

The contractor is to liaise with each of the service owners to identify service management strategies, irrespective of it being new or existing. The works sequence may require revision to accommodate any delay that may be experienced by the contractor in managing the service. This will require a revision of the contract programme without a change in contract duration or end dates.

Services affected by the contract are described as follows:

- **PS.3: Watermains;**
- **PS.4: Sewers;**
- **PS.5: Stormwater;**
- **PS.6: Electrical Cables / Lighting;**
- **PS.7: Telkom / Neotel;**
- **PS.8: CCTV;**

Further to the above, tenderers are referred to the services drawing and are to note that several

minor cables / pipes may be encountered during excavation works which may require to be relocated to some extent. It is anticipated that the two week period required under PS.2.2 will allow sufficient time for these relocations.

PS.2.4 Accommodation of Services

Further to **Clauses PS.1 and PS.2** of this specification, tenderers are to note that allowance must be made under this item and / or the appropriate rates, for all costs incurred as a result of complying with these clauses. It shall also cover liaison with the services organisations and accommodation of their work gangs / contractors on site.

PS.3 WATERMAINS

PS.3.1 General

Tenderer's attention is drawn to the following points regarding the watermains to be installed / relocated as part of this contract. Relocation of services shall generally be covered by the relevant Service department. Generally, work shall only commence on the relocation / installation of new service once the bulk earthworks have been completed and roughly trimmed to a level along a substantial portion of the affected services route. In addition, no sidewalk, verge, median or island shall be surfaced or top soiled until all work on the services has been completed. The contractor shall prove the position of the watermain, valves, hydrants and waterlines and shall be included in the tenderers rates for excavation. Any tie-ins to the existing live mains are normally done by the Water Supply Branch of eThekweni Municipality. Metro Water will be responsible for any relay should the need arise. The Contractor shall liaise with the relevant Department on time frames and requirements to complete the work satisfactorily. Relocations shall run concurrently with programmed activities. No delay costs will be entertained resulting from failure of service department to timeously and suitably relocate / lower their affected service. Delays shall be adjusted and accommodated in the project's construction period. All service relocations shall be completed and finalised within 24 months or sooner of the commencement date. No delay / disruption / standing time claims will be entertained during this period for service relocations, known and unknown, inter-alia service department liaison / design drawing preparation, procurement of materials, installation / relocation, backfilling, coordinating / protecting the service, damages to services. Further to that no delay / disruption / standing time claims will be entertained during the rest of the construction period for service relocations up to the practical completion date. It is reiterated that the Contractor is fully responsible for all service relocations, liaison and verification / design in consultation with the Employer's Agent's Representative for approval, followed by the associated programming and execution. Where independent plumbers recommended / approved by Metro Water, who are on the plumbers and eThekweni database, it will be required that the works is measured / quantified and that a minimum of 3 quotations are received for consideration in terms of MFMA legislation.

The contractor is to liaise with each of the service owners to identify service management strategies, irrespective of it being new or existing. The works sequence may require revision to accommodate any delay that may be experienced by the contractor in managing the service. This will require a revision of the contract programme without a change in contract duration or end dates.

Meetings, communication, timeframes, correspondence and records of reference shall be collated and accurately recorded and stored or filed.

PS.3.2 Water Main Valve Access

Due to the dangerous situation occurring when water main valves are covered over, the Contractor shall maintain access to all water main valves at all times. During asphalt layer work, after each pass by the paving machine, the valves shall be exposed and access maintained in a safe condition.

Whatever method the Contractor chooses to use for this work, the cost of raising the valves from existing level to ultimate level shall be paid only once, irrespective of the number of times the valve is uncovered. Spacer rings required for the height adjustment of valve covers shall be supplied by the Water and Sanitation Unit. Tolerances on valve cover levels shall be as specified in clause PH.6.5. Before final setting in position of valve covers the Contractor shall liaise with the Employer's Agent regarding the direction in which covers shall be placed.

PS.3.3 Restriction on Compactive Equipment

The Contractor is to note that existing watermain traverse the site of the works and special care is to be taken in close proximity to these mains and connections. The existing mains and connections shall be proved on site by the Contractor prior to any construction work commencing in the vicinity of the watermain.

Under no circumstances will heavy road-making equipment, other heavy plant or vibratory compaction equipment be permitted to operate within 800 mm vertically or horizontally of the existing mains or connections. The permissible compaction plant within this restricted area shall be the equivalent of a "Bomag 90" under static compaction, or similar approved plant. When the roadworks are far enough advanced to provide a minimum of 800 mm cover to the existing mains, the above restriction will fall away.

The Contractor is to take cognisance of the above requirements when entering rates in the Bill of Quantities and in the programming of the works. No claim for additional payment based on the inability to use plant as a result of the requirements of this clause will be accepted. The Contractor will be held liable for any costs should the watermain or electrical cables be damaged during construction of the road.

PS.4 SEWERS

Tenderer's attention is drawn to the following points regarding the sewers to be installed / relocated as part of this contract. Relocation of services shall generally be covered by the relevant Service department. Generally, work shall only commence on the relocation / installation of new service once the bulk earthworks have been completed and roughly trimmed to a level along a substantial portion of the affected services route. In addition, no sidewalk, verge, median or island shall be surfaced or top soiled until all work on the services has been completed. The contractor shall prove the position of the watermain, valves, hydrants and waterlines and shall be included in the tenderers rates for excavation. Any tie-ins to the existing live sewer mains are normally done by the Wastewater Branch of eThekweni Municipality. Metro Wastewater will be responsible for any re-lay should the need arise. The Contractor shall liaise with the relevant Department on time frames and requirements to complete the work satisfactorily during the construction period. Relocations shall run concurrently with programmed activities. All service relocations shall be completed and finalised within 24 months or sooner of the commencement date. No delay / disruption / standing time claims will be entertained during this period for service relocations, known and unknown, inter-alia service department liaison / design drawing preparation, procurement of materials, installation / relocation, backfilling, coordinating / protecting the service,

damages to services. Further to that no delay / disruption / standing time claims will be entertained during the rest of the construction period for service relocations up to the practical completion date. It is reiterated that the Contractor is fully responsible for all service relocations, liaison and verification / design in consultation with the Employer's Agent's Representative for approval, followed by the associated programming and execution. Where independent plumbers recommended / approved by Metro Water / Metro Waste Water, who are on the plumbers and eThekweni database, it will be required that the works is measured / quantified and that a minimum of 3 quotations are received for consideration in terms of MFMA legislation. Adequate measures and safety measures / shoring etc. must be taken into consideration as some of the sewers may be relatively deep.

The contractor is to liaise with each of the service owners to identify service management strategies, irrespective of it being new or existing. The works sequence may require revision to accommodate any delay that may be experienced by the contractor in managing the service. This will require a revision of the contract programme without a change in contract duration or end dates.

PS.4.1 Blockage of Foul Water Sewers

The Contractor shall be responsible for ensuring that cementitious sludge, sand and rubble from the works do not enter the foul water reticulation system. The Contractor shall be liable for any costs incurred by the Council or others as a result of blockages in the reticulation system attributed to failure to comply with the above requirement.

PS.5 STORMWATER

Extensive stormwater improvements is required on the works. Existing stormwater pipes which are affected may be replaced with new pipes Pipe sizes vary from standard 375mm Class100D and upwards. Bulk of new stormwater shall be 450mm Class 100D and 900mm Class 100D pipes. Excavations are of varying depths in many different materials ranging from soft, intermediate or hard materials. Shoring will be required to protect works during installation in excess of the safety working depths as indicated in the OHS standards. All service relocations shall be completed and finalised within 24 months or sooner of the commencement date. No delay / disruption / standing time claims will be entertained during this period for service relocations, known and unknown, inter-alia service department liaison / design drawing preparation, procurement of materials, installation / relocation, backfilling, coordinating / protecting the service, damages to services. Further to that no delay / disruption / standing time claims will be entertained during the rest of the construction period for service relocations up to the practical completion date. It is reiterated that the Contractor is fully responsible for all service relocations, liaison and verification / design in consultation with the Employer's Agent's Representative for approval, followed by the associated programming and execution.

PS.5.1 Blockage Stormwater Sewers

The Contractor shall be responsible for ensuring that cementitious sludge, sand and rubble from the works do not enter the stormwater reticulation system. The Contractor shall be liable for any costs incurred by the Council or others as a result of blockages in the reticulation system attributed to failure to comply with the above requirement.

PS.6 ELECTRICAL PLANT

There are existing electrical poles and electricity lines in the works area. Special attention must

be paid to ensure there is no damage to the existing electricity infrastructure. The Tenderer is responsible to communicate and actioned the relocation of the electrical poles and cables with the Electricity department as per PS.2.3.

PS.6.1 General

Various types of electrical cables including high voltage, low voltage, street lighting and domestic connection cables are affected by the contract. The laying, relocation and jointing of all cables will be carried out by eThekweni Electricity's work gangs, or agents appointed by them, whilst the excavation and backfilling forms part of this contract. There may be Departmental delays with regards relocations. Relocations of services shall run concurrently as the work progress as it is required that proving of services and location or position of the cables must be determined. Close liaison will therefore be necessary with eThekweni Electricity throughout the contract. Relocations shall run concurrently with programmed activities. No delay costs will be entertained resulting from failure of service department to timeously and suitably relocate / lower their affected service. Delays shall be adjusted and accommodated in the project's construction period. All service relocations shall be completed and finalised within 24 months or sooner of the commencement date. No delay / disruption / standing time claims will be entertained during this period for service relocations, known and unknown, inter-alia service department liaison / design drawing preparation, procurement of materials, installation / relocation, backfilling, coordinating / protecting the service, damages to services. Further to that no delay / disruption / standing time claims will be entertained during the rest of the construction period for service relocations up to the practical completion date. It is reiterated that the Contractor is fully responsible for all service relocations, liaison and verification / design in consultation with the Employer's Agent's Representative for approval, followed by the associated programming and execution.

The identification, protection, relocation and renewal of any underground and overhead service forms part of the scope of this contract. Accordingly, the responsibility of dealing with these services in whatever way deemed necessary by the service owner or employer's agent, belongs to the contractor.

The contractor is to liaise with each of the service owners to identify service management strategies, irrespective of it being new or existing. The works sequence may require revision to accommodate any delay that may be experienced by the contractor in managing the service. This will require a revision of the contract programme without a change in contract duration or end dates.

Meetings, communication, timeframes, correspondence and records of reference shall be collated and accurately recorded and stored or filed.

PS.6.2 Street Lighting

Work to the existing lighting will be removed in stages and new infrastructure replaced in the centre median / intersection corners / sidewalks. Relocation will take place during this contract and be executed by eThekweni Electricity or their agents. There may be Departmental delays with regards relocations. Relocations of services shall run concurrently as the work progress as it is required that proving of services and location or position of the cables must be determined. It is a requirement that the street lighting be operational at all times. Relocations shall run concurrently with programmed activities. No delay costs will be entertained resulting from failure of service department to timeously and suitably relocate / lower their affected service. Delays shall be adjusted and accommodated in the project's construction period. The final streetlighting shall be installed before asphaltting of sidewalks or should the ELP's be within the median, prior to

installation of the paving.

The contractor is to liaise with each of the service owners to identify service management strategies, irrespective of it being new or existing. The works sequence may require revision to accommodate any delay that may be experienced by the contractor in managing the service. This will require a revision of the contract programme without a change in contract duration or end dates. Meetings, communication, timeframes, correspondence and records of reference shall be collated and accurately recorded and stored or filed.

PS.6.3 MV / LV Cables

Work to certain MV / LV cables is envisaged and may have to be replaced within the contract area. The actual cable work associated with this relocation and / or replacement of these cables will be carried out by eThekweni Electricity and it is stressed that the six (6) week minimum period referred to in Clause PS.2 is the minimum period required to enable eThekweni Electricity to be on site timeously, but actual construction work and relocations could take much longer. There may be Departmental delays with regards relocations. Relocations shall run concurrently with programmed activities. No delay costs will be entertained resulting from failure of service department to timeously and suitably relocate / lower their affected service. Delays shall be adjusted and accommodated in the project's construction period. All service relocations shall be completed and finalised within 2 months or sooner of the commencement date. No delay / disruption / standing time claims will be entertained during this period for service relocations, known and unknown, inter-alia service department liaison / design drawing preparation, procurement of materials, installation / relocation, backfilling, coordinating / protecting the service, damages to services. Further to that no delay / disruption / standing time claims will be entertained during the rest of the construction period for service relocations up to the practical completion date. It is reiterated that the Contractor is fully responsible for all service relocations, liaison and verification / design in consultation with the Employer's Agent's Representative for approval, followed by the associated programming and execution.

The contractor is to liaise with each of the service owners to identify service management strategies, irrespective of it being new or existing. The works sequence may require revision to accommodate any delay that may be experienced by the contractor in managing the service. This will require a revision of the contract programme without a change in contract duration or end dates. Meetings, communication, timeframes, correspondence and records of reference shall be collated and accurately recorded and stored or filed.

PS.6.4 Relocation of Existing Services

Should it be necessary to adjust the line, level and / or position of any service not catered for in the contract to enable the construction to proceed the Contractor shall on no account effect such adjustment himself but shall notify the Employer's Agent's Representative who will arrange for the work to be carried out at no cost to the Contractor. The contractor shall liaise directly with the relevant representative from the Service Provider. Relocations shall run concurrently with programmed activities. No delay costs will be entertained resulting from failure of service department to timeously and suitably relocate / lower their affected service. Delays shall be adjusted and accommodated in the project's construction period. All service relocations shall be completed and finalised within 2 months or sooner of the commencement date. No delay / disruption / standing time claims will be entertained during this period for service relocations, known and unknown, inter-alia service department liaison / design drawing preparation, procurement of materials, installation / relocation, backfilling, coordinating / protecting the service,

damages to services. Further to that no delay / disruption / standing time claims will be entertained during the rest of the construction period for service relocations up to the practical completion date. It is reiterated that the Contractor is fully responsible for all service relocations, liaison and verification / design in consultation with the Employer's Agent's Representative for approval, followed by the associated programming and execution.

The identification, protection, relocation and renewal of any underground and overhead service forms part of the scope of this contract. Accordingly, the responsibility of dealing with these services in whatever way deemed necessary by the service owner or employer's agent, belongs to the contractor.

The contractor is to liaise with each of the service owners to identify service management strategies, irrespective of it being new or existing. The works sequence may require revision to accommodate any delay that may be experienced by the contractor in managing the service. This will require a revision of the contract programme without a change in contract duration or end dates.

PS.7 TELKOM S.A. LIMITED / NEOTEL PLANT

Work to Telkom / Neotel Plant is a possibility, but the tenderers attention is drawn to the fact that Telkom / Neotel copper cables and numerous fibre optic cables are existing in the contract area and may have to be either relocated or lowered by the Service Provider. There may be Service Provider delays with regards relocations. Relocations of services shall run concurrently as the work progress as it is required that proving of services and location or position of the cables must be determined. The contractor shall liaise directly with the relevant representative from the Service Provider. Relocations shall run concurrently with programmed activities. No delay costs will be entertained resulting from failure of service department to timeously and suitably relocate / lower their affected service. Delays shall be adjusted and accommodated in the project's construction period. All service relocations shall be completed and finalised within 2 months or sooner of the commencement date. No delay / disruption / standing time claims will be entertained during this period for service relocations, known and unknown, inter-alia service department liaison / design drawing preparation, procurement of materials, installation / relocation, backfilling, coordinating / protecting the service, damages to services. Further to that no delay / disruption / standing time claims will be entertained during the rest of the construction period for service relocations up to the practical completion date. It is reiterated that the Contractor is fully responsible for all service relocations, liaison and verification / design in consultation with the Employer's Agent's Representative for approval, followed by the associated programming and execution.

The identification, protection, relocation and renewal of any underground and overhead service forms part of the scope of this contract. Accordingly, the responsibility of dealing with these services in whatever way deemed necessary by the service owner or employer's agent, belongs to the contractor.

The contractor is to liaise with each of the service owners to identify service management strategies, irrespective of it being new or existing. The works sequence may require revision to accommodate any delay that may be experienced by the contractor in managing the service. This will require a revision of the contract programme without a change in contract duration or end dates. Meetings, communication, timeframes, correspondence and records of reference shall be collated and accurately recorded and stored or filed.

PS.8 CCTV PLANT

Work to CCTV Plant and Fibre Plant is a possibility, but the tenderers attention is drawn to the fact that ducted fibre cables are existing in the contract area and may have to be relocated / lowered, and depending on the extent, either by the Contractor or Service Provider. There may be Service Provider delays with regards relocations. Relocations of services shall run concurrently as the work progress as it is required that proving of services and location or position of the cables must be determined. The contractor shall liaise directly with the relevant representative from the Service Provider. Relocations shall run concurrently with programmed activities. No delay costs will be entertained resulting from failure of service department to timeously and suitably relocate / lower their affected service. Delays shall be adjusted and accommodated in the project's construction period. All service relocations shall be completed and finalised within 24 months or sooner of the commencement date. No delay / disruption / standing time claims will be entertained during this period for service relocations, known and unknown, inter-alia service department liaison / design drawing preparation, procurement of materials, installation / relocation, backfilling, coordinating / protecting the service, damages to services. Further to that no delay / disruption / standing time claims will be entertained during the rest of the construction period for service relocations up to the practical completion date. It is reiterated that the Contractor is fully responsible for all service relocations, liaison and verification / design in consultation with the Employer's Agent's Representative for approval, followed by the associated programming and execution.

The identification, protection, relocation and renewal of any underground and overhead service forms part of the scope of this contract. Accordingly, the responsibility of dealing with these services in whatever way deemed necessary by the service owner or employer's agent, belongs to the contractor.

The contractor is to liaise with each of the service owners to identify service management strategies, irrespective of it being new or existing. The works sequence may require revision to accommodate any delay that may be experienced by the contractor in managing the service. This will require a revision of the contract programme without a change in contract duration or end dates. Meetings, communication, timeframes, correspondence and records of reference shall be collated and accurately recorded and stored or filed.

PS.9 MANAGEMENT OF THE ENVIRONMENT

The Contractor shall pay special attention to the following:

PS.9.1 Natural Vegetation

The Contractor shall confine his operation to as small an area of the site as may be practical for the purpose of constructing the works.

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

PS.9.2 Fires

The Contractor shall comply with the statutory and local fire regulations. He shall also take all necessary precautions to prevent any fires. In the event of fire the Contractor shall take active

steps to limit and extinguish the fire and shall accept full responsibility for damages and claims resulting from such fires which may have been caused by him or his employees.

PS.9.3 Environmental Management Plan

In addition to the above, all requirements according to the Environmental Management Plan as detailed in **C3.4: Particular Specifications**, will be adhered to.

PS.10 OCCUPATIONAL HEALTH AND SAFETY

PS.10.1 General Statement

When considering the safety on site the Contractor's attention is drawn to the following:

1. The contract area is bounded by residential properties,
2. The proposed works will require machinery and plant of varying size,
3. The manual moving of heavy precast products will be required,
4. The works will require machinery and plant of varying sizes
5. The gradient of the road is moderate to steep. Plant and machinery need to be well controlled. Run-off from the site will have to be well managed (see PS.5 and PS.6),
6. The deviation of the traffic must be maintained throughout the day and night, weekends and Public holidays included, and
7. All road signs must be maintained to allow for adequate sight distance by the road users
8. COVID 19 – PPE / Protection / Sanitizers / Health and Hygiene

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

For the purpose of this contract the Contractor is required to confirm his status as mandatory and employer in his own right for the execution of the contract by entering into an agreement with the Employer in terms of Section 37(2) of the Occupational Health and Safety Act.

PS.10.2 Health and Safety Specifications and Plans to be submitted at tender stage

PS.10.2.1 Employer's Health and Safety Specification

The Employer's Health and Safety Specification is included in **C3.4: Particular Specifications**.

PS.10.2.2 Tenderer's Health and Safety Plan

At tender stage only a brief overview of the tenderers perception on the safety requirements for this contract will be adequate. This will be attached to **T2.2: Contractor's Health and Safety Plan**.

Only the successful Tenderer shall submit a separate Health and Safety Plan as required in terms of Regulation 7 of the Occupational Health and Safety Act 1993 Construction Regulations 2014,

and referred to in **T2.2: Contractor's Health and Safety Plan**.

The detailed safety plan will take into consideration the **site specific risks as mentioned under PS.10.1** and must cover at least the following:

- (i) A proper risk assessment of the works, risk items, work methods and procedures in terms of Regulations 9 to 29;
- (ii) Pro-active identification of potential hazards and unsafe working conditions;
- (iii) Provision of a safe working environment and equipment;
- (iv) Statements of methods to ensure the health and safety of subcontractors, employees and visitors to the site, including safety training in hazards and risk areas (*Regulation 7*);
- (v) Monitoring health and safety on the site of works on a regular basis, and keeping of records and registers as provided for in the Construction Regulations;
- (vi) Details of the Construction Supervisor, the Construction Safety Officers and other competent persons he intends to appoint for the construction works in terms of Regulation 8 and other applicable regulations; and
- (vii) Details of methods to ensure that his Health and Safety Plan is carried out effectively in accordance with the Construction Regulations 2014.

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

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

A generic plan will not be acceptable.

PS.10.3 Cost of compliance with the OHSA Construction Regulations

The rates and prices tendered by the Contractor shall be deemed to include all costs for conforming to the requirements of the Act, the Construction Regulations and the Employer's Health and Safety Specification as applicable to this contract. Should the Contractor fail to comply with the provisions of the Construction Regulations, he will be liable for penalties as provided in the Construction Regulations and in the Employer's Health and Safety Specification.

Items that may qualify for remuneration will be specified in the Employer's Health and Safety Specification.

PS.11 SITE SECURITY

The Contractor shall, for the duration of the contract, provide sufficient security and watchmen to adequately ensure the safety and protection of the works, the Contractor's staff, including local labour and subcontractors, and all site plant and construction equipment required for the works.

Site Security, in conjunction with the SAPS (where necessary), shall be responsible for removal of disruptive elements, that may interrupt the progress of the contract through acts such as, but not limited to, intimidation, threats of disruption, violent disruption, or criminal and illegal activity by the local community or independent organisations or entities that may result in slowing down

or partial or total stoppage of the works.

Payment for this item shall be made under Section 1, Part AB of the Bill of Quantities.

PS.13 TRAFFIC MANAGEMENT AND DEVIATIONS

The contractor is to take cognisance of the SANS 1921-2: 2004: Construction and Management Requirements for Works Contracts, Part 2: Accommodation of Traffic on Public Roads occupied by the Contractor and the eThekweni Transport Authority- Roadwork's Signing.

This stage will further allow for the construction of ancillary works including the construction of kerbs and channels, sidewalks, stormwater reticulation etc.

During this Stage all other access and exit points will be available.

PS.14 CONSTRUCTION AND MANAGEMENT REQUIREMENTS

PS.14.1 General

Various types of Services from different service providers are affected by the contract. The laying, relocation and jointing of all cables will be carried out by the respective service provider, or agents appointed by them, whilst the excavation and backfilling forms part of this contract. Close liaison will therefore be necessary with service providers throughout the contract.

The Contractor is referred to SANS 1921: 2004 parts 1, 2, 3 and 5: Construction and Management Requirements for Works Contracts. These specifications shall be applicable to the contract under consideration and the Contractor shall comply with all requirements relevant to the project.

PS.14.2 Quality Assurance (QA) *(Read with SANS 1921)*

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

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

PS.14.3 Management and disposal of water *(Read with SANS 1921)*

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

PS.14.4 Disposal of spoil or surplus material *(Read with SANS 1921)*

The Contractor may dispose surplus and / or unsuitable material in legal spoil areas of his own choice subject to the approval of the Employer's Agent's Representative. He shall be responsible for all arrangements necessary to obtain such spoil sites.

PS.15 COMMUNITY LIAISON OFFICER AND EMPLOYMENT OF LOCAL LABOUR**PS.15.1 COMMUNITY LIAISON OFFICER**

The ward councillor of Ward **55** work is to identify a community liaison officer (CLO) for the project who must represent both the Community and Clients criteria and make the person known to the Contractor within two days of being requested to do so. Allowance has been made for 1 (one) CLO at a time for the duration for the duration of the project. The Contractor will be required to enter a written contract with the CLO that specifies:

- The hours of work and the wage rate of the CLO (200% of the Civil Engineering Industry minimum wage).
- The duration of the appointment.
- The duties to be undertaken by the CLO which could include:
- Assisting in all respects relating to the recruitment of local labour.
- Acting as a source of information for the community and councillors on issues related to the contract.
- Keeping the Contractor advised on community issues and issues pertaining to local security.
- Assisting in setting up any meetings or negotiations with affected parties.
- Keeping a written record of any labour or community issue that may arise.
- Any other duties that may be required by the Contractor.

The CLO must have the capacity to engage with all relevant stakeholders and interested parties / business forums and must be held accountable for allocated responsibilities. The CLO not fulfilling required duties can have their appointment terminated and can be replaced with an alternative incumbent after notification and discussion with relevant Community Structures and through the appointed Councillor of the relevant Ward/s in which the project is being constructed.

Responsibility for the identification of a pool of suitable labour shall rest with the CLO, although the Contractor shall have the right to choose from that pool. The Contractor shall have the right to determine the total number labourers required at any one time and this may vary during the contract.

The Contractor shall have the right to replace labour that is not performing adequately. Should such occasion arise, it must be done in conjunction with the CLO.. Handling costs and profit in respect of the provided invoiced amounts for CLO shall not exceed a maximum of 10%.

PS.15.2 EMPLOYMENT OF LOCAL LABOUR

The contractor will be required to employ local labour as specified in the Part C3.3: Particular Specifications - "The Use of CLOs and Local Labour" of this Contract document. The contractor

will be required to ensure that a minimum of 100% of the local labour force is made up of local labour. For the purposes of this contract, "Local labour" will be deemed to be any persons who reside within Wards and local communities immediately around the site.. The contractor will be required to provide proof of authenticity of local labour. Signed confirmation by the appointed CLO will suffice for this. The rate of reimbursement will be equal to the daily rate stipulated and gazetted by the Department of Labour based on an 8 hour day. The entire project is not a labour intensive project as the bulk of the work is mechanically achieved, however it is required that the Contractor and sub-Contractors shall use local labour as much as possible and provide opportunity to local business forums for smaller task on appointment and on tender process based on the sum of the equivalent tendered rates.

The Contractor is to submit proof of employment of local labour.

No additional costs will be entertained due to this Particular Specification. The contractor will remain responsible for providing proper supervision of all labour and will be responsible for the quality of work produced.

PS.16 COMMUNITY AND PUBLIC RELATIONS

During the course of the contract, the Employer / Engineer / Employer's Agent's Representative may need to engage with the community and other interested and affected parties. The engagement may be in the form of electronic media, pamphlet distribution or meetings. All approved costs relating to this aspect will be paid for through the relevant item in the BOQ in Section 1, Part AB. An item has also been allowed for in the BOQ for the contractor's administration cost in this regard. It is a percentage of the cost of the Community and Public Relations item.

PS.17 SURVEY

PS.17.1 SUBMISSION OF AS-BUILT DATA

The Tenderer shall note the lump sum item section1 – under Clause PS.11.1 covering the submission of as-built data. The Contractor shall supply the Employer's Agent's Representative with: -

1. A list of co-ordinates of cable duct markers and watermain valve covers newly constructed, modified or existing within the vicinity of the works
2. A list of surveyed invert and cover levels, and co-ordinates of all catchpits, manholes/barrier inlet unit and headwalls newly constructed, modified or existing within the vicinity of the works.
3. A list of surveyed invert and cover levels, and co-ordinates of all cable duct manholes newly constructed, modified or existing within the vicinity of the works.
4. A list of surveyed invert and cover levels, and co-ordinates of all sewer manholes newly constructed, modified or existing within the vicinity of the works.
5. A list of co-ordinates of road edge levels, kerbs, barriers and concrete lined drains.
6. Full time dedicated surveyor on site.
7. Drawing in electronic format including items 1 to 5 listed above.
8. Materials As-Built records captured as per the eThekweni Municipality Materials As-Built record template (Template to be provided by Employer's Agent's Representative). The completion certificate shall not be issued unless the above information has been forwarded to the Employer's Agent's Representative
9. Setting-out of the Works

Whilst surveys have been carried out of the site, and the designs based on such surveys, it is the responsibility of the Contractor to recheck all the benchmarks and protect the benchmarks from damage at the start of the contract.

It is the Contractor's responsibility to set out the Works and any discrepancies in the design or setting out shall be identified and brought to the attention of the Employer's Agent's Representative promptly so they can be corrected before any abortive expenditure is incurred.

PS. 18 TESTING

Further to clause AB.6, the Contractor is to include in his unit rates for the cost of classification testing of all materials delivered to site intended for use in the layer works and for all density control testing of all layer works as per the pavement design illustrated on the contract drawings.

The Contractor is to provide results of all control testing to the Employer's Agent's Representative, if satisfied the Employer's Agent's Representative will then give the Contractor written permission to proceed with the next stage of construction.

Random acceptance testing will be undertaken by the Roads Provision Department, Pavement and Geotechnical Engineering Branch.

The Contractor is to include in his rates for testing of all concrete items in accordance with clause C.7 of the Durban Standard Engineering Specifications.

PS.19 AS BUILT DRAWINGS

The Survey for, and Preparation of As-Built drawings is to be done by a professionally registered Surveyor in accordance to the EThekweni Municipality, Land Surveying Branch: Engineering Surveys standard. The guide lines and examples are available. **(See http://www.durban.gov.za/City_Services/engineering%20unit/Surveying_Land_Information/Page_s/default.aspx)**.

The contractor is to provide a full survey drawing of the entire works, indicating all key aspects of the works including position of the fence, levels and street furniture within the scope of works, with particular emphasis to a complete tachey survey.

The contractor shall commission a surveyor close to the end of the works such that the survey shall be concluded on completion of the work.

Should the as built survey not be ready once the works are completed, the final payment certificate shall exclude payment for this item and a completion certificate and retention money shall be withheld until such time the as built survey is handed to the Engineer.

If required, payment for the above will be made under the applicable items as scheduled in the Preliminary & General Section of the Bill of Quantities referencing this clause.

PS.20 CPG COMPONENT

It is a condition of contract that the contractor must allow for a minimum of **10%** of the contract value (excluding PC Sum items and Fixed Cost allowances) to be subcontracted to contractors

who are $\geq 51\%$ PPG (Priority Population Group) owned. Proof of payment to the subcontractors will be required to verify that the minimum has been achieved.

The penalty for not achieving the specified CPG will be 0.5% of the contract value (excluding PC Sum items and Fixed Cost allowances) for every 1% of CPG not achieved.

C3.3: STANDARD SPECIFICATIONS

C3.3.1 The Specifications on which this contract is based are the [eThekwiini Municipality's \(City of Durban\) Standard Engineering Specifications](#) (hereafter referred to as the [Standard Engineering Specifications](#)). This document is obtainable separately, and Tenderers shall obtain their own copies of the applicable Sections.

Part	Description	Date of Issue	
AB	General Specifications	July	1992
B	Site Clearance	March	1990
C	Concrete Work	February	1987
DA	Earthworks: Bulk	January	1985
DB	Earthworks for Pipe Trenches	July	1992
DD	Earthworks for Structures		
EB	Graded Crushed Stone	December	1988
ED	Road Asphalt	July	1992
EF	Kerbs and Haunches	July	1992
EH	Steel Guardrails & Conc. Median Barriers		
F	Protection Works	July	1992
PG	Non Pressure Pipelines and Pc Culverts	July	1992
PH	Manholes and Appurtenant Drainage Works	July	1992
S	Reinstatement	March	1993
TA	Road Signs	October	1989
TB	Road Markings	October	1989

C3.3.2 AMENDMENTS TO THE STANDARD SPECIFICATIONS

INTRODUCTION

In certain clauses the standard, standardized and particular 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 alternative or additional requirements applicable to this contract are contained in this part of the project specifications. It also contains 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 **PS** 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 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 PS, but followed by a new number which follows on the last clause or item number used in the relevant section of the standard specifications.

AB	General Specifications
B	Site Clearance
C	Concrete Work
DA	Earthworks: Bulk
DB	Earthworks for Pipe Trenches
DD	Earthworks for Structures
EB	Graded Crushed Stone
ED	Road Asphalt
EF	Kerbs and Haunches
EH	Steel Guardrails & Conc. Median Barriers
F	Protection Works
PG	Non-Pressure Pipelines and Pc Culverts
PH	Manholes and Appurtenant Drainage Works
S	Reinstatement
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PS.AB PRELIMINARY AND GENERAL SPECIFICATION

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PS.AB.1 SITE FACILITIES**PS.AB.1.1 Contractor's Camp Site and Depot**

The Contractor is responsible to provide a suitable site for his camp and to provide accommodation for his personnel and labourers. If the Employer can make any specific site available to the Contractor, such site will be pointed out to the Contractor. A suitable site shall be allocated prior to commencement of the works.

- (a) Contractor's Camp Site / Store Yard
- (b) The recommended position of the camp site/store yard will be pointed out by the Employer's Agent's Representative.

However the Contractor may, if he prefers to have a camp site at another location near the work, site provided that he first obtains the written permission of the landowner, and subsequently the Employer's Agent's Representative, to do so.

Any clearing of the site that is necessary and the making good after de-establishment will be the responsibility of the Contractor.

The following conditions shall apply:

- (i) None of the existing roads shall be damaged in any way.
- (ii) No waterborne sewerage facilities or potable water connection are available on the site. The Contractor shall make his own arrangements in this regard.
- (iii) No electrical facilities exist on site.
- (iv) It shall be the responsibility of the Contractor to make good any damage caused to the camp site area or any improvements on it, including services, and for reinstating it to its former condition when vacated. The standard of reinstatement must be to the satisfaction of the Engineer; Head: Real Estate and/or Head of Parks, Recreation and Beaches Department; or another owner. Particular attention should be directed to these requirements and written clearances from the relevant Departments or other owners will be required.

PS.AB.2 NOTICE BOARD

The typical notice board layout is given in Part C3.4. The following requirements shall apply with regards to the notice board. The rate shall be per number (No.) of construction notice boards installed.

PS.AB.3 ROAD DEVIATIONS AND TRAFFIC CONTROL

- (a) Provision has been made in the Bill of Quantities for temporary works and deviations as required. Any additional costs required by the Contractor shall be included in the rates tendered.
- (b) Deviations required by the Contractor shall comply with the requirements of Clause AB.7. Details shall be submitted to the Employer's Agent's Representative for approval at least two weeks in advance of date on which it is anticipated that work on the deviation will commence.
- (c) On deviations provided in terms of (b) above the Contractor shall ensure at all times and during all weather conditions that all temporary surfaces that are intended to carry traffic are in fact trafficable with regard to reasonable standards of safety and comfort. No additional payment shall be made to the Contractor for compliance with this clause.
- (d) Unless indicated otherwise over the entire length and for the duration of the contract, traffic is required to be accommodated in both directions at all times.

The Contractor shall ensure that the full width of the road is available for traffic during the peak traffic periods (i.e. 07:00 - 08:30 and 16:00 to 17:30).

- (e) At all times signposting shall be detailed in the part of this document: "Safety in Road Construction".

PS.AB.4 BARRIERS FOR ACCOMMODATION OF TRAFFIC

The contractor shall use New Jersey barriers or plastic or similar products as approved by the Employer's Agent's Representative. The rate shall be in meters (m) and shall include the initial supply and installation and for removal / replacement / adjustment / relocations of barriers for the accommodation of traffic and for all of the barriers to be dismantled and for the removal offsite on completion or the work

PS.AB.5 AS – BUILT DATA – SURVEY SETTING OUT / DESIGN CONFIRMATION

The Tenderer shall be per hour of verified marketed related associated costs covering the submission of as-built data, data required for redesign. An allowance for survey / draughting / printing / approval and submission costs has been made in the BOQ. Any additional costs shall be included in the tendered rates. This is in addition to the survey requirements required for all setting out, verification, confirmation, draughting, data capture, data input, data amendments as per requirements of SANS 1921.

The contractor shall supply the Employer's Agent's Representative with an electronic copy and hard copy of:

- (a) A list of surveyed co-ordinates of all work carried out.
- (b) A list of surveyed co-ordinates of all road edge, dwellings, fencing and services within the vicinity of the works.
- (c) A0 hard copies.
- (d) The survey must include:

- All new works carried out: kerb line including channel, road edge, road markings, edge of sidewalks, trees, access points, services (existing and new), different hatching to indicate different types of surfacing.

The contractor must also give the Employer's Agent's Representative a "Materials As-Built" spreadsheet in the format approved by the Senior Manager of the Pavement and Geotechnical Laboratory – eThekweni Municipality Roads Provision.

The Certificate of Completion shall not be issued unless the above information has been forwarded and approved by the Employer's Agent's Representative.

PS.AB.6 ADDITIONAL SURVEY

An item has been provided in the BOQ for additional survey to be undertaken upon the Employer's Agent's Representative's request by the contractor for the Employer's Agent's Representative's use. The rate shall be per day (day) and shall include the surveyor's cost, transport, labour, materials. This survey is not for the initial and required setting out of the work as required. Reimbursement shall be made on submitted invoice.

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PS.B.1 REMOVAL OF TREES

The unit of measurement shall be number (no.) and the rate shall include for the labour and plant necessary for the removal of the existing tree including de-stumping, if required and as directed by Engineer and transporting to the approved tip and dumping. Care needs to be taken as existing run in the vicinity of the root system of the trees. Trees and stumps shall be termed large if the girth measured at its narrowest point in the first metre of its height above ground level is greater than 1,5 m.

PS.B.2 GENERAL CLEARANCE FOR PIPELINES AND DRAINS

Provided that the arrangements set out above have been fully complied with, compensation for unavoidable destruction of trees, plants and crops within sewer and drain servitudes will be to the account of the Contractor. Damage to trees, plants and crops outside such servitudes shall be to the Contractor's account unless he can show that such damage could not reasonably be avoided in the execution of the contract. Failure on the part of the Contractor to observe the procedure described above will render him liable for any claims for compensation. Before commencing clearing in private property, the Contractor shall give the owner or occupier a minimum of one weeks' notice of his intention to commence clearing or digging operations.

PS.B.3 REMOVAL OF BRICKWORK

The unit of measurement is cubic metre (m³) net in place before demolition. The rate shall cover the complete demolition of the structure and associated works and disposal of the material to an approved tip. Backfilling of any resulting cavities shall be paid for under clause B.8.18. Separate items will be provided where the brickwork is below ground level.

PS.B.4 REMOVAL OF ROADWAYS

The unit of measurement is cubic metre (m³) net in place before removal. The Contractor shall make allowance in his rate for the neat trimming of the existing roadworks where the new road is to tie into

the existing road and the rate shall include all haulage to an approved tip. Separate items will be provided where materials are to be carefully removed and stored on site for re-use.

PS.B.5 REMOVAL OF KERB AND HAUNCH/CHANNEL

The unit of measurement is cubic metre (m³) net in place before removal, with rate coverage as in clause B.8.13.

PS.B.6 DEMOLITION AND REMOVAL OF GABION / LOFFELSTEIN BLOCK STRUCTURES

Add the following paragraphs to Clause B.5.5:

Where partial demolition is required for extension work to existing structures, the contact face shall be cut to predetermined lines and levels, any loose and fragmented material shall be removed,

The unit of measurement shall be the cubic meter of gabion baskets structure demolished. The tendered rate shall include full compensation for all labour, plant and equipment (including any specialised equipment) required to demolish the existing concrete.

The tendered rate shall include disposal of the product of the demolition to an approved tip site. The tendered rate shall also include for any river diversions, coffer damming and/or any dewatering activities that is necessary for the demolition activities.

PS.C CONCRETE WORKS

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PS.C.1 NEW SABS SPECIFICATION FOR PORTLAND BASED CEMENT

The new SABS ENV. 197-1 (adopted in 1996) : Cement - composition, specification and conformity criteria Part 1 : Common Cement, replaces SABS 471 - 1979, SABS 626 - 1971 and SABS 831 - 1971 in Clause C.2 of Part C : Concrete Work.

PS.C.2 PLANT FOR CONCRETE WORK

Where the mixing and placing of concrete is concerned, the Contractor shall have at least one standby machine available for each operation of the processes of mixing, hoisting, transporting or placing. No concrete work may be commenced unless the above requirements are fully met. This shall include additional working vibratory compactors and generators and sufficient lighting should pour be done into the night. Lighting for nightwork is to ensure that all inspection and work areas are illuminated, and illuminance shall comply with the requirements of the Occupational Health and Safety Act (Act85 of 1993) and the related Environmental Regulations. The Contractor shall ensure sufficient backup lighting to replace faulty lighting. The full specified lighting must be provided at all activities undertaken at night.

PS.C.3 PLACING OF CONCRETE/REINFORCEMENT/SHUTTERING/FORMWORK

No concrete is to be placed in the excavations until this has been approved by the Employer's Agent's Representative.

The nature of the concrete work is such that a considerable amount of the work shall be in restricted conditions. No additional payment shall be made for such work and the Tenderer shall therefore make due allowance in the rates for concrete works for any additional work.

PS.C.4 PRECAST CONCRETE WORK

The tendered rate shall include full compensation for all labour, material, equipment and plant as well as for all work and incidentals required to complete the work as specified.

PS. C.5 BLINDING FOR STRUCTURES

Add the following to C.8.1:

Concrete blinding shall extend 100mm all-round beyond the horizontal dimensions of all formed footings to facilitate placing of the formwork, unless otherwise directed by the Employer's Agent's Representative.

In the case of structures where excessive ground water is encountered, the blinding layer may extend over the full plan area of the base of the excavation and beyond the edge of the foundation where required. The unit of measurement shall be the cubic metre (m³) and the rate shall include for all the materials, labour and plant.

PS.C.6 FILLED EXPANSION JOINTS

The unit of measurement shall be the square meter of filled joint calculated from the surface area of the joint.

The tendered rates shall include full compensation for supplying and installing the joint filler and all materials required, for all labour and incidentals required for completing the filled joint as prescribed.

The sealant used in expansion joints between parapets / barriers and retaining wall panels shall be a two-component manganese cured polysulphide sealant conforming to B.S.4254 of 1967 - Two-part polysulphide based sealant for the building industries, as amended.

The contractor can propose the use of any other structural sealant provided the contractor supplies the Employer's Agent's Representative all approved technical specifications and it must then be approved by the Employer's Agent's Representative.

The tendered rate for cast in-situ parapets shall include for sealing of joints between balustrade units as shown on the issued construction drawings.

PS.C.7 SEALING JOINTS

The unit of measurement shall be the meter of sealant, seal or waterstop of each type installed.

The tendered rates shall include full compensation for supplying all materials, forming or cutting the concrete to required shape and size, all labour, equipment and incidentals required for sealing the joint complete in accordance with the prescriptions and for all waste materials.

PS.C.8 CONSTRUCTION JOINTS

Add to the following C.5.14:

No construction joints other than those indicated on the drawings will be permitted without the written approval of the Employer's Agent's Representative. In all cases the proposed method of forming the joint shall be discussed and agreed with the Employer's Agent's Representative

The formwork at construction joints shall have moulding strips 25mm x 25mm neatly butted and set at the position of the construction joint.

PS.DA EARTHWORKS : BULK

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PS.DA.1 INTERPRETATIONS

The following shall be added to the list of definitions.

Top of earthworks: The top of earthworks shall be defined as the underside of the subbase or selected layers under roads, the base under sidewalks and the underside of the topsoil layer under verges and embankments.

PS.DA.2 GEOTECHNICAL INFORMATION

There are no specific geotechnical or detail site information available. Geotechnical testing will be required at the top of subgrade level by a SANAS accredited Specialist Materials Laboratory.

PS.DA.3 EXCAVATION OF MATERIAL

- (a) Further to Clauses DA.8.1 and DA.8.3 Tenderer's are to note that the measurement of excavation of material on site is based on the cut volumes in place before excavation between the original ground levels after stripping of topsoil and the top of earthworks calculated from cross sections as described in Clause DA.8. **No allowance will be made for bulking or shrinkage and it shall be assumed that 1 cubic metre of excavated material from the site shall form 1 cubic metre of compacted fill.**
- (b) The nature of the roadworks is such that a considerable amount of the excavation shall be in restricted conditions. No additional payment shall be made for such excavation and the Tenderer shall therefore make due allowance in the rates for Bulk Earthworks for any additional work or hand excavation in restricted excavations.
- (c) The Contractor's attention is drawn to the presence of watermain in the road reserve area. The Contractor shall limit the size and type of construction plant used in this area so as not to damage the existing watermain. Any damage to the watermain due to the size and type of construction plant used will be to the Contractor's account.

No additional payment will be made for compliance with this clause and Tenderer's shall include in the relevant rate for all extra plant, labour and materials required to work in these areas.

PS.DA.4 EXCAVATE UNSUITABLE MATERIAL BELOW EMBANKMENTS OR FORMATION

Further to Clause DA.8.3 the rate shall also include for trimming the area excavated to the required level and compaction of the in-situ material.

PS.DA.5 IMPORT SUITABLE FILL / LAYERWORKS MATERIAL

The fill material shall conform to the requirements for a G7 / G5 / G4 / G2 and clean coarse sand Material as described in TRH 14 with the following Amendments:-

- (a) The material shall be free of weathered shale and will be subject to the approval of the Engineer as well as the Materials Testing Laboratory.
- (b) No allowance will be made for bulking or shrinkage and it shall be assumed that 1 cubic metre of excavated material from the site shall form 1 cubic metre of compacted fill. The Contractor is to make allowance for bulking and shrinking in his rates.

PS.DA.6 COMPACTION OF FILL

The second paragraph of Clause DA.8.5 is to be amended by substituting "top of earthworks" for 'formation' where it occurs.

PS.DA.7 FORMATION

Formation shall be defined as the surface to the underside of the G7 layer specified in the pavement design as processed to tolerances as defined in DA.5.5. The Tenderer shall make full allowance in the rates for areas of formation in cut or where the fill layer thickness is less than 150 mm.

PS.DA.8 TOLERANCES

Clause DA.6 shall be amended to read as follows :

The allowable tolerances shall be :

- (a) the design angle ± 2 degrees for the angle of the cut or fill slope;
- (b) not less than the design width, nor more than 300 mm greater than the design width for the transverse horizontal embankment width at any level; and
- (c) the layer thickness ± 20 mm for topsoil;
- (d) For the formation, the Contractor will be required to place level pegs longitudinally at 10 m intervals on the road construction contract and elevation tolerances shall be taken on a section of the works. (When a portion of the works is less than 500 m² one tolerance reading per 10 m² shall be taken).

In any section the average of the elevations taken shall be such that the average thickness of the succeeding layer or layers above the formation shall be not less than that specified/nor greater than that specified plus 20 mm.

The standard deviation of the differences between the actual and design levels shall not be greater than 10 mm.

PS.DA.9 GEOFABRIC

The Geofabric for Layer Separation shall be minimum of Grade 7 or better or approved equivalent. Rate to include for wastage and overlap.
The unit of measurement is square metre (m²).

PS.DB EARTHWORKS FOR PIPE TRENCHES

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PS.DB.1 BEDDING AND BACKFILL MATERIALS**PS.DB.1.1 General**

- 1) The measurement for bedding shall be the total through length along the centre of the pipeline measured HORIZONTALLY with deductions made for stormwater manholes.
- 2) The unit of measurement for bedding shall be the Cubic Meter (m³), and the rate shall include for the placing and compacting of the bedding material up to the underside of the backfill for the various pipe diameters.
- 3) Separate items have been included in the Bill of Quantities for the provision of bedding material from a Contractor's commercial source.
- 4) Backfill materials shall comply with Clause DB.3.4. An item has been allowed in the Bill of Quantities for the importation of backfill material where so ordered by the Engineer.
- 5) The Contractor shall allow for haulage in the rate for provision of imported bedding and backfill. No overhaul will be paid for these items.

PS.DB.1.2 Stormwater Pipes

- 1) All bedding to stormwater pipes on this Contractor shall be either Type "B" as is specified in Part DB of the Departmental Technical Specification.

PS.DB.1.3 Location of Services

The Contractor is required to locate existing services using information/plans from service providers and locating devices if the need arises. The measurement of payment shall be sum, and the rate shall include locating the existing services and marking these locations on site.

PS.DB.1.4 Relocation of Services

Where indicated, the Contractor will be required to relocate existing services under the supervision of the service provider. The unit of measurement shall be sum. The unit rate shall include for the excavation for services; relocation of services including haulage, placing of services at the new allocated area and backfilling of the service trenches.

PS.DB.1.5 Repair and Adjustment of Various Services

The cost of operation includes the repair, relocation, lowering and installation of various services with materials provides by the eThekweni Water Department. It also includes providing services connection to houses and the appointment of a Metro approved plumber. The unit of payment shall be sum.

PS.DB.2 EXCAVATION AND BACKFILLING - EXISTING SERVICES

The Tenderer's attention is drawn to the presence of existing services in the area. The Contractor may find it impractical to use mechanical plant for excavation on some portions of the works due to conditions caused by the presence of these services.

The Tenderer's attention is further drawn to the fact that his rates for excavation and backfilling must include for all costs associated with working around these existing services and their protection and accommodation, as no claim for extra payment will be accepted for increased working space or for the inability to use plant in any circumstances.

PS.DB.3 EXCAVATION, BACKFILLING AND REINSTATEMENT OF TRENCHES (CLAUSE DB.5.3.2)

Further to and notwithstanding the requirements of the Departmental Specification, Part DB, the following requirements in respect of trench excavation, backfilling and reinstatement shall be adhered to:

- 1) It is considered that portion of the excavated material will not comply with the specification for material suitable for backfilling. It will be the Contractor's responsibility to use selective methods of excavation to ensure that this unsuitable material does not contaminate other materials suitable for reuse.
- 2) Where the Contractor chooses to trench by open excavation e.g. battering sides of the trenches, this over-excavation shall not be backfilled with unsuitable excavated material but shall be backfilled with the same imported material as used for the pay-width of the trench. Payment for the imported backfill shall be limited to the pay-width of the trench only and the Contractor shall allow in his rates for any extra backfill material that may be required as a result of over-excavating
- 3) Notwithstanding the method of trench excavation adopted by the Contractor, the restriction on the maximum trench width as defined in specification Clause DB.6.1 - must be strictly adhered to. Should the Contractor over-excavate the trench then he will be responsible for increasing the pipe strength and / or bedding class to be used, all to his cost.

The measurements for excavation shall be the total through-length along the centre-line of a pipeline measured HORIZONTALLY with deductions for manholes. In addition, trench depth will

be measured vertically on the centre-line of the pipeline from the existing ground level to the invert level.

PS.DB.4 EXCAVATION FOR SERVICES TO BE LAID BY OTHERS

Where indicated, the Contractor shall be required to excavate a trench for the installation of services by others. (Depth and width of trench shall be confirmed on site). The trench bottom shall be trimmed to comply with the tolerances specified under Clause DB.6.3, after which it shall be taken over by the service organisation. After installation of the services the trench shall be backfilled as part of the bedding operation to approximately 300 mm above the service.

Thereafter the Contractor shall continue the backfilling utilising suitable material from the trench excavation, in 150 mm layers which shall be compacted to 95% Mod. A.A.S.H.T.O. density. The unit of measurement shall be the cubic metre (m³) and the rate shall cover the work described under Clause DB.8.1.

PS.DB.5 BACKFILLING

Where bedding is compacted by saturation, no backfill material may be placed or compacted on top of this, until such time as the bedding has sufficiently dried so that it may provide suitable lateral support to the pipe walls prior to loading.

PS.DB.6 COMPACTION OF TRENCHES

Further to Clause DB.8.5, Tenderers are to note that in all cases the compaction of the trench bottom and the trench backfill shall be to 95% Mod. A.A.S.H.T.O. An extra-over item has not been included in the Bill of Quantities and tenderers shall include for these costs under the relevant excavate and backfill items.

PS.DB.7 BACKFILLING OF SERVICE TRENCHES

As part of the bedding operation, services laid or relocated by others will be backfilled by them to approximately 300 mm above the service. The backfill shall then be continued by the Contractor up to the original level. The backfilling shall be carried out using suitable material from the trench excavation, in 150 mm layers which shall be compacted to 95% Mod. A.A.S.H.T.O. density.

The unit of measurement shall be the cubic metre (m³) and the rate shall include for all plant and labour required to select, place and compact the material as specified.

PS.DB.8 SOIL COMPACTION TESTING

The compaction control testing shall be carried out by the Contractor at his own expense.

Position,	Roadways	Sidewalks Other Locations
Trench formation	1 No. per 30 lin m	1 No. per 100 lin m
Bedding Cradle & Selected Fill Blanket	2 No. per 30 lin m	1 No. per 100 lin m
Backfill	1 No. per layer per 15 m ² or part thereof	1 No. per 2 layers per 50 m ² or part thereof

The positions of the tests shall be selected by the Engineer. The cost of all control testing is covered under the Preliminary and General section of the Schedule of Quantities. Acceptance testing is undertaken by the relevant Durban Corporation Department at the discretion of the Engineer after reviewing the results of the control testing

PS.DB.9 SAFEGAURDING OF EXCAVATIONS

The precautions for excavations as specified in the relevant clauses in this section shall apply to all trench excavations.

The contractor or his agent or his representative shall take all the steps necessary to ensure that no person is required or allowed to work in a trench or any other unsupported overhanging excavation which is more than 1.0m deep and any excavation which has not been adequately supported, shored or braced if there is any danger whatsoever of the sides of the excavation collapsing. The support shoring or bracing to be designed and constructed by the contractor, shall be strong and sturdy enough to support the sides of the excavation in question.

The contractor shall note that this clause does not relieve him of any obligations.

All excavation areas are to be barricaded to the satisfaction of the engineer.

All costs arising from these requirements are to be included in the relevant rates for the excavation.

PS.DB.10 IMPORT SUITABLE G7 FILL MATERIAL

The G7 fill material shall conform to the requirements as indicated in the schedule of quantities and as described in TRH 14 with the following Amendments:-

- (a) The material shall be free of weathered shale and will be subject to the approval of the Employer's Agent's Representative.
- (b) The material is for use above the imported compacted selected pipe backfill material up to road formation level or sidewalk / verge formation level.
- (c) The unit of measurement for bedding shall be the Cubic Meter (m³), and the rate shall include for the placing and compacting of the bedding material up to the underside of the backfill for the various pipe diameters. Payment will further be made in terms of the PTW (Pay Trench Width) for the respective size pipes.

PS.DD EARTHWORKS FOR STRUCTURES

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PS.DD.1 GENERAL

Excavations for the retaining structures shall be carried out in accordance with the Departmental Specification Part DD - Earthworks for Structures.

Tenderers shall note that the excavation for structures is measured to the neat dimensions of the foundation in plan as if excavated with vertical or battered sides, according to the type of wall constructed.

No extra over payment shall be made for restricted excavation. The Tenderer shall note the instances where the nature of the excavation is restricted, and shall make allowance in the excavation rates.

No payment will be made for stockpile handling. Cut material suitable for fill shall be placed directly into fill without being stockpiled. If this is not possible, the Tenderer shall include in the earthworks rate for any costs that he may incur as a result of stockpiling and the subsequent re-handling of the material.

The unnecessary stockpiling of excavated material adjacent to the roadway will not be permitted. The Contractor will make due allowance for this in his rates.

Over-excavation for the concrete base of the retaining structure will be in-filled with grade 25/26 mass concrete at the Contractor's own expense. The Contractor shall take due precaution to ensure this does not occur.

PS.DD.2 BACKFILLING OF EXCAVATION AND WORKING SPACE

The unit of measure shall be cubic metres (m³) and the rate shall cover the work described under Clause DD.8.3.

The rate for the imported clean coarse sand must also include all royalties and all haulage costs.

No extra payment shall be made for river sand or imported material not authorised or placed outside the pay width.

No extra payment shall be made for work outside the pay width.

PS.DD.3 EARTHWORKS FOR STRUCTURES

Excavation shall be carried out in accordance with the Departmental Specification Part DD - Earthworks for Structures.

Tenderers shall note that unless indicated otherwise excavation for structures is measured to the neat dimensions of the foundation in plan as if excavated with vertical sides.

PS.DD.4 EXCAVATION TO SPOIL

Clause DD.8.2 (12) shall be replaced by the following :

The unit rate for excavation to spoil shall include for separation from suitable material, loading, deposition and spreading of excess and unsuitable material.

PS.DD.5 OVERHAUL

Notwithstanding the requirements of Clause DD.8.2 and DD.8.3 no additional payment shall be made for overhaul.

PS.DD. 6 VERTICAL AND LATERAL GEOTECHNICAL SUPPORT SYSTEM

The Contractor will be required to submit a drawing to the Employer's Agent's Representative for record and comment at the start of the contract but at least four weeks before any lateral support is carried out. The drawing shall be signed by a registered Professional Engineer, with professional indemnity, certifying that he has designed and checked the lateral support work and that the drawing is correct and in accordance with the design.

Before any other work is carried out in the vicinity of the lateral support, a certificate shall be provided by a Professional Engineer, certifying that he has checked the installation thereof and that it has been completed in accordance with the drawing.

Approval by the Employer's Agent's Representative of the Contractor's proposals for lateral support work shall not relieve the Contractor of his responsibility for its stability or for any loss or damage arising out of defective materials.

Prime cost sums (PC Sum) have been included in the BOQ under section 3 part DD and shall

include for all materials, plant, professional fees and labour to manufacture, supply and install the lateral support.

PS.DD.7 DESIGN OF GEOTECHNICAL SUPPORT SYSTEMS

The lateral support may be in the form of soil nails, soil anchors, secant piles, contiguous piles, CFA piles and/or auger piles, or any other appropriate system, depending on a detailed soil investigation. Different systems may be used

A detailed investigation is to be undertaken at the commencement of the contract to confirm the form of lateral support required. A PC Sum item has provided in the BOQ, for the investigation to be undertaken by an independent specialist / Geotechnical Engineer. The Specialist / Geotechnical Engineer will be appointed by the Contractor to undertake the testing and to provide detailed results and a recommendation as to the type of Lateral Support required. On agreement / acceptance of the proposal by the Engineer / Client, the Specialist / Geotechnical Engineer shall provide a detailed design of the accepted recommendation. The report must detail the most practical, cost-effective and feasible option.

The Contractor will issue an expression of interest at the commencement of the contract to all approved / accredited Geotechnical Engineers to provide a quotation for the investigation, results and recommendation. The contractor may be required to provide at least three quotations. If approved / accepted by the Engineer / Client, the Geotechnical Engineer shall provide a detailed design of the accepted lateral support system/s, including drainage details, and shall also undertake the supervision of the works and provide a stability certificate when the works is complete. Hence the quotation is to allow for the investigation, results, recommendation, final design and drawings, site supervision and monitoring during construction and the issuing of a stability certificate.

The contractor will let out the Expression of Interest detailing the above-mentioned. The Employer's Agent's Representative will provide all the necessary geometric alignment information of the roads and drawings for the Expression of Interest. On receipt of the quotations, the contractor shall submit them to the Engineer who shall undertake an evaluation and provide a recommendation of the most responsive tenderer based on the market related price and experience for acceptance by the contractor. On acceptance, the contractor shall appoint the most responsive Tenderer. It is mandatory that the geotechnical investigation commence immediately on commencement of the contract between the contractor and the Employer.

PS.DD.8PS INSTALLATION OF GEOTECHNICAL SUPPORT SYSTEMS

As soon as the lateral support systems have been designed and approved, the Contractor will issue an expression of interest to geotechnical engineering contractors to provide a quotation for installation of the lateral support system/s. The contractor may be required to provide at least three quotations. The Specialist / Geotechnical Engineer shall provide all necessary drawings and quantities. On receipt of the quotations, the contractor shall submit them to the Employer's Agent's Representative who shall undertake an evaluation and provide a recommendation of the most responsive tenderer for acceptance by the contractor. On acceptance, the contractor shall appoint the most responsive Tenderer. A provisional sum item has been provided in the Bill of Quantities for the installation of the lateral support system.

PS.EB GRADED CRUSHED STONE

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PS.EB.1 BASE AND SUB-BASE

- (a) Details of the source of the supply of the base and sub-base material are required by the Employer's Agent's Representative before roadworks commence.

A Certificate of Acceptance for these layers will only be issued by the Employer's Agent's Representative when levels and densities are correct.

- (b) No additional payment shall be made for restricted conditions, and the Tenderer shall therefore make due allowance in the rate for the graded crushed stone layer for any additional work (including hand work) required to place, spread, process and compact the layer in restricted conditions.

PS.EB.2 PRIMING OF BASE AND SUB BASE (NON – CEMENT STABILISED AREAS)

After the issue of the Certificate of Acceptance referred to in PS.EB.1, the sub-base shall then be primed with an Inverted Emulsion Primer conforming to S.A.B.S. 1260 of 1979 and applied at the rate of 0,6 l/m².

PS.ED ROAD ASPHALT

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PS.ED.1 SMOOTHNESS APPLICABLE TO WEARING COURSE (Clause ED.6.2)

The smoothness applicable to the wearing course shall be that specified in Clause ED 6.2(b).

PS.ED.2 RESTRICTION ON PLACING OF ASPHALT

The Contractor shall, wherever possible, complete the earthworks and compaction to sidewalks prior to the laying of the wearing course on the adjacent section of road so as to prevent construction plant and equipment from damaging the freshly laid wearing course.

PS.ED.3 WEARING COURSE

The design and manufacture of the asphalt shall be in accordance with TN001 latest version available by Roads Provision Pavement and Geotechnical Department. Mix Design shall also be in accordance with Manual 35 – eThekweni modified.

PS.ED.4 LAYING OF ASPHALT

- (a) The Contractor shall supply the Employer's Agent's Representative with the name of the asphalt Sub-Contractor before asphalt is laid.

The asphalt shall be laid by an approved paving machine. Hand-laying shall be permitted at the Employer's Agent's Representative's discretion when the area involved is small. The asphalt shall not be laid if its temperature is below 140°C.

The asphalt shall be rolled in accordance with the method described in chapter VI of the Asphalt Institute Paving Manual (MS-8). The density of the layer shall satisfy the following:
 $X \geq 93\% \text{ Maximum Theoretical Relative Density} + 0.5 S$ where:-
 X - arithmetic means of densities
 S - standard deviation

An acceptance certificate for this layer will be issued by the Employer's Agent's Representative's inspector when all requirements have been met.

- (b) Further to Clause ED.8.1, the rate tendered shall include for all extra work required to lay and compact the asphalt base and make-up courses in restricted areas.

PS.ED.5 LONGITUDINAL AND TRANSVERSE JOINTS

Tenderers are to note that the tendered rate per Section 3 Item ED.1 are not to include for saw cutting. If the Employer's Agent's Representative requires the joint to be saw cut, the saw cutting to the longitudinal joint and transverse joint will be paid for under Section 3 Item ED.3 as an extra over to Section 3 Items ED.1.

A longitudinal joint is to be formed by cutting into the existing road surface by a width of 300 mm to a depth of 50 mm where the new surface is to be tied longitudinally into the adjacent existing pavement as shown on Drawing No. 47983. The position of the joint shall be indicated by the Employer's Agent's Representative on site. After cutting / milling the joint shall be swept of all loose material and painted with a tack coat.

Cutting of the joints shall only take place immediately prior to the laying of the wearing course.

The unit of measurement shall be linear metre (m). The rate tendered shall cover the neat cutting of the joint, the cutting of the additional 150 mm step into the existing adjacent asphalt base layers as shown on Drawing No. 47983 and the removal of all the old asphalt to tip off site inclusive of haulage.

PS.ED.5 SAW CUT TO LONGITUDINAL AND TRANSVERSE JOINTS

The saw cut shall be cut with a diamond cutter to a neat uniform line 50 mm deep along the edge of the existing road where directed by the Employer's Agent's Representative.

The unit of measurement for the saw cut shall be linear metre (m) and the rate shall cover the overall depth of cut.

PS.ED.6 TECHNICAL SPECIFICATION FOR HOT/WARM MIX ASPHALT

The design and manufacture of the asphalt shall be in accordance with TN001 latest version available by Roads Provision Pavement and Geotechnical Department. Mix Design shall also be in accordance with Manual 35 – eThekweni modified.

Reference to the following standard specifications, guideline documents and codes of practice (Table 1) shall be deemed to be references to the latest issues of the relevant documents:-

SANS 9001	Quality management systems – Requirements
SANS 4001-BT1	Penetration grade bitumen
SANS 4001-BT3	Anionic bitumen road emulsions
SANS 4001-BT4	Cationic bitumen road emulsions
SANS 1083	Aggregates from natural sources
SANS 824	Lime for soil stabilization
SANS 50197-1	Cement – Part 1:Composition, specification and conformity criteria for common cements

SANS 1491:Part 1	Portland cement extenders - Part 1:Ground granulated blast-furnace slag
SANS 1491:Part 2	Portland cement extenders - Part 2:Fly ash
Act 85 of 1993	Occupational health and safety act
Act 39 of 2004	National environmental management : Air quality act
Sabita Manual 5	Guidelines for the manufacture and construction of hot mix asphalt
Sabita Manual 27	Guidelines for thin hot mix asphalt wearing courses on residential streets
Sabita Manual 32	Best practice guideline for warm mix asphalt
Sabita Manual 33	Interim design procedure for high modulus asphalt
Sabita Manual 35	Design and use of asphalt in road pavements
Sabita TG1	The use of modified bituminous binder in road construction
TRH 21	Hot mix recycled asphalt

Table 1 Reference and Standard Specifications**1.1. Asphalt Mix Design**

Asphalt mix designs are required for every mix supplied. Mix designs for each mix type are to be conducted in accordance with the guidelines noted in Table 8.

Sand Skeleton Mixes	Sabita Manual 35	Design and use of asphalt in road pavements
Stone Mastic Asphalt (SMA)	Sabita Manual 35	Design and use of asphalt in road pavements (Appendix B)
Enrobé à Module Élevé (EME)	Sabita Manual 33	Interim design procedure for high modulus asphalt

Table 8 Asphalt Mix Design Guideline Documents

The mix design process shall consist of a laboratory design, a plant trial and (if required) a paved trial. Once satisfied that the laboratory design and plant and paved trials meet the specified mix requirements, the contractor is to document the final mix parameters (i.e. the Job Mix Formula (JMF)). These parameters will be used for production quality control and acceptance purposes (see Table 9).

Grading
Voids in the Mix (@ design compaction)
Binder Content

The contractor shall also include the following “mix characteristics” as a part of his mix design submission:-

- A unique identification number for every mix design
- The binder storage constraints (e.g. maximum storage times, etc.)
- The type of modifier used and the modified binder characteristics to TG1 (if applicable)
- Binder classification in terms of the SA PG Binder Classification System
- Whether the asphalt mix is using a Warm Mix Asphalt technology/additive. The contractor shall comment on any modifications to the “standard” mix design process consequential to the use of the Warm Mix Asphalt technology/additive.

- The maximum mix temperature in the truck at the exit from the plant (in line with industry norms)
- The minimum mix temperature in the truck on delivery (in line with industry norms)
- The minimum recommended mix temperature for compaction of the mix on site (in line with industry norms)
- Comment on any asphalt mix characteristics that should be brought to the attention of the asphalt paving/laying team on site (e.g. EME asphalt mix longitudinal joint construction)

Should substantial changes to material types and properties occur, the asphalt mix designs for affected mixes shall be reviewed and where necessary re-constituted and re-submitted for approval.

1.1.1.1. Mix Design Approval

No mixes may be supplied without approval of the mix design by the Senior Manager: Pavement & Geotechnical Engineering, Roads Provision Department.

The contractor shall label every mix design with a unique identification number to facilitate traceability of mixes using the mix design.

1.1.1.2. Mix Design Approval Process

The contractor shall submit his proposed mix design to the Roads Provision Department for acceptance of the mix design at least 2 weeks prior to initial supply of any particular mix.

Upon request by the Roads Provision Department, the contractor shall also supply samples of raw materials. The minimum sample sizes shall be 50 kg for each aggregate type/size and 5 litres of bitumen/binder. The contractor shall also supply any other relevant information as may be requested.

Once satisfied with the content of the mix design, the Senior Manager : Pavement & Geotechnical Engineering (or his nominee) will give signed approval for the mix.

1.1.2. Mix Design Review

Every mix design is to be reviewed at least annually. The review should include verification of the asphalt mix through testing of at least the following characteristics: -

- Binder compliance with SANS 4001-BT1
- Modified binder compliance with TG1
- Binder classification in terms of the SA PG Binder Classification System
- Aggregate and filler compliance with Table 2
- Aggregate BRD, ARD and water absorption
- Mix BRD (@ N_{design}) and MTRD
- Particular mix type characteristics
 - Sand skeleton mixes
 - Level I design mix volumetric and performance characteristics
 - All requirements in Tables 11, 12 and 13 (as applicable) at the appropriate compaction (Table 10 for Level I design and Table 14 for Level II and III designs).
 - Level II design mix performance characteristics (Table 15)
 - Workability
 - Durability
 - Level III design mix performance characteristics (Table 15)
 - Workability
 - Durability
 - SMA mixes
 - All requirements in Table 19
 - SMA mix performance characteristics (Table 15)
 - Durability

- EME mixes
 - Mix performance characteristics (Table 20)
 - Workability
 - Durability

Should the binder, aggregate or mix characteristics of any particular mix differ significantly from the characteristics obtained in the initial mix design, then the mix shall be re-designed to meet the relevant volumetric and performance characteristics. In the event of a dispute over the significance of a particular characteristic, the contractor shall undertake the appropriate performance test to prove compliance with the specification.

2. ASPHALT PRODUCTION

2.1. Mixing Plant

Asphalt shall be manufactured through a batch-mixing or drum-mixing plant (approved by the Roads Provision Department) such that the requirements of this specification can be met in full. The plant shall be operated and kept in a well-maintained condition as directed by the Quality Management System. Records of such maintenance shall be made available on request.

All cold aggregates shall be stockpiled in a manner that precludes the possibility of aggregate contamination. At the very least aggregate stockpiles shall be physically separated on concrete slabs. Undue wetting/saturation of (particularly fine) aggregates shall also be prevented through covering (particularly fine) aggregate stockpiles with reinforced waterproof covers at all times when mixing is not in progress. Natural sand aggregates shall be pre-screened through a 13 mm screen before being fed into the cold feed hoppers.

Sufficient binder storage tanks shall be provided to ensure that adequate reserves are maintained for each binder type held without risk of contamination of binders. Binder storage tanks shall be heated in such a manner that the binder is not degraded during heating. The tanks shall also incorporate a circulating system for the binder.

The plant control panel shall enable the plant operator to have simultaneous view of the critical components of the plant inclusive of :-

- Binder storage temperature
- Cold hopper feed settings
- Hot aggregate bin masses (as appropriate)
- Binder feed rate
- Plant speed (as appropriate)
- Mixing temperature

The plant and its operation shall also conform to the requirements of the following legislation:

- Occupational Health and Safety Act
- National Environmental Management: Air Quality Act

2.2. Quality Control

The quality of mix produced shall be monitored as directed in the contractor's Quality Management System. The asphalt mix constituents (i.e. binder and aggregates), and the asphalt mix produced shall be checked for compliance and consistency on a regular bases through routine process control testing. The results of such testing shall be available for review by the Roads Provision Department at all times.

2.2.1. Quality Management System

The Quality Management System (QMS) should include documentation outlining the asphalt mix design process, the annual mix review process and processes pertaining to delivery of the asphalt mix.

The QMS shall also include any agreed frequency of split sampling of either raw mix constituents or asphalt mixes (prepared as agreed) with the Roads Provision Department. Such samples are to be delivered to the eThekweni Municipality's Bitumen and Asphalt Laboratory located at the Roads Provision

The QMS shall also document the processes to be followed whenever a deviation from specifications is identified. The Contractor shall provide full rectification of any work undertaken with such asphalt mix or materials.

Where applicable, testing is to be conducted using the SANS 3001 series of test methods.

All process control testing undertaken by the contractor shall be signed off by the responsible person identified in the QMS and shall be made available to the Roads Provision Department.

- All process control test results shall be referenced back to the unique Mix Design reference number.
- Mix extraction gradings shall be made available within 48 hours of the asphalt being manufactured.
- Binder content and void content shall be made available by 08:00am on the day following manufacture of the asphalt.

Should the test results not be provided as required or should the results fall outside the applicable specifications, the Roads Provision Department reserves the right to suspend any supply until the results are produced and the mix is accepted.

The Contractor shall be responsible for rectification of any work completed (or partially completed) with asphalt mix that does not meet the specification to the satisfaction of the Roads Provision Department. The processes related to the rectification of such work shall be outlined in the QMS.

2.2.2. Acceptance Testing

After reviewing the results of the process control testing, the Roads Provision Department may elect to conduct their own testing of the binder, aggregates or asphalt mix produced. A copy of test results will be submitted to the Contractor as soon as they are available.

Should the acceptance tests indicate that the mix (or any part thereof) is not to specification, the cost of any re-test by the Council shall be to the Contractor's account and shall be deducted from any payments owed to the Contractor.

2.2.3. On Site Mix Problems

The contractor shall also make himself available on site should the workability and compaction of the mix during the paving/laying operation be problematic in order to assist in trouble-shooting the cause of such problems. If the root cause of the problem is related to the asphalt mix design, the contractor shall re-evaluate his mix design to correct such issues and re-submit his mix design for approval.

PS.ED.7 TACK COAT

The unit of measurement shall be square metres (m²). The rate tendered shall include for sweeping the previous surface where necessary, protecting the adjacent concrete kerbing, inlet covers and street furniture and testing in accordance with the specification. The application rate shall be 0,3 l/m².

PS.EF KERBS AND HAUNCHES

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PS.EF.1 KERBING

Measurement and payment shall conform with clause EF.8 within the standard engineering specifications. Manufactured kerbs shall be free from cracks, other than hair line cracks, free from visible twists and dents. No patching of defective surfaces or edges will be permitted. The colour of the products should be uniform.

All cast in-situ concrete shall be Garde 20/13. The surfaces of the cast in situ channel / fillet are to be properly compacted and to have a steel float finish. Expansion joints are to be formed through the channel / fillet and foundations at intervals not exceeding 18m. Contraction joints are to be formed through the channel/fillet at 2m intervals.

Where the kerb radius is less than 25m, the kerbs shall be 1/3m kerbs.

Where the kerb radius is less than 2m, the kerbing shall be cast-in situ.

All precast kerbs shall be laid with a 13mm gap between kerbs, which shall be filled with a cement mortar matching the current kerb colour.

PS.EF.1.1 MODIFIED TYPE F - FIG 6 – MOUNTABLE KERBING AND CHANNEL/FILLET

Before laying the kerbing, a concrete foundation 700 mm wide x 200 mm deep consisting of unreinforced class 25/19 concrete shall be cast. After not less than 3 days and concrete strength exceeding 5 MPa, the kerbing shall be placed on a thin mortar bed (bed for aligning and levelling purposes).

The unit of measurement shall be the metre (m) and shall cover the supply and placing of the kerbing, preparation and construction of the concrete base setting out compaction and any formwork that may be required.

PS.EF.2 EXCAVATION FOR KERB AND CHANNEL/FILLET IN EXISTING ASPHALT/GRADED CRUSHED STONE/CEMENT TREATED CRUSHED STONE

The unit of measurement shall be the cubic metre (m³). The rate shall include all the materials, labour and plant necessary to scabble the existing layers to the width of the kerb base to be laid, the excavating, loading and transporting of surplus material to spoil.

Over-excavation is likely to occur and this is to be made up in mortar (3 sand, 1 cement) Further to the above the rate tendered shall include for all additional mortar required to make up the over-excavated areas.

PS.EF.3 ADDITIONAL CONCRETE GRADE 20/13 TO KERB FOUNDATION

The rates tendered for kerbs shall be based on the minimum dimensions indicated on the drawings. Where the asphalt layers necessitate an increase in the kerb foundation thickness, the supply of this additional concrete shall be paid for separately. The unit of measurement shall be the cubic metre (m³) and shall cover the supply and placing of the concrete, compaction and any formwork that may be required.

PS.EF.4 EXCAVATION FOR KERB AND CHANNEL/FILLET IN EXISTING ASPHALT LAYERS

The unit of measurement shall be the cubic metre (m³). The rate shall include all the materials, labour and plant necessary to cut two parallel joints in the existing asphalt the width of the kerb base to be laid, the excavating, loading and transporting of surplus material to the approved tip. Saw cutting, if necessary, shall be measured separately.

PS.EF.5 EXTRA OVER ITEMS

The unit of measure is an extra over (m), i.e. an additional cost over and above the main pay Part EF. The rate shall cover labour and plant necessary for excavation, setting out, placing Kerbing, constructing concrete nibs.

No additional payment shall be made for restricted excavation and the Tenderer shall therefore make due allowance in the rates for any additional work or hand excavation.

PS.EF.6 CONCRETE EDGE BEAMS

Concrete edge beams, 250m x 250mm shall be constructed at the end of the asphalt surfacing on each road, where the asphalt surface meets an existing gravel surface or existing unhardened portion or driveway and at position along the road where the traffic movement on and off of the finished road surface to prevent the asphalt surface from breaking up when under traffic load..

The unit of measurement shall be the cubic metre (m³) and the rate shall cover the work to construct the concrete edge beam to specification using 20/26Mpa Concrete. No steel reinforcement is required.

PS.EH STEEL GUARDRAILS AND CONCRETE MEDIAN BARRIERS

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PS.EH.1 GENERAL

The unit of measurement shall be the linear metre of guardrail. The tendered rate shall include for all materials, plant and labour required to fully construct.

PS.EH.2 MATERIALS

Guardrails and end wings shall be of plain carbon steel and together with bolts, nuts and washers shall be hot-dipped galvanised. The pre-cast concrete posts shall have a concrete strength of grade 30/26 and wooden poles shall be treated and creosoted.

PS.EH.3 CONSTRUCTION

Guardrails shall have a nominal length of 4,13 m and shall have three slotted holes. No punching or drilling of the guardrails or end wings shall be permitted once the rails have been galvanised.

Where the radius of the road is less than 50 m, the Contractor shall erect pre-curved guardrails to the radius shown on the relevant drawings.

Where the radius of the road is less than 50 m, the Contractor shall erect pre-curved guardrails to the radius shown on the relevant drawings.

End wings shall comply with Type 1(a) Standard in Fig. 2 of SABS 1350.

Anchor blocks shall be made from grade 20/26 concrete and shall be 1,0 m x 0,7 m x 0,7 m in size. The end of the first section of guardrail shall be cast into an anchor block with a 0,5 m long 16 mm H.T. bar placed through the bolt hole.

Splice bolts shall not be recessed. Bolts for the attachment of rails and end wings to supporting posts shall have a length of 450 mm of which 100 mm shall be threaded. Reinforcing plates are not required.

PS.EH.4 TOLERANCES

The level and line shall be as specified in the drawings with a tolerance of ± 10 mm.

PS.F PROTECTION WORKS

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PS.F.1 GABION BOX RETAINING WALL AND MATTRESSES

Materials and construction shall be as is specified in Clause F5.5 and F6.3 and measurement and payment as is specified in Clause F.8.6 of the Standard Engineering Specification.

General The size and type of wire mesh, diaphragms binding wires, and selvedge wire are specified in the following paragraphs. The fabric of the gabions shall be triple twisted hexagonal woven steel wire mesh. The wire shall be galvanized before weaving. All wire used in the manufacture and tying of gabion shall comply with the BS.1052: 1980 "Mild steel wire for general engineering purposes" and shall be galvanized in accordance with BS 443: 1982 "Specifications for testing zinc coatings on steel wire and for quality requirements."

Mesh The gabion boxes shall have hexagonal woven mesh with a maximum size of 100 mm x 120 mm, with the joints formed by twisting each pair of wires through three half turns. Wire used for the formation of the mesh panel will have a diameter of 3.0mm.

Wire The diameter of the wire used in the fabrication of the mesh shall be 3.0 mm. Sufficient binding and tie wires, horizontal and vertical bracers, and other accessories needed for the assembly and erection of the gabion works shall be supplied, at no additional cost, by the Contractor. The quantity of such wire shall be not less than 10% by weight of the gabions supplied under this Contract. The diameter of the binding and connection wires shall be 2.4 mm.

Galvanizing All wire used in the manufacture of gabion boxes and in the wiring operations during construction shall be heavily coated with zinc. The minimum weight of zinc coating shall be as follows:

The adhesion of the zinc coating to the wire shall be strong enough of an **extent that when the wire is wrapped six turns around a mandrel of four times** the diameter of the wire, it does not flake or crack to such an extent that any zinc can be easily removed by rubbing with the bare fingers.

Selvedge's All edges of the gabion boxes including end-panel and diaphragms shall be mechanically selvedged in such a way to prevent unravelling of the mesh. The selvedge shall be of a wire

having a diameter of 3.9 mm.

Diaphragms Diaphragms shall be supplied to divide each gabion unit into cells to control movement of fill material within the gabion. The diaphragm to be provided shall be equally spaced at a distance of 1 m along the length of the gabion. The diaphragms shall be selvedge to a diameter of 3.9 mm.

Gabions

Mattresses

Mesh The gabion mattresses shall be triple twisted hexagonal woven steel wire mesh of size 6cm x 8cm. The mattresses shall be divided by internal diaphragms into compartments of 1 m width.

Foundations The ground on which the gabions are to be founded shall be trimmed by hand to form a plane surface before placing the baskets, Where shown on the drawing or ordered by the Project Manager the gabions mattresses shall be laid on a graded filter or an approved geotextile, Filtered material shall consist of graded rock of a dense, sound quality free from weathering or mechanical weakness, The size and grading shall be such that the filter will be retained by the rock in the gabion and will itself retain the finer particles of the adjacent general filling,

If necessary the filter shall be placed in successive layers of different grading, reducing in particle size from the gabions to the general filling, The completed filter layer shall be such that it shall represent a dense mass well consolidated and not subject to settlement

Fixing After placing in position and before filling, the gabions shall be stretched to their full size and shall be stretched to their full size and shall be wired to the adjoining row at the top and bottom edges and at the corners.

Stone Fill Stone for filling gabions shall be between 100 mm and 250 mm dia stone, It shall be hard and resistant to abrasion, uniform in texture and sound, without cracks or other imperfections likely to impair resistance to weathering,

Gabion Stone The rock is un-weathered and solid without flaking or weathering evident. The correct size to be used must be 100-250 mm minimum size for gabions (1m high baskets). With river mattresses the rock size is also 100-2/3 the mattress thickness so that at least two layers of rock can be used in the mattress layer thickness. Small rock fragments must not be used on the surface of either gabions or mattresses in river course situations as the fine material will be removed in high water flows. Always check that the rock size is bigger than the hexagonal mesh opening, within the centre of a gabion basket smaller rock may be used and limited to the centre of the gabion only. Soft rocks and brick fragments are not suitable due to its capacity to absorb water and soften over time, flat rock is usually not adequate as it does not provide for the same mechanical interlock in the gabion provided by blasted angular rock, rounded river rock is ok, however it does harm the environment after removal and it is more difficult to obtain a flat gabion facing. The rock should be placed as close to the packing position when offloaded from the truck to reduce double handling of this resource on sites.

PS.F.2 BRICKWORK

The construction of brickwork shall be as specified in Clause F.5.6.3. Mortar shall conform to mix Class A as defined in the latest edition of the Standard Building Regulations.

The unit of measurement shall be the square metre (m²) and the rate shall include for all the materials, labour and plant necessary as directed on site by the Employer's Agent's Representative.

Bricks shall be engineering bricks conforming to the requirements of SABS 227. The limit for water absorption in the 24 hour immersion test shall be 8%. Brickwork shall be built in English bond, or in a stretcher bond where its thickness does not exceed 115 mm. It shall be well and regularly bonded without any false headers. All bricks shall be unbroken, except where required as closers. Bricks shall be well wetted before laying and each brick shall be pressed into its bed so as to leave a finished joint not exceeding 10 mm in thickness. All joints shall be filled solid with mortar, and joints for exposed faces shall be pointed as the work proceeds.

PS.F.3 TOPSOILING

PS.F.3.1 Materials

The soil shall be loamy with a well define crumb structure, neither too sandy nor too clayey. It shall contain evidence of fibrous plant roots and shall be free from perennial weed root stocks, stone, glass, metallic and plastic substances.

The imported topsoil shall be obtained from a source approved by the eThekweni Parks Department.

A 1 kg sample of the topsoil shall be submitted for approval to the Engineer 4 weeks before the top soiling operation commences.

PS.F.3.2 Measurement and Payment

The unit of measurement shall be the square metre (m²). Further to Clause F.8.1 and F.8.2, the rate shall include for the purchase, supply, transport, mixing, distributing, spreading, trimming and finishing of the topsoil and compost mixture.

PS.F.4 DRAINAGE GRADE GEOFABRICS

The geo-fabric to stone bedding must comply with Clause PG.3.8 of Part PG : Non-Pressure Pipelines and Precast Concrete Culverts.

The unit of measurement shall be the square metre (m²). The rate shall include for its supply, laying, joining, cutting and waste.

PS.F.5 TERRACE BLOCK RETAINING SYSTEM / WALL

The retaining system walls shall be constructed using "Terrace Block" concrete TB500 wall units or equivalent approved by the Engineer.

The retaining system positions and construction details are indicated on the contract drawings. The following clauses shall be applicable regarding the various operations required to construct the walls.

PS.F.5.1 EXCAVATION FOR TERRACE BLOCK RETAINING SYSTEM FOOTING

The unit of measurement shall be the cubic metre (m3) and the rate tendered shall include for all plant or labour required to complete the work.

PS.F.5.2 TYPE "A", "B" AND "C" CONCRETE BASE FOR TERRACE BLOCK RETAINING SYSTEM

The various types of concrete bases are applicable relative to the wall height. The base shall be constructed using grade 25/26 concrete. The unit of measurement shall be the cubic metre(m3) and the rate tendered shall include for all plant, labour and materials required to complete the work.

PS.F.5.3 TERRACE BLOCK RETAINING SYSTEM – TB500 AND TB300 WALL UNITS

The spacing / placement of the TB500 and TB300 wall units shall be such that there is a minimum of eight (8) units to the square metre (m2) to the front surface area of wall. The unit of measurement shall be the square metre (m2) and the rate tendered shall include for all plant, materials and labour required to complete the work.

50mm diameter PVC weepholes are to be built into the wall at 2,5m centres. The pipes are to extend from the back of the sand or stabilized drainage layer behind the wall to the outer face. The unit of measurement shall be number (no) and the rate shall include for materials and labour necessary to install the weepholes.

PS.F.5.4 CLEAN COARSE SAND AND 19mm STONE CHIP DRAINAGE LAYER TO WALL

The method of use of these two materials is described in the wall detailed on the contract drawings. The unit of measurement for both materials shall be the cubic metre (m3).

PS.F.5.5 CEMENT STABILISED BACKFILL BEHIND TB WALL UNITS

The cement stabilized backfill behind the wall shall comprise a 12 : 1 ratio by volume of clean coarse sand to cement mix. The mix is to be rammed into and between the units / blocks and is to further form a 500mm fill layer behind the units to the heights indicated in the wall details on the contract drawings. The unit of measurement shall be the cubic metre (m3) and the rate tendered shall include for all plant, materials and labour required to complete the work.

PS.F.5.6 100mm “NETLON” SUB-SOIL PIPE LAID IN STONE LAYER BEHIND TB WALL

The sub-soil pipe is to be laid within the 19mm stone chip drainage layer at a grade so as to drain effectively, out falling either into the new stormwater system or to be laid so as to outfall through the kerbing into the channel / fillet. The unit of measurement shall be the linear metre (m).

PS.PG NON-PRESSURE PIPELINES AND PRECAST CONCRETE CULVERTS

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PS.PG.1 CONCRETE STORMWATER PIPES

Concrete pipes shall be class 100D, as detailed in the drawings and schedules

The concrete pipes shall be jointed by means of a spigot and socket joint with a rubber sealing ring. The unit of measurement shall be linear metres (m). The unit rate for supply shall include for:

- The supply of all pipes complete with couplings and joint material.
- Their inspection, transport to and about site and all handling costs.

PS.PG.1 SUBSOIL PIPES

The following clause shall replace Clause PG.3.5.

"These shall be "Geopipe" plastic subsoil pipes complying with SABS 791 as amended.

Hole Size : 5 ± 1 mm Diameter

Diameter of Pipe : 100 ± 10 mm.

Pipe Invert : 25% of the circumference of the pipe is to be free from slots or holes to form an invert to the pipe."

PS.PG.2 SUBSOIL DRAINS AND OUTLETS

Positions and type of subsoil drains have not been shown on the plans but will be indicated on site by the Employer's Agent's Representative.

Subsoil drains shall be type A, B or C as detailed on standard drawing No. 38575.

Subsoil pipes shall be "Geopipe" plastic pipes conforming to SABS 791. The outfall end of each run of subsoil drain shall be built into the nearest inlet/manhole or headwall in accordance with Clause PG 5.5, or into a special outlet structure as detailed on the project drawings and measured under part PH.

PS.PG.2.1 CONNECTION OF SUBSOIL DRAINS TO EXISTING STORMWATER SYSTEM

Where subsoil pipes require to be built into an existing stormwater inlet/manhole or headwall, the unit of measurement shall be number (No.)

The rate tendered shall include for all labour and materials to construct the connection in accordance with Clause PG.5.5. and for trimming the geofabric at the connection.

PS.PG.2.2 SUBSOIL TERMINATION STUB

The final 1 metre length of the subsoil drain before the manhole/catchpit shall be 100 mm diameter non-perforated U.P.V.C. pipe.

The unit of measurement shall be number (No.). The rate shall include for the supply and laying of the pipe, and for all work necessary to tie into the stormwater manhole/catchpit.

PS.PG.3 STONE FOR SUBSOIL DRAIN FILTER / RETAINING WALL

The following clause shall replace Clause PG.3.10.

"The stone aggregate used for the subsoil drain filter shall consist of 19.0 mm crushed stone conforming to the following grading :

Sieve size mm	19.0	13.2	9.5	6.7	4.75
% Passing	100	85 - 100	0 - 50	0 - 25	0 - 5

PS.PG.4 RIVER SAND BACKFILL FOR SUBSOIL DRAIN FILTER

The following clause shall replace Clause PG.3.11.

"River sand for subsoil drain filter shall consist of clean river sand conforming to the following grading:-

Sieve size mm	67	475	150	75
% Passing	100	90 -100	0 - 15	0 - 3

and having a Fineness Modulus of 2,0 - 3,5."

PS.PG.5 GEOFABRIC BLANKET

The geofabric shall comply with Clause PG.3.8 and the rate tendered shall include for wrapping the geofabric around either the subsoil pipe, subsoil drain or stone bedding.

PS.PG.12 CULVERT CONSTRUCTION

Refer to PS.C for Concrete Culvert Construction and to Standard Engineering Specifications Part "PG" Non-Pressure Pipelines and Precast Concrete Culverts

PS.PH MANHOLES AND APPURTENANT DRAINAGE WORKS

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PS.PH.1 MANHOLES AND INLETS

Tenderers are to note that manholes and inlets shall be measured according to type and varying depth only. The rate tendered for the manholes/inlets shall include for the different pipe sizes and benching configurations.

The Contractor shall note that the rate for inlets shall include the cost of the graded channel in front of the inlet and / or splay and the cost of the transition kerb and channel upstream and downstream from each inlet. This will not form part of the payment for kerb and channel. Payment shall only be made once the manhole / inlet is 100% complete.

PS.PH.2 MANHOLES AND APPURTENANT WORKS : REVISED DRAWING NUMBERS

Clause PH.3.2.1.1 second paragraph is replaced by the following:

Details of the precast concrete components of standard manholes are shown on standard drawings 38570 for both foul-water sewers and stormwater drains, 38574 for foul-water sewers and 38571 for stormwater drains.

Clause PH.5.11 first paragraph:

Standard drawing 21701 is replaced by drawing 38574.

PS.PH.3 BRICKS

Clause PH.3.1 first paragraph shall be replaced by the following :

"Burnt clay masonry units for foul-water and stormwater sewer manholes, stormwater inlets and inspection chambers shall be Non-Facing Extra (NFX) with a nominal compressive strength of 14 MPa to S.A.B.S. 227:1986.

PS.PH.4 INLET AND OUTLET HEADWALLS

Drawing number 38576 shows details of outlet headwalls. The unit of measure for these headwalls shall be Number (No.) and shall include for all labour, plant and materials required for the construction of the headwall inclusive of the base and cut-off walls.

The construction of brickwork shall be as specified in Clause F.5.6.3. Mortar shall conform to mix

Class A as defined in the latest edition of the Standard Building Regulations.

PS.PH.5 POLYMER MANHOLES – COVERS / FRAMES / INLETS

The unit of measurement shall be Number (No.). In addition to the construction of the Polymer Covers and Frames all requirements under PH.8 shall apply. Products shall comply with SANS 1882:2003 and SABS approved.

PS.PH.6 CONSTRUCTION OF MANHOLE/INLET OVER EXSITING STORMWATER PIPE

The unit of measurement shall be Number (No.)

Further to Clauses PH.8.2 and PH.8.3 the rate shall include for:

- a) Breaking into existing pipe.
- b) Cutting and reinstating the ends of the existing pipe.
- c) The restricted work around the existing pipe.
- d) Disposal of any spoil, etc., to the tip.

PS.S REINSTATEMENT

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PS.S.1 KERBING AND HAUNCHING

The Contractor shall use new materials for the reinstatement of all kerbing and where possible it shall match the existing on either side of that to be reinstated. Should it not be practicable to use new materials the Engineer may allow the Contractor to reuse materials carefully preserved during excavation.

PS.S.2 HARDENED AREAS

Reinstatement of areas such as concrete and asphalt paved sidewalks, driveways, etc., shall be of a permanent nature and shall match that removed and reinstatement shall be done up to the boundary / cadastral line. If it is not possible for the Contractor to reuse the existing removed material, he shall endeavour to obtain new material to match that removed as closely as possible. Measurement shall be in square metres (m²) with separate items in the schedule of quantities for each operation. The rate for both temporary and permanent road reinstatement shall cover the supply, placing and compaction of materials to form the new foundation layers as specified.

The rate for in-situ concrete slabs shall include for all formwork and joints and for a wood float surface finish. The rate for laying all other paved areas such as blocks, bricks, slasto etc., shall include for the supply of new materials where the original materials cannot be reused, and for supplying a bed of granular material at least 50 mm in compacted thickness and for bedding the paving thereon to the falls, levels and slopes to suit the original paving. Where applicable, the rate shall include for mortar to the joints and for the pointing thereof.

PS.S.3 SURFACE REINSTATEMENT IN PRIVATE PROPERTIES AND OTHER DEVELOPED AREAS

The surface of the ground through private properties, gardens, established road verges and other such developed areas shall be reinstated to a condition equivalent to that which existed before the works commenced. The work shall include the replacement of topsoil and replanting of all grass, turf, flowers, gardens, etc., and the Contractor shall maintain and water the replanted areas until growth is properly established.

Work within private properties shall also include the replacement or relaying of all fences, walls, paved areas, driveways, etc., which were removed or damaged during the works.

Upon completion of work in any property the Contractor shall obtain a written clearance from the owner or occupier of the property confirming that the property has been cleared and reinstated to their satisfaction.

PS.S.4 SURFACE OBSTRUCTIONS

Payment for the reinstatement of surface obstructions in private properties will only be made for those obstructions which are ordered by the Engineer to be removed and reinstated. Provisional Items are scheduled for the various types of obstruction likely to be removed and the Contractor's rates shall include for the supply of all materials where the original materials cannot be reused and for the reconstruction of the item to match the original item as closely as possible.

PS.S.5 UNDERGROUND OBSTRUCTIONS

Provisional Items are scheduled for the reinstatement of various types of underground obstructions that might be encountered on the Works. Rates shall cover the cost of excavation and for the provision of all materials, together with the disposal of the surplus excavated spoil.

PS.TA ROAD SIGNS

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PS.TA.1 GENERAL

The Tenderer shall make allowance in the time related rates under Section 1.AB in the Bill of Quantities rates, repositioning, covering/uncovering, relocating or removing temporary signs and other forms of road furniture as required during the progress of the works.

PS.TA.2 ROAD SIGN BOARDS

Further to Item TA.8.1, Tenderers are to note that the signs measured under this item are the various type of standard regulatory signs (e.g. stop, yield, keep left etc.).

Notwithstanding the requirements of Clause TA.8.1 the unit of measure shall be number (No.).
The support poles shall be 75mm x 75mm square hot dipped galvanised for sign boards. Rate to include all haulage for the permanent poles

PS.TA.3 PROTECTION AND MAINTENANCE

The Contractor shall protect and maintain all road furniture (road signs, delineators, drums, barriers, barricades etc.) throughout the course of the contract and shall be responsible for the cost of replacing any road furniture that may be damaged or stolen.

PS.TB ROAD MARKING**INDEX****PAGE**

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PS.TB.1 PLASTIC ROAD MARKING MATERIAL

Further to Clause TB.3.1(c) the plastic road marking material shall comply with the requirements of Specification BS.3262, 1987 Part 3.

- (a) The material shall consist of a light-coloured aggregate, pigment and extender, bound together with a thermoplastic resin, plasticised as necessary.

The approximate composition of the material as laid is dependent on the appropriate specification, but for example shall be:

Aggregate	40 parts
Solid Glass Beads	20 parts
Pigment and Extender	20 parts
Binder	20 parts

The proportioning of the various ingredients shall be such that the material, when in a molten state, can be sprayed readily onto the road surface to give an even line of good definition.

- (b) Aggregate

The aggregate shall consist of white silica sand, crushed calcite calcined flint, quartz, or other approved aggregate.

- (c) Reflectorisation

The solid glass beads incorporated in the mixture shall comply with the Class A category of BS 6088 (1981), that is:

Sieve	% Retained
0,18 mm	0 - 3
0,850 mm	5 - 20
0,425 mm	65 - 95
Below 0,425 mm	0 - 10

Minimum of spherical beads by number 70%

(d) Luminance

The luminance factor of white SPRAYPLASTIC shall be not less than 70.

(e) Flow resistance

The percentage decrease in the height of the cone of SPRAYPLASTIC shall not be more than 25 after testing for 48 hours at 23 C (temperate grade) or 40 C (semi-tropical or tropical grades).

(f) Low Temperature Impact Resistance

SPRAYPLASTIC shall pass the impact test when tested at -10 C (temperate grade) or -1 C (semi-tropical or tropical grades).

(a) Abrasion resistance

The abrasive wear of SPRAYPLASTIC shall typically be less than 0,5 g per 100 revolutions.

C3.4: PARTICULAR SPECIFICATIONS

In addition to the Standardized and Project Specifications the following Particular Specifications / Policies shall apply to this contract:

- C3.4.1 Part AH - OSHA 1993 Safety Specification
(26 Pages)
- C3.4.2 Standard Environmental Management Plan for Civil Engineering Construction Works
(24 Pages)

C3.5: CONTRACT AND STANDARD DRAWINGS

C3.5.1 CONTRACT DRAWINGS / DETAILS

No drawings issued

C3.5.2 STANDARD DRAWINGS

The Standard Drawings to which these Standard Engineering Specifications refer are listed below.

Dwg No	Description	Date of Issue	
38570	Ring Manholes	February	1990
38571	Brick Manhole Details	February	1990
38572	Stormwater Inlet Details	February	1990
38573	Stormwater Inlet Special Details	February	1990
38574	Sewer Manholes: Ramp, Backdrop and Channelling Details	February	1990
38575	Sub-Soil Drain, Pipe Bedding and Pipe Protection Details	February	1990
38576	Headwall Details	February	1990
38577	Kerbing Details	February	1990
38578	Concrete Median Barriers	February	1990
38579	Vehicular and Pedestrian Scoops	February	1990
38580	Concrete Bollard and Steel Guard Rail	February	1990
38581	Retaining Wall, PC Steps, Staircase, Cable Ducts and Headwalls	February	1990
38582	Precast Concrete Fencing and Aluminium Gates	February	1990
38583	Wire Mesh Fence and Gate Details	February	1990
38584	Standard Hydrant Thrust Blocks and Trenches	February	1990
38585	Water Connections, Pipework and Fittings	February	1990
38586	DP & TC Manholes - Rectangular	February	1990
38587	DP & TC Manholes - "L" Shaped	February	1990
38588	DP & TC Manholes - "T" Shaped	February	1990
38589	DP & TC Cable Ducts and Junction Box Details	February	1990
43120	Typical Details of Grid Inlets	February	1990

C4.2 CONDITIONS ON SITE

There is no specific geotechnical information or other site information.

C4.3 TEST RESULTS

There are no specific test results.