

HARRY GWALA DISTRICT MUNICIPALITY



IBISI SEWER RETICULATION

CONSTRUCTION OF APPROXIMATELY 24KM OF SEWER MAINS AND 334 ERF CONNECTIONS WITH TOILET TOP STRUCTURES IN IBISI

CONTRACT No.: HGDM 788/HGDM/2022

**CIDB CONTRACTOR GRADING
7CE OR HIGHER**

COMPILED BY:

ECA Consulting
P.O Box 2083
Vryheid
3100

ON BEHALF OF:

Harry Gwala District Municipality
Private Bag X 501
IXOPO
3276

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DECEMBER 2022

NAME OF TENDERER	
ADDRESS OF TENDERER	
TELEPHONE	
FAX	
TENDER SUM	

TENDER CLOSING DATE: 12h00 FRIDAY, 23 JANUARY 2023



EXPANDED PUBLIC WORKS PROGRAMME
Creating opportunities towards human fulfilment

TENDER DOCUMENT CHECKLIST

Tenderers must complete this document checklist to ensure that all information is completed in the Tender Document.

	ITEMS	CHECKED Tenderer
1)	Correct Tender Offer Amount carried forward to Cover Page and Form of Offer on Section C.1.....	<input type="checkbox"/>
2)	All pages requiring signatures signed by the Tenderer	<input type="checkbox"/>
3)	Bill of Quantities	
	i) Completed in <u>BLACK INK</u> only	<input type="checkbox"/>
	ii) Corrections crossed out and initialled.....	<input type="checkbox"/>
4)	Submission of All Returnable Documents and Schedules	
	A Authority for Signatory.....	<input type="checkbox"/>
	B MBD Forms.....	<input type="checkbox"/>
	C Schedule of work carried out by Tenderer.....	<input type="checkbox"/>
	D Amendments, Qualifications and Alternatives.....	<input type="checkbox"/>
	E Tax Clearance Certificate.....	<input type="checkbox"/>
	F Compulsory Enterprise Questionnaire.....	<input type="checkbox"/>
	G BBBEE Certificate.....	<input type="checkbox"/>
	H Key Personnel	<input type="checkbox"/>
	I Contractor's Health and Safety Declaration.....	<input type="checkbox"/>
5)	J Data to be provided by Tenderer.....	<input type="checkbox"/>

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T2.1	Returnable Documents and Schedules	Yellow	RD 1
T2.2	List of Returnable Documents and Schedules	Yellow	RD 2
PART C1: AGREEMENTS AND CONTRACT DATA			C 1
C1.1	Form Offer and Acceptance	Yellow	C 2
C1.2	Contract Data	Yellow	C 8
C1.3	Performance Guarantee	Yellow	C 12
C1.4	Disclosure Statement	Yellow	C 15
C1.5	Agreement in terms of the Occupational Health and Safety Act No. 85 of 1993	Yellow	C 16
C1.6	Adjudication Board Member Agreement	Yellow	C18
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PART C3: SCOPE OF WORK			SW 1
	Scope of Work	Blue	SW 1
PART C4: SITE INFORMATION			SI 1
	Site Information	Green	SI 1
PART C5: DRAWINGS			D1
	Drawings	Green	D1
PART C6: HGDM DRAFT SCM POLICY		White	SCM1

IBISI SEWER RETICULATION

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**CONSTRUCTION OF APPROXIMATELY 24KM OF SEWER MAINS AND 334 ERF
CONNECTIONS WITH TOILET TOP STRUCTURES IN IBISI**

PART T1: TENDERING PROCEDURES

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T1.1:Tender Notice and Invitation to Tender



HARRY GWALA DISTRICT MUNICIPALITY INFRASTRUCTURE SERVICES DEPARTMENT

BID NOTICE

BID INVITATION

Bids are hereby invited from qualified and experienced Bidders for the construction of the following Infrastructure project within the Harry Gwala District municipality.

NO.	PROJECT NAME	CIDB GRADING	COMPULSORY BRIEFING DATE	TENDER NUMBER	CLOSING DATE
i.	IBISI SEWER RETICULATION: Construction of approximately 24KM of sewer main and 334 connections with toilet top structures and plumbing connection	7CE OR HIGHER	05 December 2022 at 11:30am Bidders are to meet in municipal Council Chamber then proceed to site	Contract No. HGDM788/H GDM/2022	23 January 2023 @ 12h00

Only Bidders that have the required CIDB Grading listed on the table above will be considered. Joint Ventures are also eligible to submit Bids provided that every member of the Joint Venture is registered with the CIDB and a combined grade of Joint Venture calculated in accordance with the CIDB regulations is equal to or higher than the specified Contractor grading.

Invalid or non-submission of the following documents will lead to immediate disqualification.

- Central Supplier database registration
- JV Agreement (if applicable);
- A signed MBD4 form must be submitted with all bids (available on our website or at reception)
- Annexures C, D and E of local content and production
- Service providers must meet the minimum threshold percentage for local production and content for the valves products and actuators of 70%
- Steel substation structures – 100%
- Plastic Pipes – 100%
- Pumps – 100% in accordance with the terms of regulation 9(1) of the Preferential Procurement Policy Regulation 2017.

The following will apply in all the above bids:

- Valid tax certificate or SARS pin
- Price(s) quoted must be firm and must be inclusive of VAT;
- A firm delivery period must be indicated;
- All tenders must be valid for 90 days after the tender closing date

- A certified and valid B-BBEE status level verification certificate or an original sworn affidavit for claiming preference points.
- 80/20 Preference point system will be used in Evaluation. Functionality will be calculated first
- The procedure for the evaluation of responsive tenders is **Method 2** with the 80/20 Preference Point System. Tenderers will be scored for quality first and only those tenders that meet the specified minimum total score for quality will be considered further. These tenders will then be evaluated on the basis of the 80/20 Preference Points System.

Method 2: Financial Offer, Quality and Preferences

(a) Quality

The score for quality is to be calculated using the following formula:

$$W_q = W_2 \times S_o / M_s$$

where:

W_2 = is the percentage score given to quality and equals **100**

S_o = is the score for quality allocated to the submission under consideration

M_s = is the maximum possible score for quality in respect to the submission

The quality will comprise scores for the following based on criteria indicated in the respective tender returnable documents and summarised as follows:

Description	Maximum Allocated Points
Experience of Key Personnel (Contracts Manager)	15
Experience of Key Personnel (Site Agent)	10
Experience of Key Personnel (Foreman)	5
Experience of Bidder with respect to similar projects	50
Financial Capacity	20
TOTAL MAXIMUM POINTS	100

COLLECTION OF BID DOCUMENTS

Bid documents may be collected from the **24 November 2022** between **09h00 to 16h00** at Harry Gwala District Municipality Offices, Finance Services Department, situated at Ixopo 40 Main Street, Ixopo 3276. Tender documents will be issued upon payment of a non-refundable cash fee of **R 1000 .00 each**.

NB: No documents will be sold after briefing meetings.

CLOSING DATE

The closing date for the bids is as per the table above. Bids must be enclosed in **SEALED ENVELOPES** and clearly labelled with the contract number and project name on the outside of the envelopes addressed to **The Municipal Manager**.

Bids must be deposited in the Bid Box at the reception area of Harry Gwala District Municipal, 40 Main Street, IXOPO before the closing date and time. Telegraphic, telexed or faxed bids will not be considered and late bids will not be accepted.

Harry Gwala District Municipality does not bind itself to accept the lowest or any Bid and reserves the right to accept the whole or any part of the bid.

BID ENQUIRIES

All bid enquiries and other matters shall be directed to: Executive Director: Water Services: Mr D S Gqiba during working hours on Tel.:039-834 2485

Harry Gwala District Municipality does not bind itself to accept the lowest or any Bid and reserves the right to accept the whole or any part of the bid.

MR. G.M. Sineke
Municipal Manager

T1.2: Tender Data

The Conditions Of Tender are the Standard Conditions of Tender as contained in Annex F of the legislated Standard Conditions of Tender as published in Board Notice 62 of 2004 in Government Gazette 2647 of 9 June 2004 and amended by:

1. Board Notice 67 of 2005 in Government Gazette No 27831 of 22 July 2005;
2. Board Notice 99 of 2005 in Government Gazette No 28127 of 14 October 2005;
3. Board Notice 93 of 2006 in Government Gazette No 29138 of 18 August 2006;
4. Board Notice 8 of 2008 in Government Gazette No 30692 of 1 February 2008; and
5. Board Notice 12 of 2009 in Government Gazette No. 31823 of 30 January 2009.
6. Board Notice 136 of 2015 in Government Gazette No. 10684 of 20 January 2017.

are for ease of reference included herein in their entirety. In case of any discrepancies, the gazetted version takes precedence.

The standard conditions of tender are included separately after the 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.

Clause Number	Description
F.1.1	The Employer is Harry Gwala District Municipality
F.1.2	<p>The tender documents issued by the employer comprise the following:</p> <p>T1.1 Tender Notice and Invitation to Tender T1.2 Tender Data T2.1 List of Returnable Documents T2.2 Returnable Schedules</p> <p>Part 1: Agreements And Contract Data C1.1 Form of offer and acceptance C1.2 Contract data C1.3 Form of Guarantee C1.4 Adjudicator's Contract</p> <p>Part 2: Pricing data C2.1 Pricing instructions C2.2 Activity schedules / Bills of Quantities</p> <p>Part 3: Scope of work C3 Scope of work</p> <p>Part 4: Site information C4 Site information</p> <p>Part 5: Drawings C5 Drawings</p>

Clause No.	Description
F.1.4	<p>The Employer's Agent's (also referred to as the Engineer) details are as follows:</p> <p>Name: ECA Consulting Address: 67 St Patrick's Road, Scottsville, Pietermaritzburg, 3201</p> <p>Tel N°: +27 34 983 2825 Fax N°: +27 34 983 2945</p> <p>Contact Person Mr. L. Fourie Email: louis@ecaconsult.co.za</p>
F.2.1	<p>The following tenders who are registered with the CIDB, or are capable of being so registered prior to the evaluation of submissions, are eligible to submit tenders.</p> <p>a) contractors who have a contractor grading designation equal to or higher than a contractor grading designation determined in accordance with the sum tendered for a 7CE class of construction work; and</p> <p>b) contractors registered as potentially emerging enterprises with the CIDB who are registered in one contractor grading designation lower than that required in terms of a) above (i.e. 7CE) and who satisfy the following criteria:</p> <ul style="list-style-type: none"> • They can demonstrate they have the financial resources to undertake the work being tendered for • They have priced documents fairly and can demonstrate the basis of pricing of items where in the Engineer's opinion the pricing is unbalanced • They can demonstrate that they have experienced personnel to manage the work being tendered for. <p>c) Joint ventures are eligible to submit tenders provided that:</p> <ol style="list-style-type: none"> 1. Every member of the joint venture is registered with the CIDB; 2. the lead partner has a contractor grading designation in the CE class of work 3. The combined contractor grading designation calculated in accordance with the Construction Industry Board Regulations is equal to or higher than a contractor grading designation determined in accordance with the sum tendered for 7CE class of construction or a value determined in accordance Regulation 25 (1B) or 25(7A) of the Construction Industry Development Regulations.
F2.7	<p>The arrangements for a compulsory briefing meeting are:</p> <p>Location Ibisi Town (30°24'46.85"S, 29°53'40.31"E) Date Monday, 05 December 2022 Starting Time 11h30</p> <p>Tenderers must sign the Attendance Register in the name of the tendering entity. Addenda will be issued to and tenders will be received only from those tendering entities appearing on the Attendance Register.</p>

F2.12	<p>If a tenderer wishes to submit an alternative offer, the only criteria permitted for such alternative tender offer is that it demonstrably satisfies the Employer's standards and requirements, the details of which may be obtained from the Employer's Agent.</p> <p>Calculations, drawings and all other pertinent technical information and characteristics as well as modified or proposed Pricing Data must be submitted with the alternative tender offer to enable the Employer to evaluate the efficacy of the alternative and its principal elements, to take a view on the degree to which the alternative complies with the Employer's standards and requirements and to evaluate the acceptability of the pricing proposals. Calculations must be set out in a clear and logical sequence and must clearly reflect all design assumptions in the development of the pricing proposal.</p> <p>Acceptance of an alternative tender offer will mean acceptance in principle of the offer. It will be an obligation of the contract for the tenderer, in the event that the alternative is accepted, to accept the full responsibility and liability that the alternative offer complies in all respects with the Employer's standards and requirements</p> <p>The modified Pricing Data must include an amount equal to 5% of the amount tendered for the alternative offer to cover the Employer's costs of confirming the acceptability of the detailed design before it is constructed.</p>
F.2.13.5 F2.15.1	<p>The employer's address for delivery of tender offers and identification details to be shown on each tender offer package are as follows:</p> <p>Location of Tender Box: Reception Area of Harry Gwala District Municipality Physical Address: 40 Main Street, IXOPO Tender Documents Endorsed: Contract No.: HGDM788/HGDM/2022</p>
F.2.13 F.3.5	A two-envelope procedure will not be followed.
F.2.15	The closing time for submission of tender offers is 12h00 on Friday, 23 January 2023.
F.2.15	Telephonic, telegraphic, telex, facsimile or e-mailed tender offers will not be acceptable.
F.2.16	The tender offer validity period is thirteen (13) weeks (90 days) from the tender closing date
F.2.23	<p>The tenderer is required to submit with his tender:</p> <ol style="list-style-type: none"> 1) either a copy of the Certificate of Contractor Registration issued by the Construction Industry Development Board or a copy of the application Form for registration in terms of the Construction Industry Development Board Act (Form F006). 2) Copies of company registration documents. 3) an original valid Tax Clearance issued by the South African Revenue Services. 4) Copies of ID documents of Shareholders/Members/Directors of the business enterprises. 5) Copy of Letter of Good Standing from the Department of Labour; 6) JV Agreement (if applicable); 7) Occupational Health and Safety Plan (OHS) 8) Proof of Preference Points Claimed (BBEEE Certificate).
F.3.4	<p>The time and location for opening of the tender offers are:</p> <p>Time: 12h00 Date: Friday, 23 January 2023</p> <p>Location: Tender Box, Reception Area Harry Gwala District Municipality Offices, 40 Main Street, IXOPO, 3276</p>

F.3.11

The procedure for the evaluation of responsive tenders is **Method 2** with the 80/20 Preference Point System. Tenders will be scored for quality first and only those tenders that meet the specified minimum total score for quality will be considered further. These tenders will then be evaluated on the basis of the 80/20 Preference Points System.

Method 2: Financial Offer, Quality and Preferences

(a) Quality

The score for quality is to be calculated using the following formula:

$$W_q=W_2\times S_o/M_s$$

where:

W_2 = is the percentage score given to quality and equals **100**

S_o = is the score for quality allocated to the submission under consideration

M_s = is the maximum possible score for quality in respect to the submission

The quality will comprise scores for the following based on criteria indicated in the respective tender returnables and summarised as follows:

Description	Maximum Allocated Points
Experience of Key Personnel (Contracts Manager)	15
Experience of Key Personnel (Site Agent)	10
Experience of Key Personnel (Foreman)	5
Experience of Bidder with respect to similar projects	50
Financial Capacity	20
TOTAL MAXIMUM POINTS	100

The score for quality can be further broken down per individual criteria as follows:

Key Criteria Aspect	Basis for Points Allocation	Score	Max Score	Verification Method
Experience of Key Personnel (Contracts Manager)	Approved Degree/Diploma in built environment qualification and		15	Certified Qualification certificates and Curriculum Vitae to be attached with traceable references. Experience must be on water or sewer projects
	Less than 4 years' experience	8		
	Between 5 - 7 years' relevant experience in the position.	12		
	8 and above years' relevant experience in the position	15		
	No qualification with minimum of 5 years' experience in the position	5		
	No qualification with 6 -9 years' experience in the position.	8		
	No qualification with 10 and above years' experience in the position	15		
Experience of Key Personnel (Site Agent)	Approved Degree/Diploma in built environment qualification and		10	Certified Qualification certificates and Curriculum Vitae to be attached with traceable references. Experience must be on water or sewer projects
	Less than 4 years' experience	5		
	Between 5 - 9 years' relevant experience in the position.	7		
	10 and above years' relevant experience in the position	10		
	No qualification with minimum of 5 years'	5		

	experience in the position			
	Between 6 - 9 years' relevant experience in the position.	7		
	10 and above years' relevant experience in the position	10		
Experience of Key Personnel (Foreman)	1 - 3 years' experience in the position	2	5	Certified Qualification certificates and Curriculum Vitae to be attached with traceable references. Experience must be on water or sewer projects.
	4 - 6 years' experience in the position	3		
	7 - 9 years' experience in the position	4		
	10 and above years' experience in the position	5		
Experience of Tenderer in completed similar projects	0 - 1 Project	10	50	Appointment letters and Completion Certificates (for subcontracting attach also appointment letter of main contractor).
	2 - 3 projects	15		
	4 - 5 projects	20		
	6 - 7 projects	35		
	More than 8 projects	50		
Financial Capacity	Undoubted for the amount of your enquiry	A = 20	20	Rating by bank where account is held
	Good for tender amount quoted	B = 15		
	Average to good for the amount of tender enquiry, if strictly in the way of business	C = 10		
	Rating below good (D)	E-F = 8		

Tenderers that score less than 60% of the total score allowed for quality will not be considered further.

(b) Financial Offer

The financial offer will be scored using the following formula

$$Nf = W1 \times [1-(P-Pm) / Pm]$$

where:

W1 = **80** for financial values up to R50 000 000 (inclusive of VAT) of all responsive tenders received, and **90** for financial values over R50 000 000;

Pm = the value of the comparative offer of the most favorable tender;

P = the value of the comparative offer under consideration

The tender will be evaluated on the 80/20 Preferential Point System based on an estimated total annual cost of under R 50 million incl. VAT for this project

(a) Price : 80 points

(b) B-BBEE status level of contribution : 20 points

Total Points : 100 points

(c) Preferences

Up to **20** points (for financial values up to R50 000 000) or **10** points (for financial values over R50 000 000) will be awarded to tenderers who are found to be eligible for the preference claimed.

	Points will be awarded to Tenderers for attaining the BBEE status level of contribution as per the Preferential Procurement Policy Framework Act, 2000: Preferential Procurement Regulations, 2017 as detailed below.																														
	<table><tr><th>BBEE Status Level Contributor</th><th>Number of Points (80/20 Principle)</th><th>Number of Points (90/10 Principle)</th></tr><tr><td>1</td><td>20</td><td>10</td></tr><tr><td>2</td><td>18</td><td>9</td></tr><tr><td>3</td><td>14</td><td>8</td></tr><tr><td>4</td><td>12</td><td>6</td></tr><tr><td>5</td><td>8</td><td>4</td></tr><tr><td>6</td><td>6</td><td>3</td></tr><tr><td>7</td><td>4</td><td>2</td></tr><tr><td>8</td><td>2</td><td>1</td></tr><tr><td>Non-Compliant Contributor</td><td>0</td><td>0</td></tr></table>	BBEE Status Level Contributor	Number of Points (80/20 Principle)	Number of Points (90/10 Principle)	1	20	10	2	18	9	3	14	8	4	12	6	5	8	4	6	6	3	7	4	2	8	2	1	Non-Compliant Contributor	0	0
BBEE Status Level Contributor	Number of Points (80/20 Principle)	Number of Points (90/10 Principle)																													
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5	8	4																													
6	6	3																													
7	4	2																													
8	2	1																													
Non-Compliant Contributor	0	0																													
F.3.13.1	<p>Tender offers will only be accepted if:</p> <ul style="list-style-type: none">a) the tenderer has in his or her possession an original valid Tax Clearance Certificate or SARS Pin issued by the South African Revenue Services or has made arrangements to meet outstanding tax obligationsb) the tenderer is registered with the Construction Industry Development Board in an appropriate contractor grading designation, by tender closing date;c) the tenderer is not in arrears for more than 3 months with the municipal rates and taxes and municipal services charges;d) the tenderer or any of its directors is not listed on the Register of Tender Defaulters in terms of the Prevention and Combating of Corrupt Activities Act of 2004 as a person prohibited from doing business with the public sector;e) the tender has not<ul style="list-style-type: none">i) abused the Employer's Supply Chain Management System; orii) failed to perform on any previous contract and has been given a written notice to this effect; andf) has completed the Compulsory Enterprise Questionnaires and there are no conflicts of interest which may impact on the tenderer's ability to perform the contract in the best interest of the employer or potentially compromise the tender process.g) the Tenderer or a competent authorized representative of the Contractor who submitted the tender has attended the compulsory clarification meeting and/or site inspection, as specified;h) the tender offer is signed by a person authorized to sign on behalf of the Tenderer;i) a Tenderer who submitted a tender as a Joint Venture has included an acceptable Joint Venture Agreement with his tender.																														
F.3.18	The number of paper copies of the signed contract to be provided by the Employer is one original plus one original duplicate.																														
	<p>The additional conditions of tender are as follows:</p> <p>1. The BBEE Certificate from an accredited organisation will be used to award preference points.</p>																														

APPENDIX: STANDARD CONDITIONS OF TENDER

(These Standard Conditions of Tender have been reproduced, without any changes, from Appendix A of the CIDB Standardized Construction Procurement Documentation for Engineering Construction Works (5 August 2005))

F.1 General

F.1.1 Actions

F1.1.1. The employer and each tenderer submitting a tender offer shall comply with these conditions of tender. In their dealings with each other, they shall discharge their duties and obligations as set out in F.2 and F.3, timeously and with integrity, and behave equitably, honestly and transparently, comply with all legal obligations and not engage in anticompetitive practices.

F1.1.2. The employer and the tenderer and all their agents and employees involved in the tender process shall avoid conflicts of interest and where a conflict of interest is perceived or known, declare any such interest in their tender submissions. Employees, agents and advisors of the employer shall declare any conflict of interest to whoever is responsible for overseeing the procurement process at the start of any deliberations relating to the procurement process or as soon as they become aware of such conflict, and abstain from any decisions where such conflict exists or recuse themselves from the procurement process, as appropriate.

Note 1) A conflict of interest may arise due to a conflict of roles which might provide an incentive for improper acts in some circumstances. A conflict of interest can create an appearance of impropriety that can undermine confidence in the ability of the person to act properly in his or her position even if no improper acts result.

2) Conflicts of interest in respect of those engaged in the procurement process include direct, indirect or family interests in the tender or outcome of the procurement process and any personal bias, inclination, obligation, allegiance or loyalty which would in any way affect any decision taken.

F.1.1.3 The employer shall not seek and a tenderer shall not submit a tender without having a firm intention and the capacity to proceed with the contract.

F.1.2 Tender Documents

The documents issued by the employer for the purpose of a tender offer are listed in the tender data.

F.1.3 Interpretation

F.1.3.1 The tender data and additional requirements contained in the tender schedules that are included in the returnable documents are deemed to be part of these conditions of tender.

F.1.3.2 These conditions of tender, the tender data and tender schedules which are only required for tender evaluation purposes, shall not form part of any contract arising from the invitation to tender.

F.1.3.3 For the purposes of these conditions for the calling for expressions of interest, the following definitions apply:

- (a) **conflict of interest** means any situation in which
 - i) someone in a position of trust has competing professional or personal interest which make it difficult to fulfil his or her duties impartially;
 - ii) an individual or organisation is in a position to exploit a professional or official capacity in some way for their personal or corporate benefit; or

- iii) incompatibility or contradictory interests exist between an employee and the organisation which employs that employee.
- (b) **comparative offer** means the tenderer's financial offer after the factors of non-firm prices, all unconditional discounts and any other tendered parameters that will affect the value of the financial offer have been taken into consideration
- (c) **corrupt practice** means the offering, giving, receiving or soliciting of anything of value to influence the action of the employer or his staff or agents in the tender process; and
- (d) **fraudulent practice** means the misrepresentation of the facts in order to influence the tender process or the award of a contract arising from a tender offer to the detriment of the employer, including collusive practices intended to establish prices at artificial levels
- (e) **Organisation** means a company, firm, enterprise, association or other legal entity, whether incorporated or not, or a public body
- (f) **Quality (functionality)** means the totality of features and characteristics of a product or service that bear on its ability to satisfy stated or implied needs.

F.1.4 Communication and employer's agent

Each communication between the employer and a tenderer shall be to or from the employer's agent only, and in a form that can be read, copied and recorded. Writing shall be in the English language. The employer shall not take any responsibility for non-receipt of communications from or by a tenderer. The name and contact details of the employer's agent are stated in the tender data.

F.1.5 The employer's right to accept or reject any tender offer

F.1.5.1 The employer may accept or reject any variation, deviation, tender offer, or alternative tender offer, and may cancel the tender process and reject all tender offers at any time before the formation of a contract. The employer shall not accept or incur any liability to a tenderer for such cancellation and rejection, but will give reasons for such action upon written request to do so.

F.1.5.2 The employer may not subsequent to the cancellation or abandonment of a tender process or the rejection of all tender offers re-issue a tender covering substantially the same scope of work within a period of six months unless only one tender was received and such tender was returned unopened to the tenderer.

F.1.6 Procurement Procedures

F.1.6.1 General

Unless otherwise stated in the tender data, a contract will, subject F.3.13, be concluded with the tenderer who in terms of F.3.11 is the highest ranked or the tenderer scoring the highest number of tender evaluation points, as relevant, based on the tender submissions that are received at the closing time for tenders.

F.1.6.2 Competitive Negotiation Procedure

- F.1.6.2.1** Where the tender data require that the competitive negotiation procedure is to be followed, tenderers shall submit tender offers in response to the proposed contract in the first round of submissions. Notwithstanding the requirements of F.3.4, the Employer shall announce only the names of the tenderers who make a submission. The requirements of F.3.8 relating to the material deviations or qualifications which affect the competitive positions of tenderers shall not apply.
- F.1.6.2.2** All responsive tenderers, or not less than three responsive tenderers that are highest ranked in terms of the evaluation method and evaluation criteria stated in the data, shall be invited in each round to enter the competitive negotiations, based on the principle of equal treatment and keeping confidential the proposed solutions and associated information. Notwithstanding the provisions of F.2.17, the Employer may request that tenders be clarified, specified and fine-tuned in order to improve a tenderer's competitive position provided that such clarification, specification, fine-tuning and additional information does not alter any fundamental aspects of the offers or impose substantial new requirements which restrict or distort competition or have a discriminatory effect.
- F.1.6.2.3** At the conclusion of each round of negotiations, tenderers shall be invited by the Employer to make a fresh tender offer, based on the same evaluation criteria, with or without adjusted weightings. Tenderers shall be advised when they are to submit their best and final offer.
- F.1.6.2.4** The contract shall be awarded in accordance with the provisions of F.3.11 and F.3.13 after tenderers have been requested to submit their best and final offer.

F.1.6.3 Proposal Procedure using two stage system

F.1.6.3.1 Option 1

Tenderers shall in the first stage submit technical proposals and, if required, cost parameters around which a contract may be negotiated. The Employer shall evaluate each responsive submission in terms of the method of evaluation stated in the tender data, and in the second stage negotiate a contract with the tenderer scoring the highest number of evaluation points and award the contract in terms of these conditions of tender.

F.1.6.3.2 Option 2

- F.1.6.3.2.1** Tenderers shall submit in the first stage only technical proposals. The Employer shall invite all responsive tenderers to submit tender offers in the second stage, following the issuing of procurement documents.
- F.1.6.3.2.2.** The Employer shall evaluate tenders received during the second stage in terms of the method of evaluation stated in the tender data, and award the contract in terms of these conditions of tender.

F.2 Tenderer's obligations

F.2.1 Eligibility

- F.2.1.1** Submit a tender offer only if the tenderer complies with the criteria stated in the tender data and the tenderer, or any of his principals, is not under any restriction to do business with employer.
- F.2.1.2** Notify the Employer of any proposed material change in the capabilities or formation of the tendering entity (or both) or any other criteria which formed part of the qualifying requirements

used by the Employer as the basis in a prior process to invite the tenderer to submit a tender offer and obtain the Employer's written approval prior to do so prior to the closing time of tenders.

F.2.2 Cost of tendering

Accept that the employer will not compensate the tenderer for any costs incurred in the preparation and submission of a tender offer, including the costs of any testing necessary to demonstrate that aspects of the offer satisfy requirements.

F.2.3 Check documents

Check the tender documents on receipt for completeness and notify the employer of any discrepancy or omission.

F.2.4 Confidentiality and copyright of documents

Treat as confidential all matters arising in connection with the tender. Use and copy the documents issued by the employer only for the purpose of preparing and submitting a tender offer in response to the invitation.

F.2.5 Reference documents

Obtain, as necessary for submitting a tender offer, copies of the latest versions of standards, specifications, conditions of contract and other publications, which are not attached but which are incorporated into the tender documents by reference.

F.2.6 Acknowledge addenda

Acknowledge receipt of addenda to the tender documents, which the employer may issue, and if necessary apply for an extension to the closing time stated in the tender data, in order to take the addenda into account.

F.2.7 Site visit and clarification meeting

Attend, where required, a site visit and clarification meeting at which tenderers may familiarize themselves with aspects of the proposed work, services or supply and raise questions. Details of the meeting(s) are stated in the tender data.

F.2.8 Seek clarification

Request clarification of the tender documents, if necessary, by notifying the employer at least five working days before the closing time stated in the tender data.

F.2.9 Insurance

Be aware that the extent of insurance to be provided by the employer (if any) may not be for the full cover required in terms of the conditions of contract identified in the contract data. The tenderer is advised to seek qualified advice regarding insurance.

F.2.10 Pricing the tender offer

F.2.10.1 All prices and rates shall be quoted net in South African currency and shall be exclusive of Value Added Tax (VAT).

Tenderers shall be required to submit together with the tender document, a valid original Tax Clearance certificate. In terms of Regulation 16 of the Preferential Procurement Regulations 2001, no contract may be awarded to a tenderer who has failed to submit a valid original Tax Clearance Certificate issued by the South African Revenue Services (SARS).

F.2.10.2 Show VAT payable by the employer separately as an addition to the tendered total of the prices.

F.2.10.3 Provide rates and prices that are fixed for the duration of the contract and not subject to adjustment except as provided for in the conditions of contract identified in the contract data.

F.2.10.4 State the rates and prices in Rand unless instructed otherwise in the tender data. The conditions of contract identified in the contract data may provide for part payment in other currencies.

F.2.11 Alterations to documents

Not make any alterations or additions to the tender documents, except to comply with instructions issued by the employer, or necessary to correct errors made by the tenderer. All signatories to the tender offer shall initial all such alterations. Erasures and the use of masking fluid are prohibited.

F.2.12 Alternative tender offers

F.2.12.1 Unless otherwise stated in the tender data, submit alternative tender offers only if a main tender offer, strictly in accordance with all the requirements of the tender documents, is also submitted. The alternative tender offer is to be submitted with the main tender offer together with a schedule that compares the requirements of the tender documents with the alternative requirements the tenderer proposes.

F.2.12.2 Accept that an alternative tender offer may be based only on the criteria stated in the tender data or criteria otherwise acceptable to the employer.

F.2.13 Submitting a tender offer

F.2.13.1 Submit one tender offer only, either as a single tendering entity or as a member in joint venture, to provide the whole of the works, services or supply identified in the contract data, unless stated otherwise in the tender data.

F.2.13.2 Return all returnable documents to the employer after completing them in their entirety, either electronically (if they were issued in electronic format) or by writing in black ink.

F.2.13.3 Submit the parts of the tender offer communicated on paper as an original plus the number of copies stated in the tender data, with an English translation of any documentation in a language other than English, and the parts communicated electronically in the same format as they were issued by the employer.

F.2.13.4 Sign the original and all copies of the tender offer where required in terms of the tender data. The employer will hold all authorized signatories liable on behalf of the tenderer. Signatories for tenderers proposing to contract as joint ventures shall state which of the

signatories is the lead partner whom the employer shall hold liable for the purpose of the tender offer.

F.2.13.5 Seal the original and each copy of the tender offer as separate packages marking the packages as "ORIGINAL" and "COPY". Each package shall state on the outside the employer's address and identification details stated in the tender data, as well as the tenderer's name and contact address.

F.2.13.6 Where a two-envelope system is required in terms of the tender data, place and seal the returnable documents listed in the tender data in an envelope marked "financial proposal" and place the remaining returnable documents in an envelope marked "technical proposal". Each envelope shall state on the outside the employer's address and identification details stated in the tender data, as well as the tenderer's name and contact address.

F.2.13.7 Seal the original tender offer and copy packages together in an outer package that states on the outside only the employer's address and identification details as stated in the tender data.

F.2.13.8 Accept that the employer shall not assume any responsibility for the misplacement or premature opening of the tender offer if the outer package is not sealed and marked as stated.

F.2.13.9 Accept that tender offers submitted by facsimile or email will be rejected by the Employer, unless stated otherwise in the tender data.

F.2.14 Information and data to be completed in all respects

Accept that tender offers, which do not provide all the data or information requested completely and in the form required, may be regarded by the employer as non-responsive.

F.2.15 Closing time

F.2.15.1 Ensure that the employer receives the tender offer at the address specified in the tender data not later than the closing time stated in the tender data. Proof of posting shall not be accepted as proof of delivery. The employer shall not accept tender offers submitted by telegraph, telex, facsimile or e-mail, unless stated otherwise in the tender data.

F.2.15.2 Accept that, if the employer extends the closing time stated in the tender data for any reason, the requirements of these conditions of tender apply equally to the extended deadline.

F.2.16 Tender offer validity

F.2.16.1 Hold the tender offer(s) valid for acceptance by the employer at any time during the validity period stated in the tender data after the closing time stated in the tender data.

F.2.16.2 If requested by the employer, consider extending the validity period stated in the tender data for an agreed additional period.

F.2.16.3 Accept that a tender submission that has been submitted to the employer may only be withdrawn or substituted by giving the employer's agent written notice before the closing time for tenders that a tender is to be withdrawn or substituted.

F.2.16.4 Where a tender submission is to be substituted, submit a substitute tender in accordance with the requirements of F.2.13 with the packages clearly marked as "SUBSTITUTE".

F.2.17 Clarification of tender offer after submission

Provide clarification of a tender offer in response to a request to do so from the employer during the evaluation of tender offers. This may include providing a breakdown of rates or prices and correction of arithmetical errors by the adjustment of certain rates or item prices (or both). No change in the competitive position of tenderers or substance of the tender offer is sought, offered or permitted.

F.2.18 Provide other material

F.2.18.1 Provide, on request by the employer, any other material that has a bearing on the tender offer, the tenderer's commercial position (including notarized joint venture agreements), preferencing arrangements, or samples of materials, considered necessary by the employer for the purpose of a full and fair risk assessment. Should the tenderer not provide the material, or a satisfactory reason as to why it cannot be provided, by the time for submission stated in the employer's request, the employer may regard the tender offer as non-responsive.

F.2.18.2 Dispose of samples of materials provided for evaluation by the employer, where required.

F.2.19 Inspections, tests and analysis

Provide access during working hours to premises for inspections, tests and analysis as provided for in the tender data.

F.2.20 Submit securities, bonds, policies, etc.

If requested, submit for the employer's acceptance before formation of the contract, all securities, bonds, guarantees, policies and certificates of insurance required in terms of the conditions of contract identified in the contract data.

F.2.21 Check final draft

Check the final draft of the contract provided by the employer within the time available for the employer to issue the contract.

F.2.22 Return of other tender documents

If so instructed by the employer, return all retained tender documents within 28 days after the expiry of the validity period stated in the tender data.

F.2.23 Certificates

Include in the tender submission or provide the employer with any certificates as stated in the tender data.

F.3 The employer's undertakings

F.3.1 Respond to requests from the tenderer

F.3.1.1 Respond to a request for clarification received up to five working days prior to the tender closing time stated in the Tender Data and notify all tenderers who drew procurement documents.

F.3.1.2 Consider any request to make material change in the capabilities or formation of the tendering entity (or both) or any other criteria which formed part of the qualifying requirements used to prequalify a tenderer to submit a tender offer in terms of a previous procurement process and deny any such request if as a consequence:

- a) An individual firm, or joint venture as a whole, or any individual member of the joint venture fails to meet any of the collective or individual qualifying requirements.
- b) The new partners to a joint venture were not prequalified in the first instance, either as individual firms or as another joint venture; or
- c) In the opinion of the Employer, acceptance of the material change would compromise the prequalification process.

F.3.2 Issue Addenda

If necessary, issue addenda that may amend or amplify the tender documents to each tenderer during the period from the date of the Tender Notice until seven days before the tender closing time stated in the Tender Data. If, as a result a tenderer applies for an extension to the closing time stated in the Tender Data, the Employer may grant such extension and, will then notify it to all tenderers who drew documents.

F.3.3 Return late tender offers

Return tender offers received after the closing time stated in the Tender Data, unopened, (unless it is necessary to open a tender submission to obtain a forwarding address), to the tenderer concerned.

F.3.4 Opening of tender submissions

F.3.4.1 Unless the two-envelope system is to be followed, open valid tender submissions in the presence of tenderers' agents who choose to attend at the time and place stated in the tender data. Tender submissions for which acceptable reasons for withdrawal have been submitted will not be opened.

F.3.4.2 Announce at the opening held immediately after the opening of tender submissions, at a venue indicated in the tender data, the name of each tenderer whose tender offer is opened, the total of his prices, preferences claimed and time for completion, if any, for the main tender offer only.

F.3.4.3 Make available the record outlined in F.3.4.2 to all interested persons upon request.

F.3.5 Two-envelope system

F.3.5.1 Where stated in the tender data that a two-envelope system is to be followed, open only the technical proposal of valid tenders in the presence of tenderers' agents who choose to attend at the time and place stated in the tender data and announce the name of each tenderer whose technical proposal is opened.

F.3.5.2 Evaluate the quality of the technical proposals offered by tenderers, then advise tenderers who remain in contention for the award of the contract of the time and place when the financial proposals will be opened. Open only the financial proposals of tenderers, who score in the quality evaluation above the minimum number of points for quality stated in the tender data, and announce the score obtained for the technical proposals and the total price and any preferences claimed. Return unopened financial proposals to tenderers whose technical proposals failed to achieve the minimum number of points for quality.

F.3.6 Non-disclosure

Not disclose to tenderers, or to any other person not officially concerned with such processes, information relating to the evaluation and comparison of tender offers, the final evaluation price and recommendations for the award of a contract, until after the award of the contract to the successful tenderer.

F.3.7 Grounds for rejection and disqualification

Determine whether there has been any effort by a tenderer to influence the processing of tender offers and instantly disqualify a tenderer (and his tender offer) if it is established that he engaged in corrupt or fraudulent practices.

F.3.8 Test for responsiveness

F.3.8.1 Determine, on opening and before detailed evaluation, whether each tender offer properly received:

- (a) meets the requirements of these Conditions of Tender,
- (b) has been properly and fully completed and signed, and
- (c) is responsive to the other requirements of the tender documents.

F.3.8.2 A responsive tender is one that conforms to all the terms, conditions, and specifications of the tender documents without material deviation or qualification. A material deviation or qualification is one which, in the Employer's opinion, would:

- detrimentally affect the scope, quality, or performance of the works, services or supply identified in the Scope of Work,
- change the Employer's or the tenderer's risks and responsibilities under the contract, or
- affect the competitive position of other tenderers presenting responsive tenders, if it were to be rectified.

Reject a non-responsive tender offer, and not allow it to be subsequently made responsive by correction or withdrawal of the non-conforming deviation or reservation.

F.3.9 Arithmetical errors

F.3.9.1 Check responsive tender offers for arithmetical errors between amounts in words and amounts in figures. Where there is a discrepancy between the amounts in figures and in words, the amount in words shall govern.

F.3.9.2 Check the highest ranked tender or tenderer with the highest number of tender evaluation points after the evaluation of tenders in accordance with F.3.11 for :

- a) The gross misplacement of the decimal point in the unit rate,
- b) Omissions made in completing the pricing schedule or bills of quantities or
- c) Arithmetic errors in
 - Line item totals resulting from the product of unit rate and a quantity in bills of quantities or schedule of prices; or
 - The summation of the prices.

F3.9.2 Notify the tenderers of all errors or omissions that are identified in the tender offer and invite the tenderer to either confirm the tender offer as tendered or accept the corrected total of prices.

F.3.9.3 Where the tenderer elects to confirm the tender offer as tendered, correct the errors as follows:

- a) If bills of quantities or pricing schedules apply and there is an error in the line item total resulting from the product of the unit rate and the quantity, the line item total as quoted shall govern, and the unit rate will be corrected. Where there is an obviously gross misplacement of the decimal point in the unit rate, the line item total as quoted shall govern and the unit rate shall be corrected.
- b) Where there is an error in the total of the prices either as a result of other corrections required by this checking process or in the tenderer's addition of prices, the total of the prices shall govern and the tenderer will be asked to revise selected item prices (and their rates if a bill of quantities applies) to achieve the tendered total of the prices.

Consider the rejection of a tender offer if the tenderer does not correct or accept the correction of his arithmetical errors in the manner described above.

F.3.10 Clarification of a tender offer

Obtain clarification from a tenderer on any matter that could give rise to ambiguity in a contract arising from the tender offer.

F.3.11 Evaluation of tender offers

F3.11.1 General

Appoint an evaluation panel of not less than three persons. Reduce each responsive tender offer to a comparative offer and evaluate them using the tender evaluation methods and associated evaluation criteria and weightings that are specified in the tender data.

F.3.11.2 Method 1: Price and Preference

In the case of a price and preference:

- 1) Score tender evaluation points for price
- 2) Score points for BBBEE contribution
- 3) Add the points scored for price and BBBEE.

F.3.11.3 Method 2: Functionality, Price and Preference

In the case of a functionality, price and preference:

- 1) Score functionality, rejecting all tender offers that fail to achieve the minimum number of points for functionality as stated in the Tender Data.
- 2) No tender must be regarded as an acceptable tender if it fails to achieve the minimum qualifying score for functionality as indicated in the tender invitation.
- 3) Tenders that have achieved the minimum qualification score for functionality must be evaluated further in terms of the preference points system prescribed in paragraphs 4 and 4 and 5 below.

The 80/20 preference point system for acquisition of services, works or goods up to Rand value of R50 million

- 4) (a)(i) The following formula must be used to calculate the points for price in respect of tenders(including price quotation) with a rand value equal to, or above R 30 000 and up to Rand value of R 50 000 000 (all applicable taxes included):

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

Where

P_s = Points scored for comparative price of tender or offer under consideration; *P_t* = Comparative price of tender or offer under consideration; and
P_{min} = Comparative price of lowest acceptable tender or offer.

- (4)(a)(ii) An employer of state may apply the formula in paragraph (i) for price quotations with a value less than R30 000, if and when appropriate:

(4)(b) Subject to subparagraph(4)(c), points must be awarded to a tender for attaining the B-BBEE status level of contributor in accordance with the table below:

B-BBEE status level of contributor	Number of points
1	20
2	18
3	16
4	12
5	8
6	6
7	4
8	2
Non-compliant contributor	0

(4)(c) A maximum of 20 points may be allocated in accordance with subparagraph (4)(b)

(4)(d) The points scored by tender in respect of B-BBEE contribution contemplated in subparagraph (4) (b) must be added to the points scored for price as calculated in accordance with subparagraph (4)(a).

(4)(e) Subject to paragraph 4.3.8 the contract must be awarded to the tender who scores the highest total number of points.

The 90/ 10 preference points system for acquisition of services, works or goods with a Rand value above R 50 million

(5)(a) The following formula must be used to calculate the points for price in respect of tenders with a Rand value above R50 000 000 (all applicable taxes included):

90/10

$$P_s = 90 \left(1 - \frac{P_t - P_{\min}}{P_{\min}} \right)$$

Where:

P_s = Points scored for comparative price of tender or offer under consideration;

P_t = Comparative price of tender or offer under consideration; and

P_{min} = Comparative price of lowest acceptable tender or offer.

(5)(b) Subject to subparagraph(5)(c), points must be awarded to a tender for attaining the B- BBEE status level of contributor in accordance with the table below:

B-BBEE status level of contributor	Number of points
1	10
2	9
3	8
4	5
5	4
6	3
7	2
8	1
Non-compliant contributor	0

- (5)(c) A maximum of 10 points may be allocated in accordance with subparagraph
- (5)(d) The points scored by tender in respect of B-BBEE contribution contemplated in subparagraph (5) (b) must be added to the points scored for price as calculated in accordance with subparagraph (5)(a).
- (5)(e) Subject to paragraph 4.3.8 the contract must be awarded to the tender who scores the highest total number of points.

F.3.11.6 Decimal places

Score price, preference and functionality, as relevant, to two decimal places.

F.3.11.7 Scoring Price

Score price of remaining responsive tender offers using the following formula:

$$N_{FO} = W_1 \times A$$

where:

N_{FO} is the number of tender evaluation points awarded for price.

W_1 is the maximum possible number of tender evaluation points awarded for price as stated in the Tender Data.

A is a number calculated using the formula and option described in Table F.1 as stated in the Tender Data.

Table F.1: Formulae for calculating the value of A

Formula	Comparison aimed at achieving	Option 1 ^a	Option 2 ^a
1	Highest price or discount	$A = (1 + (\frac{P - P_m}{P_m})) P_m$	$A = P / P_m$
2	Lowest price or percentage commission / fee	$A = (1 - (\frac{P - P_m}{P_m})) P_m$	$A = P_m / P$
^a P_m is the comparative offer of the most favourable comparative offer. P is the comparative offer of the tender offer under consideration.			

F.3.11.8 Scoring preferences

Confirm that tenderers are eligible for the preferences claimed in accordance with the provisions of the tender data and reject all claims for preferences where tenderers are not eligible for such preferences. Calculate the total number of tender evaluation points for preferences claimed in accordance with the provisions of the tender data.

F.3.11.9 Scoring functionality

Score each of the criteria and subcriteria for quality in accordance with the provisions of the Tender Data.

Calculate the total number of tender evaluation points for quality using the following formula:

$$NQ = W2 \times SO / MS$$

where:

SO is the score for quality allocated to the submission under consideration;

MS is the maximum possible score for quality in respect of a submission; and

W2 is the maximum possible number of tender evaluation points awarded for the quality as stated in the tender data

F.3.12 Insurance provided by the employer

If requested by the proposed successful tenderer, submit for the tenderer's information the policies and / or certificates of insurance which the conditions of contract identified in the contract data, require the employer to provide.

F.3.13 Acceptance of tender offer

Accept the tender offer, if in the opinion of the employer, it does not present any risk and only if the tenderer:

- a) is not under restrictions, or has principals who are under restrictions, preventing participating in the employer's procurement,
- b) can, as necessary and in relation to the proposed contract, demonstrate that he or she possesses the professional and technical qualifications, professional and technical competence, financial resources, equipment and other physical facilities, managerial capability, reliability, experience and reputation, expertise and the personnel, to perform the contract,
- c) has the legal capacity to enter into the contract,
- d) is not insolvent, in receivership, under Business Rescue as provided for in chapter 6 of the Companies Act, 2008, bankrupt or being wound up, has his affairs administered by **a court or a** judicial officer, has suspended his business activities, or is subject to legal proceedings in respect of any of the foregoing,
- e) complies with the legal requirements, if any, stated in the tender data, and
- f) is able, in the opinion of the employer, to perform the contract free of conflicts of interest.

F.3.14 Prepare contract documents

F.3.14.1 If necessary, revise documents that shall form part of the contract and that were issued by the employer as part of the tender documents to take account of:

- a) addenda issued during the tender period,
- b) inclusion of some of the returnable documents, and
- c) other revisions agreed between the employer and the successful tenderer.

F.3.14.2 Complete the schedule of deviations attached to the form of offer and acceptance, if any.

F.3.15 Complete adjudicator's contract

Unless alternative arrangements have been agreed or otherwise provided for in the contract, arrange for both parties to complete formalities for appointing the selected adjudicator at the same time as the main contract is signed.

F.3.16 Notice to unsuccessful tenderers

F.3.16.1 Notify the successful tenderer of the employer's acceptance of his tender offer by completing and returning one copy of the form of offer and acceptance before the expiry of the validity period stated in the tender data, or agreed additional period.

F.3.16.2 After the successful tenderer has been notified of the employer's acceptance of the tender, notify other tenderers that their tender offers have not been accepted.

F.3.17 Provide copies of the contracts

Provide to the successful tenderer the number of copies stated in the Tender Data of the signed copy of the contract as soon as possible after completion and signing of the form of offer and acceptance.

F.3.18 Provide written reasons for actions taken

Provide upon request written reasons to tenderers for any action that is taken in applying these conditions of tender, but withhold information which is not in the public interest to be divulged, which is considered to prejudice the legitimate commercial interests of tenderers or might prejudice fair competition between tenderers.

F3.19 Transparency in the procurement process

F3.19.1 The CIDB prescripts require that tenders must be advertised and be registered on the cidb iTender system.

F3.19.2 The employer must adopt a transparency model that incorporates the disclosure and accountability as transparency requirements in the procurement process.

F3.19.3 The transparency model must identify the criteria for selection of projects, project information template and the threshold value of the projects to be disclosed in the public domain at various intervals of delivery of infrastructure projects.

F3.19.4 The client must publish the information on a quarterly basis which contains the following information:

- Procurement planning process
- Procurement method and evaluation process
- Contract type
- Contract status
- Number of firms tendering
- Cost estimate
- Contract title
- Contract firm(s)
- Contract price
- Contract scope of work
- Contract start date and duration
- Contract evaluation reports

F3.19.5 The employer must establish a Consultative Forum which will conduct a random audit in the implementation of the transparency requirements in the procurement process.

F3.19.6 Consultative Forum must be an independent structure from the bid committees.

F3.19.7 The information must be published on the employer's website.

F 3.19.8 Records of such disclosed information must be retained for audit purposes.

IBISI SEWER RETICULATION

CONTRACT N^o.: HGDM 788/HGDM/2022

CONSTRUCTION OF APPROXIMATELY 24KM OF SEWER MAINS AND 334 ERF CONNECTIONS WITH TOILET TOP STRUCTURES IN IBISI

PART T2: RETURNABLE DOCUMENTS AND SCHEDULES

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PART T2.1: LIST OF RETURNABLE DOCUMENTS AND SCHEDULES

1. List of Returnable Documents and Schedules Required for Tender Evaluation Purposes

- Certificate of Tenderers' Attendance at the Clarification Meeting
- Authority for Signatory
- Schedule of Work Carried out by the Tenderer
- Certificate of Registration with CIDB
- Preliminary Programme
- Amendments, Qualifications and Alternatives
- Tax Clearance Certificate
- BBBEE Certificate
- Tenderer's Financial Standing
- Form of Intent to Provide a Performance Guarantee
- Compulsory Enterprise Questionnaire
- UIF Registration Certificate
- Proof of Purchase of Tender Documents
- MBD4 Form
- MBD 5
- MBD 9
- Joint Venture Disclosure Form
- Company Registration Certificate
- Identity Documents
- VAT Registration Certificate
- Copy of Cashed Cheque for Company
- Project Specific Health and Safety Plan
- Certificate of Municipal Services

2. Other Returnable Schedules and Documents that will be incorporated into the Contract

- Schedule of Construction Plant & Equipment
- Schedule of Proposed Sub-Contractors
- Record of Addenda to Tender Documents
- Rates for Special Materials
- Contractor's Health and Safety Declaration
- Form of Offer and Acceptance (Part C1)
- Contract Data (Part C1)
- Form of Guarantee (Part C1)
- Adjudicator's Agreement (Part C1)
- Agreement in Terms of the OHSA No 85 of 1993 (Part C1)
- Bill of Quantities (Part C2)
- Scope of Work (Part C3)
- Site information (Part C4)
- Drawings (Part C5)

FORM A: Certificate of Attendance at Clarification Meeting

CONTRACT N°.: HGDM 788/HGDM/2022

**CONSTRUCTION OF APPROXIMATELY 24KM OF SEWER MAINS AND 334 ERF CONNECTIONS WITH
TOILET TOP STRUCTURES IN IBISI**

(Please print)

It is hereby CERTIFIED that I, (*name*)

in my capacity as.....and a duly authorized

representative of..... (the TENDERER)

of (address).....

in the company of.....(the ENGINEER)

attended the official Site Inspection on(date)

for and on behalf of the above named Tenderer.

I hereby further DECLARE that I am satisfied with the description of the Works and the explanations given by the above named Engineer.

SIGNATURE
(On behalf of TENDERER)

DATE

AS WITNESS :-

(On behalf of ENGINEER)

NAME

SIGNATURE

DATE

FORM B: Authority for Signatory

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

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

A. Certificate for Company

I,, chairperson

of the board of,

hereby confirm that by resolution of the board (copy attached) taken on

..... 20....., Mr/Ms

acting in the capacity of, was authorised to sign all documents in connection with this tender for CONTRACT N^o: HGDM 788/HGDM/2022 and any contract resulting from it on behalf of the company.

As witnesses:

1.

Chairman:

2.

Date:

Signature of Authorised Person:

B. Certificate for Partnership

We, the undersigned, being the key partners in the business trading as

....., hereby authorise

Mr/Ms, acting in the capacity of

....., to sign all documents in connection with this tender for

CONTRACT N^o: HGDM 788/HGDM/2022 and any contract resulting from it on our behalf.

Name	Address	Signature	Date

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

Signature of Authorised Person:

C. Certificate for Joint Venture

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

authorise Mr/Ms, authorised signatory of the company

....., acting in the capacity of lead partner, to sign all documents in connection with this tender for CONTRACT N^o.: HGDM 788/HGDM/2022 and any contract resulting from it on our behalf.

This authorisation is evidenced by the attached power of attorney signed by legally authorised signatories of all the partners to the Joint Venture.

Name of Firm	Address	Authorising Name and Capacity	Authorising Signature
Lead Partner:			

Signature of Authorised Person:

D. Certificate for Sole Proprietor

I,, hereby confirm that I am

the sole owner of the business trading as

As witnesses:

1. Sole Owner:

2. Date:

Signature of Authorised Person:

E. Certificate for Close Corporation

We, talculations must be set out in a clear and logical sequence and must clearly reflect all design assumptions in the development of the pricing proposal.

lect all design assumptions in the development of the pricing proposal.

ect all design assumptions in the development of the pricing proposal.

Acceptance of an alternative tender offer will mean acceptance in principle of the offer. It will be an obligation of the contract no.: HGDM 788/HGDM/2022 and any contract resulting from it on our behalf.

Name	Address	Signature	Date

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

Signature of Authorised Person:

FORM C: Certificate of Registration with CIDB

The Tenderer is to attach a copy (ies) of Tenderer's Registration with CIDB or alternatively furnish the CIDB registration number and details in the table below. This information will be verified with the CIDB through the CIDB website. It is the Tenderer's responsibility to ensure that their details are displayed on the website. If a joint venture is tendering, details of all the JV members are to be furnished.

Name of Tenderer/Contractor	CIDB Registration Number	Category and Class of Registration e.g. 1CE

My/Our failure to submit the certificate(s) or furnish the required details with my/our tender document will lead to the conclusion that I/we are not registered with CIDB and therefore are not eligible to tender.

SIGNATURE:
(of person authorised to sign on behalf of the Tenderer)

DATE:

FORM D: Schedule of Work Carried out by the Tenderer

The Tenderer shall list below the last ten civil engineering contracts of a similar nature awarded to him. This information is material to the award of the Contract.

EMPLOYER (Name, Tel No and Fax No)	CONSULTING ENGINEER (Name, Tel No and Fax No)	NATURE OF WORK	VALUE OF WORK	YEAR OF COMPLETION

SIGNATURE:
(of person authorised to sign on behalf of the Tenderer)

DATE:

FORM F: Amendments, Qualifications and Alternatives

(This is not an invitation for amendments, deviations or alternatives but should the Tenderer desire to make any departures from the provisions of this contract he shall set out his proposals clearly hereunder. The Employer will not consider any amendment, alternative offers or discounts unless forms (a), (b) and (c) have been completed to the satisfaction of the Employer).

I / We herewith propose the amendments, alternatives and discounts as set out in the tables below:

(a) AMENDMENTS

PAGE, CLAUSE OR ITEM NO	PROPOSED AMENDMENT

Notes:

- (1) Proposals for amendments to the General and Special Conditions of Contract are not acceptable, and will be ignored;
- (2) The Tenderer must give full details of all the financial implications of the amendments and qualifications in a covering letter attached to his tender.

(b) ALTERNATIVES

PROPOSED ALTERNATIVE	DESCRIPTION OF ALTERNATIVE

Notes

- (1) Individual alternative items that do not justify an alternative tender, and an alternative offer for time for completion should be listed here.
- (2) In the case of a major alternative to any part of the work, a separate Bill of Quantities, programme, etc, and a detailed statement setting out the salient features of the proposed alternatives must accompany the tender.
- (3) Alternative tenders involving technical modifications to the design of the works and methods of construction shall be treated separately from the main tender offer.]

(c) DISCOUNTS

ITEM ON WHICH DISCOUNT IS OFFERED	DESCRIPTION OF DISCOUNT OFFERED

Note

The Tenderer must give full details of the discounts offered in a covering letter attached to his tender, failing which, the offer for a discount may have to be disregarded.]

SIGNATURE: DATE:
(of person authorised to sign on behalf of the Tenderer)

FORM G: Tenderer's Tax Clearance Certificate

The Tenderer is to attach his original Tax Clearance Certificate or SARS Pin on this page. In the case of a Joint Venture, original copies of Tax Clearance Certificates for all members of the Joint Venture must be attach.

Tenderers must note that failure to comply with this requirement will render their tender invalid.

FORM H: Tenderer's Financial Standing

IBISI SEWER RETICULATION

CONTRACT N°.: HGDM 788/HGDM/2022

**CONSTRUCTION OF APPROXIMATELY 24KM OF SEWER MAINS AND 334 ERF CONNECTIONS WITH
TOILET TOP STRUCTURES IN IBISI**

The Employer may make inquiries to obtain a bank rating from the Tenderer's bank.

To this end, the Tenderer must provide with his tender, a bank rating, certified by his banker, to the effect that he will be able to successfully complete the contract at the tendered amount within the specified time for completion.

However, should the tenderer be unable to provide a bank rating with his tender, he shall be state the reasons thereof and in addition provide the following details of his banker and bank account details that he intends to use for the contract:

Name of Account Holder:

Name of Bank: Branch:

Account Number: Account Type:

Telephone Number: Fax N°:

Name of Contact Person (*at bank*):

Failure to provide either the required bank details or a certified bank rating with his tender will lead to the conclusion that the Tenderer does not have the necessary financial resources at his disposal to complete the contract successfully within the specified time for completion.

The Employer undertakes to treat the information thus received as confidential, strictly for the use of evaluation of the tender submitted by the Tenderer.

SIGNATURE: DATE:
(*of person authorised to sign on behalf of the Tenderer*)

CERTIFIED BANK RATING

Tenderers to attach a Certified Bank Rating to this page. Failure to comply may lead to awarding of zero points for quality on this criteria.

FORM I: Form of Intent to Provide a Performance Guarantee

[The Tenderer must attach hereto a letter from the bank or institution. with whom he has made the necessary arrangements, to the effect that the said bank or institution will be prepared to provide the required performance guarantee when asked to do so].

Tenderers are to refer to Form C1.3: Form of Guarantee

FORM J: Compulsory Enterprise Questionnaire

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

Section 1: Name of enterprise:

Section 2: VAT registration number, if any:

Section 3: CIDB registration number, if any:

Section 4: Particulars of sole proprietors and partners in partnerships

Name*	Identity number*	Personal income tax number*

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

Section 5: Particulars of companies and close corporations

Company registration number

Close corporation number

Tax reference number

Section 6: Record of service of the state

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

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

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

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

*insert separate page if necessary

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

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

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

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

*insert separate page if necessary

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

- i) authorizes the Employer to obtain a tax clearance certificate from the South African Revenue Services that my / our tax matters are in order;
- ii) confirms that 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;
- iii) confirms that no partner, member, director or other person, who wholly or partly exercises, or may exercise, control over the enterprise appears, has within the last five years been convicted of fraud or corruption;
- iv) confirms that I / we are not associated, linked or involved with any other tendering entities submitting tender offers and have no other relationship with any of the tenderers or those responsible for compiling the scope of work that could cause or be interpreted as a conflict of interest;
- iv) confirms that the contents of this questionnaire are within my personal knowledge and are to the best of my belief both true and correct;

Signed _____ Date _____
Name _____ Position _____
Name of Enterprise _____

FORM K: Proforma Client Reference of Projects

The Tenderer must request previous Client/Referee to be complete this form for seven projects for their respective sewer reticulation projects (as claimed in the Tenderers Experience Schedule). The completed and signed forms to be submitted with the Tender.

PROFORMA REPORT ON THE TENDERER'S COMPETENCE AND PERFORMANCE ON SEWER RETICULATION PROJECT FOR TENDER EVALUATION PURPOSES

The following form will be requested to be completed by the Tenderers previous Clients.

Project Details:

Description of work:

Employer:

Value of work:

Contract Duration and Commencement Date:

Diameter of sewer lines:

Length of sewer lines:

	Qualitative Statements as assessed by Referees	Points	Score
1	"Contractor's Management was adequate for the contract"		
2	"Contractor provided suitably qualified Site personnel"	Unacceptable 0	
3	"Contractor's provided adequate resources for the contract"	Poor 1	
4	"Contractor's communication and compliance to instructions was good"	Below Average 2	
5	"Quality of work produced was according to drawings and specification"	Average 3	
6	"Contract was completed on time"	Above Average 4	
		Good 5	
	Total Points Obtained		

Any other remarks considered necessary to assist in evaluation of the Service Provider?

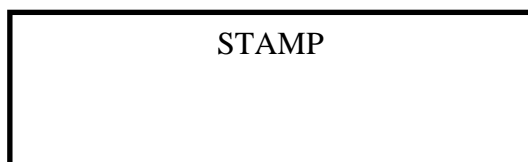
.....
.....

Client's/ contact person & Capacity:

Telephone:

Client Signature:

Date:



FORM L: Proof of Purchase of Tender Documents

The Tenderer shall insert here proof of purchase of the tender documents in the form of an official receipt or other acceptable form of proof

FORM M: Preferential Procurement

Harry Gwala District Municipality has adopted the Preference Point System as stipulated in the Preferential Procurement Policy Framework Act, 2000 (Act No. 5 of 2000) and as set out in the 2017 regulations.

M.1. PRINCIPLES APPLIED BY THE MUNICIPALITY

- 1.1 The Harry Gwala District Municipality has a responsibility to ensure that resources are managed in the most efficient and effective manner possible. This aim forms part of a national objective to manage the use of the resources of the nation in a thrifty, careful and economic manner and in such a way as to maximise sustained economic growth. The Municipality also has a responsibility to ensure that its activities further other overall national objectives of equity and redress, and to balance the furthering of these objectives in a manner that is fair and transparent. The Municipality is committed, therefore, to a process of cost effective, competitive procurement for goods and services that incorporates a targeted preferential methodology aimed at furthering the growth and development of persons, or categories of persons, historically disadvantaged by unfair discrimination on the basis of race, gender or disability.
- 1.2 No contract for the supply of any goods to or for any work, undertaking or service for or on behalf of the Harry Gwala District Municipality involving an estimated expenditure in excess of an amount prescribed in the Municipality's Preferential Procurement/Supply Chain Management Policy shall be entered into by the Municipality, unless public tenders have been called for in the manner prescribed.
- 1.3 Furthermore, the Harry Gwala District Municipality shall, in accordance with the framework prescribed by national legislation, give preference in awarding contracts to persons or categories of persons historically disadvantaged by unfair discrimination on the basis of race, gender or disability, and shall make the granting of such preferences public in the manner determined in the policy.

M.2 The 80/20 Preference Point System

The procedure for the evaluation of responsive tenders is **Method 2** with the 80/20 Preference Point System. Tenders will be scored for quality first and only those tenders that meet the specified minimum total score for quality will be considered further. These tenders will then be evaluated on the basis of the 80/20 Preference Points System.

Method 2: Financial Offer, Quality and Preferences

(a) Quality

The score for quality is to be calculated using the following formula:

$$W_q = W_2 \times S_o / M_s$$

where:

W_2 = is the percentage score given to quality and equals **100**

S_o = is the score for quality allocated to the submission under consideration

M_s = is the maximum possible score for quality in respect to the submission

The quality will comprise scores for the following based on criteria indicated in the respective tender returnables:

Description	Maximum Allocated Points
Experience of Key Personnel (Contracts Manager)	15
Experience of Key Personnel (Site Agent)	10
Experience of Key Personnel (Foreman)	5
Experience of Bidder with respect to similar projects	50
Financial Capacity	20
TOTAL MAXIMUM POINTS	100

The score for quality can be further broken down per individual criteria as follows:

Key Criteria Aspect	Basis for Points Allocation	Score	Max Score	Verification Method
Experience of Key Personnel (Contracts Manager)	Approved Degree/Diploma in built environment qualification and		15	Certified Qualification certificates and Curriculum Vitae to be attached with traceable references. Experience must be on water and sanitation projects
	Less than 4 years' experience	8		
	Between 5 - 7 years' relevant experience in the position.	12		
	8 and above years' relevant experience in the position	15		
	No qualification with minimum of 5 years' experience in the position	5		
	No qualification with 6 -9 years' experience in the position.	8		
	No qualification with 10 and above years' experience in the position	15		
Experience of Key Personnel (Site Agent)	Approved Degree/Diploma in built environment qualification and		10	Certified Qualification certificates and Curriculum Vitae to be attached with traceable references. Experience must be on water and sanitation projects
	Less than 4 years' experience	5		
	Between 5 - 9 years' relevant experience in the position.	7		
	10 and above years' relevant experience in the position	10		
	No qualification with minimum of 5 years' experience in the position	5		
	Between 6 - 9 years' relevant experience in the position.	7		
	10 and above years' relevant experience in the position	10		
Experience of Key Personnel (Foreman)	1 - 3 years' experience in the position	2	5	Curriculum Vitae to be attached with traceable references. Experience must be only on civil engineering projects specifically water and sanitation.
	4 - 6 years' experience in the position	3		
	7 - 9 years' experience in the position	4		
	10 and above years' experience in the position	5		
Experience of Tenderer in completed similar projects	0 - 1 Project	10	50	Appointment letters and Completion Certificates (for subcontracting attach also appointment letter of main contractor).
	2 - 3 projects	15		
	4 - 5 projects	20		
	6 - 7 projects	35		
	More than 8 projects	50		
Financial Capacity	Undoubted for the amount of your enquiry	A = 20	20	Rating by bank where account is held
	Good for tender amount quoted	B = 15		
	Average to good for the amount of tender enquiry, if strictly in the way of business	C = 10		
	Rating below good (D)	E-F = 8		

Tenderers that score less than 60% of the total score allowed for quality will not be considered further.

The objective of the Harry Gwala District Municipality's B-BBEE policy is to bring about meaningful transformation in the built environment industry through the following:

- Meaningful Economic Participation;
- Transfer of Technical, Management and Entrepreneurial Skills; and
- Creation of sustainable Black Enterprises

(b) Stage 1 -Price and Preferential Points

The financial offer will be scored using the following formula

Price Points: 80 Points Maximum

The following formula will be used to calculate the points for price in respect of tenders with a Rand value up to R50 000,000:-

$$Ps = 80 \left\{ 1 - \frac{(Pt - Pmin)}{Pmin} \right\}$$

Where:-

Ps = Points scored for price of tender under consideration

Pt = Rand value of offer tender consideration

Pmin = Rand value of lowest acceptable tender

The tender will be evaluated on the 80/20 Preferential Point System based on an estimated total annual cost of under R 50 million incl. VAT for this project

- (a) Price : 80 points
(b) B-BBEE status level of contribution : 20 points

Total Points : 100 points

(c) Preferences

Up to **20** points (for financial values up to R50 000 000) or **10** points (for financial values over R50 000 000) will be awarded to tenderers who are found to be eligible for the preference claimed.

Points will be awarded to Tenderers for attaining the BBBEE status level of contribution as per the Preferential Procurement Policy Framework Act, 2000: Preferential Procurement Regulations, 2011 as detailed below.

BBBEE Contributor	Status Level	Number of Points (90/10 Principle)	Number of Points (80/20 Principle)
	1	10	20
	2	9	18
	3	8	14
	4	6	12
	5	4	8
	6	3	6
	7	2	4
	8	1	2
Non-Compliant Contributor		0	0

(d) Example of Adjudication Schedule

A typical example of the tender evaluation process and schedule is shown in the table below.

STAGE 1	STAGE 2	STAGE 3	STAGE 4	STAGE 5		STAGE 6	STAGE 7	STAGE 8	STAGE 9
Name of Tenderer	Price Tendered	Is Tenderer Responsive	Has Tenderer Scored adequate Points for Functionality	Risk Assessment			Points Allocation		
				Tendered Time for Completion Realistic	Has Tenderer got the plant and equipment	Are Rates & Price Realistic	Points for Price	Points for BBBEE Status Level of Contribution	Total Points
A	50 000	Yes	Yes	6 Months	YES	NO	0	0	0
B	200 000	Yes	Yes	5 Months	YES	YES	80	2	82
C	210 000	Yes	Yes	6 Months	YES	YES	76.0	8	84.0
D	235 000	Yes	Yes	7 Months	YES	YES	66.0	5	83.8
E	235 000	Yes	Yes	5 Months	YES	YES	66.0	5	83.8
F	600 000	Yes	Yes	6 Months	YES	NO	0	0	0
G	240 000	No	N/A	N/A	YES	N/A	0	0	0

Calculation of Price Points - Tendered	Calculation of Development Points - Tendered
$Np = 80 \{1 - (\frac{P - P_{min}}{P_{min}})\}$ $Np = 80 \{1 - (\frac{210\,000 - 200\,000}{200\,000})\}$ $= 80 \times (1 - 0.05)$ $= 80 \times 0.95$ <p>Np = 76.0</p>	<p>BBBEE status level of contribution</p> <p>= 8 points</p>
TOTAL ADJUDICATION POINTS = 76.0 + 8 = 84.0 POINTS	

M.3 Bidder Submission Requirements

All bidders must provide the following information and certificates with their bids and may not consider any quotation or bid submitted by a service provider who fails to submit the following information:

- All potential or actual conflicts of interests
- The name of the entity or person
- Whether the owner is or has been in the service of the state in the previous 12 months
- If the provider is not a natural person, whether any of its directors, managers, principle shareholders or stakeholders is in the service of the state or has been in the previous 12 months
- Whether a spouse, child or parent of the provider or of a director, manager shareholder or stakeholder is in the service of the state or has been in the previous 12 months
- Tax reference numbers, including Tax, PAYE, UIF and SDL and VAT, if applicable
- Identification or company registration numbers
- A valid Tax clearance certificates issued by SARS
- BBEEE Certificate for tendering entity. For joint ventures, the BBEEE certificates for the individual JV members should be submitted.
- Registration with relevant bodies or controlling authorities if such registrations are mandatory
- Employment Equity Registration Numbers from the Department of Labour, if applicable
- Proof of registration and a letter of good standing from the Compensation Commissioner in compliance with COIDA Act.
- Proof that municipal rates, taxes and service charges accounts are in order

M.4 Adjudication Criteria

Adjudications will be conducted in accordance with the prescribed formulae as indicated in the Preferential Procurement Policy Framework Act and the Broad-Based Black Economic Empowerment Act and scorecards. Adjudication criteria will be clearly stated in the bid documents.

The award must be made to the bidder scoring the highest number of points unless objective criteria indicate that the award should be made to another bidder. The reasons for deviating from the prescribed norms and standards must be documented by the bid adjudication committee and reported immediately to the Accounting Officer. The Accounting Officer may at any stage, refer any recommendations made by either the bid evaluation or bid adjudication committees back to those committees for reconsideration.

M.5 Rejection / Disqualification Criteria

The Municipality may disqualify any offer or bid submitted for the following reasons:

- (i) The bidder failed to comply with all submission requirements as stated in the tender document.
- (ii) The entity or one of its directors is listed on National Treasury's data base as a person prohibited from doing business with the public sector
- (iii) There are levies for water & sanitation service charges from any Municipality by the entity or any of its directors that are in arrears for longer than 3 months unless credit arrangements have been made in terms of council policies.
- (iv) The entity has failed to perform satisfactorily on previous contracts with any Municipality or other organ of state, after that entity was given written notice that performance was unsatisfactory
- (v) Any of the directors committed a corrupt or fraudulent act in competing for a particular contract or in the execution of a contract
- (vi) An Official or other role player committed any corrupt or fraudulent act during the bidding process or the execution of a contract that benefited that person
- (vii) The entity or any of its directors abused the supply chain management system or committed any improper conduct in relation to such system
- (viii) Any director has been convicted for fraud or corruption during the past 5 years

- (ix) Has wilfully neglected, reneged on or failed to comply with any government, municipal or other public sector contract during the last 5 years
- (x) Misrepresentation of facts or information in the tender document submitted.
- (xi) Submission of two tender documents (from the same company) unless the other tender document is an alternative offer.
- (xii) Any persons whose tax matters have not been declared as being in order by the South African Revenue Services for awards in excess of R15, 000 Inc VAT.

M.6 Payments

Payment to the Contractor shall be made per work done to the satisfaction of the Engineer in line with GCC 2015 2nd Edition.

M.7 Assignment

The Service Provider may not cede or assign this contract or any moneys due or that may become due to it, without the prior written consent of the Municipality.

M.8 Joint Ventures

The Municipality will only accept Joint Venture agreements that are formed as a new legal entity and where an acceptable and legal agreement is submitted to the municipality. Any payments due to the Joint Venture will be made to the JV bank account.

M.9 Penalties (Construction Contracts and where Necessary)

For each and every order issued, the contractor must produce a detailed programme. Should the Contractor fail to complete the works within the specified period in the programme, an amount of R3 000.00 per calendar day shall be levied. Such monies shall be deducted from any monies due to the Contractor or which shall become due to the Contractor. The Harry Gwala District Municipality reserves the right to withdraw all sites awarded to him and issue these sites to another Contractor.

NATIONAL TREASURY

NO. R. 32

JANUARY 2017

**PREFERENTIAL PROCUREMENT POLICY FRAMEWORK ACT, 2000:
PREFERENTIAL PROCUREMENT REGULATIONS, 2017**

The Minister of Finance has, in terms of section 5 of the Preferential Procurement Policy Framework Act, 2000 (Act No. 5 of 2000), made the regulations set out in the Schedule.

**SCHEDULE
Preferential Procurement Regulations, 2017**

Contents

1. Definitions
2. Application
3. Identification of preference point system, designated sector, pre-qualification criteria, objective criteria and subcontracting
4. Prequalification criteria for preferential procurement
5. Tenders to be evaluated on functionality
6. 80/20 preference point system for acquisition of goods or services for Rand value equal to or above R30 000 and up to R50 million
7. 90/10 preference point system for acquisition of goods or services with Rand value above R50 million
8. Local production and content
9. Subcontracting as condition of tender
10. Criteria for breaking deadlock in scoring
11. Award of contracts to tenderers not scoring highest points
12. Subcontracting after award of tender
13. Cancellation of tender
14. Remedies
15. Circulars and guidelines
16. Repeal of Regulations and saving
17. Short title and commencement

Definitions

1. In these Regulations, unless the context indicates otherwise, any word or expression to which a meaning has been assigned in the Act must bear the meaning so assigned-

“B-BBEE” means broad-based black economic empowerment as defined in section 1 of the Broad-Based Black Economic Empowerment Act;

“B-BBEE status level of contributor” means the B-BBEE status of an entity in terms of a code of good practice on black economic empowerment issued in terms of section 9(1) of the Broad-Based Black Economic Empowerment Act;

“black designated groups” has the meaning assigned to it in the codes of good practice issued in terms of section 9(1) of the Broad-Based Black Economic Empowerment Act;

“black people” has the meaning assigned to it in section 1 of the Broad-Based Black Economic Empowerment Act;

“Broad-Based Black Economic Empowerment Act” means the Broad-Based Black Economic Empowerment Act, 2003 (Act No. 53 of 2003);

“co-operative” means a co-operative registered in terms of section 7 of the Cooperatives Act, 2005 (Act No. 14 of 2005);

“designated group” means-
(a) black designated groups;

(b) black people;
(c) women;
(d) people with disabilities; or
(e) small enterprises, as defined in section 1 of the National Small Enterprise Act, 1996 (Act No. 102 of 1996);

“designated sector” means a sector, sub-sector or industry or product designated in terms of regulation 8(1)(a);

“EME” means an exempted micro enterprise in terms of a code of good practice on black economic empowerment issued in terms of section 9(1) of the Broad-Based Black Economic Empowerment Act;

“functionality” means the ability of a tenderer to provide goods or services in accordance with specifications as set out in the tender documents;

“military veteran” has the meaning assigned to it in section 1 of the Military Veterans Act, 2011 (Act No. 18 of 2011);

“National Treasury” has the meaning assigned to it in section 1 of the Public Finance Management Act, 1999 (Act No. 1 of 1999);

“people with disabilities” has the meaning assigned to it in section 1 of the Employment Equity Act, 1998 (Act No. 55 of 1998);

“price” includes all applicable taxes less all unconditional discounts;

“proof of B-BBEE status level of contributor” means-

- (a) the B-BBEE status level certificate issued by an authorised body or person;
- (b) a sworn affidavit as prescribed by the B-BBEE Codes of Good Practice; or
- (c) any other requirement prescribed in terms of the Broad-Based Black Economic Empowerment Act;

“QSE” means a qualifying small business enterprise in terms of a code of good practice on black economic empowerment issued in terms of section 9(1) of the Broad-Based Black Economic Empowerment Act;

“Rand value” means the total estimated value of a contract in Rand, calculated at the time of the tender invitation;

“rural area” means-

- (a) a sparsely populated area in which people farm or depend on natural resources, including villages and small towns that are dispersed through the area; or
- (b) an area including a large settlement which depends on migratory labour and remittances and government social grants for survival, and may have a traditional land tenure system;

“stipulated minimum threshold” means the minimum threshold stipulated in terms of regulation 8(1)(b);

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

“township” means an urban living area that any time from the late 19th century until 27 April 1994, was reserved for black people, including areas developed for historically disadvantaged individuals post 27 April 1994;

“treasury” has the meaning assigned to it in section 1 of the Public Finance Management Act, 1999 (Act No. 1 of 1999); and

“youth” has the meaning assigned to it in section 1 of the National Youth Development Agency Act, 2008 (Act No. 54 of 2008).

Application

2. These Regulations apply to organs of state as envisaged in the definition of organ of state in section 1 of the Act.¹

Identification of preference point system, designated sector, pre-qualification criteria, objective criteria and subcontracting

3. An organ of state must-

- (a) determine and stipulate in the tender documents-
 - (i) the preference point system applicable to the tender as envisaged in regulation 6 or 7; or
 - (ii) if it is unclear which preference point system will be applicable, that either the 80/20 or 90/10 preference point system will apply and that the lowest acceptable tender will be used to determine the applicable preference point system;
- (b) determine whether pre-qualification criteria are applicable to the tender as envisaged in regulation 4;
- (c) determine whether the goods or services for which a tender is to be invited, are in a designated sector for local production and content as envisaged in regulation 8;
- (d) determine whether compulsory subcontracting is applicable to the tender as envisaged in regulation 9; and
- (e) determine whether objective criteria are applicable to the tender as envisaged in regulation 11.

Pre-qualification criteria for preferential procurement

4.(1) If an organ of state decides to apply pre-qualifying criteria to advance certain designated groups, that organ of state must advertise the tender with a specific tendering condition that only one or more of the following tenderers may respond-

- (a) a tenderer having a stipulated minimum B-BBEE status level of contributor;
- (b) an EME or QSE;
- (c) a tenderer subcontracting a minimum of 30% to-
 - (i) an EME or QSE which is at least 51% owned by black people;
 - (ii) an EME or QSE which is at least 51% owned by black people who are youth;
 - (iii) an EME or QSE which is at least 51% owned by black people who are women;
 - (iv) an EME or QSE which is at least 51% owned by black people with disabilities;
 - (v) an EME or QSE which is 51% owned by black people living in rural or underdeveloped areas or townships;
 - (vi) a cooperative which is at least 51% owned by black people;
 - (vii) an EME or QSE which is at least 51% owned by black people who are military veterans;
 - (viii) an EME or QSE.

(2) A tender that fails to meet any pre-qualifying criteria stipulated in the tender documents is an unacceptable tender.

Tenders to be evaluated on functionality

5.(1) An organ of state must state in the tender documents if the tender will be evaluated on functionality.

(2) The evaluation criteria for measuring functionality must be objective.

(3) The tender documents must specify-

- (a) the evaluation criteria for measuring functionality;
- (b) the points for each criteria and, if any, each sub-criterion; and
- (c) the minimum qualifying score for functionality.

¹The definition of "organ of state" in section 1 of the Act in paragraph (a) to (e) includes-

- a national or provincial department as defined in the Public Finance Management Act, 1999;
- a municipality as contemplated in the Constitution;
- a constitutional institution as defined in the Public Finance Management Act;
- Parliament;
- a provincial legislature.

Paragraph (f) of the definition of organ of state in section 1 of the Act includes any other institution or category of institutions included in the definition of "organ of state" in section 239 of the Constitution and recognised by the Minister by notice in the *Government Gazette* as an institution or category of institutions to which the Act applies. Government Notice R. 501 of 8 June 2011 recognises, with effect from 7 December 2011, all public entities listed in Schedules 2 and 3 to the Public Finance Management Act, 1999, as institutions to which the Act applies. Note should be taken of notices

issued from time to time in terms of paragraph (f) of this definition. The application of these Regulations is also subject to applicable exemptions approved in terms of section 3 of the Act.

- (4) The minimum qualifying score for functionality for a tender to be considered further-
 - (a) must be determined separately for each tender; and
 - (b) may not be so-
 - (i) low that it may jeopardise the quality of the required goods or services; or
 - (ii) high that it is unreasonably restrictive.
- (5) Points scored for functionality must be rounded off to the nearest two decimal places.
- (6) A tender that fails to obtain the minimum qualifying score for functionality as indicated in the tender documents is not an acceptable tender.
- (7) Each tender that obtained the minimum qualifying score for functionality must be evaluated further in terms of price and the preference point system and any objective criteria envisaged in regulation 11.

80/20 preference point system for acquisition of goods or services for Rand value equal to or above R30 000 and up to R50 million

6.(1) The following formula must be used to calculate the points out of 80 for price in respect of a tender with a Rand value equal to or above R30 000 and up to a Rand value of R50 million, inclusive of all applicable taxes:

$$Ps = 80 \left\{ 1 - \left(\frac{Pt - Pmin}{Pmin} \right) \right\}$$

Where:-

- Ps = Points scored for price of tender under consideration
 Pt = Rand value of offer tender consideration
 Pmin = Rand value of lowest acceptable tender

(2) The following table must be used to calculate the score out of 20 for BBEE:

BBEE Status Level Contributor Number of Points	Number of Points
1	20
2	18
3	14
4	12
5	8
6	6
7	4
8	2
Non-Compliant Contributor	0

- (3) A tenderer must submit proof of its B-BBEE status level of contributor.
- (4) A tenderer failing to submit proof of B-BBEE status level of contributor or is a non-compliant contributor to B-BBEE may not be disqualified, but-
 - (a) may only score points out of 80 for price; and
 - (b) scores 0 points out of 20 for B-BBEE.
- (5) A tenderer may not be awarded points for B-BBEE status level of contributor if the tender documents indicate that the tenderer intends subcontracting more than 25% of the value of the contract to any other person not qualifying for at least the points that the tenderer qualifies for, unless the intended subcontractor is an EME that has the capability to execute the subcontract.
- (6) The points scored by a tenderer for B-BBEE in terms of subregulation (2) must be added to the points scored for price under subregulation (1).
- (7) The points scored must be rounded off to the nearest two decimal places.
- (8) Subject to subregulation (9) and regulation 11, the contract must be awarded to the tenderer scoring the highest points.
- (9)
 - (a) If the price offered by a tenderer scoring the highest points is not marketrelated, the organ of state may not award the contract to that tenderer.
 - (b) The organs of state may-
 - (i) negotiate a market-related price with the tenderer scoring the highest points or cancel the tender;

- (ii) if the tenderer does not agree to a market-related price, negotiate a market-related price with the tenderer scoring the second highest points or cancel the tender;
- (iii) if the tenderer scoring the second highest points does not agree to a market-related price, negotiate a market-related price with the tenderer scoring the third highest points or cancel the tender.
- (c) If a market-related price is not agreed as envisaged in paragraph (b)(iii), the organ of state must cancel the tender.

90/10 preference point system for acquisition of goods or services with Rand value above R50 million

7.(1) The following formula must be used to calculate the points out of 90 for price in respect of a tender with a Rand value above R50 million, inclusive of all applicable taxes:

Where

- Ps = Points scored for price of tender under consideration;
 Pt = Price of tender under consideration; and
 Pmin = Price of lowest acceptable tender.

(2) The following table must be used to calculate the points out of 10 for BBEE:

BBEE Status Level Contributor Number of Points	Number of Points
1	10
2	9
3	6
4	5
5	4
6	3
7	2
8	1
Non-Compliant Contributor	0

- (3) A tenderer must submit proof of its B-BBEE status level of contributor.
- (4) A tenderer failing to submit proof of B-BBEE status level of contribution or is a non-compliant contributor to B-BBEE may not be disqualified, but-
 - (a) may only score points out of 90 for price; and
 - (b) scores 0 points out of 10 for B-BBEE.
- (5) A tenderer may not be awarded points for B-BBEE status level of contributor if the tender documents indicate that the tenderer intends subcontracting more than 25% of the value of the contract to any other person not qualifying for at least the points that the tenderer qualifies for, unless the intended subcontractor is an EME that has the capability to execute the subcontract.
- (6) The points scored by a tenderer for B-BBEE contribution in terms of subregulation (2) must be added to the points scored for price under subregulation (1).
- (7) The points scored must be rounded off to the nearest two decimal places.
- (8) Subject to subregulation (9) and regulation 11, the contract must be awarded to the tenderer scoring the highest points.
- (9)
 - (a) If the price offered by a tenderer scoring the highest points is not marketrelated, the organ of state may not award the contract to that tenderer.
 - (b) The organs of state may-
 - (i) negotiate a market-related price with the tenderer scoring the highest points or cancel the tender;
 - (ii) if the tenderer does not agree to a market-related price, negotiate a market-related price with the tenderer scoring the second highest points or cancel the tender;
 - (iii) if the tenderer scoring the second highest points does not agree to a market-related price, negotiate a market-related price with the tenderer scoring the third highest points or cancel the tender.
 - (c) If a market-related price is not agreed as envisaged in paragraph (b)(iii), the organ of state must cancel the tender.

Local production and content

- 8.(1) The Department of Trade and Industry may, in consultation with the National Treasury-
- (a) designate a sector, sub-sector or industry or product in accordance with national development and industrial policies for local production and content, where only locally produced services or goods or locally manufactured goods meet the stipulated minimum threshold for local production and content, taking into account economic and other relevant factors; and
 - (b) stipulate a minimum threshold for local production and content.
- (2) An organ of state must, in the case of a designated sector, advertise the invitation to tender with a specific condition that only locally produced goods or locally manufactured goods, meeting the stipulated minimum threshold for local production and content, will be considered.
- (3) The National Treasury must inform organs of state of any designation made in terms of regulation 8(1) through a circular.
- (4) (a) If there is no designated sector, an organ of state may include, as a specific condition of the tender, that only locally produced services or goods or locally manufactured goods with a stipulated minimum threshold for local production and content, will be considered.
- (b) The threshold referred to in paragraph (a) must be in accordance with the standards determined by the Department of Trade and Industry in consultation with the National Treasury.
- (5) A tender that fails to meet the minimum stipulated threshold for local production and content is an unacceptable tender.

Subcontracting as condition of tender

- 9.(1) If feasible to subcontract for a contract above R30 million, an organ of state must apply subcontracting to advance designated groups.
- (2) If an organ of state applies subcontracting as contemplated in subregulation (1), the organ of state must advertise the tender with a specific tendering condition that the successful tenderer must subcontract a minimum of 30% of the value of the contract to-
- (a) an EME or QSE;
 - (b) an EME or QSE which is at least 51% owned by black people;
 - (c) an EME or QSE which is at least 51% owned by black people who are youth;
 - (d) an EME or QSE which is at least 51% owned by black people who are women;
 - (e) an EME or QSE which is at least 51% owned by black people with disabilities;
 - (f) an EME or QSE which is 51% owned by black people living in rural or underdeveloped areas or townships;
 - (g) a cooperative which is at least 51% owned by black people;
 - (h) an EME or QSE which is at least 51% owned by black people who are military veterans; or
 - (i) more than one of the categories referred to in paragraphs (a) to (h).
- (3) The organ of state must make available the list of all suppliers registered on a database approved by the National Treasury to provide the required goods or services in respect of the applicable designated groups mentioned in subregulation (2) from which the tenderer must select a supplier.

Criteria for breaking deadlock in scoring

- 10.(1) If two or more tenderers score an equal total number of points, the contract must be awarded to the tenderer that scored the highest points for B-BBEE.
- (2) If functionality is part of the evaluation process and two or more tenderers score equal total points and equal preference points for B-BBEE, the contract must be awarded to the tenderer that scored the highest points for functionality.
- (3) If two or more tenderers score equal total points in all respects, the award must be decided by the drawing of lots.

Award of contracts to tenderers not scoring highest points

- 11.(1) A contract may be awarded to a tenderer that did not score the highest points only in accordance with section 2(1)(f) of the Act.
- (2) If an organ of state intends to apply objective criteria in terms of section 2(1)(f) of the Act, the organ of state must stipulate the objective criteria in the tender documents.

Subcontracting after award of tender

- 12.(1) A person awarded a contract may only enter into a subcontracting arrangement with the approval of the organ of state.
- (2) A person awarded a contract in relation to a designated sector, may not subcontract in such a manner that the local production and content of the overall value of the contract is reduced to below the stipulated minimum threshold.
- (3) A person awarded a contract may not subcontract more than 25% of the value of the contract to any other enterprise that does not have an equal or higher B-BBEE status level of contributor than the person concerned, unless the contract is subcontracted to an EME that has the capability and ability to execute the subcontract.

Cancellation of tender

13. (1) An organ of state may, before the award of a tender, cancel a tender invitation if-
- (a) due to changed circumstances, there is no longer a need for the goods or services specified in the invitation;
 - (b) funds are no longer available to cover the total envisaged expenditure;
 - (c) no acceptable tender is received; or
 - (d) there is a material irregularity in the tender process.
- (2) The decision to cancel a tender invitation in terms of subregulation (1) must be published in the same manner in which the original tender invitation was advertised.
- (3) An organ of state may only with the prior approval of the relevant treasury cancel a tender invitation for the second time.

Remedies

- 14.(1) Upon detecting that a tenderer submitted false information regarding its BBBEE status level of contributor, local production and content, or any other matter required in terms of these Regulations which will affect or has affected the evaluation of a tender, or where a tenderer has failed to declare any subcontracting arrangements, the organ of state must-
- (a) inform the tenderer accordingly;
 - (b) give the tenderer an opportunity to make representations within 14 days as to why-
 - (i) the tender submitted should not be disqualified or, if the tender has already been awarded to the tenderer, the contract should not be terminated in whole or in part;
 - (ii) if the successful tenderer subcontracted a portion of the tender to another person without disclosing it, the tenderer should not be penalised up to 10 percent of the value of the contract; and
 - (iii) the tenderer should not be restricted by the National Treasury from conducting any business for a period not exceeding 10 years with any organ of state; and
 - (c) if it concludes, after considering the representations referred to in subregulation (1)(b), that-
 - (i) such false information was submitted by the tenderer-
 - (aa) disqualify the tenderer or terminate the contract in whole or in part; and
 - (bb) if applicable, claim damages from the tenderer; or
 - (ii) the successful tenderer subcontracted a portion of the tender to another person without disclosing, penalise the tenderer up to 10 percent of the value of the contract.
- (2) (a) An organ of state must-
- (i) inform the National Treasury, in writing, of any actions taken in terms of subregulation (1);
 - (ii) provide written submissions as to whether the tenderer should be restricted from conducting business with any organ of state; and
 - (iii) submit written representations from the tenderer as to why that tenderer should not be restricted from conducting business with any organ of state.
- (b) The National Treasury may request an organ of state to submit further information pertaining to subregulation (1) within a specified period.
- (3) The National Treasury must-
- (a) after considering the representations of the tenderer and any other relevant information, decide whether to restrict the tenderer from doing business with any organ of state for a period not exceeding 10 years; and
 - (b) maintain and publish on its official website a list of restricted suppliers.

Circulars and guidelines

15. The National Treasury may issue-

- (a) a circular to inform organs of state of any matter pertaining to these Regulations; or
- (b) a guideline to assist organs of state with the implementation of any provision of these Regulations.

Repeal of Regulations and saving

16.(1) Subject to this regulation, the Preferential Procurement Regulations, 2011, published in Government Notice No R. 502 of 8 June 2011 (herein called "the 2011 Regulations), are hereby repealed with effect from the date referred to in regulation 17.

(2) Any sector designated and minimum threshold determined for local production and content for purposes of regulation 9 of the 2011 Regulations and in force immediately before the repeal of the 2011 Regulations, are regarded as having been done under regulation 8(1) of these Regulations.

(3) Any tender advertised before the date referred to in regulation 17 must be dealt with in terms of the 2011 Regulations.

Short title and commencement

17. These Regulations are called the Preferential Procurement Regulations, 2017 and take effect on 1 April 2017.

FORM N: MBD4 Form

MBD 4

DECLARATION OF INTEREST

1. No bid will be accepted from persons in the service of the state¹.
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.
- 3 In order to give effect to the above, the following questionnaire must be completed and submitted with the bid.

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

3.2 Identity Number:

3.3 Position occupied in the Company (director, trustee, hareholder²):.....

3.4 Company Registration Number:

3.5 Tax Reference Number:.....

3.6 VAT Registration Number:

3.7 The names of all directors / trustees / shareholders members, their individual identity numbers and state employee numbers must be indicated in paragraph 4 below.

3.8 Are you presently in the service of the state? **YES / NO**

3.8.1 If yes, furnish particulars.

.....

¹MSCM Regulations: "in the service of the state" means to be –

- (a) a member of –
 - (i) any municipal council;
 - (ii) any provincial legislature; or
 - (iii) the national Assembly or the national Council of provinces;
- (b) a member of the board of directors of any municipal entity;
- (c) an official of any municipality or municipal entity;
- (d) an employee of any national or provincial department, national or provincial public entity or constitutional institution within the meaning of the Public Finance Management Act, 1999 (Act No.1 of 1999);
- (e) a member of the accounting authority of any national or provincial public entity; or
- (f) an employee of Parliament or a provincial legislature.

² 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.

3.9 Have you been in the service of the state for the past twelve months? **YES / NO**

3.9.1 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**

3.10.1 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**

3.11.1 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**

3.12.1 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**

3.13.1 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**

3.14.1 If yes, furnish particulars:

.....

.....

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

Full Name	Identity Number	State Employee Number

.....
Signature

.....
Date

.....
Capacity

.....
Name of Bidder

.....

FORM O: 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:

1 Are you by law required to prepare annual financial statements for auditing? YES / NO

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 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? YES / NO

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.

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

3 Has any contract been awarded to you by an organ of state during the past five years, including particulars of any material non-compliance or dispute concerning the execution of such contract? YES / NO

3.1 If yes, furnish particulars

.....
.....

- | | | |
|---|---|----------|
| 4 | Will any portion of goods or services be sourced from outside the Republic, and, if so, what portion and whether any portion of payment from the municipality / municipal entity is expected to be transferred out of the Republic? | YES / NO |
|---|---|----------|

4.1 If yes, furnish particulars

.....
.....

CERTIFICATION

I, THE UNDERSIGNED (NAME)
CERTIFY THAT THE INFORMATION FURNISHED ON THIS DECLARATION FORM IS CORRECT. I
ACCEPT THAT THE STATE MAY ACT AGAINST ME SHOULD THIS DECLARATION PROVE TO BE
FALSE.

.....
Signature

.....
Date

.....
Position

.....
Name of Bidder

MBD6.1

**PREFERENCE POINTS CLAIM FORM IN TERMS OF THE PREFERENTIAL
PROCUREMENT REGULATIONS 2017**

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

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

1. GENERAL CONDITIONS

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

- the 80/20 system for requirements from R 30 000 up to R50 000 000 (all applicable taxes included); and
- the 90/10 system for requirements with value above R50 000 000 (all applicable taxes included).

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

1.3 Preference points for this bid shall be awarded for:

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

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

	POINTS
1.3.1.1 PRICE	80
1.3.1.2 B-BBEE STATUS LEVEL OF CONTRIBUTION	20
Total points for Price and B-BBEE must not exceed	100
1.4 Failure on the part of a bidder to fill in and/or to sign this form and submit a B-BBEE Verification Certificate from a Verification Agency accredited by the South African Accreditation System (SANAS) or a Registered Auditor approved by the Independent Regulatory Board of Auditors (IRBA) or an Accounting Officer as contemplated in the Close Corporation Act (CCA) together with the bid, will be interpreted to mean that preference points for B-BBEE status level of contribution are not claimed.	
1.5. The purchaser reserves the right to require of a bidder, either before a bid is adjudicated or at any time subsequently, to substantiate any claim in regard to preferences, in any manner required by the purchaser.	

MBD 6.2

DECLARATION CERTIFICATE FOR LOCAL PRODUCTION AND CONTENT

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

Before completing this declaration, bidders must study the General Conditions, Definitions, Directives applicable in respect of Local Content as prescribed in the Preferential Procurement Regulations, 2011 and the South African Bureau of Standards (SABS) approved technical specification number SATS 1286:201x.

1. General Conditions

- 1.1. Preferential Procurement Regulations, 2011 (Regulation 9.(1) and 9.(3) make provision for the promotion of local production and content.
- 1.2. Regulation 9.(1) prescribes that in the case of designated sectors, where in the award of bids local production and content is of critical importance, such bids must be advertised with the specific bidding condition that only locally produced goods, services or works or locally manufactured goods, with a stipulated minimum threshold for local production and content will be considered.
- 1.3. Regulation 9.(3) prescribes that where there is no designated sector, a specific bidding condition may be included, that only locally produced services, works or goods or locally manufactured goods with a stipulated minimum threshold for local production and content, will be considered.
- 1.4. Where necessary, for bids referred to in paragraphs 1.2 and 1.3 above, a two stage bidding process may be followed, where the first stage involves a minimum threshold for local production and content and the second stage price and B-BBEE.
- 1.5. A person awarded a contract in relation to a designated sector, may not sub-contract in such a manner that the local production and content of the overall value of the contract is reduced to below the stipulated minimum threshold.
- 1.6. The local content (LC) as a percentage of the bid price must be calculated in accordance with the SABS approved technical specification number SATS 1286: 201x as follows:

$$LC = 1 - \left(\frac{x}{y} \right) \times 100$$

Where

x imported content

y bid price excluding value added tax (VAT)

Prices referred to in the determination of x must be converted to Rand (ZAR) by using the exchange rate published by the South African Reserve Bank (SARB) at 12:00 on the date, one week (7 calendar days) prior to the closing date of the bid as required in paragraph 4.1 below.

- 1.7. A bid will be disqualified if:

- the bidder fails to achieve the stipulated minimum threshold for local production and content indicated in paragraph 3 below; and.
- this declaration certificate is not submitted as part of the bid documentation.

2. Definitions

- 2.1. **“bid”** includes advertised competitive bids, written price quotations or proposals;
- 2.2. **“bid price”** price offered by the bidder, excluding value added tax (VAT);
- 2.3. **“contract”** means the agreement that results from the acceptance of a bid by an organ of state;
- 2.4. **“designated sector”** means a sector, sub-sector or industry that has been designated by the Department of Trade and Industry in line with national development and industrial policies for local production, where only locally produced services, works or goods or locally manufactured goods meet the stipulated minimum threshold for local production and content;
- 2.5. **“duly sign”** means a Declaration Certificate for Local Content that has been signed by the Chief Financial Officer or other legally responsible person nominated in writing by the Chief Executive, or senior member / person with management responsibility (close corporation, partnership or individual).
- 2.6. **“imported content”** means that portion of the bid price represented by the cost of components, parts or materials which have been or are still to be imported (whether by the supplier or its subcontractors) and which costs are inclusive of the costs abroad, plus freight and other direct importation costs, such as landing costs, dock duties, import duty, sales duty or other similar tax or duty at the South African port of entry;
- 2.7. **“local content”** means that portion of the bid price which is not included in the imported content, provided that local manufacture does take place;
- 2.8. **“stipulated minimum threshold”** means that portion of local production and content as determined by the Department of Trade and Industry; and
- 2.9. **“sub-contract”** means the primary contractor’s assigning, leasing, making out work to, or employing another person to support such primary contractor in the execution of part of a project in terms of the contract.

3. The stipulated minimum threshold(s) for local production and content for this bid is/are as follows:

<u>Description of services, works or goods</u>	<u>Stipulated minimum threshold</u>
_____	_____ %
_____	_____ %
_____	_____ %

4. Does any portion of the services, works or goods offered

have any imported content?

YES / NO

- 4.1 If yes, the rate(s) of exchange to be used in this bid to calculate the local content as prescribed in paragraph 1.6 of the general conditions must be the rate(s) published by the SARB for the specific currency at 12:00 on the date, one week (7 calendar days) prior to the closing date of the bid.

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

Indicate the rate(s) of exchange against the appropriate currency in the table below:

Currency	Rates of exchange
US Dollar	
Pound Sterling	
Euro	
Yen	
Other	

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

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

IN RESPECT OF BID No.
ISSUED BY: (Procurement Authority / Name of Municipality / Municipal Entity):
.....

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

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

- (a) The facts contained herein are within my own personal knowledge.
- (b) I have satisfied myself that the goods/services/works to be delivered in terms of the above-specified bid comply with the minimum local content requirements as specified in the bid, and as measured in terms of SATS 1286.
- (c) The local content has been calculated using the formula given in clause 3 of SATS 1286, the rates of exchange indicated in paragraph 4.1 above and the following figures:

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

If the bid is for more than one product, a schedule of the local content by product shall be attached.

- (d) I accept that the Procurement Authority / Municipality /Municipal Entity has the right to request that the local content be verified in terms of the requirements of SATS 1286.
- (e) I understand that the awarding of the bid is dependent on the accuracy of the information furnished in this application. I also understand that the submission of incorrect data, or data that are not verifiable as described in SATS 1286, may result in the Procurement Authority / Municipal / Municipal Entity imposing any or all of the remedies as provided for in Regulation 13 of the Preferential Procurement Regulations, 2011 promulgated under the Policy Framework Act (PPPFA), 2000 (Act No. 5 of 2000).

SIGNATURE: _____

DATE: _____

WITNESS No. 1 _____

DATE: _____

WITNESS No. 2 _____

DATE: _____

MBD 6.2 Local Content Declaration Summary Schedule - Annexure C

SATS 1286.2011

Annexure C

Local Content Declaration - Summary Schedule

(C1) Tender No. ICLM DB 492

(C2) Tender description: Provision of ZMPC Spreaders Mid-Life Refurbishment

(C3) Designated product(s) Valves Products and Actuators (70%)

(C4) Tender Authority:

(C5) Tendering Entity name:

(C6) Tender Exchange Rate: Pulla EU GBP

(C7) Specified local content %

Note: VAT to be excluded from all calculations

Tender item no's	List of items	Tender price - each (excl VAT)	Exempted imported value	Tender value net of exempted imported content	Imported value	Local value	Local content % (per item)
(C8)	(C9)	(C10)	(C11)	(C12)	(C13)	(C14)	(C15)
1	All valves and cylinders						
2	Hydraulic oil						

Tender Qty	Total tender value	Total exempted imported content	Total imported content
(C16)	(C17)	(C18)	(C19)

Signature of tenderer from Annex B _____

Date: _____

(C20) Total tender value: R 0

(C21) Total Exempt imported content: R 0

(C22) Total Tender value net of exempt imported content: R 0

(C23) Total Imported content: R 0

(C24) Total local content: R 0

(C25) Average local content % of tender: _____

(D1)	Tender No.				Note: VAT to be excluded from all calculations
(D2)	Tender description:				
(D3)	Designated Products:				
(D4)	Tender Authority:				
(D5)	Tendering Entity name:				
(D6)	Tender Exchange Rate:	Pula		EU R 9,00 GBP R 12,00	

Calculation of imported content

(D19) Total exempt imported value	R 0
This total must correspond with Annex C - C 21	

Calculation of imported content

(D32) Total imported value by tenderer	R 0
--	-----

Calculation of imported content

(D45) Total imported value by 3rd party	R 0
---	-----

Calculation of foreign currency payments

Summary of payments

(D52) Total of foreign currency payments declared by tenderer and/or 3rd party	
--	--

(D53) Total of imported content & foreign currency payments - (D32), (D45) & (D52) above	R 0
--	-----

This total must correspond with
Annex C - C 23

FAILURE TO FULLY COMPLETE, DECLARE, SIGN & DATE THIS ANNEXURE E MAY RESULT IN THE BID BEING NON-RESPONSIVE & DISQUALIFIED

(E1)	Tender No.	HGDM789/
(E2)	Tender description:	Hostela Mncweba, Bovini
(E3)	Designated products:	
(E4)	Tender Authority:	
(E5)	Tendering Entity name:	

Local Products (Goods, Services and Works)	Description of items purchased	Local suppliers	Value
	(E6)	(E7)	(E8)
(E9) Total local products (Goods, Services and Works)			R.O

(E9) Total local products (Goods, Services and Works)	R 0
---	-----

(E10)	Manpower costs (Tenderer's manpower cost)	R 0
-------	--	-----

(E11)	Factory overheads (Rental, depreciation & amortisation, utility costs, consumables etc.)	R 0
-------	--	-----

(E12)	Administration overheads and mark-up	(Marketing, insurance, financing, interest etc.)	R 0
-------	--------------------------------------	---	-----

(E13) Total local content	R 0
---------------------------	-----

This total must correspond with Annex C - C24

Signature of tenderer from Annex B

Date: _____

FORM P: MBD 9

CERTIFICATE OF INDEPENDENT BID DETERMINATION

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

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

² Bid rigging (or collusive bidding) occurs when businesses, that would otherwise be expected to 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.

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: _____ that:

(Name of Bidder)

1. I have read and I understand the contents of this Certificate;
2. I understand that the accompanying bid will be disqualified if this Certificate is found not to be true and complete in every respect;
3. I am authorized by the bidder to sign this Certificate, and to submit the accompanying bid, on behalf of the bidder;
4. Each person whose signature appears on the accompanying bid has been authorized by the bidder to determine the terms of, and to sign, the bid, on behalf of the bidder;
5. For the purposes of this Certificate and the accompanying bid, I understand that the word "competitor" shall include any individual or organization, other than the bidder, whether or not affiliated with the bidder, who:
 - a) has been requested to submit a bid in response to this bid invitation;
 - b) could potentially submit a bid in response to this bid invitation, based on their qualifications, abilities or experience; and
 - c) provides the same goods and services as the bidder and/or is in the same line of business as the bidder
6. The bidder has arrived at the accompanying bid independently from, and without consultation, communication, agreement or arrangement with any competitor. However communication between partners in a joint venture or consortium³ will not be construed as collusive bidding.
7. In particular, without limiting the generality of paragraphs 6 above, there has been no consultation, communication, agreement or arrangement with any competitor regarding:
 - a) prices;

- b) geographical area where product or service will be rendered (market allocation)
 - c) methods, factors or formulas used to calculate prices;
 - d) the intention or decision to submit or not to submit, a bid;
 - e) the submission of a bid which does not meet the specifications and conditions of the bid; or
 - f) bidding with the intention not to win the bid.
8. In addition, there have been no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications and conditions or delivery particulars of the products or services to which this bid invitation relates.
9. The terms of the accompanying bid have not been, and will not be, disclosed by the bidder, directly or indirectly, to any competitor, prior to the date and time of the official bid opening or of the awarding of the contract.

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

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

.....
Signature

.....
Date

.....
Position

.....
Name of Bidder

FORM Q: BBBEE Certificate, Company Registration Documents and Other Documents

Tenderers are to attach certified copies of the following documentation to this page:

- BBBEE Certificate
- Company Registration Documents
- Identity Documents of Company Shareholders/members.
- Proof of Registration on Central Supplier Database

Tenderers are to note that failure to submit the above documentation may result in the non-award of other preference points during tender evaluation

FORM R: Joint Venture Disclosure Form

EMPLOYER : Harry Gwala District Municipality

CONTRACT DESCRIPTION : Construction of approximately 24KM of sewer mains and 334 erf connections with toilet top structures in Ibisi.

CONTRACT NUMBER : HGDM 788/HGDM2022

PROJECT REFERENCE NUMBER :

- Note:
- 1) This form needs not be completed for Joint Ventures which have targeted enterprise partners.
 - 2) All the information requested must be filled in the spaces provided. If additional space is required, additional sheets may be attached.
 - 3) A copy of the joint venture agreement must be attached to this form. In order to demonstrate the targeted enterprise partner's share in the ownership, control, management responsibilities, risks and profits of the joint venture, the proposed joint venture agreement must include specific details relating to:
 - i) The contributions of capital and equipment
 - ii) Work items to be performed by the targeted enterprise partner's own forces.
 - iii) Work items to be performed under the supervision of the targeted enterprise partner.
 - iv) The commitment of management, supervisory and operative personnel employed by the targeted enterprise partner to be dedicated to the performance of the Contract.
 - 4) Copies of all written agreements between partners concerning the contract must be attached to this form including those which relate to ownership options and to restrictions/limits regarding ownership and control.
 - 5) Targeted enterprise partners must each complete an Enterprise Declaration Affidavits.

JOINT VENTURE PARTICULARS

Name : _____

Postal address : _____

Physical address : _____

Telephone : _____ Fax : _____

IDENTITY OF EACH NON-TARGETED ENTERPRISE PARTNERS

Name : _____

Postal address : _____

Physical address : _____

Telephone : _____ Fax : _____

Contact Person : _____

(Continue as required for further non-targeted enterprise partners)

Name : _____

Postal address : _____

Physical address : _____

Telephone : _____ Fax : _____

Contact Person : _____

IDENTITY OF EACH TARGETED ENTERPRISE PARTNER

Name : _____
Postal address : _____
Physical address : _____
Telephone : _____ Fax : _____
Contact Person : _____

Name : _____
Postal address : _____
Physical address : _____
Telephone : _____ Fax : _____
Contact Person : _____

Name : _____
Postal address : _____
Physical address : _____
Telephone : _____ Fax : _____
Contact Person : _____

DESCRIPTION OF THE ROLE OF THE TARGETED PARTNERS IN THE JOINT VENTURE

OWNERSHIP OF THE JOINT VENTURE

a)	Percentage Ownership in respect of	:	Targeted Enterprises	%	Targeted Enterprises	%
b)	Profit and Loss Sharing	:	Targeted Enterprises	%	Targeted Enterprises	%
c)	Initial Capital Contribution	:	Targeted Enterprises	R	Targeted Enterprises	R
d)	Ongoing Capital Contribution	:	Targeted Enterprises	R	Targeted Enterprises	R
e)	Major Plant and Equipment Contribution	:	Targeted Enterprises		Targeted Enterprises	

RECENT CONTRACTS EXECUTED BY PARTNERS IN THEIR OWN RIGHT OR AS PARTNERS IN OTHER JOINT VENTURES

Targeted Enterprise Partners

1. : _____
2. : _____
3. : _____
4. : _____
5. : _____

Non-Targeted Enterprise Partners

1. : _____
2. : _____
3. : _____
4. : _____
5. : _____

CONTROL AND PARTICIPATION IN THE JOINT VENTURE

(Identify by name and firm those individuals who are, or will be, responsible for, and have authority to engage in the relevant management functions and policy and decision making, indicating any limitations in their authority e.g. co-signature requirements and Rand limits).

Function	Targeted Enterprise Partner		Non-Targeted Enterprise	
	Enterprise	Name of Person	Enterprise	Name of Person
Cheque Signing				
Authority to enter into contracts on behalf of the Joint Venture				
Signing, co-signing and/or collateralizing of loans				
Acquisition of lines of credit				
Acquisition of performance bonds				
Negotiating and signing labour agreements				

MANAGEMENT OF CONTRACT PERFORMANCE

(Fill in the name and firm of the responsible person).

Function	Targeted Enterprise Partner		Non-Targeted Enterprise	
	Enterprise	Name of Person	Enterprise	Name of Person
Supervision of field operations				
Major purchasing				
Estimating				
Technical management				

MANAGEMENT AND CONTROL OF JOINT VENTURE

a) Managing Partner : _____

b) What authority does each partner have to commit or obligate the other to financial institutions, insurance companies, suppliers, subcontractors and /or other parties participating in the execution of the contemplated works?

Partner	Targeted Enterprise Status		Authority Status	
	YES	NO	YES	NO

PERSONNEL

- a. State the approximate number of operative personnel (by trade/ function/ discipline) needed to perform the Joint Venture work under the contract.

TRADE/FUNCTION/	Total Qty Required	Qty supplied by Targeted Enterprise	Qty supplied by non-Targeted Enterprise

- b) Name of individual who will be responsible for hiring Joint Venture employees :

- c) Name of individual who will be responsible for preparation of Joint Venture payrolls :

CONTROL AND STRUCTURE OF THE JOINT VENTURE

Briefly describe the manner in which the Joint Venture is structured and controlled.

The undersigned warrants that he/she is duly authorised to sign this Joint Venture Disclosure Form and affirms that the foregoing statements are correct and include all material information necessary to identify and explain the terms and operations of the Joint Venture and the intended participation of each partner in the undertaking.

The undersigned further covenants and agrees to provide the Employer with complete and accurate information regarding actual Joint Venture work and the payment therefore, and any proposed changes in any provisions of the Joint Venture agreement, and to permit the audit and examination of the books, records and files of the Joint Venture, or those of each partner relevant to the Joint Venture, by duly authorised representatives of the Employer.

Signature : _____

Name : _____

Duly authorised to sign on behalf of : _____

Address : _____

Telephone : _____

Fax : _____

Date : _____

IBISI SEWER RETICULATION

CONTRACT N°.: HGDM 788/HGDM/2022

**CONSTRUCTION OF APPROXIMATELY 24KMOF SEWER MAINS AND 334 ERF
CONNECTIONS WITH TOILET TOP STRUCTURES IN IBISI**

PART T2.2: RETURNABLE DOCUMENTS THAT WILL BE INCORPORATED INTO THE CONTRACT

INDEX

FORM S:	Schedule of Construction Plant & Equipment	RD55
FORM T:	Schedule of Proposed Sub-Contractors	RD56
FORM U:	Record of Addenda to Tender Documents	RD57
FORM V:	Key Personnel	RD58
FORM W:	Rates for Special Materials	RD60
FORM X:	Contractor's Health and Safety Declaration	RD61
FORM Y:	UIF registration Certificate	RD63
FORM Z 1:	Certificate of Municipal Services	RD64
FORM Z 2	Supply Chain Management Policy Yeay 22/23	RD66

FORM S: Schedule of Construction Plant & Equipment

The following are lists of major Construction Plant and Equipment that I / We presently own or Lease and will have available for this contract if my / our tender is accepted.

- (a) **Details of major equipment that is owned by me / us and immediately available for this contract.**

DESCRIPTION (<i>type, size, capacity etc</i>)	QUANTITY	YEAR OF MANUFACTURE

Attach additional pages if more space is required

- (b) **Details of major Plant & Equipment that will be hired, or acquired for this contract if my / our tender is accepted**

DESCRIPTION (<i>type, size, capacity etc</i>)	QUANTITY	HOW ACQUIRED	
		HIRE/ BUY	SOURCE

Attach additional pages if more space is required

SIGNATURE:
(of person authorised to sign on behalf of the Tenderer)

DATE:

FORM U: Record of Addenda to Tender Documents

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

	Date	Title or Details
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		

Attach additional pages if more space is required.

Signed: Date:

Name: Position:

SIGNATURE: DATE:
(of person authorised to sign on behalf of the Tenderer)

FORM V: Key Personnel

Tenderers shall provide details of the Site Agent(s) and General Foreman's experience in work of a similar nature to that for which their tender is submitted.

Failure to complete this schedule may result in the tender not being considered.

a. Contracts Manager

CONTRACTS MANAGER	NAME:			
CONTRACT & CLIENT	NATURE OF WORK	POSITION HELD	VALUE OF WORK	YEAR COMPLETED

b. Site Agent

SITE AGENT	NAME:			
CONTRACT & CLIENT	NATURE OF WORK	POSITION HELD	VALUE OF WORK	YEAR COMPLETED

c. Foreman

GENERAL FOREMAN	NAME:			
CONTRACT & CLIENT	NATURE OF WORK	POSITION HELD	VALUE OF WORK	YEAR COMPLETED

SIGNATURE:
(of person authorised to sign on behalf of the Tenderer)

DATE:

Tenderers to attach CV of the following proposed site staff:

- 1. Site Agent**
- 2. Foreman**
- 3. Contracts Manager**

FORM W: Rates for Special Materials

Each material dealt with as a special material in terms of Clause 4 of the Contract Price Adjustment Schedule of the Conditions of Contract is stated in the list below. The rates and prices for the special materials shall be furnished by the Tenderer, which rates and prices shall not include VAT but shall include all other obligatory taxes and levies.

SPECIAL MATERIAL	UNIT*	Rate or Price for the Base Month

Indicate whether the material will be delivered in bulk or in containers.

Notes to Tenderer:

When called upon to do so, the tenderer shall substantiate the above rates or prices with acceptable documentary evidence.

Signed: Date:

Name: Position:

SIGNATURE:
(of person authorised to sign on behalf of the Tenderer)

DATE:

FORM X: Contractor's Health and Safety Declaration

In terms of Clause 4(4) of the OHSA 1993 Construction Regulations 2003 (referred to as "the Regulations" hereafter), a Contractor may only be appointed to perform construction work if the Employer is satisfied that the 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 2003.

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 2003.
2. I hereby declare that my company / enterprise 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 hereby undertake, if my tender is accepted, to provide a sufficiently documented Health and Safety Plan in accordance with Regulation 5(1) of the Construction Regulations, approved by the Employer or his representative, before I will be allowed to commence with construction work under the contract. I hereby agree that my company/enterprise will not have a claim for compensation for delay or extension of time because of my failure to obtain the necessary approval for the said safety plan.
4. I confirm that copies of my company's approved Health and Safety Plan, the Employer's Safety Specifications as well as the OHSA 1993 Construction Regulations 2003 will be provided on site and will at all times be available for inspection by the Contractor's personnel, the Employer's personnel, the Engineer, visitors, and officials and inspectors of the Department of Labour.
5. I hereby confirm that adequate provision has been made in my 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 2003, including the cost for specific items that may be scheduled in the bill of quantities.
6. I hereby confirm that I will be liable for any penalties that may be applied by the Employer in terms of the said Regulations for failure on my part to comply with the provisions of the Act and the Regulations as set out in Regulation 30 of the Regulations.
7. I agree that my failure to complete and execute this declaration to the satisfaction of the Employer will mean that I am unable to comply with the requirements of the OHSA 1993 Construction Regulations 2003, and accept that my tender will be prejudiced and may be rejected at the discretion of the Employer.
8. I am aware of the fact that, should I be awarded the contract, I must submit the notification required in terms of Regulation 3 of the OHSA 1993 Construction Regulations 2003 (*example attached hereafter*) before I will be allowed to proceed with any work under the contract.

SIGNATURE: DATE:
(of person authorised to sign on behalf of the Tenderer)

**PRO FORMA NOTIFICATION FORM IN TERMS OF THE OCCUPATIONAL HEALTH AND
SAFETY ACT 1993, CONSTRUCTION REGULATIONS 2003**

[In terms of Regulation 3 of the Construction Regulations 2003, the successful Tenderer must complete and forward this form prior to commencement of work to the office of the Department of Labour.]

1. (a) Name and postal address of Contractor:
.....
(b) Name of Contractor's contact person:
Telephone number:
2. Contractor's compensation registration number:
3. (a) Name and postal address of client:
.....
(b) Name of client's contact person or agent:
Telephone number.....
4. (a) Name and postal address of designer(s) for the project:
.....
(b) Name of designer's contact person:
Telephone number.....
5. Name of Contractor's construction supervisor on site appointed in terms of
Regulation 6(1):
Telephone number:
6. Name/s of Contractor's sub-ordinate supervisors on site appointed in terms of regulation 6(2).
.....
7. Exact physical address of the construction site or site office:
.....
8. Nature of the construction work:
.....
9. Expected commencement date:
10. Expected completion date:
11. Estimated maximum number of persons on the construction site:
12. Planned number of subcontractors on the construction site accountable to Contractor:
13. Name(s) of subcontractors already chosen:
.....
.....

SIGNED BY:

CONTRACTOR:..... DATE:.....

CLIENT:..... DATE:.....

FORM Y: UIF Registration Certificate

Tenderers to attach copy of UIF Registration Certificate

FORM Z 1: Certificate of Municipal Services

Information required in terms of the Harry Gwala District Municipality's Supply Chain Management Policy. Latest municipal services account statement must be attached.

Tender Number: HGDM 788/HGDM/2022

Name of the Tenderer: _____

FURTHER DETAILS OF THE BIDDER/S: Proprietor / Director(s) / Partners, etc:

Physical Business address of the Bidder	Municipal Account Number(s)

If there is not enough space for all the names, please attach the additional details to the Tender document.

Name of Director / Member / Partner	Identity Number	Physical residential address of Director / Member / Partner	Municipal Account number(s)

I, _____, the undersigned,
(full name in block letters)

certify that the information furnished on this declaration form is correct and that I/we have no undisputed commitments for municipal services towards a municipality or other service provider in respect of which payment is overdue for more than 30 days.

Signature

THUS DONE AND SIGNED for and on behalf of the Bidder / Contractor

at _____ on the _____ day of _____ 2018

Please note:

Even if the requested information is not applicable to the Bidder, the table above should be endorsed NOT APPLICABLE and THIS DECLARATION MUST STILL BE SIGNED.

MUNICIPAL SERVICES STATEMENT

Tenderers are to attach the latest statement (not more than 3 months old) from the municipality where the Tenderer receives municipal services

FORM Z 2: SUPPLY CHAIN MANAGEMENT POLICY YEAR 22/23

57. Subcontracting as condition of tender

- 9.(1) If feasible to subcontract for a contract above R30 million, an organ of state must apply subcontracting to advance designated groups.
- (2) If an organ of state applies subcontracting as contemplated in sub regulation (1), the organ of state must advertise the tender with a specific tendering condition that the successful tenderer must subcontract a minimum of threshold of the value of the contract as follows:
- If a tender exceeding R5 million(VAT Incl.) is awarded to a big contractor as determined by the complexity of the project, 10% would be allocated to local black emerging contractors with preference being given to entities which are 51% owned by youth, women, people living with disabilities or co-operatives. A minimum of one subcontractor being appointed.
 - If a tender exceeding R10 million(VAT Incl.) is awarded to a big contractor as determined by the complexity of the project, 15% would be allocated to local black emerging contractors with preference being given to entities which are 51% owned by youth, women, people living with disabilities or co-operatives. A minimum of one subcontractor being appointed.
 - If a tender exceeding R20 million(VAT Incl.) is awarded to a big contractor as determined by the complexity of the project, 20% would be allocated to local black emerging contractors with preference being given to entities which are 51% owned by youth, women, people living with disabilities or co-operatives. A minimum of two subcontractors being appointed.
 - If a tender exceeding R30 million(VAT Incl.) is awarded to a big contractor as determined by the complexity of the project, 30% would be allocated to local black emerging contractors which is 51% owned by youth, women, people living with disabilities or co-operatives. A minimum of three subcontractors being appointed.

The subcontracting will only cater for local businesses who will be appointed by the Main contractor on a rotational basis from a roster to be maintained by the municipality per local.

IBISI SEWER RETICULATION

CONTRACT NO.: HGDM 788/HGDM/2022

CONSTRUCTION OF APPROXIMATELY 24KM OF SEWER MAINS AND 334 ERF CONNECTIONS WITH TOILET TOP STRUCTURES IN IBISI

PART C1: AGREEMENTS AND CONTRACT DATA

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PART C1: AGREEMENTS AND CONTRACT DATA

C1.1 Form of Offer and Acceptance

A: Offer

The Employer, identified in the Acceptance signature block, has solicited offers to enter into a Contract for the procurement of:

CONTRACT NO.: HGDM 788/HGDM/2022

CONSTRUCTION OF APPROXIMATELY 24KM OF SEWER MAINS AND 334 ERF CONNECTIONS WITH TOILET TOP STRUCTURES IN IBISI

The Tenderer, identified in the Offer signature block, has examined the documents listed in the Tender Data and addenda thereto as listed in the returnable schedules, and by submitting this offer has accepted the conditions of tender.

By the representative of the tenderer, deemed to be duly authorized, signing this apart 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 PRICE INCLUSIVE OF VALUE ADDED TAX (VAT) IS

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

This offer may be accepted by the employer by signing the Acceptance part of this Form of Offer and Acceptance and returning one copy of this document to the tenderer before the end of the period of validity stated in the tender data, whereupon the tenderer becomes the party named as the contractor in the conditions of contract identified in the contract data.

Signature:

Name: *(in capitals)*

Capacity:

Name of Tenderer (organisation):

Address:
.....
.....

Tel: **Fax:**

Witness:

Signature: **Name:**

Date: **CIDB** **Registration**
Nº:

B: Acceptance

By signing this part of this form of offer and acceptance, the employer identified below accepts the tenderer's offer. In consideration thereof, the Employer shall pay the Contractor the amount due in accordance with the conditions of contract identified in the contract data. Acceptance of the tenderer's offer shall form 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 Agreements and contract data, (which includes this agreement)

Part C2 Pricing data

Part C3 Scope of work

Part C4 Site information

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

Deviations from and amendments to the documents listed in the tender data and any addenda thereto as listed in the tender schedules as well as any changes to the terms of the offer agreed by the tenderer and the employer during this process of offer and acceptance, are contained in the schedule of deviations attached to and forming part of this agreement. No amendments to or deviations from said documents are valid unless contained in this schedule.

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. Failure to fulfil 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 working 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:

Name: *(in capitals)*

Capacity:

Name of Employer (organisation):

Address:
.....

Witness:

Signature: **Name:**

Date:

C: Schedule of Deviations

Notes:

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

Subject _____
Details _____

Subject _____

Details _____

Subject _____
Details _____

Subject _____
Details _____

Subject _____
Details _____

By the duly authorised representatives signing this agreement, the employer and the tenderer agree to and accept the foregoing schedule of deviations as the only deviations from and amendments to the documents listed in the tender data and addenda thereto as listed in the tender schedules, as well as any confirmation, clarification or changes to the terms of the offer agreed by the tenderer and the employer during this process of offer and acceptance.

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

FOR THE TENDERER:

Signature:

Name:

Capacity:

Tenderer: *(Name and address of organisation)*

.....

Witness :

Signature:

Name:

Date:

FOR THE EMPLOYER

Signature:

Name:

Capacity:

Employer: *(Name and address of organisation)*

.....

Witness :

Signature:

Name:

Date:

D: Confirmation of Receipt

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

The(day)

of(month)

20.....(year)

at(place)

For the Contractor:

.....
Signature

.....
Name

.....
Capacity

Signature and Name of Witness:

.....
Signature

.....
Name

PART C1.2 CONTRACT DATA

C1.2.1 General Conditions of Contract

The Conditions of Contract governing this Contract shall be the General Conditions of Contract for Works of Civil Engineering Construction, (2015) sponsored by the Civil Engineering Advisory Council and approved by the South African Institution of Civil Engineers, the South African Association of Consulting Engineers and the South African Federation of Civil Engineering Contractors as supplemented and amended by the Special Conditions of Contract.

C1.2.2 Contract Data Provided by Employer

CONTRACT NO.: HGDM 788/HGDM/2022

**CONSTRUCTION OF APPROXIMATELY 24KM OF SEWER MAINS AND 334 ERF CONNECTIONS
WITH TOILET TOP STRUCTURES IN IBISI**

	GCC 2015 Clause	
Defects Liability Period	1.1.1.13	12 months
Name of Employer	1.1.1.15	Harry Gwala District Municipality
Address of Employer	1.2.1.2	40 main Street, Ixopo, 3276 Harry Gwala District Municipality P O Box X501 IXOPO 3276 Email address: Tel N°: +27 39 834 8700 Fax N°: +27 39 834 2259
Name of Engineer	1.1.1.16	ECA Consulting (Pty) Ltd represented by Mr. L Fourie, Pr Tech Eng
Address of the Engineer	1.2.1.2	67 St Patrick's Road, Scottsville, Pietermaritzburg, 3201
Pricing Strategy	1.1.1.26	Re-measurement Contract
Subcontracting	4.4.7	Add the following new Clause: The contractor will be required to subcontract up to a maximum of 30% of the work to local subcontractors. The work to be subcontracted will be agreed with the Employer
Documentation Required Before Commencement of Construction Works	5.3.1	Health and Safety File (Refer to Clause 4.3) Initial Programme (Refer to Clause 5.6) Security (Refer to Clause 6.2) Insurances (Refer to Clause 8.6) Cash flow projection
Time to Submit the Documentation Before Commencement with the Works	5.3.2	14 days after commencement date
Non-working Days	5.8.1	Sundays
Special Non working days	5.8.1	1. Public Holidays 2. The year-end break commences on 15

	GCC 2015 Clause	
		December 2022 and ends on 10 January 2023 for the 2022/23 break.
Penalty for Failing to Complete the Works	5.13.1	1/20 of 1% of Tender value excluding VAT per calendar day.
The Latent Defect Period	5.16.3	10 years
Contract Price Adjustment Schedule	6.8.2	x = 0,1 a = 0,20 b = 0,20 c = 0,50 d = 0,10 'L' shall be the "Weighted Average" index , P0141, Table A 'F' shall be the "Fuel (Diesel)" index given in P0142.1 Table 12 for KwaZulu Natal
Area for Producer Price Index		Pietermaritzburg
Base Month		Month before closing date of Tenders
Price Adjustments for Special Materials	6.8.3	Price adjustments for variations in the costs special materials are allowed
The Percentage Advance on Materials not yet Built into the Permanent Works	6.10.1.5	80% (subject to provision of Indemnity for Materials on Site)
Limit of Retention Money	6.10.3	10% of Contract Sum
Value of Plant and Material Supplied by Employer to be included in the insurance sum	8.6.1.1.2	Nil
Amount to cover professional fees for repairing damage and loss	8.6.1.1.3	14% of Required
Limit of Indemnity for Liability Insurance	8.6.1.3	R10, 000, 000.00 for each and every claim
Dispute Resolution	10.5.1	Amicable Settlement, failing which Arbitration
Number of Adjudication Board Members to be Appointed	10.5.3	One
Dispute Determination	10.7.1	Dispute Determination shall be by Arbitration

SIGNATURE OF TENDERER:

DATE:

C1.2.3 Data Provided by the Contractor

	GCC 2015 Clause																			
Name of Contractor	1.1.1.9																		
Address of Contractor (Physical and Postal)	1.2.1.2																		
Tel:																			
Fax:																			
Email:																			
Time for Achieving Practical Completion:	1.1.1.14 Months (Max 52 Weeks including holidays and builders break)																		
Security to be Provided by Contractor	6.2.1	Refer to Table Below																		
<table border="1"> <thead> <tr> <th>Type of Security</th> <th>Contractor's Choice (Indicate "YES" or "NO")</th> </tr> </thead> <tbody> <tr> <td><i>Is Value Added Tax included in the Contract Sum and value of Works for calculating percentages?</i></td> <td></td> </tr> <tr> <td>Cash deposit of% of the Contract Sum</td> <td></td> </tr> <tr> <td>Performance Guarantee of% of the Contract Sum</td> <td></td> </tr> <tr> <td>Retention of% of the value of Works</td> <td></td> </tr> <tr> <td>Cash Deposit of% of the Contract Sum plus Retention of% of the value of Works</td> <td></td> </tr> <tr> <td>Performance Guarantee of% of the Contract Sum plus Retention of% of the value of Works</td> <td></td> </tr> <tr> <td></td> <td></td> </tr> <tr> <td></td> <td></td> </tr> </tbody> </table>			Type of Security	Contractor's Choice (Indicate "YES" or "NO")	<i>Is Value Added Tax included in the Contract Sum and value of Works for calculating percentages?</i>		Cash deposit of% of the Contract Sum		Performance Guarantee of% of the Contract Sum		Retention of% of the value of Works		Cash Deposit of% of the Contract Sum plus Retention of% of the value of Works		Performance Guarantee of% of the Contract Sum plus Retention of% of the value of Works					
Type of Security	Contractor's Choice (Indicate "YES" or "NO")																			
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Performance Guarantee of% of the Contract Sum plus Retention of% of the value of Works																				
Price variation of special materials*	6.8.3																		

Type of Special Material	Unit	Rate or Price*
Rate or price for base month of*	6.8.2

Tenderers are to note that failure to provide a time for completion of the contract will invalidate the tender offer.

*** Delete inapplicable**

Signature:

Name of Signatory:

Date:

Name of Tenderer

C1.3: PERFORMANCE GUARANTEE

For use with the General Conditions of Contract for Construction Works, Third Edition, 2015.

GUARANTOR DETAILS AND DEFINITIONS

"Guarantor" means:

Physical address:

"Employer" means:

"Contractor" means:

"Engineer" means:

"Works" means:

"Site" means:

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

"Contract Sum" means: The accepted amount inclusive of tax of R

Amount in words:

"Guaranteed Sum" means: The maximum aggregate of R

Amount in words:

"Expiry Date" means:

CONTRACT DETAILS

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

PERFORMANCE GUARANTEE

1. The Guarantor's liability shall be limited to the amount of the Guaranteed Sum.
2. The Guarantor's period of liability shall be from and including the date of issue of this Performance Guarantee and up to and including the Expiry Date or the date of issue by the Engineer of the Certificate of Completion of the Works or the date of payment in full of the Guaranteed Sum, whichever occurs first. The Engineer and/or the Employer shall advise the Guarantor in writing of the date on which the Certificate of Completion of the Works has been issued.
3. The Guarantor hereby acknowledges that:
 - 3.1 any reference in this Performance Guarantee to the Contract is made for the purpose of convenience and shall not be construed as any intention whatsoever to create an accessory obligation or any intention whatsoever to create a suretyship;
 - 3.2 its obligation under this Performance Guarantee is restricted to the payment of money.
4. Subject to the Guarantor's maximum liability referred to in 1, the Guarantor hereby undertakes to pay the Employer the sum certified upon receipt of the documents identified in 4.1 to 4.3:

- 4.1 A copy of a first written demand issued by the Employer to the Contractor stating that payment of a sum certified by the Engineer in an Interim or Final Payment Certificate has not been made in terms of the Contract and failing such payment within seven (7) calendar days, the Employer intends to call upon the Guarantor to make payment in terms of 4.2;
- 4.2 A first written demand issued by the Employer to the Guarantor at the Guarantor's physical address with a copy to the Contractor stating that a period of seven (7) days has elapsed since the first written demand in terms of 4.1 and the sum certified has still not been paid;
- 4.3 A copy of the aforesaid payment certificate which entitles the Employer to receive payment in terms of the Contract of the sum certified in 4.
5. Subject to the Guarantor's maximum liability referred to in 1, the Guarantor undertakes to pay to the Employer the Guaranteed Sum or the full outstanding balance upon receipt of a first written demand from the Employer to the Guarantor at the Guarantor's physical address calling up this Performance Guarantee, such demand stating that:
 - 5.1 the Contract has been terminated due to the Contractor's default and that this Performance Guarantee is called up in terms of 5; or
 - 5.2 a provisional or final sequestration or liquidation court order has been granted against the Contractor and that the Performance Guarantee is called up in terms of 5; and
 - 5.3 the aforesaid written demand is accompanied by a copy of the notice of termination and/or the provisional/final sequestration and/or the provisional liquidation court order.
6. It is recorded that the aggregate amount of payments required to be made by the Guarantor in terms of 4 and 5 shall not exceed the Guarantor's maximum liability in terms of 1.
7. Where the Guarantor has made payment in terms of 5, the Employer shall upon the date of issue of the Final Payment Certificate submit an expense account to the Guarantor showing how all monies received in terms of this Performance Guarantee have been expended and shall refund to the Guarantor any resulting surplus. All monies refunded to Guarantor in terms of this Performance Guarantee shall bear interest at the prime overdraft rate of the Employer's bank compounded monthly and calculated from the date payment was made by the Guarantor to the Employer until the date of refund.
8. Payment by the Guarantor in terms of 4 or 5 shall be made within seven (7) calendar days upon receipt of the first written demand to the Guarantor.
9. Payment by the Guarantor in terms of 5 will only be made against the return of the original Performance Guarantee by the Employer.
10. The Employer shall have the absolute right to arrange his/her affairs with the Contractor in any manner which the Employer may deem fit and the Guarantor shall not have the right to claim his/her release from this Performance Guarantee on account of any conduct alleged to be prejudicial to the Guarantor.
11. The Guarantor chooses the physical address as stated above for the service of all notices for all purposes in connection herewith.
12. This Performance Guarantee is neither negotiable nor transferable and shall expire in terms of 2, where after no claims will be considered by the Guarantor. The original of this Guarantee shall be returned to the Guarantor after it has expired.
13. This Performance Guarantee, with the required demand notices in terms of 4 or 5, shall be regarded as a liquid document for the purposes of obtaining a court order.

14. Where this Performance Guarantee is issued in the Republic of South Africa the Guarantor hereby consents in terms of Section 45 of the Magistrate's Courts Act No 32 of 1944, as amended, to the jurisdiction of the Magistrate's Court of any district having jurisdiction in terms of Section 28 of the said Act, notwithstanding that the amount of the claim may exceed the jurisdiction of the Magistrate's Court.

Signed at

Date

Guarantor's signatory (1)

Capacity

Guarantor's signatory (2)

Capacity

Witness signatory (1)

Witness signatory (2)

C1.4: INSURANCE

The Contractor shall submit within seven (7) days from date of receipt of the Provisional Letter of Acceptance, to the Head: Supply Chain Management, the following Insurances and Surety:

- Third Party Insurance to the value of R10 000 000.00 (for any single claim) for any damages to private property/persons arising out of this contract. The policy must be in force for the full duration of the contract period. For any single claim.
- Works Insurance to an amount of the total tender amount.

Further to the above, the Contractor shall indemnify the Council and its employees and agents against all losses and claims for injuries or damages to any person or property whatsoever which may arise out of the execution of this contract.

When the Head: Supply Chain Management is, in her absolute discretion satisfied with the above arrangements, a Final Letter of Acceptance will be forwarded to the Contractor, confirming that the tender and the letter constitute a binding agreement between the Contractor and the Harry Gwala District Municipality

C1.5: DISCLOSURE STATEMENT

(Date).....

Contract: (Name).....

Contractor: (Name).....

Employer: (Name).....

Engineer: (Name).....

Dear Sirs,

I am willing and available to serve as (ad-hoc/standing) Adjudication Board Member in the above mentioned Contract.

In accordance with the General Conditions of Contract for Construction Works Adjudication Board Rules relating to disclosure statements by selected or nominated persons to the adjudication, I hereby state that:

1. I shall act with complete impartiality and know of nothing at this time, which could affect my impartiality.
2. I had no previous involvement with this project.
3. I do not have any financial interest in this project.
4. I am not currently employed by the Contractor, Employer or Engineer.
5. I do not have any financial connections with the Contractor, Employer or Engineer.
6. I do not have or not have had a personal relationship with any authoritative member of the Contractor, Employer or the Engineer which could affect my impartiality.
7. I undertake to immediately disclose to the parties any changes in the above position which could affect my impartiality or be perceived to affect the same.

Should there be any deviation from the foregoing statements, details shall be given hereunder.

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

I further declare that I am experienced in the work which is carried out under the Contract and in interpreting contract documentation.

Name in full:

Signature:

**C1.6: AGREEMENT IN TERMS OF SECTION 37(2) OF THE OCCUPATIONAL HEALTH
AND
SAFETY ACT No 85 OF 1993**

THIS AGREEMENT is made between **HARRY GWALA DISTRICT MUNICIPALITY**
(hereinafter called the EMPLOYER) of the one part, herein represented by:
.....
in his capacity as:
AND:
(hereinafter called the CONTRACTOR) of the other part, herein represented by
.....
in his capacity as:
duly authorized to sign on behalf of the Contractor.

WHEREAS the CONTRACTOR is the Mandatory of the EMPLOYER in consequence of an
agreement between the CONTRACTOR and the EMPLOYER in respect of

CONTRACT No: (CONTRACT TITLE)

..... for the construction, completion and maintenance of the works;

AND WHEREAS the EMPLOYER and the CONTRACTOR have agreed to enter into an
agreement in terms of the provisions of Section 37(2) of the Occupational Health and Safety
Act No 85 of 1993, as amended by OHS Act Amendment Act No 181/1993 (hereinafter referred
to as the ACT);

NOW THEREFORE the parties agree as follows:

1. The CONTRACTOR undertakes to acquaint the appropriate officials and employees of the CONTRACTOR with all relevant provisions of the ACT and the regulations promulgated in terms thereof.
2. The CONTRACTOR undertakes to fully comply with all relevant duties, obligations and prohibitions imposed in terms of the ACT and Regulations: Provided that should the EMPLOYER have prescribed certain arrangements and procedures that same shall be observed and adhered to by the CONTRACTOR, his officials and employees. The CONTRACTOR shall bear the onus of acquainting himself/herself/itself with such arrangements and procedures.
3. The CONTRACTOR hereby accepts sole liability for such due compliance with the relevant duties, obligations, prohibitions, arrangements and procedures, if any, imposed by the ACT and Regulations, and the CONTRACTOR expressly absolves the EMPLOYER and the Employer's CONSULTING ENGINEERS from being obliged to comply with any of the aforesaid duties, obligations, prohibitions, arrangements and procedures in respect of the work included in the contract.
4. The CONTRACTOR agrees that any duly authorized officials of the EMPLOYER shall be entitled, although not obliged, to take such steps as may be necessary to ensure that the CONTRACTOR has complied with his undertakings as more fully set out in paragraphs 1 and 2 above, which steps may include, but shall not be limited to, the

right to inspect any appropriate site or premises occupied by the CONTRACTOR, or to take such steps it may deem necessary to remedy the default of the CONTRACTOR at the cost of the CONTRACTOR.

5. The CONTRACTOR shall be obliged to report forthwith to the EMPLOYER any investigation, complaint or criminal charge which may arise as a consequence of the provisions of the ACT and Regulations, pursuant to work performed in terms of this agreement, and shall, on written demand, provide full details in writing of such investigation, complaint or criminal charge.

Thus signed at for and on behalf of the
CONTRACTOR

on this the day of 20.....

SIGNATURE:.....

NAME AND SURNAME:

CAPACITY:

WITNESSES: 1.

2.

Thus signed at for and on behalf of the
EMPLOYER

on this the day of 20.....

SIGNATURE:.....

NAME AND SURNAME:

CAPACITY:

WITNESSES: 1.

2.

C1.7: ADJUDICATION BOARD MEMBER AGREEMENT

This Agreement is entered into between:

Adjudication Board Member: *(Name, physical address, postal address, email address, fax number, telephone number and mobile number)*.....
.....
.....
.....

Contractor: *(Name, physical address, postal address, email address, fax number, telephone number and mobile number)*.....
.....
.....
.....

Employer: *(Name, physical address, postal address, email address, fax number, telephone number and mobile number)*.....
.....
.....
.....

The contractor and the Employer will hereinafter be collectively referred to as “the Parties”.

The Parties entered into a Contract for
(name of project) which provides that a dispute under or in connection with the General Conditions of Contract for Construction Works, Third Edition, 2015, must be referred to (*ad-hoc adjudication/ standing adjudication***).

The undersigned natural person has been appointed to serve as Adjudication Board Member and together with the undersigned Parties agree as follows:

1. The Adjudication Board Member accepts to perform his duties in accordance with the terms of the Contract, the General Conditions of Contract for Construction Works Adjudication Board Rules and this Agreement.
2. The Adjudicator undertakes to remain independent and impartial of the Contractor, Employer and Engineer for the duration of the Adjudication Board proceedings.
3. The Adjudication Board Member agrees to serve for the duration of the Adjudication Board proceedings.
4. The Parties may at any time, without cause and with immediate effect, jointly terminate this Agreement.
5. Unless the Parties agree, the Adjudication Board Member shall not act as arbitrator or representative of either Party in any subsequent proceedings between the Parties under the Contract. No Party may call the Adjudication Board Member as a witness in any such subsequent proceedings.

6. The standing Adjudication Board's duties shall end upon the Adjudication Board Member(s) receiving notice from the Parties of their joint decision to disband the Adjudication Board.
7. The Adjudication Board Member shall be paid in respect of time spent upon or in connection with the adjudication including time spent travelling :
 - a. A monthly retainer of R.....(*amount*) for(*number*) of months, and /or
 - b. A daily fee of R.....(*amount*) based on a(*number*) hour day, and /or
 - c. A hourly fee of R.....(*amount*), and /or
 - d. A non- recurrent appointment fee of R.....(*amount*) which shall be accounted for in the final sums payable.
8. The Adjudication Board Member's expenses incurred in adjudication work shall be reimbursed at cost.

Upon submission of an invoice for fees and expenses to the Parties, the (*Contractor/ Employer***) shall pay the full amount within 28 days of receipt of the invoice and he shall be reimbursed by the other party by half the amount so that the fees and expenses are borne equally by the Parties. Late payment of such invoice shall attract the interest at prime plus 3% points compounded monthly at the prime rate changed by the Adjudication Board Member's bank.

This Agreement is entered into by:

Contractor's Signature :

Contractor's name :

Place :

Date :

Employer's signature :

Employer's name :

Place :

Date

Adjudication Board Member's signature :

Adjudication Board Member's name :

Place :

Date :

***Delete the inapplicable party*

IBISI SEWER RETICULATION

CONTRACT N°. : HGDM 788/HGDM/2022

**CONSTRUCTION OF APPROXIMATELY 24KM OF SEWER MAINS AND 334
ERF CONNECTIONS WITH TOILET TOP STRUCTURES IN IBISI**

PART C2: PRICING DATA

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PART C2: PRICING DATA C20

 C2.1 Pricing Instructions C20

 C2.2 Schedule of Quantities C36

PART C2: PRICING DATA

C2.1 Pricing Instructions

- 1 The Conditions of Contract, the Contract Data, the Specifications (including the Project Specifications) and the Drawings shall be read in conjunction with the Bill of Quantities.
- 2 The Bill comprises items covering the Contractor's profit and costs of general liabilities and of the construction of Temporary and Permanent Works.

Although the Tenderer is at liberty to insert a rate of his own choosing for each item in the Bill, he should note the fact that the Contractor is entitled, under various circumstances, to payment for additional work carried out and that the Engineer is obliged to base his assessment of the rates to be paid for such additional work on the rates the Contractor inserted in the Bill. Clause 8 of each Standardized Specification, and the measurement and payment clause of each Particular Specification, read together with the relevant clauses of the Project Specifications, all set out which ancillary or associated activities are included in the rates for the specified operations

- 3 Descriptions in the Bill of Quantities are abbreviated and may differ from those in the Standardized and Project Specifications. No consideration will be given to any claim by the Contractor submitted on such a basis. The Bill has been drawn up generally in accordance with the latest issue of Civil Engineering Quantities. Should any requirement of the measurement and payment clause of the appropriate Standardized or Project Specification(s) be contrary to the terms of the Bill or, when relevant, to the Civil Engineering Quantities, the requirement of the appropriate Standardized, Project, or Particular Specification as the case may be, shall prevail
- 4 Unless stated to the contrary, items are measured net in accordance with the Drawings without any allowance having been made for waste.
- 5 The amounts and rates to be inserted in the Bill of Quantities shall be the full inclusive amounts to the Employer for the work described under the several items. Such amounts shall cover all the costs and expenses that may be required in and for the construction of the work described, and shall cover the costs of all general risks, profits, taxes (but excluding value-added tax), liabilities and obligations set forth or implied in the documents on which the Tender is based.
- 6 An amount or rate shall be entered against each item in the Bill of Quantities, whether or not quantities are stated. An item against which no amount or rate is entered will be considered to be covered by the other amounts or rates in the Bill.

The Tenderer shall also fill in a rate against the items where the words "rate only" appear in the amount column. Although no work is foreseen under these items and no quantities are consequently given in the quantity column, the tendered rates shall apply should work under these items actually be required.

Should the Tenderer group a number of items together and tender one sum for such group of items, the single tendered sum shall apply to that group of items and not to each individual item, or should he indicate against any item that full compensation for such item has been included in another item, the rate for the item included in another item shall be deemed to be nil.

The tendered rates, prices and sums shall, subject only to the provisions of the Conditions of Contract, remain valid irrespective of any change in the quantities during the execution of the Contract.

- 7 The quantities of work as measured and accepted and certified for payment in accordance with the Conditions of Contract, and not the quantities stated in the Bill of Quantities, will be

used to determine payments to the Contractor. The validity of the Contract shall in no way be affected by differences between the quantities in the Bill of Quantities and the quantities certified for payment.

Ordering of materials are not to be based on the Bill of Quantities, but only on information issued for construction purposes.

8 PROVISIONAL SUM

Where Provisional sums or Prime Cost sums are provided for items in the Bill of Quantities, payments for the Work done under such items will be made accordance with Clause 6.6 of GCC 2015 (3rd Edition) of the General Condition 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, such approval shall be granted by the Executive Director Infrastructure Services as delegated by the Accounting Officer.

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. Unauthorized changes made by the Tenderer to provisional items in the Bill of Quantities, or to the stated provisional percentages and sums in the Summary of the Bill of Quantities, will not be permissible.

9 CONTINGENCY

The sum provided under contingency in the Bill of Quantities is under the sole control of Employer and may be deducted in whole or in part and shall only be expended by order of the Employer as Variation Order. The use of contingency shall be upon approval by the Executive Director Infrastructure Services as delegated by the Accounting Officer. Director Infrastructure Services as delegated by the Accounting Officer.

10 PAYMENT FOR THE LABOUR-INTENSIVE COMPONENT OF THE WORKS

Those parts of the works to be constructed using labour-intensive methods are marked in the bill of quantities with the letters LI either in a separate column or as a prefix or suffix against every item so designated. The works, or parts of the works so designated are to be constructed using labour-intensive methods only. The use of plant to provide such works, other than plant specifically provided for in the scope of work, is a deviation from the contract. The items marked with the letters LI are not necessarily an exhaustive list of all the activities which must be done by hand and this clause does not over-ride any of the requirements in the generic labour-intensive specification in the Scope of Works.

Where minimum labour intensity is specified in the design, the contractor is expected to use their initiative to identify additional activities that can be done labour-intensively in order to comply with the set minimum labour intensity targets.

Payment for items which are designated to be constructed labour-intensively (either in this schedule or in the Scope of Works) will not be made unless they are constructed using labour-intensive methods. Any unauthorised use of plant to carry out work which was to be done labour-intensively will not be condoned and any works so constructed will not be certified for payment. Any non-payment for such works shall not relieve the Contractor in any way from his obligations either in contract or in delict

11. Linkage of Payment for Labour-Intensive Component of Works to Submission of Project Data

The Contractor's payment invoices shall be accompanied by labour information for the corresponding period in a format specified by the employer. If the contractor chooses to delay submitting payment invoices, labour returns shall still be submitted as per frequency

and timeframes stipulated by the Employer. The contractor's invoices shall not be paid until all pending labour information has been submitted. The client may institute a penalty relating to outstanding labour information.

The following information shall be maintained on site and submitted in electronic/hard copy formats:

- Certified ID copies of all locally employed labour
- Signed Contracts between the employer and the EPWP Participants
- Attendance Registers for the EPWP Participants
- Proof of Payment of EPWP Employees
- Monthly Reporting Template as per EPWP requirements

- 10 The units of measurement indicated in the Bill of Quantities are metric units. The following abbreviations may appear in the Bill of Quantities:

mm	=	millimetre
m	=	metre
km	=	kilometre
km-pass	=	kilometre-pass
m ²	=	square metre
m ² -pass	=	square metre-pass
ha	=	hectare
m ³	=	cubic metre
m ³ -km	=	cubic metre-kilometre
kW	=	kilowatt
kN	=	kilonewton
kg	=	kilogram
t	=	ton (1 000 kg)
%	=	per cent
MN	=	meganewton
MN-m	=	meganewton-metre
PC Sum	=	Prime Cost Sum
Prov Sum	=	Provisional Sum
No.	=	number

- 11 For the purposes of this Bill of Quantities, the following words shall have the meanings hereby assigned to them:

Unit	:	The unit of measurement for each item of work as defined in the Standardized, Project or Particular Specifications
Quantity	:	The number of units of work for each item
Rate	:	The payment per unit of work at which the Tenderer tenders to do the work
Amount	:	The quantity of an item multiplied by the tendered rate of the (same) item

Sum	:	An amount tendered for an item, the extent of which is described in the Bill of Quantities, the Specifications or elsewhere, but of which the quantity of work is not measured in units
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CONTRACT: HGDM788/HGDM/2022
 CONTRACT TITLE: CONSTRUCTION OF SEWER MAINS AND TOP STRUCTURES IN IBISI
 SCHEDULE: IBISI SEWER RETICULATION
 SECTION: 1 PRELIMINARY AND GENERAL

SCHEDULE

ITEM	PAYMENT REFERS	LIC	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R	LC
1.1	8.3		FIXED-CHARGE AND VALUE RELATED ITEMS					
1.1.1	8.3.1		Contractual Requirements	Sum	1			
	8.3.2		Establishment of Facilities on the Site					
	8.3.2.1		Facilities for Engineer					
1.1.2			a) Furnished offices (1No.)	Sum	1			
1.1.3			b) Telephone	Sum	1			
1.1.4			c) Nameboards (2 No.)	Sum	1			
	8.3.2.2		Facilities for Contractor					
1.1.5			a) Offices and storage sheds	Sum	1			
1.1.6			b) Workshops	Sum	1			
1.1.7			c) Laboratories	Sum	1			
1.1.8			d) Living accommodation	Sum	1			
1.1.9			e) Ablution and latrine facilities	Sum	1			
1.1.10			f) Tools and equipment	Sum	1			
1.1.11			g) Water supplies, electric power and communications	Sum	1			
1.1.12			h) Dealing with water (see 5.5)	Sum	1			
1.1.13			i) Access (see 5.8)	Sum	1			
1.1.14			j) Plant	Sum	1			
1.1.15	8.3.3		Other Fixed-charge Obligations	Sum	1			
1.1.16	8.3.4		Removal of Site Establishment	Sum	1			
1.1.17	PSA 8.4.7		Compliance with the EMP and EMPr Requirements	Sum	1			
1.2	8.4		TIME-RELATED ITEMS					
1.2.1	8.4.1		Contractual Requirements	Sum	1			
	8.4.2		Operation and Maintenance of Facilities on Site, for Duration of Construction, except where otherwise stated					
	8.4.2.1		Facilities for Engineer					
1.2.2			a) Furnished offices (1No.)	Sum	1			
1.2.3			b) Telephone	Sum	1			
1.2.4			c) Nameboards (2 No.)	Sum	1			
1.2.5			d) Survey assistants and materials	Sum	1			
CARRIED FORWARD								

CONTRACT: HGDM788/HGDM/2022
 CONTRACT TITLE: CONSTRUCTION OF SEWER MAINS AND TOP STRUCTURES IN IBISI
 SCHEDULE: IBISI SEWER RETICULATION
 SECTION: 1 PRELIMINARY AND GENERAL

SCHEDULE

ITEM	PAYMENT REFERS	LIC	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R	LC
			BROUGHT FORWARD					
	8.4.2.2		Facilities for Contractor					
1.2.6			a) Offices and storage sheds	Sum	1			
1.2.7			b) Workshops	Sum	1			
1.2.8			c) Laboratories	Sum	1			
1.2.9			d) Living accommodation	Sum	1			
1.2.10			e) Ablution and latrine facilities	Sum	1			
1.2.11			f) Tools and equipment	Sum	1			
1.2.12			g) Water supplies, electric power and communications	Sum	1			
1.2.13			h) Dealing with water (see 5.5)	Sum	1			
1.2.14			i) Access (see 5.8)	Sum	1			
1.2.15			j) Plant	Sum	1			
1.2.16	8.4.3		Supervision for Duration of Construction	Sum	1			
1.2.17	8.4.4		Company and Head Office Overhead Costs for the Duration of the Contract	Sum	1			
1.2.18	8.4.5		Other Time-related Obligations	Sum	1			
1.2.19	PSA 8.4.7		Compliance with the EMP and EMPr Requirements	Sum	1			
	8.5		SUMS STATED PROVISIONALLY BY ENGINEER (Subclause 8.1.2.1 (d))					
1.2.20			Community Liason Officer	Prov. Sum	1	120 000,00	120 000,00	
1.2.21			Overheads, charges and profit on «1.2.31» above	%	120 000,00			
1.2.22			Additional Tests required by Engineer	Prov. Sum	1	80 000,00	80 000,00	
1.2.23			Overheads, charges and profit on «1.2.33» above	%	80 000,00			
1.2.24			Allowance for additional survey and as built	Prov. Sum	1	250 000,00	250 000,00	
1.2.25			Overheads, charges and profit on «1.2.35» above	%	250 000,00			
1.2.26			Allowance for relocation of existing services	Prov. Sum	1	100 000,00	100 000,00	
1.2.27			Overheads, charges and profit on «1.2.37» above	%	100 000,00			
1.2.28			Allowance for Nominated Health and Safety Officer	Prov. Sum	1	50 000,00	50 000,00	
1.2.29			Overheads, charges and profit on «1.2.39» above	%	50 000,00			
1.2.30			Allowance for Nominated Environmental Control Officer	Prov. Sum	1	70 000,00	70 000,00	
1.2.31			Overheads, charges and profit on «1.2.41» above	%	70 000,00			
CARRIED FORWARD								

CONTRACT: HGDM788/HGDM/2022
 CONTRACT TITLE: CONSTRUCTION OF SEWER MAINS AND TOP STRUCTURES IN IBISI
 SCHEDULE: IBISI SEWER RETICULATION
 SECTION: 1 PRELIMINARY AND GENERAL

SCHEDULE

ITEM	PAYMENT REFERS	LIC	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R	LC
			BROUGHT FORWARD					
1.2.32			Allowance for flushing out existing sewer line as per Engineers instruction	Prov. Sum	1	80 000,00	80 000,00	
1.2.33			Overheads, charges and profits on «1.2.43» above	%	80 000,00			
1.2.34			Allowance for accomodation of Engineers Representative	Prov. Sum	1	140 000,00	140 000,00	
1.2.35			Overheads, charges and profits on «1.2.45» above	%	140 000,00			
1.2.36			Allowance for the Repairs and Refurbishment of the existing WWTW by Specialist Nominated Sub-Contractor	Prov. Sum	1	1 500 000,00	1 500 000,00	
1.2.37			Overheads, charges and profits on «1.2.47» above	%	1 500 000,00			
			Expanded Public Works Programme (EPWP)					
1.2.38			Allowance for training on targeted labour	Prov. Sum	1	70 000,00	70 000,00	
1.2.39			Overheads, charges and profit on «1.2.49» above	%	70 000,00			
1.2.40			Transportation and accomodation of workers for training where it is not possible to undertake in close proximity	Prov. Sum	1	50 000,00	50 000,00	
1.2.41			Overheads, charges and profit on «1.2.51» above	%	50 000,00			
1.2.42			Provision of Technical Training by an Accredited Traning Specialist	Prov. Sum	1	70 000,00	70 000,00	
1.2.43			Overheads, charges and profit on «1.2.53» above	%	70 000,00			
1.2.44			Allowance for the supply of safety apparel (safety boots, reflectors, vests, orange overalls bearing the EPWP logo and large EPWP logo on the back and safety gloves for all targeted labour)	Prov. Sum	1	50 000,00	50 000,00	
1.2.45			Overheads, charges and profit on «1.2.55» above	%	50 000,00			
1.2.46			Allowance for HIV/Aids awareness training	Prov. Sum	1	10 000,00	10 000,00	
1.2.47			Overheads, charges and profit on item «1.2.57» above	%	10 000,00			
	PSA 8.7		DAYWORK (See 8.1.2.1 (d))					
1.2.48			a) Labour	Prov. Sum	1	100 000,00	100 000,00	
1.2.49			Overheads, charges and profit on item (a) above	%	100 000,00			
1.2.50			b) Materials	Prov. Sum	1	100 000,00	100 000,00	
1.2.51			Overheads, charges and profit on item (b) above	%	100 000,00			
1.2.52			c) Plant	Prov. Sum	1	100 000,00	100 000,00	
1.2.53			Overheads, charges and profit on item (c) above	%	100 000,00			
	8.8		TEMPORARY WORKS (See 8.1.2.1 (d))					
CARRIED FORWARD								

CONTRACT: HGDM788/HGDM/2022
 CONTRACT TITLE: CONSTRUCTION OF SEWER MAINS AND TOP STRUCTURES IN IBISI
 SCHEDULE: IBISI SEWER RETICULATION
 SECTION: 1 PRELIMINARY AND GENERAL

SCHEDULE

ITEM	PAYMENT REFERS	LIC	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R	LC
			BROUGHT FORWARD					
1.2.54	8.8.1		Main Access Road to Works (construct and maintain)	Sum	1			
1.2.55	PSA 8.8.2		Dealing with Traffic (or accommodation of traffic)	Sum	1			
1.2.56	PSA 8.8.7		Contractor to provide "Construction Record" Information	Sum	1			
	8.8.4		Existing services					
1.2.57			Supply (or hire) of specialist equipment for the detection of underground services (Prov)	Sum	1			
1.2.58			The use of equipment for detection	Sum	1			
1.2.59			Excavate by hand in soft material to expose all existing service.	m ³	250			
TOTAL FOR SECTION 1 CARRIED FORWARD TO SUMMARY								

CONTRACT: HGDM788/HGDM/2022
 CONTRACT TITLE: CONSTRUCTION OF SEWER MAINS AND TOP STRUCTURES IN IBISI
 SCHEDULE: IBISI SEWER RETICULATION
 SECTION: 2 EARTHWORKS

SCHEDULE

ITEM	PAYMENT REFERS	LIC	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R	LC
	8.3.2		Bulk Excavation					
			b) Extra over for					
2.1			3) Boulder Excavation Class A	m³	150			
2.2			4) Boulder Excavation Class B	m³	150			
2.3	8.3.10	LI	Topsoiling (LI)	m²	26600			
2.4	8.3.11	LI	Grassing or other vegetation cover (LI)	m²	26600			
2.5	PSD 8.3.13	LI	Erosion Control Berms (LI)	m³	20			
2.6	PSD 8.3.14	LI	Sandbag Protection to pipe trench (LI)	No.	20			
2.7	PSD 8.3.15	LI	Extra-over Sandbag Protection for Stabilization (LI)	No.	20			
TOTAL FOR SECTION 2 CARRIED FORWARD TO SUMMARY								

CONTRACT: HGDM788/HGDM/2022
 CONTRACT TITLE: CONSTRUCTION OF SEWER MAINS AND TOP STRUCTURES IN IBISI
 SCHEDULE: IBISI SEWER RETICULATION
 SECTION: 3 EARTHWORKS (PIPE TRENCHES)

SCHEDULE

ITEM	PAYMENT REFERS	LIC	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R	LC
	8.3.1		Site Clearance and (if specified) removal of topsoil					
3.1			a) Clear vegetation and trees of girth up to 1m					
			i) 2m wide strip	m	13800			
3.2			ii) 0.7m wide strip	m	10000			
3.3			b) Clear trees of girth over 1m and designated obstacles	No.	50			
			c) Remove topsoil					
3.4			i) 150mm	m²	27600			
3.5	PSDB 8.3.1(d)	LI	d) Take down and reinstate existing fences and hedges (LI)	km	13,3			
	8.3.2		Excavation					
			a) Excavate in all materials for trenches, backfill, compact and dispose of surplus material for pipes:					
			Over 100mm and up to and including 200mm diam for total trench depth					
3.6			Over 0m and up to 1m	m	130			
3.7			Over 1m and up to 2m	m	8780			
3.8			Over 2m and up to 3m	m	5500			
3.9			Over 3m and up to 4m	m	340			
3.10			Over 4m and up to 5m	m	300			
3.11			Over 5m and up to 6m	m	200			
			b) Extra over item (a) above for:					
3.12			1) Intermediate Excavation	m³	1500			
3.13			2) Hard Rock Excavation	m³	1500			
3.14			c) Excavation and dispose of unsuitable material from trench bottom (provisional)	m³	2000			
	8.3.3		Excavation Ancillaries					
	8.3.3.1		Make up deficiency in backfill material (provisional)					
3.15			a) from other necessary excavations on site	m³	1000			
3.16			c) by importation from commercial of off-site sources selected by the Contractor	m³	1000			
3.17	8.3.3.3	LI	Compaction in Road Reserves (LI)	m³	500			
	8.3.3.4		Overhaul					
CARRIED FORWARD								

CONTRACT: HGDM788/HGDM/2022
 CONTRACT TITLE: CONSTRUCTION OF SEWER MAINS AND TOP STRUCTURES IN IBISI
 SCHEDULE: IBISI SEWER RETICULATION
 SECTION: 3 EARTHWORKS (PIPE TRENCHES)

SCHEDULE

ITEM	PAYMENT REFERS	LIC	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R	LC
			BROUGHT FORWARD					
3.18			a) Limited overhaul (provisional)	m ³	500			
3.19			b) Long overhaul (provisional)	m ³ .km	5000			
	8.3.4		Particular Items					
			a) Shore trench opposite structure or service					
3.20		LI	(i) Existing Houses and Toilet Structures (LI)	m	2500			
	8.3.5		Existing Services that Intersect or Adjoin a Pipe Trench					
			a) Services that intersect a trench					
3.21			Concrete pipe up to 1000 mm dia.	No.	10			
3.22			Water pipe up to 300 mm dia.	No.	50			
3.23			Electrical Cables	No.	50			
			b) Services that adjoin a trench					
3.24			Water pipe up to 300 mm dia.	m	5000			
3.25			Electrical Cables	m	5000			
	8.3.6		Finishing					
	8.3.6.1		Reinstate road surfaces complete with all courses					
			a) Gravel on Shoulders and wearing course					
			b) Asphalt of thickness 50mm in parking area					
			c) Asphalt of thicknesss 50mm in roadway					
3.26			Asphalt of thickness 50 mm	m ²	450			
3.27			Concrete 150mm thick, Grade 25/19	m ²	70			
3.28			Gravel 150mm (G6) compacted to 93 % Mod AASHTO density	m ²	100			
3.29			300mm G2/G1 base compacted to 98 % Mod AASHTO density	m ³	100			
3.30			Extra over for item 4.4.2 for breaking through existing concrete roads.	m ²	70			
3.31			Removal, transportation and stacking of paving in safe area and maintain for reuse later. Price to include separate palcing of layerworks for re-use later.	m ²	750			
3.32			Collect, transport and reinstatement of paving with layerworks.	m ²	750			
TOTAL FOR SECTION 3 CARRIED FORWARD TO SUMMARY								

CONTRACT: HGDM788/HGDM/2022
 CONTRACT TITLE: CONSTRUCTION OF SEWER MAINS AND TOP STRUCTURES IN IBISI
 SCHEDULE: IBISI SEWER RETICULATION
 SECTION: 4 GABIONS AND PITCHING

SCHEDULE

ITEM	PAYMENT REFERS	LIC	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R	LC
4.1	8.2.1		Surface preparation for bedding of gabions					
4.2			a) Cavities filled with approved excavated or rock	m ²	10			
			b) Cavities filled with grade 15 concrete (provisional)	m ²	10			
	8.2.2		Gabions					
			Gabions (PVC Coated)					
4.3		LI	1.0 m x 1.0 m x 1.0 m (LI)	m ³	20			
4.4		LI	1.0 m x 1.0 m x 4.0 m (LI)	m ³	20			
			Foundation Mattresses (PVC Coated)					
4.5		LI	0.23 m x 2.0 m x 6.0 m (LI)	m ³	20			
4.6	8.2.3	LI	Extra-over item 8.2.2 for packing selected stone for exposed face (LI)	m ²	10			
	8.2.4		Geotextile (or geomembrane)					
4.7			(i) Type A4 for gabions	m ²	45			
4.8			(ii) Type A2 for crushed stone and sub soil drains	m ²	5			
	8.2.5		Pitching					
4.9		LI	Grouted stone pitching (LI)	m ²	10			
TOTAL FOR SECTION 4 CARRIED FORWARD TO SUMMARY								

CONTRACT: HGDM788/HGDM/2022
 CONTRACT TITLE: CONSTRUCTION OF SEWER MAINS AND TOP STRUCTURES IN IBISI
 SCHEDULE: IBISI SEWER RETICULATION
 SECTION: 5 BEDDING (PIPES)

SCHEDULE

ITEM	PAYMENT REFERS	LIC	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R	LC
	8.2.1		Provision of bedding from trench excavation					
5.1		LI	Selected granular material (LI)	m ³	100			
5.2		LI	Selected fill material (LI)	m ³	100			
	8.2.2.2		Supply only of bedding by importation for flexible bedding					
	8.2.2.3		From commercial sources					
5.3		LI	Selected granular material (LI)	m ³	8568			
5.4		LI	Selected fill material (LI)	m ³	4760			
5.5		LI	19mm graded crushed stone (LI)	m ³	150			
5.6	8.2.3	LI	Concrete bedding cradle (LI)	m ³	10			
TOTAL FOR SECTION 5 CARRIED FORWARD TO SUMMARY								

CONTRACT: HGDM788/HGDM/2022
 CONTRACT TITLE: CONSTRUCTION OF SEWER MAINS AND TOP STRUCTURES IN IBISI
 SCHEDULE: IBISI SEWER RETICULATION
 SECTION: 6 SEWERS

SCHEDULE

ITEM	PAYMENT REFERS	LIC	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R	LC
6.1	8.2.1	LI	Collect (free supply), lay, joint, bed (flexible) and test pipeline, for: 160 mm Ø uPVC CL34 HD SABS 1601 (LI)	m	11300			
6.2	8.2.1	LI	Test existing pipeline, for: 160 mm Ø uPVC CL34 HD SABS 1601 (LI)	m	3000			
6.3	8.2.1	LI	Supply, lay, joint, bed (flexible) and test pipeline, for: 160 mm Ø uPVC CL34 HD SABS 1601 (LI)	m	2000			
6.4		LI	200 mm Ø uPVC CL34 HD SABS 1601 (LI)	m	160			
6.5	8.2.1	LI	Collect (free supply), lay, joint, bed (flexible) and test pipeline, for: 110 mm Ø uPVC CL34 HD SABS 1601 (LI)	m	8000			
6.6	8.2.1	LI	Supply, lay, joint, bed (flexible) and test pipeline, for: 110 mm Ø uPVC CL34 HD SABS 1601 (LI)	m	2000			
6.7	8.2.2	LI	Extra over item 8.2.1 for specials Supply and lay 100mm Ø slotted uPVC or netlon subsoil pipe, as instructed by the Engineer (LI)	m	500			
6.8	8.2.3	LI	Manholes - 1000mm Ø rings. Construct manholes complete as per detail, including excavation, backfill, compaction, MD covers, frames and lids, channels and junctions for: Up to 1,0m (LI)	No.	2			
6.9		LI	Exceeding 1,0m and up to 1,5m (LI)	No.	3			
6.10		LI	Exceeding 1,5m and up to 2,0m (LI)	No.	182			
6.11		LI	Exceeding 2,0m and up to 2,5m (LI)	No.	37			
6.12		LI	Exceeding 2,5m and up to 3,0m (LI)	No.	31			
6.13		LI	Exceeding 3,0m and up to 3,5m (LI)	No.	15			
6.14		LI	Exceeding 3,5m and up to 4,0m (LI)	No.	5			
6.15		LI	Exceeding 4,0m and up to 4,5m (LI)	No.	5			
6.16		LI	Exceeding 4,5m and up to 5,0m (LI)	No.	5			
6.17		LI	Exceeding 5,0m and up to 5,5m (LI)	No.	4			
6.18	8.2.4		Extra-over Item 8.2.3 for backdrops, etc j) Construction of backdrops and ramps, including extra excavation, formwork, joints, etc. to Dwg No WP2228-MNA-FT-SA-402 got depths over and up to					
6.18.1		LI	2.5m to 3.0m (LI)	No.	4			
CARRIED FORWARD								

CONTRACT: HGDM788/HGDM/2022
 CONTRACT TITLE: CONSTRUCTION OF SEWER MAINS AND TOP STRUCTURES IN IBISI
 SCHEDULE: IBISI SEWER RETICULATION
 SECTION: 6 SEWERS

SCHEDULE

ITEM	PAYMENT REFERS	LIC	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R	LC
			BROUGHT FORWARD					
6.19		LI	3.0m to 3.5m (LI)	No.	5			
6.20		LI	3.5m to 4.0m (LI)	No.	4			
6.21		LI	ii) Heavy Duty (HD) Polymer covers with frame and locking mechanism	No.	50			
6.22			CCTv pipe inspection on newly installed sewer pipe lines.					
			Supply all equipment and experienced personnel to conduct a CCTV inspections to all the newly install sewer pipes in accordance to the SASTT approved method. All defect to be recorded and re-inspected at the contractor's cost on completion of remedial works. The sewer reticulation network should be divided and inspected in 3 phases during the construction of the project					
6.22.1			Site establishment	No.	3			
6.22.2			CCTv inspection to 100dia-350dia pipes.	m	17300			
	8.2.6		Erf Connections					
			Excavate, supply, install and backfill for sewer house connections, all inclusive, as per detail for:					
6.23		LI	i) Direct Connection (LI)	No.	167			
6.24		LI	ii) Sloping Drop Connection (LI)	No.	167			
6.25	8.2.7	LI	Encasing of pipes in concrete as per detail (LI)	m³	10			
6.26	8.2.8	LI	Anchor blocks 15Mpa (LI)	m³	5			
6.27	8.2.10		Temporary Plug Stoppers (Provisional)	No.	2			
6.28	8.2.11		Connection to existing sewer at TRUNK-MH1, TRUNK-MH5 & TRUNK-MH16	Sum	1			
			Sundries					
6.29	PSLD 8.2.13	LI	Collect materials stored on site (supplied by client) and installation of prefabricated toilet structure with wash trough and base slab, inclusive of all materials, labour, overheads, charges and profit. (LI)	No.	229			
6.30			Allowance for purchasing of shortfall of material required for the completion of the top structures.	Prov. Sum	1	250 000,00	250 000,00	
6.31			Overhead, charges and profit on item 6.30	%	250 000,00			
6.32		LI	Collect wash hand basin and plumbing and complete the already erected units by fitting wash hand basin, connecting water and sewer. (LI)	No	105	2 500,00	262 500,00	
6.33			Allowance for Sewer Pump Station, including supply and installation of duty and standby pumps and all associated works	Prov. Sum	1	400 000,00	400 000,00	
CARRIED FORWARD								

ITEM	PAYMENT REFERS	LIC	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R	LC
			BROUGHT FORWARD					
6.34			Overhead, charges and profit on item 6.33	%	400 000,00			
6.35			Allowance for the supply lay and bed of sewer rising main	Prov. Sum	1	100 000,00	100 000,00	
6.36			Overhead, charges and profit on item 6.35	%	100 000,00			
6.37			Allowance for water connection to toilet top structures	Prov. Sum	1	550 000,00	550 000,00	
6.38			Overhead, charges and profit on item 6.37	%	550 000,00			
TOTAL FOR SECTION 6 CARRIED FORWARD TO SUMMARY								

C2.2 Schedule of Quantities

SUMMARY OF SCHEDULE OF QUANTITIES

SECTION	DESCRIPTION	AMOUNT R-c
1	PRELIMINARY AND GENERAL	
2	EARTHWORKS	
3	EARTHWORKS (PIPE TRENCHES)	
4	GABIONS AND PITCHING	
5	BEDDING (PIPES)	
6	SEWERS	
SUBTOTAL		
Add: 10% Contingencies		
SUBTOTAL		
Add: 15% VAT		
TOTAL CARRIED TO FORM OF OFFER (Form C1.1)		

Signed:

Date:

IBISI SEWER RETICULATION

CONTRACT N°.: HGDM 788/HGDM/2022

**CONSTRUCTION OF APPROXIMATELY 24KM OF SEWER MAINS AND 334 ERF CONNECTIONS
WITH TOILET TOP STRUCTURES IN IBISI**

PART C3: SCOPE OF WORK

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C3.1 DESCRIPTION OF THE WORKS

C3.1.1 EMPLOYER'S OBJECTIVES

The Employer's objectives are to provide the residents of Ibisi with a safe, reliable and functional Waterborne Sewer Reticulation network in order to improve the health and hygiene standard within the community.

C3.1.2 OVERVIEW OF THE WORKS

The Works to be undertaken includes the construction of approximately 24km of 160 & 110mmØ sewer pipelines and associated manholes, ERF connections and the provision of approximately 334no. toilet top structures.

C3.1.3 EXTENT OF THE WORKS

The Works to be carried out by the Contractor under this Contract is detailed below.

- Supply and lay of approximately 14km of 160mm Ø uPVC CL 34 HD sewer gravity mains. **11.3km of pipe is available as free issue material,**
- Supply and lay of approximately 10km of 110mm Ø ERF Connections **8km of pipe is available as free issue material,**
- The construction of approximately 278no. manholes,
- The collection (**free issue material**) and installation of approximately 229no. toilet top structures and plumbing connections and the completion of approximately 105 toilet top structures and plumbing,
- The connection of approximately 39no. erven which currently have septic tanks into the sewer reticulation, and
- ISD and training of the community.

This description of Works is not necessarily complete and shall not limit the work carried out by the Contractor under this Contract.

Approximate quantities of each type of work are given in the Schedule of Quantities.

C3.1.4 LOCATION OF THE WORKS

The Project is located in Ward 11 of the uMzimkhulu Local Municipality. The project area lies approximately 20km South West of uMzimkhulu CBD, within the jurisdiction of the Harry Gwala District Municipality, in the Province of Kwa-Zulu Natal.

The central co-ordinates of the project area are as follows:

Latitude: 30° 24' 50" S
Longitude: 29° 52' 16" E

A locality plan of the project area is included in Annexure A3 of the tender document.

C3.1.5 TEMPORARY WORKS

The Contractor will be responsible for all Temporary works necessary to undertake this project. All areas where temporary works are undertaken are to be rehabilitated to their natural state on completion of the project.

C3.2 ENGINEERING

C3.2.1 DESIGN SERVICES

Works designed by, per design stage:

Concept, feasibility and overall process	Employer's Agent
Basic engineering and detail layouts to tender stage	Employer's Agent
Final design to approved for construction stage	Employer's Agent
Temporary works	Contractor
Preparation of as-built drawings	Employer's Agent

- (a) The Employer's Agent is responsible for the design of the permanent Works as reflected in the Contract Documents unless otherwise stated.
- (b) The Contractor is responsible for the design of the temporary Works and their compatibility with the permanent Works.
- (c) The Contractor shall supply all details necessary to assist the Employer's Agent in the compilation of the as-built drawings.

C3.2.2 EMPLOYER'S DESIGN

Not applicable.

C3.2.3 DESIGN BRIEF

Not applicable.

C3.2.4 DRAWINGS

The Contractor shall use only the dimensions stated in figures on the Drawings in setting out the Works, and no dimension shall be scaled from the Drawings, unless required by the Engineer. The Engineer will, on request of the Contractor and in accordance with the provisions of the Conditions of Contract provide such dimensions as may have been omitted from the Drawings.

The Contractor shall ensure that accurate as-built records are kept of all infrastructure installed or relocated during the Contract. The position of pipe bends and all other underground infrastructure shall be given by either co-ordinates or stake value and offset. Where necessary, levels shall also be given. A marked-up set of drawings shall be kept and updated by the Contractor. This information shall be supplied to the Engineer's Representative on a regular basis. All information in possession of the Contractor, required by the Engineer and/or the Engineer's Representative to complete the as-built/record drawings must be submitted to the Engineer's Representative before a Certificate of Completion will be issued.

Where the Contractor is to supply the design of temporary Works, he shall supply the Consulting Engineer for this project with full working drawings supported by a Professional Engineer's design certificate.

The Drawings prepared by the Engineer for the Permanent Works of this Contract are listed below and are attached as an Annexure to this tender document. The Engineer reserves the right to issue amended and/or additional drawings during the Contract.

The following reduced drawings which form part of the tender document shall be used for tendering purposes only.

The following reduced (A3) book of drawings are bound separately.

DRAWING NO.	DESCRIPTION	REV
22-009-V-01-01	Overall Layout	0
22-009-V-02-01	Long Section 01	0
22-009-V-02-02	Long Section 02	0
22-009-V-02-03	Long Section 03	0
22-009-V-02-04	Long Section 04	0
22-009-V-02-05	Long Section 05	0
22-009-V-02-06	Long Section 06	0
22-009-V-02-07	Long Section 07	0
22-009-V-02-08	Long Section 08	0
22-009-V-02-09	Long Section 09	0
22-009-V-02-10	Long Section 10	0
22-009-V-02-11	Long Section 11	0
22-009-V-02-12	Long Section 12	0
22-009-V-02-13	Long Section 13	0
22-009-V-02-14	Long Section 14	0
22-009-V-02-15	Long Section 15	0
22-009-V-02-16	Long Section 16	0
22-009-V-03-01	Project Notice Board	0
22-009-V-04-01	Sewer Details: Trench, Bedding & Subsoil Drain Outlet Structure Details	0
22-009-V-04-02	Sewer Details: Road Crossing Details	0
22-009-V-04-03	Sewer Details: Anchor Blocks & Manhole Details	0
22-009-V-04-04	Sewer Details: House Connection Details	0
22-009-V-04-05	Sewer Details: Manhole Fitting Details	0
22-0009-V-05-01	Toilet Top Structure With Wash Trough	0

C3.2.5 DESIGN PROCEDURES

Not applicable.

C3.3 **PROCUREMENT**

C3.3.1 **PREFERENTIAL PROCUREMENT PROCEDURES**

C3.3.1.1 **REQUIREMENTS**

All works to be completed in this contract shall be executed in accordance to the Harry Gwala District Municipality's preferential procurement policies and procedures.

C3.3.1.2 **RESOURCE STANDARD PERTAINING TO TARGETED PROCUREMENT**

Preferential procurement will be applied as per Harry Gwala District Municipality's preference policy.

C3.3.2 **SUBCONTRACTING**

C3.3.2.1 **SCOPE OF MANDATORY SUBCONTRACT WORKS**

(a) Bids in excess of R30 million are required to Sub-Contract a minimum of 30% of the contract to previously disadvantaged companies, within the area of jurisdiction of the Municipality.

C3.3.2.2 **PREFERRED SUBCONTRACTORS / SUPPLIERS**

As per clause **C3.2.3.2.1 (a)**.

C3.3.2.3 **SUBCONTRACTING PROCEDURES**

The Employer must approve the sub-contractor(s) to be used in terms of **C3.2.3.2.1 (a)**.

C3.3.2.4 **ATTENDANCE ON SUBCONTRACTORS**

Not applicable for this Contract.

C3.4 CONSTRUCTION

C3.4.1 WORKS SPECIFICATIONS

C3.4.1.1 APPLICABLE SANS STANDARDS

The following SANS 1200 Standardized Specifications for Civil Engineering Construction are applicable:

SANS 1200 A	GENERAL
SANS 1200 AB	ENGINEER'S OFFICE
SANS 1200 C	SITE CLEARANCE
SANS 1200 D	EARTHWORKS
SANS 1200 DB	EARTHWORKS (PIPE TRENCHES)
SANS 1200 DK	GABIONS
SANS 1200 G	CONCRETE
SANS 1200 LB	BEDDING (PIPES)
SANS 1200 LD	SEWERS

The term "project specification" must be replaced by "scope of works" wherever it appears in these standardized specifications. The above list is not deemed exhaustive, and other specifications listed or referenced in the document may be applicable as required. Where SABS specifications are referenced, the corresponding SANS document and applicable clauses shall apply.

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

SANS 1921 (2004):	Construction and Management Requirements for Works Contracts
Part 1:	General Engineering and Construction Works;
Part 2:	Accommodation of Traffic on Public Roads Occupied by the Contractor;
Part 4:	Third-party management requirements for works contracts;
Part 5:	Earthworks activities which are to be performed by hand; and
Part 6:	HIV/AIDS Awareness

C3.4.1.2 APPLICABLE NATIONAL AND INTERNATIONAL STANDARDS

All works to be executed in accordance to the South African National Standards.

C3.4.1.3 PARTICULAR SPECIFICATIONS

The following Particular Specifications for work not covered by the SANS 1200 Standardized Specifications are also included hereunder:

- **HEALTH AND SAFETY SPECIFICATION**
- **CLIENT'S PRECONSTRUCTION HEALTH AND SAFETY PLAN**
- **EMPLOYER'S ENVIRONMENTAL MANAGEMENT SPECIFICATION FOR ENVIRONMENTAL MANAGEMENT OF CONSTRUCTION PROJECTS**
- **ENVIRONMENTAL MANAGEMENT PROGRAMME**

The above list is not deemed exhaustive, and other specifications listed or referenced in the document may be applicable as required.

C3.4.2 PLANT AND MATERIALS

C3.4.2.1 PLANT AND MATERIALS SUPPLIED BY THE EMPLOYER

Not applicable for this Contract.

C3.4.2.2 MATERIALS, SAMPLES AND SHOP DRAWINGS

Materials or works which do not conform to the approved samples submitted in terms of clause 7.4 of the Conditions of Contract will be rejected. The Employer's Agent reserves the right to submit samples for testing to ensure that the material represented by the sample meets the specification requirements.

The costs of any such tests conducted by or on behalf of the Employer's Agent, of which the results provided by the Contractor do not conform to the requirements of the Contract, shall be for the Contractor's account.

C3.4.3 CONSTRUCTION EQUIPMENT

C3.4.3.1 REQUIREMENTS FOR EQUIPMENT

The construction equipment are to be of adequate capacities and output in order to efficiently undertake the scope of works within the construction programme time frames.

The Contractor is to ensure that the equipment on site is in good working condition i.e. regularly serviced and maintained.

Should the Employer's Agent be of the opinion that the plant in use is in any way unsuitable for carrying out the Works in a manner or at a rate commensurate with the requirements of the Contract, they shall have the right to call on the Contractor at any time during the progress of the works to provide additional or improved plant and tools as may be necessary to meet these requirements.

C3.4.3.2 EQUIPMENT PROVIDED BY THE EMPLOYER

Not applicable for this Contract.

C3.4.4 EXISTING SERVICES

C3.4.4.1 KNOWN SERVICES

The Contractor shall take all necessary steps to ascertain the exact location of existing services before commencing any section of the Works and shall exercise the greatest care when working in the vicinity of such services. The Contractor shall also advise the Engineer of the position of any services conflicting with the intended positioning of the work and shall not proceed with the construction works until directed to do so by the Engineer.

The Contractor shall so carry out all his operations as not to encroach on, or interfere with, trespass on, or damage adjoining lands, buildings, properties, road structures, pipelines, places and things, in the vicinity of the Works and so as not to interfere in any way at any time with the smooth and continuous operation of the existing facilities.

The Contractor shall take all necessary steps to protect any existing works whatsoever against damage which may arise as a result of his operations on Site and shall bear the cost of the repair of damage to any service the possible existence of which could reasonably have been ascertained by him in good time. If services or other items are so

located that they interfere with the execution of the Works and require removal or relocation, the Contractor shall advise the Engineer timeously and obtain instructions regarding the action to be taken.

Where the Contractor is responsible for the cost of repairs carried out by the Employer the costs will be recovered by means of a deduction from the Contractor's Payment Certificate.

C3.4.4.2 TREATMENT OF EXISTING SERVICES

Existing services are to be kept live as far as practically possible. The need may arise for services such as electricity and water to be turned off for a short period of time due to construction in close proximity to these services. In this event the Contractor is to contact the relevant authorities well in advance of his programmed construction date in the affected areas so as not to incur any delays.

C3.4.4.3 USE OF DETECTION EQUIPMENT FOR THE LOCATION OF UNDERGROUND SERVICES

The Contractor may choose to use detection equipment for locating underground services. The costs for the use of this equipment are deemed to be included in the tendered rates.

C3.4.4.4 DAMAGE TO SERVICES

The Contractor will be held liable for all damages to existing services, known and unknown. Excavations and works in the proximity of services must be undertaken by hand with due care as instructed by the Employer's Agent or Engineer's Representative.

In the event of any service being damaged or accidentally disconnected for any reason, the Contractor shall immediately contact the relevant authority for instruction and shall report the occurrence of the incident. The damage is to be repaired as soon as possible to the approval of the Employer's Agent and the authority.

The Contractor will be held responsible for paying all costs incurred by the authority or himself as a result of each such incident, where relevant.

C3.4.4.5 REINSTATEMENT OF SERVICES AND STRUCTURES DAMAGED DURING CONSTRUCTION

The contractor will be held responsible for the repairs and reinstatement of all services damaged during the course of construction. The Employer's Agent is to be notified within 24 hours of damages to services.

C3.4.5 SITE ESTABLISHMENT

C3.4.5.1 SERVICES AND FACILITIES PROVIDED BY THE EMPLOYER

Not applicable for this Contract.

C3.4.5.2 FACILITIES PROVIDED BY THE CONTRACTOR

The Contractor shall, at his own cost, be responsible for locating and making all arrangements necessary for securing an area suitable to meet his needs in respect of the erection of the Contractor's offices, stores and other facilities, including the facilities to be provided for the Employer's Agent in accordance with the Contract.

Any potential area proposed by the Contractor shall be within reasonable proximity to the Site of the Works and its location shall be subject to the approval of the Employer's Agent, which approval shall not be unreasonably withheld, and shall be determined in liaison with the local community. The Project Steering community will assist and negotiate such site for the Contractor.

This site/s shall be restored to its original condition by the contractor on completion of the contract. The contractor will not be permitted to house construction staff on the premises overnight.

C3.4.5.3 STORAGE AND LABORATORY FACILITIES

The Contractor will set up storage facilities for material, plant and equipment within the site camp or site agreed upon with the Employer's Agent.

If the Contractor deems it necessary for a laboratory facility on site, such a facility will be set up within the confines of the site camp or site approved by the Employer's Agent. Payment for this facility will be as per the scheduled item in the Bill of Quantities.

C3.4.5.4 OTHER FACILITIES AND SERVICES

The Contractor shall, at his own cost, make all arrangements necessary for the supply and distribution of water required for construction purposes as well as for use in and about his site establishment and for human consumption.

The Contractor shall provide portable chemical latrines. All latrines must, for the duration of the contract, be kept in a clean and hygienic condition to the satisfaction of the Employer's Agent. Sufficient facilities shall be provided for the Contractor's employees in compliance with the local health department regulations.

The contractor shall make his own arrangements for all other necessary facilities during the period of the contract.

C3.4.5.5 VEHICLES AND EQUIPMENT

The Contractor shall, for purposes of this contract, provide suitable site offices, telephonic facilities and survey and testing equipment in accordance to the Variation to Standard and Particular Specifications PSAB.

C3.4.5.6 ADVERTISING RIGHTS

The Contractor shall not publish, or cause to be published, any papers, articles or information relating to this project, nor permit any advertising mentioning the subject of this Contract, nor display, or permit to be displayed, any advertisements on the Site, or elsewhere, in connection with this Contract, without the prior permission, in writing, of the Employer. The Contractor shall be responsible for the observance of this Clause by his employees and by his Sub-Contractors.

C3.4.5.7 NOTICE BOARDS

All notices, signs and barricades, as well as advertisements, may be used only if approved by the Employer's Agent. The Contractor shall provide 2 no. notice boards as per issued drawings. The Contractor shall be responsible for their supply, erection, maintenance and ultimate removal and shall make provision for this in his tendered rates.

The Employer's Agent shall have the right to instruct the Contractor to move any sign, notice or advertisement to another position, or to remove it from the Site of the Works if in his opinion it is unsatisfactory, inconvenient or dangerous.

C3.4.6 SITE USAGE

The Contractor and approved sub-contractors will be provided full access to the construction site for purposes of this contract only.

Access shall also be provided for inspections and testing by personnel acting on behalf of the Employer.

Access to the public shall be strictly prohibited.

C3.4.7 PERMITS AND WAY LEAVES

The following permits and wayleaves may be applicable to this contract and will be submitted to the relevant authorities for approval:

- (a) Water Usage Licence from DWS
- (b) Road crossings

The Contractor shall make all necessary arrangements with the abovementioned entities prior to any work being undertaken within the affected areas.

C3.4.8 ALTERATIONS, ADDITIONS, EXTENSIONS AND MODIFICATIONS TO EXISTING WORKS

Not applicable to this contract.

C3.4.9 INSPECTION OF ADJOINING PROPERTIES

Where the works encroach or adjoin public and private property with the potential to cause damage to existing structures and properties, the Contractor is to inspect properties with the presence of property owners and representatives of local authorities.

Photographic records and written permissions are to be obtained prior to commencing with the works and said records supplied to the Employer's Agent or Engineer's Representative.

C3.4.10 WATER FOR CONSTRUCTION PURPOSES

The Contractor shall, at his own cost, make all arrangements necessary for the supply and distribution of water required for construction purposes.

C3.4.11 SURVEY CONTROL AND SETTING OUT OF THE WORKS

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

The Contractor shall be responsible for all setting out to line and level. Survey control will be provided to the contractor at the start of the contract. The contractor shall satisfy himself with the accuracy thereof and immediately bring any discrepancies to the attention of the Employer's Agent.

C3.5 **MANAGEMENT**

C3.5.1 **MANAGEMENT OF THE WORKS**

C3.5.1.1 **APPLICABLE SANS STANDARDS**

- (a) The SANS 1200 Standardized Specifications listed in section C3.4.1.1.

C3.5.1.2 **PARTICULAR / GENERIC SPECIFICATIONS**

- (a) The Variations and Additions to the SANS 1200 Standardized Specifications given in section C3.7
- (b) The Particular Specifications given in sections C3.6.

C3.5.1.3 **PLANNING AND PROGRAMMING**

C3.5.1.3.1 **GENERAL**

The Contractor's Programme to be submitted in terms of Clause 5.6.1 of the Conditions of Contract shall take all matters that may impact the Contractor's sequence of executing the various components of the Works and the requisite rate of progress of the Works, as may be specified in or reasonably inferred from the Contract.

C3.5.1.3.2 **FORMAT**

The Construction Programme to be submitted by the Contractor in accordance with the provisions of Clause 5.6.1 of the Conditions of Contract shall;

- (a) Be in the form of a bar chart and
- (b) Clearly indicate the start and end dates and duration of all construction activities and identify the critical path and
- (c) Take full cognizance of all the Contractor's risks and obligations in terms of the Contract.

C3.5.1.3.3 **FAILURE TO MAINTAIN CONSTRUCTION PROGRAMME**

The Construction Programme has to be revised in terms of the Conditions of Contract, if the Contractor is falling behind in the programme. The Contractor shall submit a revised programme showing how they intend to restore gain lost time to ensure completion of the Works before the Due Completion Date.

C3.5.1.3.4 **SPECIFIC PROGRAMME REQUIREMENTS**

The Contractor's programme shall also take into account approximately 200m of pipeline that will not be on the critical path of the programme. This section of pipeline is pending a Water Usage Licence and construction in this vicinity will only commence upon receipt of this license. No additional payments will be made to the Contractor in respect of any additional costs as it may incur in consequence of arranging or adjusting its programme to accommodate the said matters and the Contractor's various tendered rates and prices shall be deemed to fully be inclusive of such costs.

No construction activities will be permitted which require the complete shut-down of existing works and operations.

Facilities to Other Contractors

Pursuant to the requirements of the Conditions of Contract, the Contractor's programme shall make allowances for the presence of such other contractors on the Site as are described below. This may involve adapting the Contractor's programme to accommodate the work of such other contractors and ensuring access to their sites along prescribed routes over the Site of this Contract.

C3.5.1.4 SEQUENCE OF THE WORKS

The work sequence is to take into account the programme requirement contained in clause **C3.5.1.3.4**.

C3.5.1.5 SOFTWARE APPLICATION FOR PROGRAMMING

The Construction Programme and all revisions there to, shall be provided to the Employer's Agent in electronic format using MSPROJECT software.

C3.5.1.6 METHODS AND PROCEDURES

C3.5.1.6.1 SITE MAINTENANCE

During progress of the work and upon completion thereof, the Site of the Works shall be kept and left in a clean and orderly condition. The Contractor shall store materials and equipment for which he is responsible in an orderly manner, and shall keep the Site free from debris and obstructions.

C3.5.1.6.2 BLASTING

Blasting will not be permitted within 10m of any structure, pipeline or service unless the Contractor satisfies the Employer's Agent that his proposed blasting methods and controls are such that damage will not be caused to the adjoining structure, pipeline or service. The Contractor shall assess that status of all buildings/structures within the vicinity of the works before commencing blasting. The Employer's Agent may ask for vibro recordings to be taken and request the attendance of an expert from the explosives supplier at no additional cost to the Employer.

C3.5.1.6.3 OPENING UP AND CLOSING DOWN OF DESIGNATED BORROW PITS

Measurement and payment for opening up and closing down designated borrow pits, including removing and stockpiling overburden and restoring the Site, shall be made under item 8.3.4 of SABS 1200 D. This item applies to all borrow material required under this Contract. The Contractor must note that not all material from the borrow pit can be used on the project but only material which meets project specification.

The requirements of sub-clause 5.2.2.2 of SABS 1200 D regarding the opening up, maintenance and closing down of borrow pits shall be adhered to.

C3.5.1.6.4 ACCESS TO PROPERTIES

The Contractor shall organise the work to cause the least possible inconvenience to the public and to the property owners adjacent to or affected by the work, and except as hereunder provided, shall at all times provide and allow pedestrian and vehicular access to properties within or adjoining or affected by the area in which he is working. In this respect the Contractor's attention is drawn to Clause 8.1.2 of the Conditions of Contract.

If, as a result of restricted road reserve widths and the nature of the work, the construction of bypasses is not feasible, construction shall be carried out under traffic conditions to provide access to erven and properties.

Notwithstanding the foregoing, the Contractor may, with the prior approval of the Employer's Agent (which approval shall not be unreasonably withheld), make arrangements with and obtain the acceptance of the occupiers of erven and properties to close off part of a street, road, footpath or entrance temporarily, provided that the Contractor duly notifies the occupiers of the intended closure and its probable duration, and reopens the route as punctually as possible. Where possible, such streets, roads, footpaths and entrances shall be made safe and reopened to traffic overnight. Such closure shall not absolve the Contractor from his obligations under the Contract to provide access at all times. Barricades, traffic signs, drums and other safety measures appropriate to the circumstances shall be provided by the Contractor to suit the specific conditions.

C3.5.1.6.5 ACCESS ROADS TO SITE

Access to the project area is via road R56, approximately 22km south of uMzimkhulu. Sections of the site can be accessed via gravel roads.

C3.5.1.6.6 SUBCONTRACTORS

All matters pertaining to subcontractors (including Nominated Subcontractors) and the work executed by them shall be dealt with directly between the Employer's Agent and the Contractor in the context of all subcontract work being an integral part of the Works for which the Contractor is responsible.

The Employer's Agent will not liaise directly with any subcontractors nor will he issue instructions concerning the subcontract works directly to any subcontractor.

All matters arising from the subcontract agreements shall be dealt with directly between the Contractor and the subcontractors and the Employer's Agent will not become involved.

C3.5.1.6.7 MANAGEMENT OF SUB-CONTRACTORS

The contractor shall price for the cost of managing the sub-contractors who would be appointed by the Client. The cost shall include supervision, attendance, possible training and compliance with construction regulations including health, safety and environmental regulations.

C3.5.1.6.8 EMPLOYMENT OF LOCAL LABOUR

Labour Intensive Competencies of Supervisory and Management Staff

Contractors shall only engage supervisory and management staff in labour intensive works that have completed the skills programme outlined in Table 1:

Table 1: Skills programme for supervisory and management staff

Personnel	NQF level	Unit standard titles	Skills programme description
Foreman / Supervisor	4	Implement Labour-Intensive Construction Systems and Techniques.	This unit standard must be completed, and
		Use Labour-Intensive Construction Methods to Construct and Maintain Roads and Stormwater Drainage	any one of these 3 unit standards
		Use Labour-Intensive Construction Methods to Construct and Maintain Water and Sanitation Services	
		Use Labour-Intensive Construction Methods to Construct, Repair and Maintain Structures	
Site Agent / Manager (i.e. the contractor's most senior representative that is resident on the site)	5	Manage Labour-Intensive Construction Processes	Skills Programme against this single unit standard

Employment of Unskilled and Semi-Skilled Workers in Labour-Intensive Works

Requirements for the sourcing and engagement of labour.

The overall youth target is 55%; women 60% and people with disabilities is 2%.

EPWP Reporting procedure: Employment contracts, ID Copies, Payment register, Attendance registers must be attached on every claim that is submitted by the contractor. Contractor must ensure that this information is submitted every month for reporting and compliance purposes. The contractor's invoices shall not be paid until all pending labour information has been submitted.

Unskilled and semi-skilled labour required for the execution of all labor-intensive works shall be engaged strictly in accordance with prevailing legislation in accordance with the Code of Good Practice for the Expanded Public Works Programme.

The following are some of the considerations that are elaborated in the Code of Good Practice for Expanded Public Works Programmes.

Training of Targeted Labour

The contractor shall provide all the necessary on-the-job training to targeted labour to enable such labour to master the basic work techniques required to undertake the work in accordance with the requirements of the contract in a manner that does not compromise worker health and safety.

Accredited training may be provided before the commencement of a project.

The cost of accredited training of targeted labour will be funded through various funding sources such as National Skills Fund from the Department of Higher Education and Training, funds from the Implementing Public body, funding from SETAS etc. This training should take place as close to the project site as practically possible. The Public Body implementing the project must ensure that training applications for beneficiaries are made by its relevant project manager assisted by relevant training officials from the National Department of Public Works.

The Public Body must ensure that preference of the training of beneficiaries in technical skills over life skills is made. In addition, the Public Body is required to maximize opportunities for training to beneficiaries to be carried out before the implementation of projects.

The Public body must ensure that workers who have received training will be placed on the project to work after receiving the training.

If a provisional sum for training is made in the contract the contractor shall pay an allowance equal to 100% of the daily wage rate to workers who attend accredited training.

Generic Labour-Intensive Specification

The Generic Labour-intensive specification below (informed by SANS 1921-5, Construction and management requirements for works contracts - Part 5: Earthworks) covers activities which are to be performed by hand and should be included in the scope of works without amendment or modification as set out below.

This specification establishes general requirements for activities which are to be executed by hand involving the following:

- trenches having a depth of less than 1.5 metres
- stormwater drainage
- low-volume roads (typically less than 500 vehicles per day);
- sidewalks and non-motorised transport infrastructure
- water and sanitation

Precedence

Where this specification is in conflict with any other standard or specification referred to in the Scope of Works to this Contract, the requirements of this specification shall prevail.

Hand excavatable material

Hand excavatable material is:

a) granular materials:

- i) whose consistency when profiled may in terms of table 2 be classified as very loose, loose, medium dense, or dense; or
- ii) where the material is a gravel having a maximum particle size of 10mm and contains no cobbles or isolated boulders, no more than 15 blows of a dynamic cone penetrometer is required to penetrate 100mm;

b) cohesive materials:

- i. whose consistency when profiled may in terms of table 2 be classified as very soft, soft, firm, stiff and stiff / very stiff; or
- ii. where the material is a gravel having a maximum particle size of 10mm and contains no cobbles or isolated boulders, no more than 8 blows of a dynamic cone penetrometer is required to penetrate 100mm;

Note

1. A boulder is material with a particle size greater than 200mm, a cobble and gravel is material between 60 and 200mm.
2. A dynamic cone penetrometer is an instrument used to measure the in-situ shear resistance of a soil comprising a drop weight of approximately 10 kg which falls through a height of 400mm and drives a cone having a maximum diameter of 20mm (cone angle of 60° with respect to the horizontal) into the material being used.

Table 2: Consistency of materials when profiled

GRANULAR MATERIALS		COHESIVE MATERIALS	
CONSISTENCY	DESCRIPTION	CONSISTENCY	DESCRIPTION
Very loose	Crumbles very easily when scraped with a geological pick.	Very soft	Geological pick head can easily be pushed in as far as the shaft of the handle.
Loose	Small resistance to penetration by sharp end of a geological pick.	Soft	Easily dented by thumb; sharp end of a geological pick can be pushed in 30-40 mm; can be moulded by fingers with some pressure.
Medium dense	Considerable resistance to penetration by sharp end of a geological pick.	Firm	Indented by thumb with effort; sharp end of geological pick can be pushed in up to 10 mm; very difficult to mould with fingers; can just be penetrated with an ordinary hand spade.
Dense	Very high resistance to penetration by the sharp end of a geological pick; requires many blows for excavation.	Stiff	Can be indented by thumb-nail; slight indentation produced by pushing geological pick point into soil; cannot be moulded by fingers.
Very dense	High resistance to repeated blows of a geological pick.	Very stiff	Indented by thumb-nail with difficulty; slight indentation produced by blow of a geological pick point.

Trench excavation

All hand excavatable material in trenches having a depth of less than 1,5 metres shall be excavated by hand.

Compaction of backfilling to trenches (areas not subject to traffic)

Backfilling to trenches shall be placed in layers of thickness (before compaction) not exceeding 100mm. Each layer shall be compacted using hand stampers

- a) to 90% Proctor density;
- b) such that in excess of 5 blows of a dynamic cone penetrometer (DCP) is required to penetrate 100 mm of the backfill, provided that backfill does not comprise more than 10% gravel of size less than 10mm and contains no isolated boulders, or
- c) such that the density of the compacted trench backfill is not less than that of the surrounding undisturbed soil when tested comparatively with a DCP.

Excavation

All hand excavatable material including topsoil classified as hand excavatable shall be excavated by hand. Harder material may be loosened by mechanical means prior to excavation by hand.

The excavation of any material which presents the possibility of danger or injury to workers shall not be excavated by hand.

Clearing and grubbing

Grass and small bushes shall be cleared by hand.

Shaping

All shaping shall be undertaken by hand.

Loading

All loading shall be done by hand. Haulage equipment should be selected in a manner that allows loading by hand to the extent possible.

Haul

Excavation material shall be hauled to its point of placement by means of wheelbarrows where the haul distance is not greater than 150 m.

Offloading

All material, however transported, is to be off-loaded by hand, unless tipper-trucks are utilised for haulage.

Spreading

All material shall be spread by hand.

Compaction

Small areas may be compacted by hand provided that the specified compaction is achieved. Appropriate rollers should be used where higher (than can be achieved by hand) levels of compaction are required.

Grassing

All grassing shall be undertaken by sprigging, sodding, or seeding by hand.

Stone pitching and rubble concrete masonry

All stone required for stone pitching and rubble concrete masonry, whether grouted or dry, must be collected, loaded, off loaded and placed by hand.

Sand and stone shall be hauled to its point of placement by means of wheelbarrows where the haul distance is not greater than 150m.

Grout shall be mixed and placed by hand.

Manufactured Elements

- Elements manufactured or supplied by the Contractor, such as manhole rings and cover slabs, precast concrete planks and pipes, masonry units and edge beams shall not individually, have a mass of more than 320kg. In addition, the items shall be large enough so that four workers can conveniently and simultaneously acquire a proper hand hold on them

Precedence

Where this specification is in conflict with any other standard or specification referred to in the Scope of Works to this Contract, the requirements of this specification shall prevail.

Hand excavatable material

Hand excavatable material is:

a) Granular materials:

- i) Whose consistency when profiled may in terms of table 2 be classified as very loose, loose, medium dense, or dense; or
- ii) Where the material is a gravel having a maximum particle size of 10mm and contains no cobbles or isolated boulders, no more than 15 blows of a dynamic cone penetrometer is required to penetrate 100mm;

b) Cohesive materials:

- i) Whose consistency when profiled may in terms of table 2 be classified as very soft, soft, firm, stiff and stiff / very stiff; or
- ii) Where the material is a gravel having a maximum particle size of 10mm and contains no cobbles or isolated boulders, no more than 8 blows of a dynamic cone penetrometer is required to penetrate 100mm;

Note

- 1) A boulder is material with a particle size greater than 200mm, a cobble and gravel is material between 60 and 200mm.
- 2) A dynamic cone penetrometer is an instrument used to measure the in-situ shear resistance of a soil comprising a drop weight of approximately 10kg which falls through a height of 400mm and drives a cone having a maximum diameter of 20mm (cone angle of 60° with respect to the horizontal) into the material being used.

C3.5.1.7 QUALITY PLANS AND CONTROL

The onus to produce work that conforms in quality and accuracy of detail to the requirements of the Specifications and Drawings rests with the Contractor, and the Contractor shall, at his own expense, institute a quality control system and provide suitably qualified and experienced engineers, foremen, surveyors, materials technicians, other technicians and technical staff, together with all transport, instruments and equipment to ensure adequate supervision and positive control of the Works at all times.

The cost of supervision and process control, including testing carried out by the Contractor, will be deemed to be included in the rates tendered for the related items of work.

The Contractor's attention is drawn to the provisions of the various Particular Specifications, Standardized Specifications including variations/amendments thereto regarding the minimum frequency of testing required. The Contractor shall, at his own discretion, increase this frequency where necessary to ensure adequate control.

On completion and submission of every part of the work to the Employer's Agent for examination and measurement, the Contractor shall furnish the Employer's Agent with the results of the relevant tests, measurements and levels to demonstrate the achievement of compliance with the Specifications.

C3.5.1.8 ENVIRONMENT

The Contractor shall refer to the following Particular Specifications

PC: Employer's Environmental Management Specification for Environmental
 Management of Construction Projects

PC: Environmental Management Programme

C3.5.1.9 ACCOMMODATION OF TRAFFIC ON PUBLIC ROADS OCCUPIED BY THE CONTRACTOR

The Contractor shall ensure the safe and expeditious passage of traffic at all times and shall provide all necessary temporary road traffic signs, barricades, flagmen, etc. to safeguard the travelling public. 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 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 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.

Any detours or bypasses constructed by the Contractor shall be adequately signposted, as per South African Road Traffic Contractor, and maintained in such a manner as to provide safe and easy passage of traffic.

C3.5.1.10 OTHER CONTRACTORS ON SITE

Not applicable for this contract.

C3.5.1.11 TESTING, COMPLETION, COMMISSIONING AND CORRECTION OF DEFECTS

The Works shall only be operational upon certified practical completion. Access to site for correction of defects is to be arranged for by the Contractor.

C3.5.1.12 RECORDING OF WEATHER

If during the time for completion of the Works or any extension thereof, abnormal rainfall or wet conditions occur, the Contractor may submit a claim for an extension of time in accordance with Clause 5.12 of the General Conditions of Contract. The method whereby an extension of time due to abnormal rainfall will be determined is as follows:

- (a) Extension of Time for Abnormal rainfall for each calendar month shall be the total working days in the month under consideration during which the Contractor is unable to proceed with his operations as specified under (b) below, less the number of working days (from the table) that no work is deemed to have been possible on a critical path item as a result of normal rainfall for the month under consideration. (When drawing up his programme, the Contractor shall make provision for the expected delays shown in the table).
- (b) The claim for extension of time shall be the sum of all the positive monthly totals for the Contract Period. Negative monthly totals shall be disregarded. A day shall be considered as lost when the Employer's Agent agrees that no work was capable of being done on any item shown on the critical path of the current construction programme. Items which are not shown on the critical path and have been affected by rainfall will not be considered for extension of time.

RAINFALL TABLE

Month	Expected number of working days lost due to normal rainfall	Month	Expected number of working days lost due to normal rainfall
January	3	July	1
February	3	August	1
March	3	September	1
April	1	October	3
May	1	November	3
June	1	December	5

Accurate rain measurements shall be taken at a suitable point(s) on the site. Rain gauge readings must be taken in the morning and afternoon and be approved by the Employer's Agent.

C3.5.1.13 FORMAT OF COMMUNICATION

Site Instruction Book

The Contractor shall supply, at his own expense an A4 size triplicate book which shall be kept in the site office. All correspondence between the Employer's Agent and Contractor's site staff shall be entered into this book, and each entry signed and dated by both parties. It shall be available from the first day of the contract and at all times be accessible to the Employer's Agent.

The original shall be issued to the Contractor, the first copy is to be forwarded to the office of the Employer's Agent and the second copy shall remain in the book. Employer's Agent version of the entries that have been lost will be assumed correct and binding. If the

Contractor should lose the book it will be considered a grave offence on his part. In such case the Employer's Agent version of the entries that have been lost will be assumed correct and binding.

Further to this, written letters, faxes and/or emails will be deemed acceptable means of communication for this contract.

C3.5.1.14 KEY PERSONNEL

The Contractor shall fill in the form entitled Key Personnel in the Forms to be completed by the Tenderer. The data stated on the above-mentioned form will be strictly monitored during the Contract period and any deviations therefrom shall be subject to the prior approval of the Employer's Agent, which approval shall not be unreasonably withheld.

C3.5.1.15 MANAGEMENT MEETINGS

Project progress meetings must be held monthly with the presence of the following parties:

1. Employer
2. Employer's Agent and/or Engineer's Representative
3. Appointed Contractor
4. Appointed Community Liaison Officer
5. Health and Safety Officer
6. Environmental Control Officer

This list is not necessarily complete and shall not limit the attendance at progress meetings.

C3.5.1.16 FORMS FOR CONTRACT ADMINISTRATION

Not applicable for this contract.

C3.5.1.17 ELECTRONIC PAYMENTS

The Contractor is to ensure correct banking details are provided to the Employer in a timeous manner.

C3.5.1.18 DAILY RECORDS

The Contractor shall supply, at his own expense, an A4 size triplicate book which shall be kept in the site office. Each day's activities will be filled in by the Contractor day by day and the book handed to the Employer's Agent for signature each 14 days. It shall be available from the first day of the contract and at all-time be accessible to the Employer's Agent. The work progress and record of plant and labour shall be entered on a daily basis. The original shall be issued to the Contractor, the first copy is to be forwarded to the office of the Employer's Agent and the second copy shall remain in the book. Employer's Agent version of the entries that have been lost will be assumed correct and binding. If the Contractor should lose the book it will be considered a grave offence on his part. In such case the Employer's Agent version of the entries that have been lost will be assumed correct and binding.

C3.5.1.19 PAYMENT CERTIFICATES

Monthly statements to be submitted by the Contractor in terms of Clause 6.10 of the Conditions of Contract shall be prepared by the Contractor at his own cost, strictly in

accordance with the standard payment certificate prescribed by the Employer's Agent, in electronic format. The Contractor shall, together with a copy of the electronic file of the statement, submit two (2) A4 size paper copies of the statement.

For the purposes of the Employer's Agent payment certificate, the Contractor shall subsequently be responsible, at his own cost, for making such adjustments to his statement as may be required by the Employer's Agent for the purposes of accurately reflecting the actual quantities and amounts which the Employer's Agent deems to be due and payable to the Contractor in the payment certificate.

The Contractor shall, at his own cost, make the said adjustments to the statement and return it to the Employer's Agent within three (3) normal workings days from the date on which the Employer's Agent communicated to the Contractor the adjustments required. The Contractor shall submit to the Employer's Agent five (5) sets of A4 size paper copies of such adjusted statement, together with a copy of the electronic file thereof.

Any delay by the Contractor in making the said adjustments and submitting to the Employer's Agent the requisite copies of the adjusted statement for the purposes of the Employer's Agent payment certificate will be added to the times allowed to the Employer's Agent in terms of Sub-clause 6.10.4 of the Conditions of Contract to submit the signed payment certificate to the Employer and the Contractor. Any such delay will also be added to the period in which the Employer is required to make payment to the Contractor.

C3.5.1.20 PERMITS

The Security requirements for the Contractor's site establishment and the works shall be determined by the Contractor. The cost of this shall be borne by the Contractor. No other security related claim will be considered.

C3.5.2 HEALTH AND SAFETY

C3.5.2.1 HEALTH AND SAFETY REQUIREMENTS AND PROCEDURES

The Contractor shall be required to comply with the Occupational Health and Safety Act, 1993: Construction Regulations, 2014 (the regulations) as promulgated in Government Gazette No 37305 and Regulation Gazette No 10113 of 7 February 2014. Non-compliance with these regulations, in any way whatsoever, will be adequate reason for suspending the Works.

The proposed type of work, materials to be used and potential hazards likely to be encountered on this Contract are detailed in the Project Specifications, Bill of Quantities and Drawings, as well as in the Employers' health and safety specifications (Regulation 5(1)(b) of the Construction Regulations 2014, which are contained in the Contract document.

The Contractor shall in terms of Regulation 7(1)(a) provide a comprehensive health and safety plan detailing his proposed compliance with the regulations, for approval by the Employer.

The Contractor shall at all times be responsible for full compliance with the approved plan as well as the Construction Regulations and no extension of time will be considered for delays due to non-compliance with the abovementioned plan or regulations.

Payment items are included in the Bill of Quantities to cover the Contractor's cost for compliance with the OHS Act and the abovementioned regulations. Such items tendered

and the other 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.

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.

C3.5.2.2 PROTECTION OF THE PUBLIC

The Contractor will ensure that all excavations are adequately barricaded to ensure public safety and prevent unauthorised access.

Refer to the Occupational Health and Safety Act, 1993 and the Construction Regulations, 2014.

C3.5.2.3 BARRICADES AND LIGHTING

The Contractor will ensure that barricades, as necessary to ensure public safety and protection of the works and adjacent existing services are erected as necessary.

Refer to the Occupational Health and Safety Act, 1993 and the Construction Regulations, 2014.

C3.5.2.4 TRAFFIC CONTROL ON ROADS

The Contractor shall accommodate any pedestrian traffic on the walkways and road past the site, as well as vehicular traffic in the roads.

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.

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.

Refer to the Occupational Health and Safety Act, 1993 and the Construction Regulations, 2014.

C3.5.2.5 MEASURES AGAINST DISEASE AND EPIDEMICS

Not applicable to this contract.

C3.5.2.6 AIDS AWARENESS

The Contractor SHALL provide HIV/AIDS awareness training to staff employed during the construction project. A provisional amount has been allowed for in the Bill of Quantities to cover the Contractor's cost for compliance for this item.

C3.6 **PARTICULAR SPECIFICATIONS**

PA: **HEALTH AND SAFETY SPECIFICATION**

In accordance with paragraph 5, 1 (b) of the Construction Regulations 2014, Promulgated under the Occupational Health and Safety Act 85 of 1993

1. INTRODUCTION

It is a requirement of this project that the Contractor shall provide and maintain a safe and health working environment and to direct all his activities in such a manner that his employees and any other persons, who may be directly or indirectly affected by his activities, are not exposed to hazards to their health and safety. The purpose of this document is to describe the minimum OH&S requirements to be implemented by the contractor during the construction project. UMDM subscribes to the requirements of Occupational Health and Safety Act 85 of 1993. Hence the organization requires all projects under its control to comply with all the requirements of Construction Regulations of the OHS Act.

2. DEFINITIONS

Unless inconsistent with the context, the expressions set forth below shall bear the following meanings:

- 2.1. Expressions which denote:
 - 2.1.1. any gender shall include the other genders
 - 2.1.2. a natural person shall include a juristic person and vice versa
 - 2.1.3. the singular shall include the plural and vice versa
- 2.2. **Contractor** – shall mean the employer as defined in Section 1 of the OHS Act, who performs construction work and includes the Principal Contractor.
- 2.3. **Construction site** – shall mean the site/s as described in the Tender Document for the Nadi bulk water facilities. In instances where there is no demarcated boundary it will include all adjacent areas, which are reasonably required for the activities of the Principal contractor and approved for such use by the Employer's Agent and / or client.
- 2.4. **Construction Vehicles**-shall mean vehicles used by the contractor for transporting persons or material or both on or off the construction site for the purposes performing construction work.
- 2.5. **Construction Work** – shall mean any work carried out by the contractor in connection with the stores expansion project, and any other work the contractor is instructed to perform by the Employer's Agent or the client.
- 2.6. **Explosives** –Means any substance or article as defined in Section 1 of OHS Act.
- 2.7. **Hazard** – means a source of or exposure to danger.
- 2.8. **Hazard Identification** – means the process of recognizing that a source, situation or act with potential harm to people exists and defining its features.
- 2.9. **Principal Contractor** – means an employer as defined in Section 1 of the OHS Act, who performs construction work and is appointed by the client to be in overall control and management of a part or the whole of construction site.
- 2.10. **Risk**- means the probability or likelihood that a hazard can result injury or damage.
- 2.11. **Risk assessment** –process of evaluating the risk arising from the hazard, and taking into account the adequacy of any existing controls and deciding whether or not the risk is acceptable.

3. SCOPE AND PURPOSE

This safety specification covers the health and safety requirements to be fulfilled by the Principal Contractor to ensure that a continued health and safe environment for all employees and contractors under his control, and the public members.

The purpose of this Document

Health and Specification is to ensure that the objectives of the Construction Regulations of the OHS Act are fulfilled during the construction period at the defined project. The construction work to be carried out in this project falls within the scope of the construction work as defined in the Construction Regulations, of the OHS Act.

4. REFERENCE DOCUMENTS

- Occupational Health and Safety Act, (Act 85 of 1993)
- Compensation for Occupational Injuries and Disease Act (Act 130 of 1993)
- Construction Regulations 2014.

5. NOTIFICATION OF CONSTRUCTION WORK

The Principal Contractor shall ensure that the construction work to be undertaken is reported to the Provincial Director in the manner prescribed in the Construction Regulation 4.

Regulation 4 (1) b requires that any construction work must be reported if the work –

- Exceeds 30 days or will involve more than 300 person days of construction work and
- Includes excavation work deeper than 1 meter; or
- Includes working at height greater than 3 meters above ground or landing.

The copy of the notification letter to the provincial director shall be forwarded to the client's project manager to sign.

6. OH&S POLICY

The Principal Contractor shall prepare and approve the contractor's OH&S Policy and ensure that it is appropriate to the nature and scale of the contractor's risks.

The policy shall commit the contractor to prevention of injury and ill health.

The OH&S policy shall be communicated to all employees working under the control of the contractor.

The policy shall be kept in the contractor's Health and Safety File which shall be available onsite.

7. HAZARD IDENTIFICATION AND RISK ASSESSMENT

The principal contractor shall establish and implement a procedure for conducting risk assessment at the construction site.

The principal contractor shall ensure that Hazard Identification and Risk Assessment forms the basis of all work to be conducted on site, and a preliminary task risk assessment be

submitted to the Client (MNA/UMDM) prior to work commencing on site. The principal contractor must ensure that training forms part of the HIRA processes and proof of training attendance is made available to the client upon request.

The principal contractor shall ensure that a HIRA team is established comprising members as follows, but not limited to:

- Appointed Risk Assessor
- Health and Safety Officer
- Management Representative

8. HEALTH AND SAFETY PLAN

The Principal Contractor shall submit to the client for approval, a health and safety plan which shall be compiled in accordance with this Specification. The client has identified the sources of risks listed in item 9 below, the contractor is required to incorporate these sources of risks to his health and safety plan. The health and safety plan must be comprehensive enough and cover all other OHS Act requirements. The health and safety plan must be discussed with and be approved by client's representative. The plan must be updated regularly to reflect the activities as the construction work progresses. The Principal Contractor shall further ensure that a health and safety file is opened and kept on the premises. All health and safety incidents must be logged into this file.

Contents of the file shall include, but not limited to:

- Notification of Construction Work – Copy
- OH&S Policy
- Safety plans
- Risk Assessment Register
- Appointment letters of responsible persons
- The COID certificate
- UIF Certificate
- Employee names
- Medical certificates
- Incident register
- List of contractors (subcontractors) involved in the project
- Safety Audits reports
- Safety meeting minutes
- Public liability cover
- Electrical equipment register
- Fire-fighting equipment register

THE HAZARDS AND RISKS

The client has identified the following risks associated with the intended construction work, and must as a minimum be addressed by the principal contractor in his Health and Safety Plan. This report is not conclusive; the contractor shall conduct further preliminary risk assessments to determine the other risks associated with the construction work.

NO	Hazards	Risks
1	Mobile plants	May knock off / or run over persons
2	Noise	Noise induced hearing loss
3	Construction Vehicle	Injuries, death caused by road crashes
4	Open trenches and embankments	Land collapsing on employees / persons
5	Portable electrical tools	Electrocution, body injuries
6	Formwork and support work	Structure collapsing with of falling on to person
7	Manual handling of materials	Back injuries
8	Diesel and other flammables	Fire
9	Hazardous substances	Fire
10	Members of the public	Public liability
11	Jack hammer and other non-portable tools	Fatigue / Noise induced hearing loss
12	Working at height and scaffolding	Falling from height and scaffolding collapse
13	Existing services: Pipes and electrical cables	Infrastructure damage / Electrocution

9. HEALTH AND SAFETY MANAGEMENT SYSTEM

The Principal Contractor shall integrate all his health and safety activities and plans into one H&S Management System.

The system should be inclusive of the following contents:

Health and Safety Structure

- The principal contractors' OH&S Policy
- Legal appointments
- Health and Safety Officer
- Health and Safety Committee
- Health and Safety Meetings
- SHE Training and Awareness
- First aider and first aid kit
- Health and Safety Representatives

Health and Safety Procedures shall include

- Incidents and I.o.D Management procedure
- Safe work procedure
- Accident investigation procedure
- Protective Equipment issuing procedure
- Procedure for handling intoxication
- Emergency evacuation procedures

10. HEALTH AND SAFETY APPOINTMENTS

The Principal Contractor shall make the following OHS Act appointments (as a minimum) in writing. Further legal appointments must be made as the need arises.

No	Appointment	Reference
1.	Assistant to C.E.O / company owner	Section 16 (2)
2.	Construction Manager	CR 8 (1)
3.	Construction Supervisor	CR 8 (7)
4.	Assistant Construction Supervisor	CR 8 (8) if required
5.	Construction Safety Officer	CR 8 (5)
6.	Health and Safety Representatives	Section 17
7.	First Aider	GSR 3
8.	Incident Investigator	GAR 9
9.	Excavation Supervisor	CR 13 (1)
10.	Fire Equipment Inspector	CR 29
11.	Scaffolding Supervisor & Suspended Platforms	CR 16
12.	Scaffolding Inspector	SANS 10085-1
13.	Team Leader	SANS 10085-1
14.	Scaffolding Erector	SANS 10085-1
15.	Suspended Platforms Supervisor	CR 17
16.	Temporary electrical installation inspector	CR 24 1(a)
17.	Stacking and storage supervisor	CR 28 (a)

NB: The Principal Contractor may combine Section 16 (2) and Construction Regulation 8 (1) appointment.

11. HEALTH AND SAFETY TRAINING

The contractor shall prepare a training matrix for the construction project which must be included in the health and safety plan.

The training matrix should cover the following training needs as a minimum.

- a) Induction training
- b) Awareness training (Toolbox Talks)
- c) Competency- identified through HIRA process
- d) Scaffolding Training as prescribed in SANS 10085-1 Standard.
- e) First aid
- f) Health and Safety representatives
- g) Basic fire fighting

The contractor shall ensure that risks identified during risk assessment are communicated to employees through induction training program.

12. EMERGENCY PROCEDURES

The contractor shall establish and implement an emergency preparedness plan for the site. The emergency plan shall tie up with the emergency procedures. The Emergency Procedures must contain at least the following minimum information or numbers and contact persons.

- Construction Manager
- Construction Supervisor
- Safety Officer
- First Aider
- The Project Manager's Cell Number
- FEM / Compensation Commissioner Number

- Nearest Police Station
- Nearest Hospital
- Local Clinic
- Local Fire and Rescue

The Principal Contractor shall ensure that a First Aider is trained in first aid provision and is readily available for all time during the construction project. The first aider/s must be trained by an accredited service provider.

The Principal Contractor shall further ensure that a first aid box stocked with appropriate first aid material is provided at the construction site.

A list of emergency numbers shall be conspicuously displayed at the construction site with a copy of the emergency numbers filed in the health and safety file.

13. FIRE PROTECTION AND PREVENTION

The principal contractor shall identify all articles and materials at the construction site that are likely to cause fire. The principal contractor shall compile a register of all the articles and implement programs for their proper monitoring and maintenance. This includes articles used by contractors on the premises. The principal contractor shall designate a trained fire marshal (inspector) to look after all fire prevention measures.

i. Fire Fighting Equipment

- The principal contractor shall ensure that firefighting equipment is readily available and in working order at the construction site.
- Extinguishers shall be placed in positions to ensure fast and easy access
- Placement of extinguishers shall be depicted with the required pictograms
- Firefighting equipment shall be coded / numbered and be inspected monthly by a fire marshal who has been appointed in writing.
- Servicing of firefighting equipment shall be done as per the manufacture's specifications
- All construction vehicles used on site shall have firefighting equipment mounted on them.

ii. Smoking

- Smoking is not allowed at the construction site except at the designated smoking area.
- All the designated smoking areas shall display smoking area notices that comply with the Tobacco Product Control Act No 83 of 1993.
- For the purposes of compliance with the TPC Act, all construction vehicles and mobile plants shall be deemed to be part of the construction site and no smoking is allowed in them.

iii. Portable Electrical Equipment

- Portable electrical equipment shall be used by authorized employees who have been instructed on the correct use of such equipment.
- The electrical equipment must be coded / numbered and be inspected at least monthly by assigned person.

iv. Explosives

- No Explosives shall be used, tested or kept at the construction site except if an arrangement has been made with the client and such intended act has been reported to the Department of Labour by the contractor.
- Should the contractor obtain a permission to carry out blasting work using explosives, the contractor shall ensure that Explosives Regulations are adhered to.
- The contractor shall ensure that a detailed blasting plan, emergency plan and site layout plan is submitted for approval to the Client.

14. INCIDENT INVESTIGATION AND REPORTING

The principal Contractor shall:

- Record and investigate all incidents that take place during the construction work.
- Investigation and record all near misses in a register kept at the construction site and shall ensure that the register remains accessible to any authorized person.
- Report all incidents referred to in Section 24 of the OHS Act to the Department of Labour and to the client.
- Provide the client with copies of any written documentation relating to the incidents.
- Ensure that all incidents involving contractors under his control and direction are investigated and reported accordingly.

15. HAZARDOUS CHEMICAL SUBSTANCES

The principal contractor shall compile an inventory of all HCS used at the construction site. The contractor shall ensure that necessary training and information regarding the use and storage of HCS is provided to all personnel, and that the use and storage of HCS is carried out as prescribed by the Regulations.

The principal contractor shall not accept HCS on site if not accompanied by the Material Safety Data Sheet as provided for in Section 10 of the OHS Act.

The principal contractor shall display conspicuous “no smoking notices / signs” at the entrances of storage areas where hazardous substances are stored. The principal contractor shall ensure that HCS are not stored in a manner that would cause combustion.

16. STACKING AND STORAGE

The principal contractor shall ensure that all stacking and storage operations are undertaken by / or under the supervision of a competent person who has been appointed in writing. The contractor shall ensure that clearly defined and allocated areas are provided for and identified, and that materials being stored within this area are stacked in accordance with sound stacking principles of sort-by-sort, access to be maintained, level surface, and the height will not exceed three times the base with.

The contractor shall maintain good housekeeping practices at the construction site.

17. PERSONAL PROTECTIVE EQUIPMENT

The contractor shall provide, free of charge, adequate personal protective equipment to employees under his employ at the construction site. The principal contractor shall further ensure that employees working for other contractors are supplied with protective equipment that is in good condition.

All safety clothing supplied at the construction site shall comply with General Safety Regulation 2 of the OHS Act. The principal contractor shall keep a register / records of protective equipment issued to workers in the health and safety file.

NB. The principal contractor shall provide the following (where necessary) as a minimum.

- Two pairs for safety overalls.
- One pair of safety shoes / boots
- Goggles
- Dust mask
- Ear plugs
- Safety harnesses should employees be required to work at height.

18. ACCESS TO CONSTRUCTION SITE

a) Permits

The principal contractor shall ensure that access to construction site is restricted to construction personnel only. Any other person entering the construction site shall do so only if the principal contractor has issued him the permission to enter the site. And shall undergo the principal contractor's safety induction.

b) Signage

The principal contractor shall display conspicuous notice at the construction site advising members of the Public that "Construction Work is in Progress No unauthorized entry". The contractor shall ensure that there is adherence to this notice by assigning an employee with the duty of controlling access to the construction site.

PPE required at the construction must be displayed at the entrance-through the use of Mandatory Signs.

c) Intoxication

No intoxicating substance of any form is allowed at the construction site. Any person suspected to be under influence of intoxicating substance shall not be allowed to enter the construction site.

d) Site Visits

The contractor shall ensure that visitors to the construction site are inducted, prior to access given. Visitors must also be given proper protective clothing by the principal contractor to be used during the site tour.

e) Weapons

Carrying of dangerous weapons is not allowed at the construction site. This includes dangerous traditional weapons.

19. PUBLIC SAFETY

In the interest of public safety, the Principal Contractor shall ensure that all persons who may be affected by the work being conducted onsite are informed and kept aware of the dangers, which may arise from the work being conducted on site.

The principal contractor shall ensure that the safety officer is notified of any drilling or work that may cause land vibration before such work is carried out.

20. NIGHT WORK

No night work shall be conducted by the contractor. Should there be an urgent need for night work to be carried out; the principal contractor shall request an approval from the client's Health and Safety Agent before such work is carried out.

21. INCLEMENT WEATHER

No construction work shall be carried out during rainy days except where the permission has been sought from the Employer's Agent and /or the Client.

Notwithstanding the permission given, the following shall not be performed:

- Lifting work
- Excavations
- Any height work

22. HEALTH AND HYGIENE FACILITIES

The principal contractor shall ensure that adequate facilities are provided for employees' usage at the construction site.

The contractor shall provide:

- a) At least one mobile sanitary facility for every 30 employees for each sex.
- b) Sheltered eating facility- with sufficient seating
- c) Cold potable water
- d) Hand wash facility
- e) Changing Facilities for each sex.

No food preparation shall be permitted on site.

Waste bins shall be provided with plastic liners and must be strategically placed and cleared regularly.

23. CONTRACTORS AND SUPPLIERS

The principal contractor shall comply with the following in respect of other mandataries on site,

- Compile a list of all contractors and suppliers that are working with or are assisting him at the construction site.
- Appoint all other contractors in writing in accordance with Construction Regulation 7(1) c (v)
- Enter into a section 37(2) agreement with the mandataries
- Carry out audits of the contractors working with or assisting him at the construction site at least twice a month.
- Ensure that employees working for other contractors are provided with PPE free of charge.
- The principal contractor shall not procure goods from suppliers who are not OH&S compliant. Pre-procurement audit of suppliers shall be conducted by the principal contractor to all his prospective suppliers.

24. PLANT AND MACHINERY

All plant must comply with the OHS Act requirements in relation to operation and maintenance thereof.

- All construction plant and machinery shall be inspected prior to being used by a person who has been appointed in writing.
- They shall be equipped with an electrically operated acoustic signalling device and a reversing alarm.
- They shall each be fitted with firefighting equipment
- All construction plant and machinery shall be operated by persons who have certificate of competence to operate the type of plant
- Operators shall have medical certificate of fitness
- Construction plants shall be operated under supervision of a competent person.
- Passengers shall not be allowed on any mobile plant used during construction work.

➤ Hired Plant / Machinery

The Principal Contractor shall be responsible for the safe usage and operation of the hired plant or machinery. The principal contractor shall ensure that hired plant is checked for safety compliance prior to being accepted for use on site. Operators of hired plant shall be treated as though they were employees of the principal contractor. The contractor shall ensure that operators of hired plant have correct PPE, attend principal contractors toolbox talks, have medical certificate of fitness, prior to being allowed to operate machinery on site.

➤ Construction Vehicles

All construction vehicles shall comply with Regulation 24 of the Construction Regulations.

- Vehicles used to transport employees must have seats firmly secured and adequate for the number of persons to be ferried.
- Construction vehicles must, where tools are ferried with employees, have chains or similar devices for securing tools & materials to prevent movement when being transported.
- They shall each be fitted with firefighting equipment.
- They shall be equipped with an electrically operated acoustic signalling device and a reversing alarm.
- Drivers / operators shall have medical certificate of fitness, PDP, and appropriate operator license.

➤ Lifting Machinery and Tackle

The principal contractor shall comply with the following in respect of lifting machinery.

- Lifting machinery shall be marked with a visible Maximum Mass Load.
- The contractor shall appoint in writing a competent person to inspect the lifting machinery on daily basis.
- A valid logbook shall be maintained for all lifting machinery, which will comply with minimum six-month service and maintenance.
- Pre-operation load test to be conducted on site and there after loads tests to be carried out every 6 months. Load tests to be carried out by a competent person.
- The contractor shall further ensure that goods hoist are inspected at least every three months by a person who has knowledge and experience of the erection and maintenance of goods hoist or similar machinery.

- Lifting machinery shall be operated under supervision at all times with a trained banksman who shall inspect all tackle before each lift.
- No lifting work shall be carried out during inclement weather.
- Operators to be trained every two years, and shall have medical certificate of fitness.
- During operation of lifting machinery, no person shall be allowed to remain under suspended loads.

25. DEMOLITIONS

The Principal Contractor shall ensure that for all activities involving demolition of a building and / or structure is carried out under supervision, at all times, of a competent person who has been appointed in writing.

A method statement must be developed by a competent person and the statement must be discussed with the Employer's Agent before the demolition work is carried out.

Before carrying out demolitions, notify the staff at Supply Chain Department of the dates and times when such demolition work will take place.

26. EXPLOSIVE POWERED TOOLS

The principal contractor shall ensure that all explosive powered tools are used under direct control of a competent person who has been appointed in writing.

A written work procedure is developed and implemented by the competent person. The contractor shall ensure that issuing and collection of cartridges and nails or studs is controlled and done in writing by a person who has been appointed in writing.

The contractor shall ensure that all explosive powered tools are used in a manner that does not pose risk to health and safety of persons. The contractor shall ensure that all persons using explosive powered tools have necessary protective equipment. And that they are properly trained to carry out the work.

27. EXCAVATIONS

The principal contractor shall appoint a competent person to supervise all excavation work. The person appointed by the contractor shall ensure that all excavation work is undertaken in a manner that does not expose workers and the public to danger.

The principal contractor shall ensure that all work involving excavations, shoring, dewatering or drainage, a safe work procedure is prepared and approved by a competent person prior to work commencing. Excavation work exceeding the specified depth as stipulated in the OHS Act, must comply with the following:

- Conduct a pre excavation risk assessment to ascertain the position of underground services, where applicable request town plan drawings.
- The excavations are inspected before the shift starts, after heavy rain (inclement weather) and after any major condition which may affect the land stability and the findings are to be recorded and kept;
- All excavation regardless of the depth shall be adequately barricaded using physical barriers of at least one meter in height.
- Provided with illuminants or clearly visible boundary indicators at night or when visibility is poor.

- Take all precautionary measures necessary to protect employees and the public from the dangers associated with excavation work.
- Prepare the work procedure and ensure that it is communicated to affected employees
- Material excavated shall be removed from the point of excavation.

28. WORKING AT HEIGHTS

Work involving scaffolding and work at heights shall comply with the requirements set out in the Construction Regulations of 2014 pertaining to these activities with reference to the SABS 085 code of practice.

The principal contractor shall comply with the following:

- Appoint a competent person to supervise all such works
- Prepare a fall protection plan
- Communicate the fall protection plan to employees
- Stop any work carried out at height which does not comply with the Construction Regulations and this health and safety plan
- All employees to have medical certificates of fitness

29. SCAFFOLDING

The principal contractor shall ensure that scaffolding work is undertaken in accordance with SANS 10085-1: 2004 standard.

In particular he shall ensure that training is provided to all persons who are required to perform work on scaffolding and scaffolding team members are trained.

He shall ensure that the following competent persons are identified and appointed.

- Scaffolding erector/s
- Scaffolding team leader/s
- Scaffolding Inspector.

30. LADDERS AND LADDER WORK

The following requirements shall be complied with regarding ladders and ladder work:

- Ladders shall be clearly numbered, and inspected on register provided
- A competent person shall be identified and appointed as a ladder inspector
- Ladders shall be inspected minimum once per month by the appointed person
- Wooden ladders shall be straight grained, unpainted to allow for proper inspection of the grain for cracking
- Ladders shall be secured at the top and chocked at the base to prevent slipping.
- Where choking of the base is not possible, then the user shall ensure that the ladder is held in position by another employee when ascending the ladder.
- Proper storage shall be provided for all ladders when not in use.

31. DOCUMENTS REQUIRED ON SITE

- a) Copy of the OHS Act
- b) Health and Safety File
- c) Health and Safety Specifications

32. CLARIFICATION

In the event that the Principal Contractor requires clarification of any of the terms or requirements of this Health and Safety Specification, it should contact the client's Health and Safety Agent.

33. GENERAL

Nothing contained in or omitted from this Health and Safety Specification shall relieve the Principal Contractor of any of its obligations or liabilities.

The client shall not be liable for any claim because of anything contained in or omitted from this Health and Safety Specification.

34. COVID19 PANDEMIC

1. Reasons for amendment:

- 1.1. To comply with the minimum requirements specified in the COVID-19 OH&S Measures in Workplaces COVID-19(C19 OHS),2020: Directive by the Minister of Employment and Labour in term of Regulation 10(8) of the Regulations Issued by the Minister of Cooperative Governance and Traditional Affairs in terms of section 27(2) of the Disaster Management Act,2002 (Act no.57 of 2002),
- 1.2. To comply with minimum Hazardous Biological Agents Regulations, 2001 (No.R.1390), promulgated under the OHS Act 85 of 1993,
- 1.3. To effect inclusion of COVID-19 pandemic risk onto baseline risk assessment and health and safety management plan,
- 1.4. To effectively demonstrate site commitment to COVID-19 minimisation and elimination strategies prior returning and during all work core activities, and
- 1.5. To implement recommendation stipulated by the National Department of Health and Disaster management.

2. COVID-19 Management Strategy:

2.1. Pre-Site re-opening Management Strategy:

2.1.1. Baseline Risk Assessment

The baseline risk assessments profile is to be reviewed to include COVID19 risk management aspects. Risk assessment to cover -

- a. exposed group,
- b. exposure nature,
- c. total number of exposed persons,
- d. existing controls, and
- e. required controls as minimum risk assessment matrix.

Site plan to be revised such that it limits the number of employees accessing one place and for easy tracking of contacts should there be infection.

As far as practicable, minimize the number of workers on at the workplace at any given time through rotation, staggered working hours, shift systems, remote working arrangements or similar measures in order to achieve social distancing.

2.1.2. Bill of Quantities

BOQ requires site-needs assessment prior to inclusion to BOQ. Additions to the BOQ are to be risk based. Following curbing mechanisms/controls are listed for considerations:

- a. Medical surveillance for returning to work (screening and body temperature testing and issuing of COVID-19 medical certificate),
- b. FFP2 (with respiratory protection factor of more than 10mg/m3) dust masks OR re-usable cloth dust masks.
- c. Surgical gloves,
- d. Sufficient number of overalls/disposable overalls,
- e. Safety glasses/Face shield
- f. Detergents and other cleaning material,
- g. Sanitizers,
- h. Signage □ COVID-19 related,
- i. Sanitisation station,
- j. New waste bins - hazardous biological waste,
- k. Frequent disposal of sewage and hazardous biological waste,
- l. Site cleaning/disinfection,
- m. COVID-19 Compliance Officer appointment
- n. Screening procedures,
- o. Distance infrared temperature testing thermometer,
- p. Additional ablution facilities,

Additions to the BOQ are to be risk based.

2.1.3. Transportation/Movement permits

Strategy to be agreed upon between the Principal Contractor and CHS Agent. However, from COVID-19 risk management, it is preferred to source a site-based movement permit, versus individualised movement permits. Clustered permit will ensure better management of employees, as employees will ONLY move for work purposes, further avoiding potential infection probabilities from public transport systems.

2.1.4. Social Distancing Measures

Social distancing Management Plan is to be derived by the Contractor and reflect assurance to minimise and or totally avoid occupational inter infections i.e. more than 1.5 meter apart. Plan to reflect total seclusion mechanisms of staff from nearby communities etc. Plan is to be signed off by the CHS Agent for the project. These measures may include dividing the employees into groups or staggering-times to avoid the concentration of workers in common areas.

Where it is not possible to maintain the required distance between workers due to the nature of the work activity, the principal contractor will be required to implement, maintain and enforce a procedure to adequately protect such workers against potential infection with the corona virus. This includes but is not limited to:

- a. Providing adequate supplies of suitable PPE such as face masks, task specific gloves, safety glasses, disposable/additional coveralls;
- b. PPE used during multi-person activities to be exchanged immediately after the task is completed;
- c. Sealed bins to be provided for disposable PPE such as masks, disposable coveralls, disposable gloves, etc.;
- d. Sealable bags provided to each person for keeping PPE requiring laundering, such as gloves and overalls, and

- e. Sanitizing/washing facilities provided for immediate sanitizing of hard hats, safety glasses, shoes, safety harnesses etc. on completion of multi-person tasks.

2.1.5. Hazardous biological agent sign

Affix hazardous biological agent sign at all site entrances and exits, as part of risk communication strategy.

2.1.6. Work schedule strategy

Principal Contractor to devise an employee's return to work schedule and strategy plan. Plan to reflect actual returning employees. First batch not to be more than 50% of total site employment composition. Second batch return to be allowed fourteen (14) days after first batch. Site's self -assessment for existing COVID-19 strategy required prior to allowing the second batch of employees.

2.2. Site Opening Strategy:

The principal contractor, contractors, visitors and suppliers shall adhere to all site health and safety rules, OHS Act requirements and recommendations by the National Department of health to prevent the spread of this disease as follows:

2.2.1. Medical Surveillance Management Program

To be conducted by a certified Occupational Health Nurse Practitioner. All documentation produced in this process to be kept safe by Contractor for the next 2 years as minimum. The program is to cover:

- a. Answering of COVID-19 screening questionnaire by all site staff, including professional team. Professional team to demonstrate compliance with this requirement from their own companies at entering site, and
- b. Body temperature recordings, and
- c. Quarantine/referral letters issuing for suspected employees.

2.2.2. COVID-19 awareness/tool box sessions

To be conducted by Contractor for all employees. Awareness session to include as minimum content:

- a. COVID-19 definition,
- b. Entry points,
- c. Personal hygiene,
- d. Self-assessment for reporting purposes,
- e. Quarantine,
- f. Social distance practice during work, and
- g. COVID-19 OH&S Measures in Workplaces C OVID-19(C19 OHS), 2020 Directive content, and the manner in which the site intends to implement it.

Proof of the awareness sessions/tool box, inclusive of actual document used and attendance register reflecting name, surname, date, signature as minimum information is to be retained.

2.3. Continuous Site Monitoring Strategy:

2.3.1. Sanitization Strategy

The strategy is to be identified by the Principal Contractor; sanitization mechanism is to ideally cover whole body sanitation. Sanitization is to be quantifiable and proven as having been undertaken. Sanitization is to be continuous.

The Principal Contractor must, free of charge, ensure that:

- a. There are sufficient quantities of hand sanitizers based on the number of workers or other persons who access the workplace at the entrance of, and in, the workplace which the workers or other persons are required to use;
- b. Every employee who works away from the workplace, other than at home, must be provided with an adequate supply of hand sanitizer.

2.3.2. Temperature recording

To be conducted and recorded at starting and ending of the shift. Significant temperature rising to be **IMMEDIATELY** reported to Site Manager.

Temperature records/results are to be closely monitored and reported **DAILY** at site meeting, and identified significant temperature change **IMMEDIATELY** reported to employee and further investigations made

2.3.3. Social Distancing

Assessments and verifications done continuously, and deviations immediately managed.

2.3.4. Quarantine facilities around the site

To be identified and contact details included to site emergency plan numbers.

2.3.5. Personal Protective Equipment

To be supplied for all employees and visitors. Minimum respiratory protection factor for dust masks to be 10mg/m³ (i.e. FFP 2). Dust masks to be worn at ALL TIMES. Supervision of this to be done and proof made of such retained. Training for proper wearing of ALL dust mask INCLUDING cloth mask is to be designed and retained for auditing purposes.

2.3.6. Screening for all suppliers

To be enforced, recorded and records retained for proof purposes.

2.3.7. Regular disinfection

For ablution facilities, eating area, site offices is required. Disinfection schedule designed and retained as proof.

2.3.8. Principal Contractor

Must take measures to screen any worker, at the time that they report for work, to ascertain whether they have any of the observable symptoms associated with COVID-19, namely fever, cough, sore throat, redness of eyes or shortness of breath (or difficulty in breathing):

- a. require every worker to report whether they suffer from any of the following additional symptoms: body aches, loss of smell or loss of taste, nausea, vomiting, diarrhoea, fatigue, weakness or tiredness; and
- b. require workers to immediately inform the employer if they experience any of the symptoms in sub-clauses while at work.

If a worker has been diagnosed with COVID-19, the Contractor must:

- a. inform the Department of Health and the Department of Employment and Labour;
- b. investigate the cause including any control failure and review its risk assessment to ensure that the necessary controls and PPE requirements are in place; and
- c. it must give administrative support to any contact-tracing measures implemented by the Department of Health.

2.3.9. Public Interaction by Workers

If a worker interacts with the public, the employer must provide the worker with sufficient supplies of hand-sanitizer at that worker's workstation for both the worker and the person with whom the worker is interacting.

2.3.10. The Principal Contractor must take measures to ensure that:

- a. all work surfaces and equipment are disinfected before work begins, regularly during the working period and after work ends; and
- b. all areas such as toilets, common areas, door handles, shared electronic equipment are regularly cleaned and disinfected.

2.3.11. The Principal Contractor must ensure that:

- a. there are adequate facilities for the washing of hands with soap and clean water;
- b. only paper towels are provided to dry hands after washing – the use of fabric towelling is prohibited;
- c. the workers are required to wash their hands and sanitize their hands regularly while at work;
- d. the workers interacting with the public are instructed to sanitize their hands between each interaction with public;
- e. surfaces that workers and members of the public come into contact with are routinely cleaned and disinfected.

2.4. Safety management system:

2.4.1. The Principal Contractor

Shall develop or revise the health and safety policy to reflect commitment relation to the control and taking permutation in preventing the spread of this disease including Covid-19 management procedure.

2.4.2. As part of the health and safety committee agenda:

Include COVID-19 for discussion and report the status as follows:

- a. Total number of screenings conducted
- b. Total number of persons tested
- c. Total number of persons tested positive
- d. Total number of self-quarantined
- e. Total number of officially quarantined
- f. Total number of recovered
- g. Total number of fatal cases

2.4.3. The Principal Contractor to:

Strategically identify and decide on site's COVID-19 Compliance Officer, and responsibilities to include:

- a. Hand sanitizer provision to site,
- b. Social distancing management and monitoring,
- c. Total number determination and management on site,
- d. Management of all other covid-19 related control strategies.

2.5. Worker Obligation:

It is the obligation of an employee to comply with measures introduced by the employer regarding COVID-19 management system.

Refusal by an employee to work due to risk of exposure to COVID-19 shall be handled as per section 48-56 of the revised direction.

3. Contractor's Acceptance & Acknowledgement of the COVID-19 Health & Safety Specification:

I, _____ (print name in full),
the undersigned responsible person (Contractors 16.1/16.2 Appointee) for:

(Company Name) declare that I have read, understood and accept the responsibilities and requirements of this Health & Safety Specification for the project: The Construction of a 2.5ML Reinforced Concrete Reservoir at Ombimini Village. I will ensure that this Health & Safety Specification is communicated to the relevant parties so that the requirements hereto can be complied with

**Contractor's Responsible Person
(16.1/ 16.2 Appointee)**

Date

PB: CLIENT'S PRECONSTRUCTION HEALTH AND SAFETY PLAN

PROJECT SPECIFIC OCCUPATIONAL HEALTH AND SAFETY SPECIFICATION

FOR

IBISI SEWER RETICULATION

CONTRACT No.: HGDM 788/HGDM/2022

**CONSTRUCTION OF APPROXIMATELY 24KM OF SEWER MAINS AND 334 ERF
CONNECTIONS WITH TOILET TOP STRUCTURES IN IBISI**

MANAGED ON BEHALF OF



**HARRY GWALA DISTRICT MUNICIPALITY
(THE “CLIENT”)**

KEY ROLE PLAYERS

CLIENT

Principal Agent:

Civil Engineer

Quantity Surveyor

Land Surveyor

Mechanical Engineer

Environmental Control Officer

Health and Safety Agent

PRINCIPAL CONTRACTOR

Contracts Manager

Site Agent

H&S Officer

Other:

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1. LIST OF ABBREVIATIONS

AIA	Approved Inspection Authority
BoQ	Bill of Quantities
CC	Compensation Commissioner
CR	Construction Regulations
DMR	Driven Machinery Regulations
DoL	Department of Labour
FEMA	Federated Employers Mutual Association
GAR	General Administration Regulations
GSR	General Safety Regulations
HCSR	Hazardous Chemical Substances Regulations
HIRA	Hazard Identification Risk Assessment
H&S	Health and Safety
ER	Engineer's Representative
LI	Labour Intensive
OH	Occupational Health
OHSA	Occupational Health and Safety Act No. 85 of 1993 (as amended)
OHSS	Occupational Health and Safety Specification
PSHSS	Project Specific Health and Safety Specification
PC	Principal Contractor
PPE	Personal Protective Equipment
SANS	South African National Standards (Authority)
MSDS	Material Safety Data Sheet
SMME	Small, Micro, Medium Enterprise
SWP	Safe Work Procedure

2. DEFINITIONS

The definitions used will be those set out in the Construction Regulations, Gazette No 37305 of 7 February 2014 which are hereunder further emphasised with the following additions:

Client: Harry Gwala District Municipality

Construction Site:

Means a work place where construction work is being performed

Construction Supervisor:

Means a competent person responsible for supervising construction activities on a construction site

Designer: Means a competent person appointed by the Client as Agent to design, supervise and monitor construction on their behalf.

Fall Risk: Means any potential exposure to falling either from, off or into

Hazard: Source of or exposure to danger

Hazard Identification and Risk Assessment (HIRA) and Risk Control:

Means a documented plan, which identifies hazards, assesses the risks and details the control measures and safe working procedures which are to be used to mitigate and control the occurrence of hazards and risks during construction or operation phases.

Health and Safety Agent:

Means any competent person who acts as a representative for the Client in managing the projects health and safety and who is registered with the South African Council for the Project and Construction Management Profession (SACPCMP).

Health and Safety Plan:

Means a site, activity or project specific documented plan in accordance with the Clients Health and Safety Specification.

Induction Training:

Means once off introductory training on general health and safety issues given to all employees and visitors to the site before commencement of work on site.

Risk: Means the probability or likelihood that a hazard can result in injury or damage.

Regulation/s:

Shall mean the relevant regulation/s promulgated in terms of the Occupational Health and Safety Act, No. 85 of 1993.

Temporary Works:

Means any falsework, formwork, support work, scaffold, shoring or other temporary structure designed to provide support or means of access during construction work

The Act: Means, unless the context indicates otherwise, the Occupational Health and Safety Act, No. 85 of 1993 and Regulations promulgated thereunder, as amended.

3. KEY REFERENCES

The following key references apply to the specifications:

- Occupational Health and Safety Act No. 85 of 1993 and Regulations (as amended)
- Compensation for Injury and Occupational Diseases Act No. 100 of 1993 (as amended)
- SANS Code 1921-6
- SANS Code 1200

4. INTRODUCTION

Harry Gwala District Municipality is responsible for the provision of adequate and reliable potable water and sanitation services within the district and takes cognizance that its current scope of works pose inherent risks to the health and safety of its agents and members of the public.

Each year fatalities, serious injuries and poor attitudes of Contractors mar the reputation of the Construction Industry. Harry Gwala District Municipality has a responsibility to limit its risk by ensuring a zero tolerance and better practice approach to Contractors and those affiliated to a particular project. Thus a high premium is placed on the health and safety (H&S) of Harry Gwala District Municipality stakeholders, which include its employees, professional service providers, public and its physical assets. The responsibilities that the Harry Gwala District Municipality and relevant stakeholders have toward its employees are captured in, but not limited to this document. The responsibilities stem from both moral, civil and a variety of legal obligations. The Principal Contractor is to take due cognisance of the above statement.

Harry Gwala District Municipality, as the Client and where there is an appointed H&S Agent on its behalf, shall provide a project specific Health & Safety Specification (PSHSS) for the project and provide the Principal Contractor/s making a bid or appointed to perform construction work for the project, or parts thereof.

4.1. Purpose of the Project Specific Health and Safety Specification (PSHSS)

The PSHSS is a performance specification to ensure that the Client and any bodies that enter into formal agreements with the Client viz. Agents, Professional Service Consultants (Engineers, Quantity Surveyors and Land Surveyors), Principal Contractors and Contractors achieve an acceptable level of OHS performance. No advice, approval of any document required by the PSHSS, such as hazard identification and risk assessments, or any other form of communication from the Client shall be construed as acceptance by the Client of any obligation that absolves the Principal Contractor from achieving the required level of performance and compliance with legal requirements. Furthermore, there is no acceptance of liability by the Client, which may result from the Principal Contractor failing to comply with the PSHSS, i.e. the Principal Contractor remains responsible for achieving the required performance levels.

A Mandatory Agreement in terms of Section 37.2 of the OHSA will be signed between parties prior to any works commencing.

The PSHSS highlights the aspects to be implemented over and above the minimum requirements of current legislation. Requirements may be changed should new risks or issues are identified that could not have been foreseen during the design phase of the project, or during the construction phase. Any new legislation or standards (legislated, or determined by Harry Gwala District Municipality) that are promulgated or accepted during the contract will automatically be applied.

Environmental management shall receive due attention as per the requirements of the Environmental Control Officer (ECO), but will be managed by the ECO directly.

4.2. Implementation of the Project Specific Occupational Health and Safety Specifications (PSHSS)

The project specific H&S specification (PSHSS) forms an integral part of the Contract, and PCs are required to make it an integral part of their Contracts with Contractors and Suppliers. A PSHSS will be available for each level of Contract and Contractor, and must be complied with.

This specification must be read in conjunction with the OHSA, Regulations (as amended) and any other standards relating to work being done, and ensure compliance thereto. The information relative to the scope of the project, the works etc. are detailed in the tender, are to be considered when developing the H&S plan and associated documentation.

The OHSA S.37.2 Mandatory Agreement must be fully completed by the PC, supplied by the Client. These documents shall be deemed to form part of the returnable Contract Documents.

No work may commence without written approval of the H&S plan by the H&S Agent, or the responsible person in the Harry Gwala District Municipality.

Should there be design changes, or change in the scope of works, an amended PSHSS may be issued. Where amended PSHSSs are issued, the PC will be required to ensure a resubmission of an amended H&S plan for approval. Further to this, the PC must ensure that similar information must be provided as it applies to the works to all their Contractors, within 5 working days following notification thereof. The H&S Agent will visit the project as deemed necessary by the Designer and the H&S Agent to ensure compliance and limit risk. All activities on the site and all appropriate documentation will be monitored and reported on to the Client and the Designer.

Non-conformances will be issued and penalties or work stoppage will be issued where appropriate. Communication between the H&S Agent and the PC will be through the Designer (or Client's responsible person) as determined at the commencement of the project.

4.3. Requirements at Tender Stage

Tenderers are required to submit a pre-tender H&S plan with their Tender submission.

The documentation submitted will be used to assess the competence of the tenderer, as required in the CRs, therefore the information submitted needs to be complete and as close as possible to the final product.

Adequate pricing for H&S is required, and the appropriate section in the BoQ is to be completed. Failure to do so could result in the Tender being regarded as non-responsive.

The PC shall ensure adequate information is submitted as supporting documentation with his completed Tender. Such information will be assessed against the criteria listed and a score provided to the Bid Award Committee (BAC) for consideration. Failure to provide such information could render the tender application non-responsive.

A project specific H&S Plan in response to this PSHSS will be subject to approval by the H&S Agent. This must include all supporting documentation as required to verify the H&S system:

- A declaration to the effect that he has the competence and necessary resources to carry out the work safely in compliance with the Occupational Health and Safety Act and its Regulations;
- A valid Letter of Good Standing;
- Detailed technical method statements for approval by the Designer and appropriate risk assessments and safe work procedures for approval by the H&S Agent or Client:
 - Site establishment including:
 - Clearing and grubbing;
 - Exposure of services, power, telecommunication etc.;
 - Arrangements for hoarding, traffic accommodation;
 - Excavating
 - An emergency plan indicating how and where emergencies will be handled
 - Working at heights
 - Appointments of the following: Construction Supervisor; Construction Health and Safety Officer; Risk Assessor; Fall Protection Plan Developer; First Aider.
 - An organogram of the site relationships showing at least the above appointments

Further method statements are to be submitted prior to, and during the project where changes or new work is required, and the approval of the Designer/Client is required before work on that aspect or activity can commence. The H&S Officer is to be included in production planning sessions/meetings to ensure that the appropriate risk assessments, safe work procedures and

communication required are available and completed timeously. Penalties will be applied should this not be adhered to, and deemed a serious offence.

5. GENERAL REQUIREMENTS

5.1. Summary of Risks identified during Design

The intention of the summary of findings from the design risk assessment is to highlight the residual risks identified during the design phase. The summary of risks provided is to point the contractor towards some risks he may not be aware of during tendering stage and while developing his formal risk assessments for the project.

The design risks and the management thereof should be included in the Principal Contractors (PC) risk assessments. Where there are other Contractors appointed to do work, the PC is to ensure that Contractors include such information in their risk assessments.

The Contractor is herein advised that no other residual risks remain which the designers judged as significant and unusual other than those risks that a competent Contractor can reasonably be expected to know or deduce from the documents prepared for this project and supplied to them.

5.2. Specified Hazardous Chemical Substances

The following lists of products or substances are those which have been identified as likely to be used on the project. This list is not inclusive and other products may be considered. Where the PC is likely to supply the product as the product has not been specified, material safety data sheets (MSDSs) need to be considered prior to all selections.

PRODUCTS or SUBSTANCES	POTENTIAL HEALTH OR OTHER RISKS
Cement	<ul style="list-style-type: none"> Hand mixing may occur, 50kg bags are an ergonomic risk from handling. Pumping of concrete may produce extensive vibration, extended hours of work, and potential eye, skin and respiratory irritant from dust exposure, chromates.
Cement/Silica dust	Caused by cutting, grinding, sanding of any concrete/granite/tiled surface/masonry resulting in occupational respiratory health illness or disease
Petrol/diesel/lubricants	Potentially a fuel bowzer on site. Fire, spillage, fumes
Adhesives	Used as a bonding agent and may result in contact Dermatitis and occupational respiratory illness or disease from prolonged exposure
Plaster/mortar/screeds	Contact with products may result in Dermatitis and occupational respiratory illness or disease from prolonged exposure
Sealants/joint fillers	Contact with products may result in Dermatitis and occupational respiratory illness or disease from prolonged exposure
Welding fumes	Inhalation of fumes may result in occupational respiratory illness or disease from prolonged exposure
Lime	The product is classified an irritant, irritating the respiratory system, skin and risk of serious damage to eyes. In contrast to the powder itself, the product, when diluted with water, can produce severe skin damage in humans, (<i>alkaline burns</i>), especially if prolonged skin contacts takes place.
Paints	Contact with different paints may result in Dermatitis and occupational respiratory illness or disease from prolonged exposure

6. OCCUPATIONAL HEALTH & SAFETY MANAGEMENT

6.1. Structure and Organization of H&S Responsibilities

6.1.1. Notification of Commencement of Construction Work

The Client shall notify the Provincial Director of the Department of Labour (DoL) in writing, in the form of the Annexure 1 in the CRs for all projects requiring a work permit in terms of CR 3.

The PC who intends to carry out any construction work other than work noted in CR 3 shall notify the Provincial Director in writing in the form of the Annexure 2. This shall occur after the award of the contract, but before commencement of construction work. Proof of submission and/or receipt must be provided and kept in the H&S file. Work will not commence without the Notification being correctly completed and signed by the Client and proof of receipt by the Department of labour received. The Notification shall only be signed by the Client following the approval in writing by the H&S Agent, or the Client.

Where changes to the conditions given in the submission are required (i.e. Contractors, completion dates, increase in workers), a revised Annexure 1/2 must be submitted to the Department of Labour. The completion date is to include the defect and liability period. A copy of the notification form and any further submissions/correspondence must be kept in the H&S file.

6.1.2. Health and Safety Plan Framework

The H&S aspects related to the project outlined in the previous sections are to be taken into account when drawing up the H&S Plan. The PC is required to demonstrate competence by providing an H&S system that will address the requirements of the project.

The current legislative requirements, SANS codes and any other standards that may guide practice are to be taken into consideration. The following aspects must be addressed in the H&S Plan as they play a role in reducing the overall risk of a particular activity, or section of the project. The H&S Agent may from time to time request additions or systems as they relate to the works or legislative requirements at the time.

The PC is to prepare a site layout drawing to indicate at least the following:

- The positions of site offices of all Contractors, toilets, drinking water and worker rest areas;
- Indicate the positions of emergency personnel and equipment (fire, first aiders, first aid posts);
- Protection of plant and pedestrians, indicate parking, and
- Storage areas (materials and equipment, waste etc.)
- Access and egress to site for deliveries and intended temporary traffic management
- Emergency assembly point

Such layouts are to be updated regularly throughout the project.

6.1.3. Appointment of Competent Site Personnel

The CEO (OHSA S16.1) of the PC will take overall responsibility for the appointment of competent site staff for the duration of the project. Should the CEO not be personally involved in the project, the H&S responsibilities are to be delegated to the Contract Manager (OHSA 16.2). Knowledge and training in H&S is required, and certificates indicating H&S training as well as experience to be included in CVs.

All other legal appointments are to be made with relevance to the type of work required and kept current with the project programme. The construction team is to ensure the appointed H&S Officer is kept up to date with all planned activities, to ensure all H&S requirements are met.

All construction/technical method statements are to be generated by senior site personnel, and the appropriate risk assessments developed therefrom in conjunction with the H&S Officer.

The Occupational Health and Safety Plan shall include the following, but is not limited to the following key appointments:

6.1.4. Construction Supervision

Competent supervisors will be appointed to manage part or all of the works and have training and/or experience in the area of responsibility. All site supervisors must show evidence of appropriate training in H&S, and an understanding or training in areas of responsibility (i.e. risk assessments, method statements etc.).

Curriculum Vitae (CVs) are to be submitted for approval by the Designer, and/or Client. The Supervisor will be held responsible for the safety of working teams and subordinates, housekeeping and stacking and storage of materials.

6.1.5. Construction Health and Safety Officer

The PC will employ at least one competent, full-time or part time H&S Officer for the duration of the contract depending on the nature of the hazards on site and subsequent risks. The H&S Officer's CV is to be submitted for approval by the H&S Agent or the Client, at time of tender. The PC is to ensure adequate resources are provided in order to undertake all responsibilities (i.e. mobile phone, computer and internet access, vehicle etc.) Qualifications shall include at least Grade 12, SAMTRAC/NEBOSH/Diploma in H&S qualifications or similar together with additional appropriate short courses (ie. Fall Protection Developer, Risk Assessor, Basic Firefighting and First Aider Level 1) with exposure to civil engineering and building that is appropriate given the level of project complexity and registration with SACPCMP. An in-depth knowledge of legislative requirements and the application thereof is required. The site supervisor may not act as the H&S Officer.

The H&S Officer/s will be held responsible for all H&S on the project.

- Senior site staff and supervision, Contractors are to follow systems, instructions etc. given by the H&S Officer at all times;
- No new workers or Contractors may commence work without approval or following the H&S plan as submitted, and
- No inductions of Contractor staff until the H&S documentation is approved by the H&S Officer.
- The H&S Officer/s may not be removed or replaced without the approval of the H&S Agent, nor may the site be left unattended for more than 1 day without adequate, competent cover.

A monthly report of all H&S activities and incidents is required by the end of the first week of each month, or at a date agreed to by the H&S Agent/Client and the H&S Officer. An example of the monthly report is attached as an *Annexure D*.

The H&S Officer will be responsible for collating the H&S documentation at the close out of the project in electronic format. A list of the typical aspects that should be provided is available as *Annexure B* to this document. The PC is to ensure that all Contractors documentation follows the same requirements and closed out H&S documentation must be completed and be available with the close out of the main contract.

Failure to do so will be considered a serious offence and penalties applied.

6.1.6. Traffic Safety

The H&S Officer will be responsible for ensuring that daily traffic management is adequately managed and additional care must be taken where workers and public interface.

No worker may be transported in, or on the rear of construction vehicles (bakkies included), or with plant and materials to, on, or from site. The number of passengers in any vehicle is limited to what is stated on the license disc. Vehicles used to transport workers to, from, or on site, shall have secure seats and be covered. No canopies may be used.

Tenderers must indicate in their OHS plans what type of transport is envisaged and how this will be managed.

Penalties will be issued for non-compliances noted.

6.1.7. Health and Safety Representatives and H&S meetings

H&S Representatives representing workers and Contractors are to be appointed following the startup of the project, irrespective of the number of workers on site. The appointed H&S Representatives are to be actively involved with H&S and will assist the H&S Officer and site management in meeting legislative duties.

The H&S Officer shall further ensure that H&S is discussed at all internal production or progress meetings. Issues arising from the H&S Agent audits are to be discussed, as well as all H&S related issues.

Minutes are to be kept for all H&S interventions and meetings. Failure to do so will be deemed to be a moderate offence.

6.1.8. Appointment of Competent Contractors

The Principal Contractor is to ensure compliance with the Clients minimum standards and all legislative requirements. The same H&S standards required of the PC are to be applied to all Contractors. An index of all Contractors and Suppliers is to be on file and kept updated at all times. The PC is to ensure there is sufficient funding for H&S compliance by each Contractor.

The following minimum aspects are applicable to any Contractor appointed:

- The H&S Officer is to ensure a Contractors appointment and approval of H&S documentation at least seven (7) working days prior to commencing work.
- No Contractor may work under the PCs Compensation registration number. If required the PC may assist SMMEs with their registration with the Compensation Commissioner. However, such Contractors will not be able to commence work until proof of registration or Letter of Good Standing has been received.
- No work may commence without Mandatary agreements between parties in place.

The following aspects are applicable to Suppliers or short-term works (surveying, repairs, servicing, deliveries etc). Cognisance is to be taken of the level of risk involved and the H&S Officer is to ensure the level of H&S documentation is appropriate:

- Mandatary agreements in place
- Letter of Good Standing
- Method statements and risk assessments
- Available information relative to:
 - Load testing and registers for cranes or lifting devices
 - Medical certificates of fitness
 - Material Safety data sheets (MSDSs)

Failure to provide written approval of H&S documentation will be considered a serious offense, and could result in aspects of, or all the activities being stopped and penalties implemented.

7. GENERAL RISK MANAGEMENT

7.1. Health Risks and Medical Surveillance

The appropriate MSDSs are to be obtained for all products and used to develop the H&S documentation as they relate to the works. Many of the processes may be labour intensive and ergonomic risks are to be noted. All workers (including Contractors) are to be included in the medical surveillance programme.

Workers will be exposed to noise, dust, and physical risks from extended periods of work of a repetitive nature, materials specified and the general nature of the works.

All workers (including those of Contractors) are required to be in possession of a medical certificate of fitness prior to commencing work.

Full medical records are not to be placed in the H&S file. Given the potential health risks the following aspects are to be included in each medical surveillance intervention:

- Full medical, surgical and occupational history;
- Full physical examination of all systems; and
- Referral if required for the management of identified health issues that may affect the worker.

Specific testing for existing conditions and limitations relative to exposure could include, but are not limited to:

- Audiometry (hearing tests); and
- Any other tests identified as relevant from chemical or specifically identified risks of exposure

Failure to do so will be considered a serious offence.

7.2. Noise Risks

All plant from plant hire companies (suppliers) or that of the PC is to be compliant with the Noise Induced Hearing Loss Regulations. Plant identified that has not been tested and marked for noise emissions will result in having to be tested at the Contractors or PCs expense. Failure to do so within a reasonable time period will result in such plant being removed from site.

Audiometric testing of all workers is noted as required in the medical surveillance programme for all permanent workers prior to work commencing. Temporary labour working in identified noise areas will require testing if the noise levels are indicated on plant or through processes as greater than 85dB. Audiometry records are to be available in the H&S file.

Suitable SANS approved hearing protective equipment shall be issued and worn where noise levels are identified as equal to or greater than 85 dB.

Failure to do so will be considered a serious offence.

7.3. Emergency Procedures

A simple emergency plan and procedure that is appropriate to the risks is required prior to commencement on site. It is advised that the system should be simple and easy for any worker to follow. The plan may be adapted should new information or risks are identified.

The procedure shall detail the response plan in relation to the works, and include at least (*but are not limited to*) the following key elements:

- Appointment of a competent emergency response co-ordinator
 - Site Camp Fire;
 - Public injury, Motor vehicle accidents;
 - Falls from heights;
 - Serious injury to workers (medical or work-related); and
 - Any other major risks identified during risk assessments

The emergency plan is to ensure the inclusion of local service providers where possible. Such arrangements should be made with these persons prior to the commencement of the project. The general principals of emergency management are to be applied as it applies to the hierarchy of control and management.

7.4. First Aiders and First Aid Equipment

At least 1 first aider will be trained to Level 3. First aiders shall be available and accessible on site at all times, and be able to work as a team when responding to any emergency on the project.

Contractors are expected to ensure compliance and provide/manage their own first aiders and equipment. The number of First aiders will be determined by the complexity and exposed risks of the project, not numbers of workers

Appropriately stocked first aid kits are to be available at all times and to assure continual availability and access on site.

7.5. Fires and Emergency Management

The emergency plan is to include the risk of fire on site and related to any specific activities where gas, welding, cutting etc. occur.

Fire extinguishers will be appropriate for the risk and in sufficient numbers to deal with the type of fires that could occur. All mobile plant is to have fire extinguishers. Hot work permits are required for any such activities.

7.6. Incident Management and Compensation Claims

All incidents and accidents are to be investigated. All serious incidents involving any form of disabling injury or fatality are to be reported to the Designer /Client /H&S Agent immediately. This shall be confirmed in writing following the incident. Full details are to be included in each site meeting or when the Client visits site. A summary of incidents is to be included in the monthly report.

Failure to comply with emergency provisions will be considered a serious offence, and the operation or project may be stopped if deemed inadequate for the work at the time of assessment or site inspection.

7.7. Personal Protective Equipment (PPE) and Clothing

The PC is to provide a procedure as an addendum to indicate how PPE is managed within the Company.

The wearing of the identified SANS approved PPE at all times is non-negotiable. The PC shall ensure that all workers (Including Contractors) are issued with and shall wear:

- Hard hats;
- Protective footwear;
- Overalls that ensure worker visibility;
- Eye protection;
- Hearing protection;
- Reflective jackets (no bibs)
- Respiratory protection (minimum of FF2), and
- Any other necessary PPE identified from MSDSs and/or risk assessments.

Adequate quantities of PPE shall be available. This shall include necessary PPE for visitors. The procedure for managing PPE is to be in a formal procedure submitted with the H&S plan for approval.

Any person (*including Client, Designers etc.*) found on site without the necessary PPE will be removed from site until the PPE is supplied and worn.

Failure to comply will result in penalties being applied.

7.8. Occupational Health and Safety Signage

On-site H&S signage is required. Signage shall be posted up at fixed or temporary working areas, or other potential risk areas/operations. These signs shall be in accordance with the requirements of the General Safety Regulations or SANS requirements as amended. Signage is to be noted on the site drawings indicating where fixed/temporary signage is required.

Temporary signage is to include (*but not be limited to*) the following:

- 'Report to site office' / 'Warning: Construction Site – Keep out' or similar;
- 'Site office' (if relevant);
- 'hard hat area' or other PPE requirements noted;
- First aid box positions (*including vehicles*); and
- Fire extinguishers.

Signs shall be posted at areas of work on site indicating that a construction site is being entered and that persons should take note of H&S requirements.

Failure to comply will result in penalties being applied.

7.9. Induction of Employees and Visitors, General H&S Training

A simple, formal induction programme is to be submitted as an addendum for approval with the H&S plan. Inductions must be carried out for all workers and visitors (*including Client, Designers*) to the site.

Pre-task training is required to ensure workers are familiar with the risks and H&S measures of the work or tasks to be done. Such training is to be done at least daily. A record of inductions and pre-task training is to be kept in the H&S file.

Any person found on site without proof of induction will be removed from site until the proof is supplied and, a penalty issued per non-compliance.

7.10. Management of Plant and Equipment

Close control of plant and equipment is required, including that of Contractors.

Daily monitoring of all plant and equipment is required prior to commencing work. Full lists of hired and own plant are to be available at the H&S Agent's/Client audit. All daily inspection records are to be kept in the H&S file or Contractors where plant and equipment is brought onto site. Registers are not to be more than 1 week behind.

Only competent, medically fit plant operators are to be used. Medical certificates of fitness are required for all operators. Any plant or slings used to lift plant or material require annual load testing by an AIA, and all certificates must have the testers LMI/E number. Operators are to be adequately trained and certified to operate mobile cranes or crane trucks. Certificates and registers are to be placed in the H&S file.

Failure to do so will be considered a serious offence.

7.11. Excavations

A procedure for managing excavations is to be provided as an addendum to the H&S plan describing how excavations are to be managed.

Excavation method statements are to be approved by the Designer and associated risk assessments are required. Designs by competent persons are required where ground conditions are deemed to require shoring.

A competent person is to be appointed for managing all excavations. A permit system is to be available and used for all excavations. All equipment and ground conditions are to be checked daily and prior to work commencing.

Excavations should preferably not be open beyond what can be closed daily. Where excavations need to remain open, all excavations are to be properly protected. Adequate stakes with 1m high demarcation and berms/spoil are required to be a safe distance from the edge of the angle of repose. Danger tape may not be used to demarcate excavations. Cognisance is required of the surrounding area and increased levels of protection are required where work is in the vicinity of members of the public.

Work will be stopped and penalties applied to any work in excavations that is not compliant.

7.12. Working at heights

A Fall Protection Plan (FPP) is to be available and supplied as an addendum to the H&S plan. The FPP must be appropriate for the project. Method statements, appropriate risk assessments, safe work procedures and training are to be available prior to work commencing.

Construction drawings shall be required for all temporary structures as they relate to the project. The drawings shall be accompanied by full calculations, design loads and any relevant test results as

required by the SANS code, and ensure adequate allowance for the development of appropriate documentation and training. All drawings are to be checked and signed by a competent structural engineer (registered with ECSA).

The focus for working at height shall include fall restraint systems where possible except during assembling or dismantling top components or where it is not deemed safe. The relevant SANS codes are to be applied as they apply to the works and the project, such as:

- SANS 10085
- SANS 50355
- SANS 50361
- SANS 50355

Should part of the works be contracted out, competent Contractors are to be appointed and submit documentation according to the project requirements. The PC is to note if such work is to be contracted to specialists in the H&S Plan. The plan is to be developed by and work managed by a competent person for the duration of the project. The following aspects must be included:

- The public are to be protected at all times by way of hoarding, barricading or fencing
- Notices to be posted
- Restrictions or stoppage when weather conditions are deemed hazardous
- Permit system for working at heights
- Prevention of falling tools or equipment
- Link to emergency plan regarding rescue
- All workers are to be in possession of valid certificates of fitness that extend for the duration of the works. Note the requirements in the section relating to medical surveillance.
- Registers and all relevant documentation are to be placed in the H&S file.

Work will be stopped and penalties applied to any work at heights that is not compliant.

7.13. Cranes and lifting equipment

Should any form of lifting device or crane (fixed or mobile) be used during the project for deliveries, moving of supplies or equipment, the appropriate documentation must be made available. Method statements, risk assessments, safe work procedures and training are to be available prior to work commencing. A procedure for managing loads and lifting must be made available as an addendum to the H&S Plan.

7.14. Temporary Works (Scaffolding, support work, formwork)

Temporary works must be properly designed and signed off by a competent person who has sufficient experience in the design of the type of temporary work in question to be able to assess the design. The appropriate competent persons are to be appointed to manage and monitor such works to the satisfaction of the Engineer and H&S Agent. Records and registers are to be properly completed and kept in the H&S file. If temporary works are to be erected by a Contractor, this must be notified to the Designer/H&S Agent.

Failure to do so will be considered a serious offence.

7.15. Auditing

Frequency of external auditing by the H&S Agent or Client will be as agreed with the Client and Designer but will at least conform to the requirements of the Construction Regulations. The site will be inspected and the documentation audited relative to the activities and H&S plan. The H&S Officer of the PC must accompany the Client, or the H&S Agent, on all audits and inspections. Not all audits will be, or need be announced.

The PC will ensure that all their Contractors are audited at a frequency determined by the H&S Agent or Client. Audit frequency may be increased if Contractors are not performing adequately. Audit results will be acted upon and non-conformances and penalties issued where deemed appropriate. The Client, Designer or H&S Agent may act or require further outcomes if non-compliances are noted or unsafe acts are noted on site.

Internal audits are to include site conditions as well as ensuring H&S files are appropriate, and compliant. Comprehensive audit reports are to be made available, the format of the audit reports are to be acceptable by the H&S Agent.

The PC will be audited using a template as supplied in the tender document. The audit template will be adjusted from time to time relative to the activities on site. A similar process is to be used by the PC when auditing their Contractors on site. Compliance with legislative requirements and the systems provided by the PC to manage the H&S on site will be measured. Full compliance is required. Time limits for corrective actions will be set and must be adhered to.

Failure to address findings or non-conformances will be considered a serious offence.

7.16. Mechanical installations

All mechanical installations are to be carried out in conformity with the manufacturer's instructions. Method statements and risk analyses must be compiled for each type of installation. A competent person must be designated to supervise the work.

7.17. Communication on Site

All H&S communication during the project between the H&S Agent and the PC will be done through the Engineering Consultant and be in writing, including the issue and responses to non-conformances and H&S audit results.

Failure to address issues timeously will be considered a serious offence.

7.18. Care of Workers on Site (Welfare)

Adequate toilets, clean, safe drinking water and decent shelter will be afforded workers at all times. Toilets will be within reasonable distance of workers, or placed with each working team in safe, with reasonable privacy. Hand washing facilities will be provided. Arrangements made where existing facilities are shared with existing users must be made in writing and placed in the H&S file.

Failure to ensure compliance will be considered a serious offence.

7.19. Discipline, Alcohol and Substance Abuse

All employees (management included) are to follow instructions given in the interest of H&S. A disciplinary procedure is to be developed and disciplinary action is to be imposed on those who do not follow such instructions or company rules or policies.

No person is allowed to work or access site if under the influence of alcohol or other substances that could impact on their own or others safety. The PC is to have a drug and alcohol policy available to manage such instances.

These requirements are applicable to any employee of any organization providing services on site. Penalties may also be applied by the Client, OHS Agent or Engineer.

7.20. Electrical Equipment

In addition to the requirements of the Electrical Machinery Regulations and the General Machinery Regulations any electrical distribution board used for construction work shall be fitted with suitable earth leakage protection. Leads must be properly and firmly connected. Plugs and sockets shall be in good and safe condition.

All electrical apparatus, other than electrical hand tools, shall have a physical "lock out" system which will prevent any operation other than that authorized by a supervisor. A "lock out" sign shall be displayed when the apparatus is not in use. Method statements and safe work procedures will be required for all work involving electrical apparatus.

7.21. HIV and AIDS Programme

The PC shall reduce the risk of transfer of HIV between and amongst construction workers and the local community, raise awareness amongst construction workers of the risk of infection with HIV, promote early diagnosis and assist affected individuals to access care and counselling by:-

- making condoms that comply with the requirements of SANS 4074 available for the duration of the contract to all construction workers at points on the site which are readily accessible and suitably protected from the elements
- either by placing and maintaining HIV/AIDS awareness posters of the size not less than an A1 in areas which are highly trafficked by construction workers or providing construction workers with a pamphlet in languages largely understood by the construction workers which reinforces the outcomes of the HIV/AIDS awareness programme
- encouraging voluntary HIV/STI testing
- providing information concerning counselling, support care of those that are affected

7.22. Safety Conflict

Where any conflict exists between the requirements of this PSHSS, the Site Rules or Statutory Requirements/Regulations the higher standard must apply unless such conflict is brought to the attention of the Client or H&S Agent and a direction provided. The PC is deemed to have allowed for the higher standard.

The PC is legally responsible for ensuring that he conforms to all applicable aspects of the Occupational Health and Safety Act 85/1993 and Regulations (OH&S Act) and other relevant Acts and Regulations. If in dispute with the PSHSS and other legislation the most stringent requirement must apply.

8. HEALTH AND SAFETY FILE

The documentation submitted and approved following the awarding of the contract will be used to form the H&S file. The H&S file is required to be laid out in a logical manner, and documentation filed within the file is to be easily accessible.

The following completed information shall be included (*but not be limited to*) as part of the index:

- The PSHSS;
- The H&S Plan and the approval by Client;
- Appointment by Client;
- Mandatary agreement with Client;
- Notification of construction work;
- A record of all working drawings, calculations and design where applicable;
- Detailed list of Contractors with contact details, appointments, Mandatories etc., H&S specifications issued;
- Record of Competencies (CVs) and appointments;
- Training Records;
- Permits;
- Method statements;
- Risk assessments;
- Safe work procedures;
- Emergency and injury management;
- Material Safety data sheets
- Medical surveillance records;
- Registers; and
- Records of audits, minutes etc.
- Plant lists
- Temporary electrical installations
- Employee records (*who is on site*)

9. NON-CONFORMANCES

Should, at any time, the works, or part of the works, be stopped due to unsafe acts or non-compliance with the Clients or PCs H&S Plan; neither the PC nor any other Contractor shall have a claim for extension of time or any other compensation.

The following constitute examples of the types of non-conformances that will attract penalties:

Minor: Penalty: R50/count	Medium: Penalty: R500/count and a non-conformance	Severe Penalty: R5000/count, a non-conformance and/or activity stoppage
Non-use of PPE supplied	Toilets not supplied or regularly serviced; lack of drinking water	Contractors working without Health and Safety Plan approval
Non completion of registers for plant and equipment on site	Contractors not audited	Workers transported in contravention of the OHS plan or legal requirements
Lack of H&S signage at work areas	Working without training or the appropriate, approved H&S method statements	Invalid Letters of Good Standing
Tools and equipment identified in poor condition during inspections	Legal non-conformances identified during the previous audit and not addressed within the agreed time frame	Non-compliance with traffic accommodation requirements: layout or physical conditions
	No monthly OHS report at site meeting to report on	Any serious breach of legal requirements
	No certificates of fitness for workers as required	
	Working without approved method statements	

9.1. Failure to Comply with Provisions

Failure or refusal on the part of the PC or their Contractors to take the necessary steps to ensure the safety of workers and the general public in accordance with these specifications or as required by statutory authorities or ordered by the Principal Agent (PA), shall be sufficient cause for the PA to apply penalties as follows:

- (i) A penalty as shown in the Table above shall be deducted for each and every occurrence of non-compliance with any of the requirements of the PSHSS.
- (ii) In addition, a time-related penalty of R500,00 per hour over and above the fixed penalty may be deducted for non-compliance to rectify any non-conformance within the allowable time after a site instruction to this effect has been given by the PA. The site instruction shall state the agreed time, which shall be the time in hours for reinstatement of the defects. Should the Contractor fail to adhere to this instruction, the time-related penalty shall be applied from the time the instruction was given.

10. MEASUREMENT AND PAYMENT

The payment items for Occupational Health & Safety are contained in the Bill of Quantities. The same rules are applicable in respect of the pricing of these items as for every other payment item. Attention is drawn to the Pricing Instructions in this document.

Item and Unit

C.01 Preparation of Contractor's Project Specific Health and Safety Plan. (Lump Sum (L.S))

The rate for this item must cover all expenses incurred in preparing the Contractor's project specific Health and Safety Plan as required by the Client's project specific Health and Safety Specification in this document.

C.02 Principal Contractor's initial obligations in respect of the Occupational Health and Safety Act and Construction Regulations. (Lump Sum (L.S))

The full amount will be paid in one instalment only when the Client's Agent has verified and approved the following

- (a) The Principal Contractor has notified the Provincial Director of the Department of Labour in writing of the project, Annexure 2 to the Regulations.
- (b) The Principal Contractor has made the required initial Appointments of Employees and Contractors.
- (c) The Client has approved the Principal Contractor's project Health and Safety Plan.
- (d) The Principal Contractor has set up his Health and Safety File.

C.03 Principal Contractor's time related obligations in respect of the Occupational Health and Safety Act and Construction Regulations. (Month (Mth))

The amount shall represent full compensation for that part of the Principal Contractor's general obligations in terms of the Occupational Health and Safety Act and Regulations which are mainly a function of time. Payment will be made when the Client's Agent has verified the Principle Contractor's compliance as part of the audit. This will include the updating and administration of the Health and Safety file.

C.04 Provision of Personal Protective Equipment (PPE) as listed in the Bill of Quantities. (Number (No))

The rates for these items shall include for the procurement, delivery, storage, distribution and all other actions required for the supply of PPE to the employees of the Principle Contractor, full or part time, requiring them. Sub-Contractors are responsible for their own costs in this regard. Any items of PPE not included on the list will be paid for only after the PA has agreed to their acquisition.

Items listed will include, among others which may be noted, are: hard hats, reflective vests, high visibility overalls, protective foot wear, fall arrestor harness, gloves, ear muffs, earplugs and dust masks of appropriate type. Normal items such as standard overalls, waterproof clothing, gum boots and standard workshop safety equipment such as welding masks and goggles will not be paid for.

Payment will be based on the issues register for PPE as kept by the Construction Health and Safety Officer, backed up by paid invoices if requested.

C.05 Provision of a Full/Part Time Construction Health and Safety Officer (Month)

The Tender sum shall include for the cost of a Construction Health and Safety Officer on a fulltime or part time basis.

C.06 Costs of Medical Surveillance (Unit (No))

This item shall cover all costs in involved in the obtaining of baseline medical examinations of temporary labour, including operators for mobile plant as contemplated in CR 23(d) (ii); for temporary workers and workers exposed to noises at or above the limits given in the Noise-induced Hearing Loss regulations, as stipulated.

Workers in the permanent employ of the Contractor will only be paid for if their certificates require updating.

C.06 a) Initial (baseline) medical examinations, including audiometric and lung function testing.

C.07 Induction Training (Unit (No))

This item shall cover all costs incurred for the health and safety inductions as set out in Regulation 7 of the Construction regulations and the proof of induction required. Payment will be made on the figures contained in the induction section of the Health and Safety File.

C.08 Provision of First Aid Boxes. (Unit (No))

The rate for this item shall cover all costs incurred in the provision and maintaining of first aid boxes.

C.09 Establishment of noise levels (Unit (No))

This item shall cover all costs involved in the establishment of noise zones in terms of Regulation 9 of the Noise-induced Hearing Loss Regulations. Where a zone has previously been established for a particular item of plant within the last two years, the test need not be repeated but must be kept valid for the duration of the Contract.

C.10 Submission of the Health and Safety File. (Lump Sum)

Expenditure under this item shall be made in accordance with the general conditions of contract.

This amount will be paid only once the Principal Contractor has met all his obligations in respect of the Occupational Health and Safety Act and the Construction Regulations and has submitted his Health and Safety File complete as envisaged on this specification to the Client's satisfaction. This must be done prior to the issue of a Certificate of Completion

ANNEXURE A

H&S AGENT AUDIT SHEET EXAMPLE OCCUPATIONAL HEALTH AND SAFETY AUDIT DOCUMENT

PROJECT NAME:	
CONTRACT NUMBER:	
HEALTH AND SAFETY AUDIT No:	
CONDUCTED BY :	
DATE :	

EXECUTIVE SUMMARY

INTRODUCTION AND OVERVIEW

Scoring:

The audit has a scoring schedule, which will be used to deem compliance to what is available on site, and what the appropriate systems need to be to match them. The contractor should aim for a score of 3 on each aspect included in the audit. A low score could result in part or all of the work being stopped until compliance is reached.

Scoring schedule	
If the answer is "No" the rating will be 0	
If the answer is 'not applicable' it will be noted as n/a	
If the answer is "Yes" the following ratings are applicable	
1	Requirements partially met and no implementation.
2	Requirements partially met and partially implemented
3	Requirements fully met and partially implemented
4	Requirements fully met and fully implemented
5	Requirements and implementation exceeds expectation

Key Abbreviations:

Health and Safety	H&S	Driven Machinery Regulations	DMRs
Occupational Health	OH	Regulations for Hazardous Chemical Substances	RHCSs
Construction Regulations	CRs	Pressure Equipment Regulations	PERs
General Safety Regulations	GSRs	General Administration Regulations	GARs
Explosive Regulations	ERs	South African National Standards	SANS
Noise Induced Hearing Loss Regulations	NIHLs	South African Road Traffic Safety Manual	SARTSM
Facilities Regulations	FRs		
South African Bureau of Standards	SABS		
Occupational Health and Safety Act	OHSA		

Provide a summary of site inspection, significant findings of the site inspection and the audit.

CORE LEGAL RECORDS ON SITE:

This list is not conclusive – to be updated monthly relative to works in progress. However the H&S Officer is to be pro-active and pre-empt requirements with the Construction Supervisor (Site Agent). The content will be linked to the physical conditions, processes and activities noted on site, or programme.

ITEM	Legal /SPEC Ref	RECORDS TO BE KEPT	SCORE	COMMENTS	By whom	Completion Date	Contractor Close out
1.		Updated project H&S Organogram					
2.	OHSA S. 16 (1) and (2)	CEO and subordinate (if required) • Proof of Competency provided					
3.	CR 8 (1) and (2)	Designation of Construction Manager and Subordinate Person(s) • Proof of Competency provided					
4.	OHSA S. 17; GAR 7	• H&S Representatives appointed • Monthly inspections completed • Representation from Contractors					
5.	OHSA S. 18; GAR 5	• H&S Committee appointed • Minutes on file • H&S representatives reports discussed • Incidents discussed • Signed by Chair • Evidence of minutes noted					
6.	GAR 4	Copy of OH&S Act (Act 85 of 1993) available on site					
7.	CR 5(j); 7(c)(iv)	Written proof of registration / Letters of good standing available on Site					
8.	OHSA S.37.2	Copy of the Mandatary (S37.2) agreement between the PC and Client					

ITEM	Legal /SPEC Ref	RECORDS TO BE KEPT	SCORE	COMMENTS	By whom	Completion Date	Contractor Close out
9.	OHSa S.37.2	Mandatory agreements between PC and contractors					
10.	CR 3(1); 4(1)	Notification to Provincial Director – Annexure 1/2 Available on site					
11.	CR 5(1)(m) 7(1)(b)	<ul style="list-style-type: none"> • Copy of Principal Contractor's Health & Safety Plan Available on request. • Letter of approval from Agent. • Health & Safety File opened and kept on site (including all documentation-required in respect of the OHSa & Regulations) • Available at all times 					
12.	CR 7(1)(b)	Copy of Principal Contractor's Health & Safety File provided to Contractors <ul style="list-style-type: none"> • Letters of approval for each contractor on file • List of Contractors on site • Verified monthly by Agent 					
13.		Copies of technical method statements approved by Designer <ul style="list-style-type: none"> • Register available, signed by Designer 					
14.	CR 9(1) OHSa	Risk Assessments: <ul style="list-style-type: none"> • Up to date and available on site for inspection • Review and monitoring programme 					

ITEM	Legal /SPEC Ref	RECORDS TO BE KEPT	SCORE	COMMENTS	By whom	Completion Date	Contractor Close out
	CR 9(3)	adhered to <ul style="list-style-type: none"> Workers trained in risk assessments 					
15.	CR9(1)(c)	Safe work procedures Procedure <ul style="list-style-type: none"> List of available SWPs Workers trained in SWPs Proof of training verified 					
16.	OHSA S. 13 CR 7(5)(6)	Induction programme available <ul style="list-style-type: none"> Proof of induction training available 					
17.	CR 6(1)(2)	Structural information from Designer: <ul style="list-style-type: none"> Geo-science technical report Design loading of the structure Methods & sequence of construction Design risk assessment Amended H&S Specification Temporary Works Design 					
18.	CR 12(1)(3)	Temporary Works <ul style="list-style-type: none"> Appointment of temporary works designer Proof of Competency provided Approved temporary works drawings Temporary work inspection register Competencies of erectors of temporary works Construction method statements 					

ITEM	Legal /SPEC Ref	RECORDS TO BE KEPT	SCORE	COMMENTS	By whom	Completion Date	Contractor Close out
19.	CR 13(1)(2)	Excavations: <ul style="list-style-type: none"> • Competent persons appointed • CVs available • Depth of excavations on site • Shoring in use • Registers in line with open excavations noted at site inspection 					
20.	CR 13(f) GSR 13A	Ladders: <ul style="list-style-type: none"> • Competent person appointed • Registers kept • Registers for ladders noted on site 					
21.	CR 16(1)	Scaffolding: SANS 10085 <ul style="list-style-type: none"> • Competent Erector(s) and Inspector appointed • Proof of Competency provided • Registers in place 					
22.	CR 23	Construction Vehicles: <ul style="list-style-type: none"> • Appointment of competent operators • Plant Management: • Registers on file noting daily inspections • Plant and machine lists available • Inadequacies noted on site • Transportation of workers • Registers for sample of vehicles noted on site 					
23.	CR 24	Temporary Electrical Installations and Machinery					

ITEM	Legal /SPEC Ref	RECORDS TO BE KEPT	SCORE	COMMENTS	By whom	Completion Date	Contractor Close out
		<ul style="list-style-type: none"> • Competent Person appointed • Proof of Competency provided • Updated weekly installation inspection registers in place • Updated daily inspection registers in place 					
24.	CR 25	Flammable Liquids: <ul style="list-style-type: none"> • Competent Person appointed for inspections • Proof of Competency provided • Inspection registers in place 					
25.	CR 27, ER 6 GSR 8	Housekeeping, Stacking & Storage Supervisor: <ul style="list-style-type: none"> • Appointed per work area • Proof of Competency provided • Include site conditions • Spoil areas • Register available per area 					
26.	GSR 2	PPE: <ul style="list-style-type: none"> • included in Risk Assessment • PPE used and enforced • Records of Issue kept • Training to use (Induction) • Registers for condition checks 					
27.	RHCSs CR 7; 23 GSR 4	Hazardous Chemical Use and Storage <ul style="list-style-type: none"> • Competent Person/s appointed • Proof of Competency provided • Risk Assessments include use of HCSs • Register of HCS kept/used on Site 					

ITEM	Legal /SPEC Ref	RECORDS TO BE KEPT	SCORE	COMMENTS	By whom	Completion Date	Contractor Close out
		<ul style="list-style-type: none"> Flammable Store Bulk diesel storage Material Safety Data Sheets on file and utilised Other 					
28.	GSR 3	Emergency management: <ul style="list-style-type: none"> First aiders available through project Level 1 First aid boxes through site Evacuation procedures Registers available (noted on site) 					
29.	GAR	Incident Management: <ul style="list-style-type: none"> Emergency co-ordinator appointed Proof of Competency provided Emergency plan appropriate Emergency level included in Risk Assessments Workers trained Incident reports available and complete 					
30.	CR 1 (g), 7(8)	Medical Surveillance Programme <ul style="list-style-type: none"> All employee records 					
31.	CR 30/ FRs	Welfare Facilities: <ul style="list-style-type: none"> Toilets available where crews are working/clean Clean potable water available Adequate eating facilities 					
32.	SANS 1921-6	HIV AND AIDS PROGRAMME <ul style="list-style-type: none"> HIV and AIDS Policy and plan 					

ITEM	Legal /SPEC Ref	RECORDS TO BE KEPT	SCORE	COMMENTS	By whom	Completion Date	Contractor Close out
		available • Condoms available • Peer review programme available • Ongoing training of workers					
29.		Other					

RESPONSIBILITY	SIGNATURE	DATE
H&S AGENT SIGNATURE:		
PC SIGNATURE:		
DESIGNER SIGNATURE:		
CLIENT SIGNATURE:		

ANNEXURE B

CLOSE OUT REQUIREMENTS

The H&S files for the Principal Contractors and all Contractors require closure and handover to the Client at the completion of the project. The following list is an example of what should be included, but is not exhaustive. The OHS Agent or the Client may require further information at the time of completion and the Principal Contractor is to ensure that all instructions are met. Documentation would include all records from the start of the project. Daily or monthly plant inspection records are not required unless they are related to an accident. All records to be in electronic format and submitted to the OHS agent for approval in adequately formatted lists and folders. Layout should be logical and in the same order as in the site files.

Health and Safety close out file requirements include:

- a) Client H&S Specification
- b) Principal Contractor's OHS Plan(s)
- c) Organograms
- d) Legal Appointments
- e) List of all employees employed on a permanent or contractual basis over the duration of the contract
- f) Notification to Department of Labour of commencement of work
- g) Letters of Good Standing for the Project
- h) Full files for all Contractors as well as their close out reports
 - List of Contractors
 - All employees employed on a permanent or contractual basis over the duration of the contract
 - Letters of Approval of Contractors
 - Mandatary Agreements
 - Letters of Good Standing
 - Appointments
- i) Incident Records
- j) Non- Conformance records
- k) Agent's Audits
- l) Method Statements
- m) Risk assessments
- n) Safe work procedures
- o) Medical surveillance certificates of fitness. Medical records are to be kept according to the OH&S Act as amended
- p) All drawings for temporary structures (suspended beams/scaffolds etc)
- q) All operating manuals for any systems that require ongoing maintenance
- r) Copies of test results, policies and procedures for environmental monitoring (silica, noise, dusts etc.)

Defect and Liability Period

The H&S files are to be kept 'live' for the defect and liability period by the Principal Contractor, including those of their Contractors. Any work required during the defect and liability period will require an assessment of the H&S file by the OH&S Agent prior to any work commencing.

A copy drawing records for the as-builts are to be placed on file by the Designers once complete.

ANNEXURE C

NON CONFORMANCES

HEALTH AND SAFETY SITE INSPECTION NON CONFORMANCE NO		
AGENT:	PROJECT:	
Consultant:	Date and time:	
Client	Area:	
Contractor:		
ASPECTS NOTED:	COMMENTS:	COMPLETION REQUIRED BY (DATE):
	•	
	•	
	•	
	•	
	•	
PHOTOGRAPHIC EVIDENCE (if available):		
OTHER:		
The following penalties are to be applied:		
Signature of Designer		
Signature of H&S Officer/Site Agent		
Signature: of H&S Agent		

ANNEXURE D:

CONTRACTORS MONTHLY HEALTH AND SAFETY REPORT

(To be submitted by the end of the first week of each month and be available with each audit)

CONTRACT NUMBER:		PROJECT NAME:	CONTRACT DETAILS:
1	GENERAL ACTIVITIES FOR THE MONTH		
	(detail each area of work)		
2	NUMBER OF WORKERS (permanent and local, contractors)		
3	TRAINING DONE (supplier, no of people, type)		
4	INCIDENTS / ACCIDENT (list number and details, attach reports)		
6	NON-CONFORMANCES (closed out or active)		
7	CONTRACTORS (list, approval status)		
8	AUDITS COMPLETED (internal and external)		
9	CRITICAL ISSUES		

10	GENERAL	

H&S
Officer

Signature

Date:

Site Agent

Signature

Date:

ANNEXURE E

RISK ASSESSMENT FORMAT

ACTIVITY		RA No.		Rev No.	
CONTRACT		DATE WRITTEN		REVIEW DATE	
	WRITTEN BY	REVIEWED BY			APPROVED BY
NAME					
SIGNATURE					

RISK REF	ACTIVITY	POTENTIAL HAZARD	RISK	S	H	E	RISK EVALUATION	PURE RISK	CONTROLS MITIGATION	EFFECTIVENESS OF CONTROLS	RESIDUAL RISK	RESIDUAL RISK RANKING
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Severity Criteria

Weight No	Hazard Description	Environment	Safety/Health
16	Catastrophic	Irreversible ecological damage	Multiple fatalities due to injury or occupational disease
8	Major	Reversible ecological damage with potential long term impact	Fatality or number of disabilities/disabling diseases
4	Moderate	Ecological disturbance, can be rehabilitated	Disabling injury or occupational illness
2	Minor	Short-term ecological impact. Requires intervention	Minor injuries or exposure requiring medical attention
1	Insignificant	Low impact, natural rehabilitation	First Aid treatment required

Frequency Criteria

Weight No	Hazard Description	Frequency
1	Rare	Less than once every 2 years
2	Infrequent	Every 1-5 years
3	Frequent	Multiple times per year
4	Often	Monthly
5	Consistent	Weekly/Daily

Exposure Criteria

Weight No	Hazard Description	Environmental Exposure	Safety/Health Exposure
1	Minimal	Incident site	A few of the workforce minimal time
2	Restricted	Localised	A few of the workforce, some of the time/some of the workforce minimal time
3	Local	Construction Site Wide	Some of the workforce, some of the time
4	Widespread	Immediate neighbours	Most of the workforce, some of the time/some of the workforce most of the time
5	Extensive	Community exposure	Most of the workforce, most of the time

ANNEXURE F:

TYPICAL BILL OF QUANTITIES FOR OCCUPATIONAL HEALTH AND SAFETY

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	TOTAL
C.01	Preparation of the Contractor's site specific Health and Safety Plan	lump sum			
C.02	Principal Contractor's initial obligations in respect of the Occupational Health and Safety Act and Construction Regulations	lump sum			
C.03	Principal Contractor's time related obligations in respect of the Occupational Health and Safety Act and Construction Regulations	month			
C.04	Provision of Personal Protective Equipment (PPE)				
	(a) Reflective vests	No			
	(b) Hard hats	No			
	(c) Protective foot wear	No			
	(d) Earplugs	No			
	(e) Dust masks	No			
	(f) Gloves				
	(h) Ear Defenders SABS approved	No			
C.05	Provision of a full time Construction Health and Safety Officer	month			
C.06	Cost of medical certificates and medical surveillance				
	(a) Initial (baseline) medical examinations	prime cost (PC) sum			
	(b) Periodic and exit examinations	prime cost (PC) sum			

	(c) Contractor's charges to allow for handling costs and profit in respect of sub items 13/X.06 (a) and (b)	%			
C.07	Induction training	No			
C.08	Provision of First Aid Boxes to GSR requirements	No			
C.09	Noise monitoring				
	(a) Establishment of noise zones (plant)	No			
	(b) Audiograms (personnel)	No			
C.10	Submission of a Health and Safety File	lump sum			

ANNEXURE G

HARRY GWALA DISTRICT MUNICIPALITY

HEALTH AND SAFETY (H&S) PRE-TENDER REPORT

Tenderers are required to submit a pre-tender H&S plan with their Tender submission.

The following requirements were set in the tender documentation and have been utilized to assess the completeness of the documentation presented with the submission of tenders. These requirements fulfil the requirements of the Client in terms of the Construction Regulations, Regulation 5(1)(h). They are to be read in addition to the Act and Regulations but are not a substitute for them.

The documentation submitted will be used to assess the competence of the tenderer, as required in the CRs, therefore the information submitted needs to be complete and as close as possible to the final product.

The following scores have been used to determine compliance with the pre-tender requirements:
Scoring as follows:

Not supplied or not adequate **0**
Supplied and complete **1**

If the tenderer has not completed any projects then Items 4 and 5 need not be supplied. A letter to this effect must be attached.

Tenderers are required to achieve a minimum of 10 out of a total of 17 for their tenders to be considered.

Legal or Specification Reference	Pre-Tender Requirement H&S	Tenderers Response	Max Score	Actual Score
Construction Regulations (CRs) 7(1)	1. A project specific H&S Plan in line with this project specification which will support the CRs, therefore the information submitted needs to be complete and as close as possible to the final product. See check sheet		1	
CRs 5(1)(g)	2. Adequate pricing for H&S is also required, and the appropriate section in the BoQ is to be completed. Failure to do so could result in the Tender being regarded as non-responsive.		1	
CRs 5(1)(h)	3. A declaration to the effect that he has the competence and necessary resources to carry out the work safely in compliance with the Construction Regulations 2014;		1	
	4. At least one copy of minutes of previous Occupational Health and Safety Committee meetings;		1	
	5. Incident Investigation Reports for other projects of a similar nature			

	undertaken by the tenderer		1	
CRs 9(1)(b)	6. Detailed technical method statements for approval by the ER and for approval by the H&S Agent: <ul style="list-style-type: none"> a. Site establishment; b. Clearing and grubbing; c. Construction of offices and accommodation, and d. Proposed site layouts 		1 1 1 1	
CRs 9(1)	7. Appropriate risk assessments: <ul style="list-style-type: none"> a. Site establishment; b. Clearing and grubbing; c. Construction of offices and accommodation, and d. Proposed site layout 		1 1 1 1	
CR 9(1)	8. Appropriate safe work procedures <ul style="list-style-type: none"> a. Site establishment; b. Clearing and grubbing; c. Construction of offices and accommodation, and d. Proposed site layouts 		1 1 1 1	
	FINAL SCORE		17	

ANNEXURE H

TENDER STAGE OHS PLAN EVALUATION

Tenderers will be scored on their response to various facets of the Health and Safety Specification in the Tender Document. Failure to achieve a score of 60 % will render the tender non-responsive				
Proof of the evaluation must be given under the remarks column				
1	General	Is the Specification Project Specific? If not then score is 0.		
	Scoring	Response present and satisfactory	1	
		Not present	0	
OHS Act/regulation	Specification Section	Description	Max Score	Score
8(1)	6.1.4	Construction supervisor	1	
8(6)	6.1.5	Construction Health and Safety Officer	1	
	7.1	Health Risks and Medical Surveillance		
NIHLR	7.2	Noise Risks	1	
	7.3	Emergency Procedures		
GSR 3	7.4	First Aiders and First Aid Equipment	1	
CR 27	7.5	Fires and Emergency Management	1	
GAR 8	7.6	Incident Management and Compensation Claims	1	
GSR 2	7.7	Personal Protective Equipment (PPE) and clothing	1	
GSR 2B	7.8	Occupational Health and Safety Signage	1	
CR 7 (5)(6)	7.9	Induction of Employees and Visitors, General H&S Training	1	
CR 23	7.10	Management of plant and equipment	1	
CR13	7.11	Excavations	1	
CR 10	7.12	Working at Heights	1	
CR 8	7.12	Fall protection plan	1	
CR 22	7.13	Cranes and lifting equipment	1	
CR 12	7.15	Temporary works	1	
CR5(1)(0)	7.18	Auditing	1	
DMR/GMR	7.19	Mechanical installations	1	
OHS 8(2)(j)	7.20	Communication on Site	1	
CR 30	7.21	Care of Workers on Site (Welfare)	1	
	Additional requirements			
	6.1.3	Declaration of competency	1	
Cr 9 (1)		Method statements (SWPs)		
		a) Site Establishment	1	
CR5(1)(g)		Has pricing for OHS been allowed for?	1	
		TOTAL SCORE	22	
		TOTAL PERCENTAGE		

If a section is not applicable then it must be deleted from the score sheet and the total score reduced.

ANNEXURE I

AGREEMENT IN TERMS SECTION 37.2 OF THE OCCUPATIONAL HEALTH AND SAFETY ACT 1993 (ACT NO. 85 OF 1993)

THIS AGREEMENT is made at _____ on this the _____ day of _____ in the year _____ between HARRY GWALA DISTRICT MUNICIPALITY (*hereinafter called "the Client"*) of the one part, herein represented by _____ in his capacity as _____ and delegate of the Client in terms of the Client's standard powers of delegation.

and

(*hereinafter called "the Mandatary"*) of the other part, herein represented by

_____ in his capacity as _____

and being duly authorised by virtue of a resolution appended hereto as Annexure A.

WHEREAS the Client is desirous that certain works be constructed, viz **CONTRACT NO.** _____, and has accepted a tender by the Mandatary for the construction, completion & maintenance of such works and whereas the Client and the Mandatary have agreed to certain arrangements and procedures to be followed in order to ensure compliance by the Mandatary with the provisions of the Occupational Health and Safety Act 1993 (Act 85 of 1993 as updated);

NOW THEREFORE THIS AGREEMENT WITNESSETH AS FOLLOWS:

- 1 The Mandatary shall execute the work in accordance with the contract documents pertaining to this contract;
- 2 This Agreement shall hold good from its commencement date, which shall be the date determined in terms of the Form of Offer and Acceptance, or other date decided upon, in the Contract Data, to either;
 - a) The date of the final certificate issued or as contained in this Volume _____ of the contract documents pertaining to this Contract, or
 - b) The date of termination of the Contract;
- 3 The Mandatary declares himself to be conversant with the following:
 - a) All the requirements, regulations and standards of the Occupational Health and Safety Act (Act 85 of 1993 as updated), hereinafter referred to as "The Act", together with its amendments and with special reference to the following Sections of The Act.
 - i. Section 8: General duties of clients to their employees;
 - ii. Section 9: General duties of clients and self-employed persons to persons other than employees;

- iii. Section 10: General duties of manufacturers and others regarding articles and substances for use at work;
 - iv. Section 37: Acts or omissions by employees or Mandatories, and
 - v. Sub-section 37(2) relating to the purpose and meaning of this Agreement.
- b) The Contractor shall ensure that he familiarises himself with the requirements of the Clients health and safety specification developed for the project, and that he, his employees and any other Contractors employed during the project comply with them. The Contractor shall ensure that all health and safety documentation required as part of the health and safety plan is maintained for the duration of the project.
- 4 In addition to the requirements of conditions of contract (as amended by the Contract Data of the contract documents pertaining to this Contract), the Mandatary agrees to execute all the works forming part of this Contract and to operate and utilize all machinery, plant and equipment in accordance with The Act.
- 5 The Mandatary is responsible for the compliance with the Act by all his Contractors, whether or not selected and/or approved by the Client.
6. The Mandatary warrants that all his own and his Contractors' workmen are covered in terms of the Compensation for Occupational Injuries and Diseases Act 1993 as amended, which cover shall remain in force whilst any such workmen are present on site. A letter of good standing from the Compensation Commissioner to this effect must be produced to the Client upon signature of the agreement.
7. The Mandatary undertakes to ensure that he and/or subcontractors and/or their respective clients will at all times comply with the following conditions:
- a) The Mandatary shall assume the responsibility in terms of Section 16.1 of the Occupational Health and Safety Act. The Mandatary shall not delegate any duty in terms of Section 16.2 of this Act without the prior written approval of the Client. If the Mandatary obtains such approval and delegates any duty in terms of section 16.2 a copy of such written delegation shall immediately be forwarded to the Client.
 - b) All incidents referred to in the Occupational Health and Safety Act shall be reported by the Mandatary to the Department of Labour as well as to the Client. The Client must further be provided with copies of all written documentation relating to any incident.
 - c) The Client hereby obtains an interest in the issue of any formal enquiry conducted in terms of section 32 of the Occupational Health and Safety Act into any incident involving the Mandatary and/or his employees and/or his Contractors.
 - d) The Mandatary shall conduct such risk assessments, method statements and safe work practices as may be necessary during the course of the contract and shall ensure that all staff are informed of these. Proof of this shall be placed in the project Health and Safety file.

Adherence to the Contractor's Health and Safety plan must be enforced including the application of penalties for non-conformance as set out in the Client's Health and Safety Specification.

In witness thereof the parties hereto have set their signatures hereon in the presence of the subscribing witnesses:

SIGNED FOR AND ON BEHALF OF THE CLIENT:- _____

WITNESS SIGNED:- 1. _____ 2. _____

NAME (IN CAPITALS) 1. _____ **2.** _____

SIGNED FOR AND ON BEHALF OF THE MANDATARY:- _____

WITNESS SIGNED:- 1. _____ 2. _____

NAME (IN CAPITALS) 1. _____ **2.** _____

PC: **EMPLOYER'S ENVIRONMENTAL MANAGEMENT SPECIFICATION FOR
ENVIRONMENTAL MANAGEMENT OF CONSTRUCTION PROJECTS**

PC1 **INTRODUCTION**

PC1.1 **SCOPE**

This specification is additional to the South African Bureau of Standards Standardised Specification for Civil Engineering Contracts and must be read in conjunction with the said specification.

This specification covers the principles, responsibilities and requirements generally applicable to implement effective environmental management during the execution of any construction contract. The aim of this specification is to ensure that construction activities are conducted in an environmentally and socially responsible manner.

PC1.2 **INTERPRETATIONS**

This specification contains clauses that are generally applicable to the implementation of effective environmental management on construction contracts. Interpretations of, and variations to, this specification are set out in the project specification.

PC1.2.1 **Supporting specifications:**

Reference is made to the SABS 1200 standards which are to be read in conjunction with this specification. All aspects of these SABS requirements which are relevant to environmental management during construction contracts will apply.

PC1.2.2 **Principles**

The following principles should be considered at all times during construction phase activities:

- The Environment is considered to be composed of both biophysical and social components.
- Construction is a disruptive activity and all due consideration must be given to the environment, particularly the social environment, during the execution of a project to minimise the impact on affected parties.
- Minimisation of areas disturbed by construction activities will minimise many of the construction related environmental impacts of the project and reduce rehabilitation requirements and costs.
- As minimum requirements, all relevant standards relating to international, national, provincial and local legislation, as applicable, shall be adhered to. This includes requirements relating to waste emissions (e.g. hazardous, airborne, liquid and solid), waste disposal practices, noise regulations, road traffic ordinance etc.
- All effort should be made to minimise, reclaim or recycle 'waste' material.

PC1.3 **DEFINITIONS**

For the purpose of this specification, the definitions given in SABS 1200 shall apply.

Additional definitions which shall apply to this specification are as follows:

Environmental Control Officer: Either an Employer's staff member or an Environmental Consultant assigned to the project on a part or full-time basis. The Environmental Control Officer will be part of the Project staff and will advise the Engineer on all environmental matters relating to the works, in terms of this specification and the project specification, if applicable.

Environmental Officer: Either an Employer's employee (e.g. Quality Assurance Inspector) or Consultant designated to monitor the implementation and compliance with the environmental specifications and environmental management plan on a daily basis.

Cleared surface: "surface vegetation" as referred to in SABS 1200 C 2.3 will be deemed to be any woody or herbaceous vegetation but exclude grasses, sedges, rushes and reeds. Clearing and grubbing shall for the purpose of this specification mean the removal of all woody and herbaceous vegetation including stumps, but excluding grass and groundcover vegetation.

Engineer: Is to read Engineer or Supervisor (in the case of the NEC contract), whichever is applicable to the Contract.

Interested and Affected Parties (IAP): All persons who may be affected by the project either directly or indirectly, or who have an interest or stake in the area to be affected by the project. IAPs include landowners, tribal or local authorities, public interest groups etc.

Liquid Waste Stream: Any reagent solutions, fuels, oils, greases, contaminated run-off, sewerage and wash water, etc.

Open Trench: Open trench will, for the purpose of this specification, be deemed to include: clearing and grubbing; stripping of topsoil; trenching; placing of bedding; pipe-laying; placing of selected fill; backfilling to ground level; removing excess material; construction of cross berms to channel water (if required); and replacement of topsoil to final finished level (refer to Figure 1: Appendix A).

Progressive Reinstatement: Reinstatement of disturbed areas to topsoil profile on an ongoing basis, immediately after selected construction activities (e.g. backfilling of a trench) are completed. This allows for passive rehabilitation (i.e. natural recolonisation by vegetation) to commence. See also 'Open Trench' and 'Rehabilitation'.

Project Manager: The person responsible for co-ordinating and integrating activities across multiple, functional lines.

Rehabilitation: Rehabilitation is defined as the return of a disturbed area to a state which approximates the state (where possible) which it was before disruption. Rehabilitation for the purposes of this specification is aimed at post-reinstatement revegetation of a disturbed area and the ensurance of a stable land surface. Revegetation should aim to accelerate the natural succession processes so that the plant community develops in the desired way, i.e. promote rapid vegetation establishment.

Riparian vegetation: Vegetation occurring on the banks of a river or stream (i.e. vegetation fringing a water body). In this specification, riparian vegetation in terms of removal, storage and replacement (see PC3 17.1 and PC3 17.2), is only applied to sedge, grass, ground-cover, reed, bulrush, or herbaceous component of riparian vegetation and excludes the woody component.

Sedges: Grass-like plants growing in wetland/ marshy areas or adjacent to water.

Subsoil: Subsoil is the soil horizons between the topsoil horizon and the underlying parent rock. Subsoil often has more clay-like material than the topsoil. Subsoil is of less value to plants, in terms of nutrient (food) and oxygen supply, than topsoil. When subsoil is exposed it tends to erode fairly easily.

Timeous: At least 5 working days prior to an activity.

Topsoil: This is defined as the A horizon of the soil profile. Topsoil is the upper layer of soil from which plants obtain their nutrients for growth. It is often darker in colour, due to the organic (humic) fraction. Topsoil is deemed for the purposes of this specification as the layer of soil from the surface to the specified depth required for excavation (see PC3 5.3, relevant SABS 1200 clause and project specification). Where topsoil is referred to, it is deemed to be both the soil and grass / ground cover fraction. (see 'Cleared Surface')

Veld: This is defined for the purpose of this specification as unimproved natural vegetation areas (e.g. grasslands).

Water body: Any open body of water including streams, dams, rivers, lakes, and the sea.

Wetland: A seasonally, temporally, or permanently wet area which also may exhibit a specific vegetation community. It is often marshy in character.

Wetland Vegetation: Vegetation which is indicative of a wetland environment - for example, sedges, rushes, reeds, hydrophilic grasses and ground-covers, but for the purposes of this specification excludes woody species.

Xeriscaping: Landscaping with vegetation which has a low water usage. The objective is to conserve as much water as possible, whilst still beautifying an area (i.e. conservation and aesthetics). Concept embraces utilising indigenous as opposed to exotic plants.

PC1.4 ABBREVIATIONS

DWAF : Department of Water Affairs and Forestry
ECO : Environmental Control Officer
EMP : Environmental Management Plan
EMPR : Environmental Management Programme Report
EO : Environmental Officer
IAPs : Interested and Affected Parties
IEM : Integrated Environmental Management
MSDS : Material Safety Data Sheet
NEC : New Engineer Contract or The Engineering and Construction Contract

☞ : Indicates the project specification must be referred to, to clarify the clause.

PC1.5 DRAWINGS

Drawings referred to in this specification are included in C4.4 Drawings of Section C4 Site Information.

PC1.6 FORMS

Forms referred to in this specification are included in Part T2 or attached to this environmental specification.

PC1.7 CONDITIONS OF CONTRACT

PC1.7.1 Duties and Powers of the Project Manager

The Project Manager is ultimately responsible for ensuring compliance with the environmental specification and upholding the Employer's Environmental Policy on a project.

The Project Manager:

- arranges information meetings for or consults with IAPs about the impending construction activities;
- may on the recommendation of the Engineer and /or Environmental Officer order the Contractor to suspend any or all works on site if the Contractor or his SubContractor/supplier fails to comply with the said specifications;
- maintains a register of complaints and queries by members of the public at the site office as per attached pro-forma. This register is forwarded to the Environmental Control Officer on a monthly basis.

PC1.7.2 Duties and Powers of the Engineer / Supervisor (NEC)

The Engineer or Supervisor is responsible for:

- enforcing the environmental specification on site;
- monitoring compliance with the requirements of the specification;
- assessing the Contractor's environmental performance in consultation with the Environmental Officer from which a brief monthly statement of environmental performance is drawn up for record purposes;
- documenting, in conjunction with the Contractor, the state of the site prior to construction activities commencing. This documentation will be in the form of photographs or video record.

PC1.7.3 Duties and Powers of the Environmental Control Officer

The Environmental Control Officer:

- briefs the Contractor about the requirements of the Environmental Specification and/ or Environmental Management Plan, as applicable;
- advises the Project Manager and Engineer/ Supervisor about the interpretation, implementation and enforcement of the Environmental Specification and other related environmental matters;
- attends site meetings, as necessary;
- monitors the Constructor's compliance with this specification and the project environmental specification as applicable;
- undertakes periodic audits of the effectiveness of the environmental specifications on the site;
- communicates environmental policy issues to the Project Manager;
- provides technical advice relating to environmental issues to the Engineer/ Supervisor and Project Manager;
- reports on the performance of the project, in terms of environmental compliance.

PC1.7.4 Duties and Powers of the Environmental Officer

The Environmental Officer:

- attends site meetings;
- monitors the site for compliance with the Environmental Specification and EMP;
- reports on the performance of the project in terms of environmental compliance to the ECO and Project Manager as per the pro-forma attached;
- liaises with the ECO on matters of policy and those requiring clarity and advice.

PC1.7.5 Extent of the Contractor's Obligations

The Contractor is required to:

- provide information on previous environmental management experience and company environmental policy;
- supply method statements for all activities requiring special attention as specified and/or requested by the Project Manager, Environmental (Control) Officer and/or Engineer during the duration of the Contract;
- be conversant with the requirements of this environmental specification and the project specification as applicable;
- brief his staff about the requirements of the environmental specification;
- comply with requirements of the Environmental (Control) Officer in terms of this specification and the project specification, as applicable, within the time period specified;
- ensure any sub-Contractors/ suppliers who are utilised within the context of the contract comply with the environmental requirements of the Employer, in terms of the specifications.

The Contractor will be held responsible for non-compliance on their behalf;

- bear the cost of any delays, with no extension of time granted, should he or his Sub-Contractors/ Suppliers contravene the said specifications such that the Engineer orders a suspension of work. The suspension will be enforced until such time as the offending party(ies), procedure, or equipment is corrected;
- bear the costs of any damages/ compensation resulting from non-adherence to the said specifications or written site instructions;
- comply with all applicable legislation in terms of 7.6 below;
- ensure that he informs the engineer timeously of any foreseeable activities which will require input from the Environmental (Control) Officer.

The Contractor will conduct all activities in a manner that minimises disturbance to directly affected residents and the public in general, and foreseeable impacts on the environment.

PC1.7.6 Compliance with Applicable Laws

The supreme law of the land is “The Constitution of the Republic of South Africa”, which states:

“Every person shall have the right to an environment which is not detrimental to his or her health or well being”

Laws applicable to protection of the environment in terms of Environmental Management (and relating to construction activities) include but are not restricted to:

Animals Protection Act, Act No 71 of 1962
Atmospheric Pollution Prevention Act, No 45 of 1965
Conservation of Agricultural Resources Act, No 43 of 1983
Environmental Conservation Act, No 73 of 1989
Environmental Planning Act, Act No 88 of 1967
Fertilisers, Farm Feeds, Agricultural Remedies and Stock Remedies Act, No 36 of 1947
Forest Act, No 122 of 1984
Forest and Veld Conservation Act, Act No 13 of 1941
Hazardous Substances Act, No 15 of 1973
Lake Areas Development Act No 34 of 1975
Land Survey Act, No 9 of 1921
Minerals Act, No 50 of 1991
Mountain Catchment Act, No 63 of 1970
National Monuments Act, No 28 of 1969
National Parks Act, No 57 of 1976
National Resources Development Act, Act no 51 of 1947
Occupational Health and Safety Act, No 85 of 1993
Provincial and Local Government Ordinances and Bylaws
Soil Conservation Act, Act No 76 of 1969
Water Act, No 54 of 1956
Water Services Act No 108 of 1997
and all regulations framed thereunder and amendments there to.

PC1.7.7 Compliance with any legislation, by LAW etc.

- The OHS Act (Act 85 of 1993)
- The Compensation for Occupational Injuries and Diseases Act (Act 130 of 1993) (COID Act)
- The Labour Relations Act (Act 66 of 1995)
- The Basic Conditions of Employment Act (act 3 of 1983) (BCE Act)
- The Income Tax Act (Act 58 of 1962)
- The Value Added Tax Act (Act 89 of 1991)
- The Engineering Profession Act of South Africa (Act 114 of 1990)
- CIDB Regulations
- Supply Chain Management Regulations

PC1.7.8 Compliance with the Environmental Specification

The Contractor is deemed not to have complied with the Environmental Specification if:

- within the boundaries of the site, site extensions and haul/ access roads there is evidence of contravention of clauses;
- if environmental damage ensues due to negligence;
- the Contractor fails to comply with corrective or other instructions issued by the Project Manager or Engineer within a specified time,
- the Contractor fails to respond adequately to complaints from the public.

Application of a penalty clause will apply for incidents of non-compliance. The penalty imposed will be per incident. Unless stated otherwise in the project specification, the penalties imposed per incident or violation will be:

Failure to demarcate working servitudes	R1000
Working outside of the demarcated servitude	R2000
Failure to strip topsoil with intact vegetation	R1000
Failure to stockpile topsoil correctly	R500
Failure to stockpile materials in designated areas	R500
Pollution of water bodies (including increased suspended solid loads)	R1000
Failure to control stormwater runoff	R1000
Failure to provide adequate sanitation	R500
Unauthorised removal of woody vegetation	R2000
Failure to erect temporary fences	R500
Failure to provide adequate waste disposal facilities and services	R500
Failure to reinstate disturbed areas within the specified time-frame	R3000
Failure to rehabilitate disturbed areas within the specified time-frame	R3000
Any other contravention of the project specific specification	R400
Any other contravention of the particular (general) environmental specification	R300

PC2 SITE ESTABLISHMENT AND HOUSEKEEPING

PC2.1 LAYOUT

The Contractor will take into account any of the limitations identified in the project specification with regard to establishment of site, in particular the location of access routes, and establishment layout.

Notwithstanding the provision of a project specification, the Contractor will provide the Project Manager and Environmental Control Officer with a layout design of the site indicating the position of all of the following, as applicable: offices, ablution facilities, storage areas, workshops, laboratories, batching plant, particulate matter stockpile area (i.e. soil/ granular chemicals/ cement fines etc), waste disposal facilities, hazardous substances storage area, access routes, etc. This layout plan is to be submitted prior to site establishment for acceptance. Any changes to this plan require review by the Project Manager in conjunction with the ECO.

The Contractor will take into account prevailing wind directions when designing the site layout to minimise impacts due to dust, unpleasant odours etc.

The Contractor will take into account the positions of residences when designing the site layout in order to minimise noise impacts on the residents.

Site security lighting is to be positioned such that the direct beam is focused away from residential properties and does not pose a nuisance or danger to road users.

No site establishment will be allowed within 100 m of a water body or drainage channel or on a flood plain unless approved by the Environmental (Control) Officer or specified in the project specification.

PC2.2 SITE CLEARANCE

No trees or shrubs may be removed without the prior permission of the Environmental Officer, unless in keeping with the final site reinstatement and rehabilitation plan.

Topsoil is to be stripped from all areas where permanent or temporary structures and access roads are to be constructed. Topsoil conservation is to be in terms of clause PC3 5.3 of this document.

PC2.3 SERVICES

PC2.3.1 Sanitation

Portable chemical toilets are to be utilised at site unless a connection to sewer is possible or a proper septic tank system is installed. In the case of the septic tank, the installation will require the relevant approvals from the local authority and will require removal upon completion of the contract, unless otherwise directed.

Sanitation facilities will be located within 100 m from any point of work, but not closer than 50 m to a water body.

PC2.3.2 Solid Waste Facilities

Facilities for solid waste collection are to be provided. These are to be at least a 200 l drum and clearly identified as the point for waste disposal.

Waste is to be separated into paper, glass and metal with separate collection points for each. The Contractor will ensure that the appropriate recycling Contractors receive this waste.

The Contractor is to institute a daily litter collection programme. The collected waste is to be disposed of regularly and proportionately to its generation at a site designated for waste disposal.

No burning will be permitted on any site unless by approved incineration methods and in a low risk fire area. In the case of incineration, ash is to be co-disposed with spoil in a designated spoil dump.

No burying of waste will be allowed on any site.

PC2.3.3 Cooking and Heating Facilities

No open fires will be allowed anywhere on site.

Contained fires (i.e. in a fire drum) will be allowed for heating and cooking only in designated areas, in other cases cooking is restricted to gas or electrical equipment.

PC2.4 FUELS, HAZARDOUS SUBSTANCES AND OTHER LIQUID POLLUTANTS

PC2.4.1 Storage and handling

All potentially hazardous raw and waste materials are to be handled by trained staff and stored on site in accordance with manufacturer's instructions and relevant legal requirements. The product MSDS is to be lodged with the Engineer.

Storage and handling areas for fuels, lubricants, chemicals and other hazardous substances are to be paved with concrete to prevent accidental contamination of the soil. Alternatively, an impermeable liner may be placed beneath above-ground storage tanks. The integrity of the liner is to remain intact for the duration of the contract, until removal.

Open storage vessels, for example shutter lubricant drums, are to be stored under cover to prevent 'splash' contamination.

All storage areas are to be bunded (with at least sandbags) and have a peripheral collection drain, with oil interceptors (if required).

The bunded area is to be sufficiently large to contain a spillage equivalent to the volume of one container of the substances stored.

All products to be dispensed from 200 litre drums will be done so with appropriate equipment, and not dispensed by tipping of the drum.

Daily checks are to be conducted on the dispensing mechanism of above-ground storage tanks to ensure the timeous identification of faults.

Collection containers (e.g. drip trays) are to be placed under all dispensing mechanisms of hydrocarbon or hazardous liquid substances to ensure contamination from leaks and dispensing is contained.

The dispensing mechanism of diesel and petrol storage tanks is to be stored in a container when not in use.

PC2.4.2 Control of pollutants

A drainage diversion system is to be installed to divert runoff from areas of potential pollution, e.g. batching area, vehicle maintenance area, work shops, chemical and fuel stores, etc if applicable.

Contaminated runoff and waste water is to be directed into a collection system (e.g. sump, attenuation dam, PVC porta-ponds etc.) for treatment or collection and disposal. The final collection point (e.g. sump) is to be PVC lined.

Collected contaminated runoff/ wastewater is to be pumped out of the final collection point and disposed of at an appropriate landfill site. Sump liners are to be treated in the same manner.

The treated waste water, effluent and contaminated runoff may require analysis prior to discharge as detailed in the project specification or instructed by the Environmental Officer. Details regarding proposed methods for treatment of pollutants are to be submitted to the Environmental (Control) Officer for acceptance upon award of the Contract.

Any spillages, irrespective of their size, are to be contained and cleaned up immediately. The Pollution Control section may provide technical assistance for clean up, if required. No spills may be hosed down into a stormwater drain or sewer.

Use of specialised cleanup techniques and/ or products may be required depending on the spill. This will be instructed by the Environmental Control Officer. These will be to the Contractor's cost.

PC2.5 GENERAL

Site staff are not permitted to use any open water body or other natural water source (e.g. springs) for purposes of bathing, or the washing of clothes, machinery or vehicles. Nor draw water from a spring without the permission of the community utilising that spring.

PC2.6 MEASUREMENT AND PAYMENT

Measurement and payment for compliance with clauses PC2.1 to 5 of the specification are deemed to be fully included in the Contractor's rates for fixed and time related Preliminary and General Items scheduled under SABS 1200 A or AA.

PC3 CONSTRUCTION

PC3.1 CONSTRUCTION METHODS AND PROGRAMME

PC3.1.1 Construction Method

The Contractor will provide method statements for construction activities (14 working days prior to the activity commencing) relating to the following environments and those listed in the project environmental specification, unless methods have been prescribed in this or the project environmental specification:

- rivers, streams, or any other open water body;
- wetlands;
- access roads (see PC3.13 below);

- steep slopes (i.e. steeper than 1:4) or less if friable material is present;
- indigenous bush/ forest;
- close proximity (i.e. 50 m or less) to a residential dwelling;
- drilling and/or blasting of rock.

If a construction method employed by the Contractor is not environmentally acceptable to the Employer, the Contractor may be instructed to cease the utilisation of that method in favour of a more environmentally acceptable one, proposed either by himself or the Employer.

PC3.1.2 Construction Programme

The Contractor will programme construction so as to minimise the impact on the environment and provide this programme to the Environmental Control Officer for perusal and acceptance at the onset of the contract period. The Environmental Control Officer is to be made aware of any amendments to the construction programme or alterations to the scope of work in order that their impacts on the environment can be assessed.

The Contractor (through the Project Manager) will ensure that all affected landowners/ authorities are advised of the proposed programme at the beginning of the contract period.

PC3.2 AREAS OCCUPIED / DEMARCATION OF SITE

Routes for temporary access and haul roads are to be located within the approved demarcated areas and vehicle movement is to be confined to these roads. Movement of vehicles outside the designated working areas is not permitted without authorisation from the Engineer.

All construction activities are restricted to working areas designated on the drawings and/or demarcated and approved by the Engineer. Materials including spoil are stockpiled at designated areas.

Any areas disturbed outside of the demarcated areas or without permission of the Environmental (Control) Officer or Engineer will be subject to reinstatement and rehabilitation (as per PC4 below) to the Contractor's cost.

In terms of pipeline projects, a general maximum working servitude width of 15 m will apply for machine excavation unless otherwise indicated in the project specification. A maximum width of 6 m will apply for manual excavation. These maximum working servitude widths may vary depending on the sensitivity of the environment, as detailed in the project specification.

In sensitive biophysical environments, for example wetlands, indigenous forest / bush, pristine natural grasslands, and sensitive social environments, as defined in the project specification or by the Environmental Control Officer, the working servitude is reduced as indicated in the project specification.

The working servitude shall contain all construction related activities, including, stockpiling of materials, placing of toilets, vehicle movement areas, etc.

Demarcation of linear projects (executed with machine excavation) and features (e.g. pipelines, access roads, etc.) will be by means of wooden stakes. These stakes will be at least 1 m high, painted white and placed at least every 15 m, on either side of the linear feature, in all areas where works are occurring. Progressive movement of stakes is required as linear projects progress.

In the case of a fenced site, the boundary fences will be denoted as the outermost limit of the site, but internal areas may be demarcated with stakes as above. The site boundaries of non-fenced, but 'contained' projects are to be delineated using stakes or temporary fencing, depending on the hazard which that site poses.

PC3.3 SUPPLY OF WORKS FACILITIES

No water may be abstracted from water bodies for the purposes of construction, without approval of the Engineer in consultation with the Environmental Control Officer.

PC3.4 CLEANLINESS

SABS 1200 AD, clause 5.2.4, second sentence, is to read: "No rubbish or debris shall be deposited below the full supply level (FSL)."

PC3.5 SITE CLEARANCE

PC3.5.1 Clearance

Spoil sites will require clearing and grubbing in addition to those areas in terms of SABS 1200 C 5.1.

The site shall only be cleared immediately prior to construction activities commencing i.e. at the last practicable stage.

No trees or indigenous shrubs may be removed without the prior permission of the Environmental (Control) Officer, unless in keeping with the final site reinstatement and rehabilitation plan.

PC3.5.2 Disposal of materials

Material obtained from clearing and grubbing operations shall be disposed of at appropriate municipal disposal facilities. They are not to be disposed of as per Paragraph 1 of Sub-clause 3.1 of SABS 1200 C.

Wood obtained from clearing and grubbing operation remains the property of the landowner/ community and must be stacked at sites designated by relevant person. The Contractor will be required to remove and dispose of any wood from site at a designated site for vegetation disposal, should the landowner/ community not require it.

All tree trunks and branches of diameter greater than 50mm are to be cut into lengths not exceeding 2400mm.

Brush wood (i.e. < 50mm diameter) is to be disposed of, or utilised as specified in the project specification or upon instruction of the Engineer.

PC3.5.3 Conservation of topsoil

The Contractor is required to strip topsoil (as defined in this specification) together with grass, groundcover and sedges from all areas where permanent or temporary structures are located, construction related activities occur, and access roads are to be constructed, etc. The depth to which topsoil will be stripped shall be 200mm unless stated otherwise in the project specification.

Topsoil is to be handled twice only - once to strip and stockpile, and secondly to replace, level, shape and scarify.

Topsoil is to be replaced along the contour.

Topsoil is to be replaced by direct return (i.e. replaced immediately on the area where construction is complete), rather than stockpiling it for extended periods. This is feasible for progressive construction (e.g. pipelines), but not necessarily so for reservoirs, site establishments, dams, etc.

Topsoil stockpiles are not to exceed 2 m in height.

Topsoil stockpiles are to be maintained in a weed free condition (i.e. no 'broad-leafed' plants regarded as weeds in terms of the Conservation of Agricultural Resources Act No 43 of 1989,

or those plants regarded as a 'general nuisance in the area' are to be growing on the stockpiles). The Environmental Control Officer will provide guidance as to which plants are weeds and require removal.

The stockpiles are not to be contaminated with sub-soil, or any other waste material.

Topsoil may not be compacted in any way, nor may any object be placed or stockpiled on it.

Topsoil may not be compacted in any way, nor may any object be placed or stockpiled on it.

Topsoil which is to be stockpiled for periods exceeding 4 months is to be vegetated. In summer a mixture of *Eragrostis tef* (Teff) and *Eragrostis curvula* (Weeping Lovegrass) (ratio 1:2) is to be applied at an application rate of 6 kg/ha, unless otherwise instructed in the project specification.

In winter, a mixture of *Lolium multiflorum* (Annual/Italian Rye grass) and *Eragrostis curvula* (Weeping Lovegrass) (ratio 1:1) is to be applied at an application rate of 6kg/ha (see PC4 5.3 for sowing times), unless otherwise instructed in the project specification. Fertiliser is to be applied as per PC4 5.2.

PC3.5.4 Cutting of trees

Any tree branches which require removal are to be properly pruned and sealant applied to the cut surface, if required.

The Contractor's attention is drawn to Sub-clause 5.2.3.3 of SABS 1200 C with respect to work in indigenous forests.

Any indigenous trees or bush which require removal in terms of the project, and which have not been identified in the project specification or EMP, are to be timeously indicated to the Environmental Officer prior to work affecting them.

PC3.5.5 Landscape Preservation and Conservation of Flora

Notwithstanding Clause 5.7 of SABS 1200 C, the Contractor will be required to transplant designated plants to alternative locations as specified in the project specification or identified by the Environmental Control Officer, upon the instruction of the Engineer.

Transplanting shall be undertaken by employing the following method:

Removal

- Mark the orientation of the tree/shrub (for example, the north-facing side of the trunk indicated by a small arrow made with indelible ink) trunk. Do not scratch a mark on the surface of the trunk;
- Delineate a circle from the trunk with a radius equivalent to the drip-line of the tree, or as indicated by the Environmental Control Officer on site;
- Excavate the tree with an intact rootball.

Replanting

- A hole 500mm larger in diameter than the anticipated rootball must be prepared in advance of the tree removal in order that the tree can be replanted immediately;
- The tree must be positioned as per its original orientation;
- A planting method known as 'puddling' must be employed. This method involves the addition of soil and water simultaneously to expels air from the planting hole. Place the tree in its new hole, making sure the top surface of the rootball is level with the ground level. Place a hose pipe in the hole and leave it running whilst extra soil is added around the rootball;
- 'Compact' the tree in the hole and attach tree stays for stabilisation.

Compensatory planting of species may be required should transplantation not be feasible, as indicated in the project specification or upon instruction of the Engineer.

PC3.6 EARTHWORKS

PSZ3.6.1 Backfill material

With reference to SABS 1200 DB sub-clause 3.5, no material stripped or excavated which is classed, in terms of this specification, as topsoil, may be used as backfill in any excavation.

PC3.6.2 Excavation and backfilling

During excavation 'conservation of topsoil', as specified in PC3 5.3 above will apply.

Excavated material is to be stockpiled along a pipeline trench within the working servitude, unless otherwise authorised.

Surplus excavated soft, intermediate and hard rock material shall not be disposed of along the pipeline trench as indicated in SABS 1200 DB sub-clause 5.6.3 and 5.6.4, but shall be removed to a spoil site (see PC3.15 below) designated during the project if applicable, or agreed by the Engineer in conjunction with the Environmental Control Officer and Project Manager.

In certain cases, for example to help stabilise the disturbed area or to reinstate the natural aesthetics of an area, excess excavated intermediate and hard material may be disposed of in a designated manner along a pipeline trench, as indicated by the Environmental Control Officer and Project Manager, or in the project specification. In this case, rock material shall not exceed 250mm in maximum dimension (see PC4 2.1).

In terms of SABS 1200 DB 5.6.5 and SABS 1200 LB 3.4.2, deficiency of backfill material shall not be made up by excavation within the free haul distance of 0.5km of site, without the prior approval of the Engineer of the source of the material. Where backfill material is deficient, it should ideally be made up by importation from an approved borrow pit (i.e. one which operates within the ambient of an EMPR.) (See also PC3 14 below).

The Contractor will backfill in accordance with the requirements of progressive reinstatement.

The maximum length of open trench shall be specified in the project specification.

PC3.7 SAFETY

All works which may pose a hazard to humans and animals are to be adequately protected and appropriate warning signs erected. The Contractor's attention is drawn to SABS 1200 D section 5.1 in this regard.

With reference to SABS 1200 D 5.1.1.3, where blasting is required in terms of the project, the Contractor will ensure that all structures in the vicinity that could be affected by the activity will be inspected and their condition photographically recorded (as necessary), prior to blasting.

Notice of intent to blast is to be provided to landowners timeously.

Speed limits, appropriate to the vehicle driven, are to be observed at all times on access roads. Operators and drivers are to ensure that they limit their potential to endanger humans and animals at all times, by observing strict safety precautions.

PC3.8 PLANT

PC3.8.1 Silencing of plant

With reference to SABS 1200 A amend: "built up areas": to read as "all areas within audible distance of residents (albeit urban, peri-urban or rural areas)."

Appropriate directional and intensity settings are to be maintained on all hooters and sirens.

Silencer units on equipment and vehicles are to be maintained in good working order.

Construction activities are to be confined to normal working hours (07h30 - 17h00) Mondays to Saturdays, except for the activities designated to be carried out at night.

PC3.8.2 Appropriate use of plant

The Contractor will at all times use plant which is appropriate to the task in order to minimise the extent of damage to the environment.

PC3.9 DEALING WITH WATER ON WORKS

PC3.9.1 Disinfection of Potable Water Infrastructure

Disinfection water is to be neutralised before release of this water to the environment.

PC3.9.2 Discharge of water from site

Any water which is discharged from site is to comply with the relevant Water Quality Guidelines implemented by DWAF.

Water discharged to the stormwater / sewer system may only be done so with the permission of the relevant local authority.

PC3.10 CONTROL OF EROSION

Surface erosion protection measures will be required to prevent erosion where slopes are steeper than 1:8 on all soil types.

Erosion protection measures required may include all or some of the below, as specified in the project specification or upon instruction of the Engineer in conjunction with the Environmental (Control) Officer:

- use of groundcover or grass
- construction of cut off berms (earth and/or rockpack) - these are to be angled across the contour and normally would approximate an angle of 30° from the bisector of the contour.
- placing of brush wood on bare surface;
- pegging of wattle trunks or branches along the contour;
- hard landscaping, e.g. use of Loffelstein walls, ground anchors, gabions etc.

Scour chambers are to be fitted with energy dissipaters, or the jet of water directed onto a protected (i.e. grouted stone pitching/ rock pack/ reno mattress) area to dissipate water velocity and to control and prevent erosion.

Storm water drainage measures might be required on site to control runoff and prevent erosion.

PC3.11 CONTROL OF POLLUTION

No waste in a solid, liquid or gaseous state shall be emitted from or spilled on the site without the approval of the Engineer.

No mixed concrete shall be deposited directly onto the ground prior to placing. A board or other suitable platform is to be provided onto which the mixed concrete can be deposited whilst it awaits placing.

Excess concrete from mixing shall be deposited in a designated area awaiting removal to an approved landfill site.

The Contractor will contain wash water from cement mixing operations, by directing the water into a sump for collection. The material contained in the sump will be removed to an appropriate landfill site.

No concrete rubble shall be present at the site.

Liquid wastes will not be disposed of to storm water drains. They may be disposed of to sewer only if permitted by (local council) legislation.

In the event of pollution of a water body (including sediment loading), the Contractor will provide alternative water supply to users of that water body until the quality of the water body is restored to its previous unpolluted state. For the sake of this clause, pollution is deemed to be a state which is substandard to the normal quality of the water body, but is not necessarily in contravention of the South African Water Quality guideline standards for a prescribed activity.

Any ancillary damages resulting from pollution of a water body will be repaired / remediated at the Contractor's cost.

Where, due to construction requirements, pollution of a water body may potentially occur, the Contractor is to ensure adequate measures (e.g. attenuation/ settlement dams / oil absorbent products) are in place to prevent pollution. A method statement is to be provided to this effect (see PC3 1).

PC3.12 CONTROL OF FIRE

The Contractor will ensure he has the necessary fire fighting equipment on site in terms of SABS 1200. This will include at least rubber beaters when working in 'veld' areas, and at least one fire extinguisher of the appropriate type when welding activities are undertaken, irrespective of the site.

PC3.13 USE AND MAINTENANCE OF ACCESS FACILITIES

PC3.13.1 Responsibility

The Project Manager [not the Contractor (SABS 1200 AD 5.3.1)] will be responsible for obtaining permission for temporary and permanent rights of way over all private property affected by project activities.

The Project Manager will ensure that the Contractor has kept a photographic record of all access facilities and that these are reinstated to a state not worse than upon commencement of the project and to the satisfaction of the landowner (not withstanding that the project's objective is not to upgrade landowners' access roads).

PC3.13.2 Fencing

Temporary fencing is to consist of 1.2 m bonnox fencing, or similar, suitably tensioned and supported on 1.8 m fencing standards at 3 m intervals, with all necessary straining posts and stays.

All temporary fencing as indicated by the Engineer is removed on completion of the contract.

PC3.13.3 New Access Roads

Any construction roads created for execution of the project are to be designed to incorporate adequate drainage and water attenuation structures.

Any access roads which incorporate 'cut and fill' aspects and/or which are to be surfaced during construction are to be authorised by the Environmental Control Officer and Project Manager. Prior to construction of the road, the Contractor will be required to provide a sketch plan of the road layout (referenced to local topographic, natural and man-made structures). Slope steepness, road width, drainage structures and their frequency will need to be documented and accompany the sketch layout.

Construction access roads may not be wider than that necessary (maximum width 4 m) for movement of vehicles in one direction only. Should two way traffic be required, points people

are to control vehicle movement on the 'single lane' road or passing bays are to be used where specified in the project specification or as identified by the Engineer in conjunction with the Environmental Control Officer, unless otherwise stated in the project specification. The cut and fill slopes of permanent roads will require grassing, as specified in the project specification or by the Environmental Control Officer, to increase stability and reduce aesthetic impacts. Hard landscaping may be required as per the project specification.

Temporary construction roads will require rehabilitation on completion of construction activities for which they were required. These roads will require rehabilitation as per PC4 4 or as specified in the project specification. In the case of access 'tracks', only ripping to loosen compaction will be required unless otherwise stated by the Environmental Control Officer or project specification.

Access roads created by the project may only remain unrehabilitated on written request of the landowner, with his acceptance of the state of the road and a clause that the landowner accepts all responsibility for the road and its state.

PC3.13.4 Maintenance of Existing Access Roads

The Contractor will record, photographically, the state of existing roads which are to be used for access, prior to plant utilising these roads.

During the contract period, the Contractor will ensure that all existing water attenuation and drainage structures are maintained in a state in which they can optimally perform their function.

Upon completion of the construction period, the Contractor will ensure that the access roads are returned to a state not worse than prior to construction commencing.

PC3.14 BORROW PITS

Where the Contractor is required to import material this shall be from commercial sources or borrow areas specified in the project specification.

The Contractor may source material from alternative borrow pits provided: the site location; method of winning material and reinstatement and rehabilitation are environmentally acceptable and approved by the Environmental Control Officer.

In this regard, the Contractor shall give the Environmental Control Officer in writing, 30 days prior to opening up alternative borrow pits the following information for acceptance:

- quantities of borrow material required;
- method statement for excavation of material including depth and extent of excavation;
- anticipated 'active life' of the borrow area;
- proposal for reinstatement and rehabilitation of borrow area, including final profile;
- written approval from the landowner/ relevant authority that material may be removed from their land subject to their stated conditions, requirements, and royalties, and if the proposal is acceptable to the Environmental Control Officer.

Development and rehabilitation of borrow pit areas are likely to include the following activities (but these must not be regarded as exhaustive):

- Stripping and stockpiling of topsoil as per PC3 5.3 of this specification;
- Removal (to nominal depth of 500mm) and stockpiling of sub-soil;
- Infill of borrow pit with spoil material;
- Contouring of borrow pit to approximate natural topography and/ or reduce erosion impacts on the site;
- Placement of excavated subsoil over spoil material;

- Placement of stripped topsoil on subsoil;
- Grassing of topsoil in terms of clause PC4 4 of this specification.

The Contractor is to familiarise himself with the requirements of the Minerals Act No 50 of 1991 in terms of borrow pit development, and the requirements of the EMPR, as applicable.

PC3.15 SPOIL SITES

Where the Contractor is required to spoil material, spoil sites must be identified which are environmentally acceptable and approved by the ECO, unless spoil site areas have been identified in the project specification, in which case these will be the designated spoil sites.

If no spoil sites have been previously identified together with reinstatement and rehabilitation criteria, the Contractor is to provide the following information to the ECO at least 30 days prior to requiring sites to spoil material:

- the location, description of and access to alternative sites identified in order that they may be assessed;
- the quantity of material to be spoiled;
- the type of material to be spoiled (i.e. blast rock/ excavated rock/ soft shale/ subsoil etc.);
- the proposed method of spoiling;
- the proposed reinstatement and rehabilitation plan including final profile;
- written approval from the landowner/ relevant authority that material may be spoilt on land subject to their stated conditions and requirements and if the proposal is acceptable to the ECO.

Development and rehabilitation of spoil areas are likely to include the following activities (but these must not be regarded as exhaustive):

- Stripping and stockpiling of topsoil as per PC3 5.3 of this specification;
- Removal (to nominal depth of 500mm) and stockpiling of sub-soil;
- Placement of spoil material;
- Contouring of spoil site to approximate natural topography and/ or reduce erosion impacts on the site;
- Placement of excavated subsoil over spoil material;
- Placement of stripped topsoil on subsoil;

Grassing of topsoil in terms of clause PC4 4 of this specification.

PC3.16 NUISANCE

PC3.16.1 Dust

At all times the Contractor shall control dust on the site, access roads, borrow pits and spoil dumps with water, chemical soil stabilisers or temporary surfacing as specified in the project specification or upon instruction of the Engineer.

Dust control shall be sufficient so as not to have significant impacts in terms of the biophysical and social environments. These impacts include visual pollution, decreased safety due to reduced visibility, health aspects, and ecological impacts due to dust particle accumulation.

On gravel or earth roads, vehicle speeds may not exceed 30km per hour.

PC3.16.2 Noise

The operational layout of the construction site is to be designed to control and reduce noise from source (see clause PC2 1).

Machinery and vehicle silencer units are to be maintained in good working order. Offending machinery and /or vehicles will be banned from use on site until they have been repaired.

Construction activities generating output levels of 85 dB(A) or more (excessively noisy), in residential areas, are to be confined to working hours (08h00 - 17h00) Mondays to Fridays only.

'Normal' or 'noisy' working hours may only be extended with the prior written approval of the Project Manager, who has been notified, at least 7 days in advance, of the impending work requiring extension.

The Project Manager will ensure that the neighbours are timeously forewarned of imminent noisy activities.

Should community complaints be received with regard to noise generation, the Contractor will, at the discretion of the Project Manager and Environmental Control Officer, provide an independent and registered noise monitor to undertake a survey of noise output levels from site, and implement measures to reduce noise to legislated levels.

PC3.16.3 Visual

All site establishment components, as well as equipment, will be positioned to limit visual intrusion to neighbours (see clause PC2 1 above).

The type and colour of roofing and cladding materials are to be selected to reduce reflection.

Security lighting (both temporary and permanent) and lighting required for specific works activities must be placed such that it is not a nuisance to residents and the general public.

PC3.16.4 Interference with neighbours and public

No construction staff may approach site neighbours, for whatever reason, without the knowledge and permission of the Project Manager.

Complaints from neighbours and public with regard to interference from contract staff will be regarded in a serious light, and the offender(s) may be subject to disciplinary action.

PC3.16.5 Disruption of Services

Disruption of services, e.g. road access, water and electricity, must be kept to a minimum at all times.

Where service disruption is unavoidable, the Contractor is to advise the Project Manager (at least 7 days in advance), who in turn will timeously warn the affected parties.

PC3.17 SPECIAL ENVIRONMENTS

PC3.17.1 Wetlands

Pipeline trenches which traverse wetlands shall be constructed as specified in the project specification. The Contractor will submit a method statement for work in wetland areas as per PC3 1.1

Construction may not permanently alter the surface or subsurface flow of water through the wetland.

The Contractor shall submit a method statement for review at least 14 days prior to commencing construction in a wetland.

The Contractor will remove all wetland vegetation with their root ball intact. This vegetation is to be kept moist at all times. It is to be placed in the shade and covered with moistened hessian cloth until replanting, which is to be undertaken immediately surface reinstatement is complete.

No construction materials may be stockpiled in any wetland areas.

The pre-construction profile of the wetland shall be returned to one similar as before construction, with no created "ridge or channel" features present.

PC3.17.2 River/ stream courses

The Contractor shall submit a method statement for review 14 days prior to commencing construction. The method statement should highlight (but not be confined to) the following issues:

- detailed plan of crossing including pipe protection works;
- how water flow will be diverted during construction (if applicable);
- containment of contaminated runoff and waste water;
- width of working servitude (if not already detailed in project specification);
- final expected profile of river/ stream banks;
- reinstatement and rehabilitation of river/ stream banks.

The Contractor will remove herbaceous riparian vegetation as indicated in the project specification or by the Environmental Control Officer, with their root ball intact. This vegetation is to be kept moist by means of placing it in the shade, covered with moistened hessian cloth until it is replanted.

The Contractor shall not modify the banks or bed of a water course unless as specified in the project specification.

Rocks for use in gabion baskets/reno mattresses may not be obtained from a water course.

The Contractor will not pollute any water body as a result of construction activities (see also PC3 11).

The Contractor shall not cause any physical damage to any aspects of a water course, other than those necessary to complete the works as specified and in accordance with the accepted method statement

Where a stream or river-crossing requires the diversion of water, a method statement is to be provided to the Environmental Control Officer in this regard for review.

PC4 REINSTATEMENT AND REHABILITATION

Scope: The intention of this section is to ensure that the condition of the areas disturbed by the project are returned to a state that approximates what they were before the project or better, within reason. The concept of progressive reinstatement is fundamental to cost effective (both financial and environmental) rehabilitation of a site. This concept must be followed at all times. Where landscaping is utilised, the concept is to utilise and restore indigenous plants to the site, in terms of the concept of xeriscaping.

Reinstatement will be required for all areas disturbed by the project. For pipeline projects, this will include the full working servitude, not just the top of actual excavation as per SABS 1200 DB (subclause 5.9.1.1)

Reinstatement and rehabilitation will ensure that all areas disturbed by the project are returned, within reason, to a state not worse than before the project commenced.

The Contractor will reinstate and rehabilitate all disturbed areas outside of the demarcated working area (as defined in terms of clause PC3 2 or the project specification) at his own cost and to the satisfaction of the Environmental Control Officer and Project Manager.

PC4.1 HOUSEKEEPING

All areas are to be cleared of rubble associated with construction. This includes the removal of surplus materials, excavation and disposal of consolidated waste concrete and concrete wash water, litter, etc.

All soil contaminated by hydrocarbons, for example from leaking machines, refuelling spills etc., is to be excavated to the depth of contaminant penetration, placed in 200 litre drums and removed to an appropriate landfill site.

PC4.2 FINISHING

PC4.2.1 Final Grading

Final levels of all disturbed areas are, where feasible in terms of the project requirement, to be consistent with the natural topography of the area.

In certain instances, it will be acceptable to reinstate rock onto a works area (e.g. pipeline servitude), provided that that rock does not exceed 250mm in maximum dimension and is placed in a manner consistent with the natural surrounds as indicated by the Environmental Control Officer and Project Manager.

All drainage lines affected by construction are to be reinstated to approximate their original profile. Where this is not feasible due to technical constraints, the profile is to be agreed upon by the Environmental Control Officer and Project Manager.

All compacted (disturbed) areas (including stockpile areas) are to be ripped (along contour) to a depth of 150mm prior to the replacement of topsoil.

PC4.2.2 Topsoiling

Topsoil is to be replaced to a minimum depth of 100mm.

Topsoil is not to be compacted, but once replaced is to be scarified (to a depth of 50mm) consistent with the natural contour.

If insufficient topsoil is available, subsoil or similar material may be used that may be a suitable substrate after addition of soil improving substances e.g. compost, pH rectifiers (lime or gypsum) etc. Soil testing may be required at an approved facility.

PC4.2.3 Finishing and Tidying and Site Maintenance

During the progress of the work and upon its completion, the site of the works shall be kept and left in a clean and orderly condition. The Contractor shall at all times store materials and equipment for which he is responsible in an orderly manner and shall keep the site free from debris and obstruction.

Progressive and systematic finishing and tidying will form an essential part of this Contract. On no account must spoil, rubble, materials, equipment or unfinished operations be allowed to accumulate in such a manner as to unnecessarily impede the activities of others, and in the event of this occurring, the Employer shall have the right to withhold payment for as long as may be necessary in respect of the relevant Works in the areas(s) concerned without thereby prejudicing the rights of others to institute claims against the Contractor on the ground of unnecessary obstruction.

Finishing and tidying must not be deferred to the end of the Contract. The works will not be certified as practically complete, until the whole of the works including all finishing and tidying, has been fully completed to the satisfaction of the Engineer.

All finishing and tidying shall be carried out to the best advantage of the project as a whole and in the closest co-operation with other Contractors

PC4.3 REINSTATEMENT OF WATER COURSES AND WETLAND AREAS

The Contractor will ensure that water course banks are returned to their original profile unless the project specification states otherwise.

The surface reinstatement of wetland areas is to ensure that no depressions remain which could act as channels for preferential water flow thereby affecting the hydrological regime of the wetland.

The Contractor will preserve all riparian and wetland vegetation for use in rehabilitation of those environments. This vegetation is to be kept moist at all times. It is to be placed in the shade and covered with moistened hessian cloth until replanting, which is to be undertaken immediately surface reinstatement is complete.

Plants are to be, as nearly as possible, replanted in areas from which they were removed.

PC4.4 VEGETATION RE-ESTABLISHMENT

The Contractor will ensure that all areas disturbed by contract activities are revegetated to the specified standard.

This standard is deemed to be an 85 % cover with no areas in excess of 0.04 m² / m² remaining unvegetated.

Revegetation shall match the vegetation type which previously existed (e.g. kikuyu pastures are to be returned to kikuyu pasture; 'veld' grass to 'veld' grass, etc.), unless stated otherwise in the project specification.

Prior to re-grassing, and if required:

- the area is to be scarified or ripped (along contour) to a depth of 50mm to loosen compaction.
- weeds present on site are to be removed.

Re-grassing, where required, will be either by means of seeding, instant turf (sods), sprigs or plugs as specified in the project specification or as specified by the ECO.

Where sprigs or plugs are utilised, they are to be planted at 200mm centres. The fertiliser shall be applied as per PC4 5.2. During summer, 25mm of irrigation shall be applied each week until reasonable (60%) ground cover has been obtained. During winter 15mm of irrigation shall be applied each week until reasonable (60%) ground cover has been obtained. The amount of irrigation to be applied will make up the difference between rainfall recorded on site and minimum requirement.

Where instant turf is utilised, it shall be laid as specified in the project specification. The fertiliser shall be applied as per PC4 5.2. During summer, 25mm of irrigation shall be applied each week until all the turf is visibly growing. During winter 15mm of irrigation shall be applied each week until all the turf is visibly growing. The amount of irrigation to be applied will make up the difference between rainfall recorded on site and minimum requirement.

Grassing shall be undertaken by a specialist grassing Sub-Contractor, unless permission is granted otherwise by the Engineer upon receipt of a written motivation from the Contractor.

The Contractor shall state in writing when the regassing operation will commence and its expected duration (dates).

Grassing in 'veld' areas is to be undertaken as per PC4 5 below. *Cynodon dactylon* species may be excluded or substituted from this mixture at the discretion of the Environmental Control Officer, or as specified in the project specification. The seed bulk may be made up with the *Eragrostis tef*.

PC4.5 "VELD GRASS" GRASSING SPECIFICATION

The area to be grassed should be estimated and converted to hectares, e.g. 100m X 100m = 10 000m² = 1ha. All fertilizer and seeding rates used in this specification are with respect to hectares.

PC4.5.1 Regional areas

For re-grassing three distinctive areas exist. These are defined as:

- the Coastal area (a narrow band running from the coast to ≈15km inland of the coast)
- the Coastal hinterland (a broad band (≈50km wide), generally defined as westwards of the coastal belt, and below 800m a.s.l.)
- the area above ≈ 800m a.s.l. (also called Midlands area).

PC4.5.2 Fertiliser

Standard 2:3:2 (N:P:K) fertiliser shall be used on all sites.

The rate of application will be:

- 200 kg/ha in the Coastal Hinterland areas, and
- 300 kg/ha in the Midlands and Coastal areas.

PC4.5.3 Planting times

Summer (includes Spring) is considered to be between the 1 September and 28 (29) February.

Winter (includes Autumn) is considered to be between 1 March and 31 August.

Re-grassing will be undertaken (as far as possible) in summer as germination and establishment of grasses is most effective, assuming reasonable spring rains.

Vegetation re-establishment is likely in many cases to be held off until this suitable growing season.

Hydroseeding with a winter mix will only be specified where regrassing is urgently required and cannot wait until the summer season. In this case irrigation will be required as per PC4 5.4 below.

PC4.5.4 Establishment and maintenance

During summer, 25mm of irrigation shall be applied each week until reasonable (60%) ground cover has been obtained.

During winter (where annual rye grass is specified) 15mm of irrigation shall be applied each week until reasonable (60%) ground cover has been obtained.

If rapid establishment is required, additional watering may be necessary as specified in the project specification

The amount of irrigation to be applied will make up the difference between rainfall recorded on site and the minimum requirement.

PC4.5.5 Grass Seed Selection and Application Rates

The specific seed selection and application rates for each of the defined areas are covered separately, as follows.

PC4.5.5.1 Coastal area

Summer mix (1 September - 28 February)

Grass species	Common name	General application rate (kg/ha)
Eragrostis tef	Teff	5
Eragrostis curvula	Weeping lovegrass	10
Chloris gayana	Rhodes grass	10
Digitaria eriantha	Smuts' fingergrass	5
Total		30

Winter mix (1 March - 31 August)

Grass species	Common name	General application rate (kg/ha)
Lolium multiflorum cultivar - Midmar	Annual/Italian rye grass	10
Eragrostis curvula	Weeping lovegrass	10
Chloris gayana	Rhodes grass	5
Total		25

*PC4.5.5.2 Coastal hinterland.***Summer mix (1 September - 28 February)**

Grass species	Common name	General application rate (kg/ha)
Eragrostis tef	Teff	5
Eragrostis curvula	Weeping lovegrass	10
Chloris gayana	Rhodes grass	10
Cenchrus ciliaris	Blue buffalo grass	2
Cynodon dactylon	Couch/KWeek/Star grass	10
Total		37

Winter mix (1 March - 31 August)

Grass species	Common name	General application rate (kg/ha)
Lolium multiflorum cultivar – Midmar	Annual/Italian rye grass	10
Eragrostis curvula	Weeping lovegrass	10
Chloris gayana	Rhodes grass	5
Cenchrus ciliaris	Blue buffalo grass	2
Cynodon dactylon	Couch/KWeek/Star grass	3
Total		30

*PC4.5.5.3 Midlands area***Summer mix (1 September - 28 February)**

Grass species	Common name	General application rate (kg/ha)
Eragrostis tef	Teff	4
Eragrostis curvula	Weeping lovegrass	10
Chloris gayana	Rhodes grass	10
Digitaria eriantha	Smuts' fingergrass	2
Cynodon dactylon	Couch/KWeek/Star grass	2
Paspalum notatum	Lawn paspalum	2
Total		30

Winter mix (1 March - 31 August)

Grass species	Common name	General application rate (kg/ha)
Lolium multiflorum cultivar - Midmar	Annual/Italian rye grass	10
Eragrostis curvula	Weeping lovegrass	10
Chloris gayana	Rhodes grass	5
Paspalum notatum	Lawn paspalum	2.5
Total		27.5

PC4.5.6 Seeding methods

Two methods are recommended, namely hydroseeding and hand-broadcasting. The required method shall be as specified in the project specification.

All seed supplied should be labelled in accordance with the Government Seed Act No. 20 of 1961 and the Contractor shall be required to produce such certification, if requested by the Engineer.

PC4.5.6.1 Hydroseeding

The Grassing Contractor shall be conversant with this method.

Cellulose pulp (consisting of either wood shavings, shredded straw, shredded paper or cotton waste) shall be added to the mix to be applied at a rate of 250 kg/ha.

In addition to the cellulose pulp, compost (consisting of either chicken litter, kraal manure, sugar cane filter cake or mushroom compost) shall be incorporated at a rate of 5m³/ha (≈100 X 50kg fertiliser bags/ha).

PC4.5.6.2 Hand-broadcasting

Fertiliser, at the appropriate rate, is to be distributed by hand in a manner to ensure that there is an even spread of fertiliser over the site. This is to be done prior to seeding.

The seed mix is to be weighed and made up in an appropriately large container which shall be stirred to ensure no settling out of the grass seed, and a uniform distribution of the different types of seed.

The seed is to be distributed by hand in a regular grid broadcasting manner to ensure that there is an even spread of grass over the entire site.

The area seeded is to be raked over once the seed and fertiliser have been applied to incorporate these elements into the topsoil.

PC4.5.7 General

Where there is a possibility of neighbourhood livestock grazing a rehabilitated site these should, as far as is practicable, be excluded for the first 3 months of re-grassing.

PC4.6 LANDSCAPING

Landscaping of the site may be required as indicated in the project specification.

Compensatory planting of trees or shrubs may be required should the transplantation of such not be successful in terms of PC3 5.5 or due to plants removed in terms of PC3 5.4

Planting of trees will be in accordance with the following method:

- All tree holes shall be square in plan;
- Tree holes shall be a minimum of 600mm by 600mm square by 700mm deep;
- Holes are to be backfilled with excavated soil in a ratio of 3:1 with compost. The compost is to be weed free and have been composted at temperatures in the order of 65°C. Where possible, any available topsoil should be placed in the hole at the level where the tree rootball will rest. A handful (half-a-cup) of each Superphosphate and 2.3.2 should be mixed into the soil-compost mix;
- The tree holes are to be backfilled to the point where the tree and its rootball are in the desired position. The tree is to be removed temporarily and the hole filled with water and allowed to drain away. This operation of watering and draining should be repeated at least four times in order that the surrounding ground and hole are thoroughly moist. The tree is then to be replaced and the remaining soil replaced;
- All trees shall be tied (using a tree tie) to a suitable timber stake planted in the ground to a depth of at least 500mm. The stake shall have a minimum diameter of 35mm and shall be at least 300mm higher than the planted tree;
- Water retaining basins of at least 500mm diameters are to be formed around each tree;
- The Contractor is to apply at least 10 litres of water per tree per fortnight for a period of at least 3 months.

The planting of shrubs will be in accordance with the tree planting method with the exception that the holes are to be a minimum of 400mm by 400mm square by 500mm deep, and that the tree stakes and ties are not required.

PC4.7 ALIEN PLANT CONTROL

All sites disturbed by construction activities will be monitored for colonisation by invasive alien plant species.

The Environmental Control Officer will identify those plants which require removal during both the construction and maintenance period, for the Contractor's action.

The Environmental Control Officer will provide advice as to effective methods of removal and control of alien plant species.

PUBLIC COMPLAINTS REGISTER

DATE	COMPLAINANTS NAME	DESIGNATION/ AFFILIATION	REASON FOR COMPLAINT	ACTION TAKEN	ACTION BY	ACTION BY DATE	ACHIEVED BY DATE	DATE REFERRED TO NW environmental control officer

MONITORING OF COMPLIANCE WITH ENVIRONMENTAL SPECIFICATIONS

PROJECT NAME:

CONTRACT NUMBER:

PROJECT MANAGER:

ENGINEER'S REPRESENTATIVE / SUPERVISOR:

CONTRACTOR:

CONTRACT PERIOD:
(including start and completion dates):

PERIOD COVERED:

REPORT PREPARED BY:

Signature

ENVIRONMENTAL CONTROL OFFICER REPORT

PROJECT NAME:

CONTRACT N°

DATE OF SITE INSPECTIONS DURING REPORTING PERIOD:

Specification Breach	Spec. No.	Remedial Action Recommended	Due Date	Authority Responsible	Action Taken

PUBLIC COMPLAINTS

Complainant	Designation/ Affiliation	Date of complaint	Reason for Complaint	Action taken and date

GOOD PERFORMANCE REPORT

List any aspects of the Contract in which the Contractor is performing well and beyond that which is required in terms of the specification.

Photographs

Include photographs which illustrate aspects of non-compliance and good performance.

Photograph 1	Photograph 2
Caption	Caption

PD: ENVIRONMENTAL MANAGEMENT PROGRAMME

Please see attached.

C3.7

**VARIATIONS AND ADDITIONS TO SABS 1200 STANDARDIZED SPECIFICATIONS
AND PARTICULAR SPECIFICATIONS**

Note: The below lists are not deemed exhaustive, and other specifications listed or referenced in the document may be applicable as required.

STANDARD SPECIFICATIONS

SANS 1200 A	GENERAL
SANS 1200 AB	ENGINEER'S OFFICE
SANS 1200 C	SITE CLEARANCE
SANS 1200 D	EARTHWORKS
SANS 1200 DB	EARTHWORKS (PIPE TRENCHES)
SANS 1200 G	CONCRETE
SANS 1200 LD	SEWERS

SABS 1200 PSA: GENERAL

PSA 1: NON-STANDARD ITEMS

A number of non-standard payment items are included in the Schedule of Quantities in respect of items of work not described within the standardized and Project Specifications.

Measurement and payment of such items shall be in terms of this Clause.

The unit of measurement for an individual non-standard item shall be as indicated for that item within the Schedule of Quantities.

The Tendered rates and prices for each particular item shall, unless otherwise stated in the "Short Description" of the item, included for everything necessary to construct the particular item complete in all respect and in accordance with the description thereof as set out in the column headed "Short Description" in the Schedule of Quantities and in accordance with relevant SABS standards.

PSA 3: MATERIALS

PSA 3.3: Ordering of Materials

The quantities set out in the Schedule of Quantities have been determined from calculations based on data available at the time and should therefore be considered to be approximate quantities only. The liability shall rest entirely and solely with the Contractor to determine before ordering, the required types and quantities of the various materials required for the completion of the works in accordance with the Specifications and Drawings issued to the Contractor for construction purposes.

Any reliance placed by the Contractor on the estimated quantities stated in the Schedule of Quantities issued for tendering purposes, or measurements made by the Contractor from Drawings issued for tendering purposes only, shall be entirely at the Contractor's risk and the Employer accepts no liability whatever in respect of materials ordered by the Contractor for construction purposes.

PSA 5: CONSTRUCTION

PSA 5.9: Site Meetings

The contractor will be required to attend site meetings, normally held once a month, to discuss general progress, quality of work, problems, claims, payments, etc.

PSA 5.10: Dayworks

PSA 5.10.1: Scope

Dayworks is to be understood to be work and/or material, the provision of which cannot, in terms of the Contract be measured in the normal items of the Schedule of Quantities and has to be measured in terms of time and cost.

PSA 5.10.2 Payment

Payment for work on a daywork basis will only be made if:-

- a) It is agreed by the Engineer to be outside the specified scope of a measured item in the Contract.
- b) It is carried out in response to a written instruction by the Engineer.
- c) The records of plant, labour and material are submitted daily for the consideration of the Engineer and duly approved.

The rates tendered in the Daywork Schedule shall be taken to be the full inclusive rates at which the scheduled services are available, including the use of small tools, maintenance and repair of all equipment together with all overheads and profits.

PSA 6: TOLERANCE

Add the following sub-clause

PSA 6.4: General:

"No guarantee is given that the full specified tolerances will be achievable independently of each other and the Contractor is cautioned in regard to the fact that the liberal or full use of any one or more of the tolerances may deprive him of the full or any use of tolerances relating to other aspects of the works.

Except where the contrary is specified, or when clearly not applicable, all quantities shall for the purposes of measurement and payment be determined from the "authorised" dimensions. This shall be taken to mean the dimensions as specified or shown on the drawings or, if changed, as finally instructed by the Engineer, without any allowance for the tolerance specified. Save as hereunder specified to the contrary, all measurements for determining quantities for purposes of payment will be based on the "authorised" dimensions.

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

Where the work is not constructed in accordance with the "authorised" dimensions plus or minus any tolerances allowed, the Engineer may nevertheless, on his sole discretion accept the work for payment. In such cases, no payment shall be made in respect of quantities of work or materials in excess if those calculated from the "authorised" dimensions and where the actual dimensions are less than the "authorised" dimensions minus any tolerance allowed, the quantities for payment shall be based on actual dimensions as constructed."

PSA: 7 TESTING:

PSA 7.1.1: Checking

Add the following:

"The Contractor shall be responsible for all control testing required on the project and costs thereof will be deemed to be included in the tendered rates. This clause covers any additional or control testing as may be required by the Engineer. Any such additional testing shall be undertaken by a nominated independent person /laboratory."

PSA 7.2: Approved Laboratories

Add the following:

"The independent laboratory used by the Contractor and approved by the Engineer shall also be deemed to be an approved laboratory."

PSA 8: **MEASUREMENT AND PAYMENT**

PSA 8.4.6: **COMPLIANCE WITH OHS ACT REGULATIONS** Unit: Sum

"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 Employer's Health and Safety Specification."

PSA 8.4.7: **COMPLIANCE WITH ENVIRONMENTAL MANAGEMENT PLAN** Unit: Sum

"The rates and prices tendered by the Contractor shall be deemed to include all costs for conforming to the requirements of the Environmental Management Plan (EMP) as well as the EMP as applicable to this contract.

Should the Contractor fail to comply with the provisions of the EMP, he will be liable for penalties as provided in the Environmental Management Specification."

PSA 8.7: **Day works**

The unit of measurement shall be that of the hours worked by the item of personnel or plant.

Non-working hours for transport, breakdown, lack of operator or any other reason shall not be considered. Measurement shall only be for work instructed and directed by the Engineer and where he considers no other appropriate rate is available in the Schedule of Rates. Where there is ambiguity between the flywheel power and mass of a machine, the flywheel power shall govern the measurement category. The Engineer shall instruct Contractor with regard to the size, mass and power of the plant to be used.

Should the Contractor produce larger, heavier, more powerful or more expensive plant, payment shall only be made at the rate scheduled for the plant detailed in the Engineers instruction.

"The tendered price shall include for all administrative, supervisory, operative contingents, costs and profit relating to the running of the plant."

PSA 8.8.2: **DEALING WITH TRAFFIC (OR ACCOMMODATION OF TRAFFIC)** Unit: Sum

Add the following:

"The rate shall cover all costs pertaining to the provision, erection, moving, re-erection and maintenance of all temporary barricades, road signs, lights, flagmen, etc. as required for the guarding and protection of the Works as well as all other costs to accommodate the traffic during construction.

All signs provided by the Contractor shall be in accordance with the latest issue of the South African Road Traffic signs manual."

Add new payment item:

PSA 8.8.7: CONTRACTOR TO PROVIDE "CONSTRUCTION RECORD" INFORMATION

Unit: Sum

The tendered rate for this item to include for the surveying of the pipeline route, including manhole invert levels as laid, the position of all manholes, pipeline diameters, erf connection positions (rodding eye positions) and top structure positions. The information supplied to the Engineer is to be in a coordinated Autocad drawing format with Model Maker "tot" survey files.

SABS 1200 PSAB: ENGINEERS'S OFFICE

PSAB 3.1: Name Board

The Contractor shall supply and install, and include in his rates for the Standard MIG name board provided in Annexure A4 and the Harry Gwala District Municipality name board as detailed on Drawing.

PSAB 3.2: Office Building

The Contractor shall provide and maintain a single office (one room) with a floor area of at least 12 m² and a ceiling height of at least 2,5 m. The office shall be lockable and waterproof. Ablution facilities for the sole use of the Engineer and his site staff shall also be provided.

The office furnishings shall include:

- a) One standard office table or desk with lockable drawers;
- b) Three chairs
- c) Meeting facilities with a table and chairs to seat at least 10 people (for purposes of site meetings).
- d) Acceptable lighting.
- e) A facility to store/hang drawings i.e. drawing racks
- f) 4no. shade cloth covered parking

PSAB 4.1: Telephone

The Contractor shall provide the Engineer with a cell phone and R 500.00 air time per week for a cellular phone service provider nominated by the Engineer.

SABS 1200 PSD: EARTHWORKS

PSD 5: CONSTRUCTION

PSD 5.2: METHODS AND PROCEDURES

PSD 5.2.3: PLACING AND COMPACTION

Add the following new sub-clauses:

PSD 5.2.3.3: EROSION CONTROL BERMS

“Where instructed by the Engineer, earth berms shall be constructed to the dimensions shown on the drawings or to the detail instructed by the Engineer. The berms shall comprise excess fill material from the trench, shall be hauled by wheelbarrow, placed and shall be hand stamped in layers not exceeding 150mm. The berms shall be slightly overfilled before being shaped to the detail shown on the drawings. The material shall wherever possible be sourced within the free haul distance of 0.5 km. After completion, the Engineer may instruct the Contractor to construct un-grouted, handpicked and packed stone pitching along the upstream edge of the berm.”

PSD 5.2.3.4: SANDBAG PROTECTION TO PIPE TRENCH

“Where instructed by the Engineer, 25kg sandbags made from woven polypropylene shall be filled with selected fill material as specified in SABS 1200 LB and placed in a stretcher bond pattern around the pipe. The bags shall be firmly packed and hand stamped into place and shall be keyed a minimum of 500mm into the side wall of the trench. Where specified, the selected fill material shall first be brought to optimum moisture and then stabilized by the addition of 1% cement.”

PSD 8: MEASUREMENT AND PAYMENT

PSD 8.3: SCHEDULED ITEMS

PSD 8.3.13: EROSION CONTROL BERMS Unit: m³

“The rate shall include for all costs to source the material, remove any oversized material, load, haul within the free haul, offload, spread, overfill, compact and trim to the finished dimensions shown on the drawings.”

PSD 8.3.14: SANDBAG PROTECTION TO PIPE TRENCH Unit: No.

“The rate shall include for all costs to supply the 25kg bags, select material, and fill bags, place in restricted areas and hand stamping.”

PSD 8.3.15: EXTRA-OVER SANDBAG PROTECTION FOR STABILIZATION Unit: No.

“The rates shall include all extra costs to ensure that the selected fill material is at optimum moisture and to supply and mix 1% cement.”

SABS 1200 PSDB: EARTHWORKS (PIPE TRENCHES)

PSDB 5.1.5: Barricading, Watching and Lighting

Add the following new sub-clause 5.1.5:

“While the responsibility for the efficient barricading, lightning and watching of all trenches, excavations and stocks of material shall rest upon the contractor, he shall make every effort to comply with requirements of the local traffic Authority.

The cost of all chevron taping, supports, steel plate bridges, temporary road warning signs, drums, safety lamps, shall be deemed to be included in the Contractors price rates for excavation.”

PSDB 5.4: Maximum Length of Open Trenches

Add the following to Sub-Clause 5.4

“The total length of any section of open or partially open trench in advance of the backfilling (ie. to ground level) shall not exceed 1000m unless otherwise instructed by the Engineer.”

PSDB 5.6.3: Disposal of Soft Excavation Material

Add the following:

“Surplus material shall be spread evenly and neatly alongside the trench excavation, unless otherwise directed by the Engineer.”

PSDB 5.6.6: Backfilling

The Contractor shall bear all costs associated with the remedy of defects in trenches caused by lengthy exposure as instructed by the Engineer.

PSDB 5.1.2.3: Erosion Protection

“Where pipe trenches are taken down steep slopes, cross embankments (or grips) shall be constructed across the trenches in order to prevent erosion of the back fill covering the pipelines. Cross embankments shall comprise rounded earth mounds extending across the pipeline right of way and orientated so as to have a fall of 1% along their length. They shall be compacted to a density similar to that of undisturbed soil either side of the trench and they shall be at 20m intervals and 2m long, unless otherwise specified.

The height of the cross embankment for a distance of 0,3m on either side of the trench centre line shall be raised 100mm above the remainder of the cross embankment to allow for settlement. In order to form a satisfactory drainage channel upstream of each cross embankment the crown over the trench shall be removed for a distance of 0,5m upstream of the cross embankment.

Where trench slopes exceed 15%, or where the trench is located within the drainage channel alongside a gravel road, the Engineer may order rubble masonry cross walls to be constructed in the trenches at right angles to the longitudinal axis.

The embankments will be constructed on written instruction from the Engineer and will be paid for under the Dayworks item once approved.

Add the following new payment item:

PSDB 8.3.1(d): TAKE DOWN AND REINSTATE EXISTING FENCES AND HEDGES Unit: km

“The unit rate tendered for removal and re-erection of fences and gates shall cover the cost of reinstatement of the fence to its original condition. “

SABS 1200 LD: SEWERS

Add the following new payments item:

PSLD 8.2.13: Supply and installation of prefabricated toilet structures with wash trough and base slab.

Unit: No.

“Tendered rate is to include for supply, installation and connection of prefabricated toilets with wash trough and base slabs (Rocla or similar approved). The rate shall include for all pipework and connections to the waterborne sewer system.”

IBISI SEWER RETICULATION

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**CONSTRUCTION OF APPROXIMATELY 24KM OF SEWER MAINS AND 334 ERF
CONNECTIONS WITH TOILET TOP STRUCTURES IN IBISI**

PART C4: SITE INFORMATION

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PART C4: SITE INFORMATION

C4.1 LOCALITY PLAN

The Locality of the site is as per the attached Locality Plan.

C4.1.1 Access

The Project is located in Ward 11 of the uMzimkhulu Local Municipality. The project area lies approximately 20km South West of uMzimkhulu CBD, within the jurisdiction of the Harry Gwala District Municipality, in the Province of Kwa-Zulu Natal.

The central co-ordinates of the project area are as follows:

Latitude: 30° 24' 50" S
Longitude: 29° 52' 16" E

A locality plan of the project area is included in Annexure A3 of the tender document.

C4.2 CONDITIONS ON SITE

A brief description of the site conditions is given under this section.

C4.2.1 Nature of Ground and Subsoil Conditions

A Geotechnical investigation for the pipelines has been conducted by GeoElement (Pty) Ltd. The results were presented in a report dated 29th April 2019.

Extracts from the geotechnical investigation report reads:

"Unsupported vertical cuts are allowed up to 1.5m below existing ground level. If an excavation depth greater than 1.5m is required, the trench would then be required to be cut at 1V:2H in soil material which applies to TP 2 and TP 4. In the case of TP 3 and TP 5, if the excavation required is deeper than 1.5m, the soil above the rock must be cut at 1V:2H while the rock can be cut at a steeper angle but will be dependent on the condition of the rock on excavation. The shale rock encountered on site was found to be highly fractured in some cases and it is known that the shale can disintegrate quickly upon exposure. Care must be taken if steeper cuts are carried out. If there are space constraints whereby the required cut slope is not achievable, then shoring of the pipe trench will be required."

And

"The material encountered on site was found to be inadequate for use in pipeline construction therefore imported material will need to be used."

Tenderers must satisfy themselves as to the nature of the material to be excavated under this contract. Tenderers are at liberty to excavate trial holes or carry out other investigations to satisfy themselves as to the nature of ground that will be encountered in carrying out the Works, provided that they advise the Engineer of their intention to carry out such further trial hole excavations. All trial holes must be backfilled and the surface made good before the tenderer leaves the Site.

C4.2.2 Weather Conditions

The project area has a typical sub-tropical climate with a mean annual precipitation of 709 mm. The primary rainfall occurs during the period October to March. The temperatures are moderate.

IBISI SEWER RETICULATION

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**CONSTRUCTION OF APPROXIMATELY 24KM OF SEWER MAINS AND 334 ERF
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PART C5: DRAWINGS

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PART C5: DRAWINGS

The drawings issued to tenders as part of the tender documents must be regarded as provisional and preliminary for the tenderer's benefit to generally assess the scope of work. The drawings are issued on the CD attached to front cover of this document.

The work shall be carried out in accordance with the latest available revision of the drawings approved for construction (AFC)

At commencement of the contract, the Engineer shall deliver to the Contractor copies of the AFC drawings and any instructions required for the commencement of the works. From time to time thereafter during the progress of the works, the Engineer may issue further drawings for construction purposes as may be necessary for adequate construction, completion and defects correction of the works.

All drawings and specifications and copies thereof remain the property of the Employer, and the Contractor shall return all drawings and copies thereof to the Employer at the completion of the contract.

Tender drawings are issued separately as a reduced (A3) book of drawings and are listed hereunder:

DRAWING NO.	DESCRIPTION	REV
22-009-V-01-01	Overall Layout	0
22-009-V-02-01	Long Section 01	0
22-009-V-02-02	Long Section 02	0
22-009-V-02-03	Long Section 03	0
22-009-V-02-04	Long Section 04	0
22-009-V-02-05	Long Section 05	0
22-009-V-02-06	Long Section 06	0
22-009-V-02-07	Long Section 07	0
22-009-V-02-08	Long Section 08	0
22-009-V-02-09	Long Section 09	0
22-009-V-02-10	Long Section 10	0
22-009-V-02-11	Long Section 11	0
22-009-V-02-12	Long Section 12	0
22-009-V-02-13	Long Section 13	0
22-009-V-02-14	Long Section 14	0
22-009-V-02-15	Long Section 15	0
22-009-V-02-16	Long Section 16	0
22-009-V-03-01	Project Notice Board	0
22-009-V-04-01	Sewer Details: Trench, Bedding & Subsoil Drain Outlet Structure Details	0
22-009-V-04-02	Sewer Details: Road Crossing Details	0
22-009-V-04-03	Sewer Details: Anchor Blocks & Manhole Details	0
22-009-V-04-04	Sewer Details: House Connection Details	0
22-009-V-04-05	Sewer Details: Manhole Fitting Details	0

IBISI SEWER RETICULATION

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PART C6: HGDM DRAFT SCM POLICY



Harry Gwala District Municipality

HGDM- DRAFT SCM POLICY 2020-21



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PREAMBLE

MUNICIPAL SUPPLY CHAIN MANAGEMENT POLICY LOCAL GOVERNMENT: MUNICIPAL FINANCE MANAGEMENT ACT, 2003

Council resolves in terms of section 111 of the Local Government Municipal Finance Management Act (No. 56 of 2003) and the Preferential Procurement policy Framework Act (Act 5 of 2000), to adopt the following proposal as the Supply Chain Management policy of the municipality.

1. Definitions / Abbreviations

In this policy, unless the context otherwise indicates, a word or expression to which a meaning has been assigned in the Act has the same meaning as in the Act, and;

Competitive bidding process - means a competitive bidding process referred to in paragraph 12 (1) (d) of this Policy;

Competitive bid - means a bid in terms of a competitive bidding process;

Final award, in relation to bids or quotations submitted for a contract, - means the final decision on which bid or quote to accept;

Formal written price quotation - means quotations referred to in paragraph 12 (1) (c) of this Policy;

In the service of the state - means to be –

- (a) a member of –
 - (i) any municipal council;
 - (ii) any provincial legislature; or
 - (iii) the National Assembly or the National Council of Provinces;
- (b) a member of the board of directors of any municipal entity;
- (c) an official of any municipality or municipal entity;
- (d) an employee of any national or provincial department, national or provincial public entity or constitutional institution within the meaning of the Public Finance Management Act, 1999 (Act No.1 of 1999);
- (e) a member of the accounting authority of any national or provincial public entity; or



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- (f) an employee of Parliament or a provincial legislature;

Long term contract - means a contract with a duration period exceeding one year;

List of accredited prospective providers - means the list of accredited prospective providers which the municipality must keep in terms of paragraph 14 of this policy;

Other applicable legislation - means any other legislation applicable to municipal supply chain management, including –

- (a) the Preferential Procurement Policy Framework Act, 2000 (Act No. 5 of 2000);
- (b) the Broad-Based Black Economic Empowerment Act, 2003 (Act No. 53 of 2003); and
- (c) the Construction Industry Development Board Act, 2000 (Act No.38 of 2000);

Treasury guidelines - means any guidelines on supply chain management issued by the Minister in terms of section 168 of the Act;

The Act - means the Local Government: Municipal Finance Management Act, 2003 MFMA (Act No. 56 of 2003);

The Regulations - means the Municipal Supply Chain Management Regulations published by Government Notice 868 of 2005;

Written or verbal quotations - means quotations referred to in paragraph 12(1)(b) of this Policy.



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CHAPTER 1

ESTABLISHMENT AND IMPLEMENTATION OF SUPPLY CHAIN MANAGEMENT POLICY

2. Supply chain management policy

- (1) All officials and other role players in the supply chain management system of the municipality must implement this policy in a way that –
 - (a) gives effect to –
 - (i) section 217 of the Constitution; and
 - (ii) Part 1 of Chapter 11 and other applicable provisions of the Act;
 - (b) is fair, equitable, transparent, competitive and cost effective;
 - (c) complies with –
 - (i) the Regulations; and
 - (ii) any minimum norms and standards that may be prescribed in terms of section 168 of the Act;
 - (a) is consistent with other applicable legislation;
 - (b) does not undermine the objective for uniformity in supply chain management systems between organs of state in the national, provincial and local government spheres; and
 - (c) is consistent with national economic policy concerning the promotion of investments and doing business with the public sector.
- (2) This policy applies when the municipality –
 - (a) procures goods or services;
 - (b) disposes of goods no longer needed;
 - (c) selects contractors to provide assistance in the provision of municipal services otherwise than in circumstances where Chapter 8 of the Municipal Systems Act applies; or
 - (d) selects external mechanisms referred to in section 80 (1) (b) of the Municipal Systems Act for the provision of municipal services in circumstances contemplated in section 83 of that Act.
- (3) This policy, except where provided otherwise, does not apply in respect of the procurement of goods and services contemplated in section 110(2) of the Act, including –



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- (a) water from the Department of Water Affairs or a public entity, another municipality or a municipal entity; and
- (b) electricity from Eskom or another public entity, another municipality or a municipal entity.

3. Amendment of the supply chain management policy

- (1) The accounting officer must –
 - (a) at least annually review the implementation of this policy; and
 - (b) when the accounting officer considers it necessary, submit proposals for the amendment of this policy to the council.
- (2) If the accounting officer submits proposed amendments to the council that differs from the model policy issued by the National Treasury, the accounting officer must –
 - (a) ensure that such proposed amendments comply with the Regulations; and
 - (b) report any deviation from the model policy to the National Treasury and the relevant provincial treasury.
- (3) When amending this supply chain management policy the need for uniformity in supply chain practices, procedures and forms between organs of state in all spheres, particularly to promote accessibility of supply chain management systems for small businesses must be taken into account.

4. Delegation of supply chain management powers and duties

- (1) The council hereby delegates all powers and duties to the accounting officer which are necessary to enable the accounting officer –
 - (a) to discharge the supply chain management responsibilities conferred on accounting officers in terms of –
 - (i) Chapter 8 or 10 of the Act; and
 - (ii) this policy;
 - (b) to maximise administrative and operational efficiency in the implementation of this policy;
 - (c) to enforce reasonable cost-effective measures for the prevention of fraud, corruption, favouritism and unfair and irregular practices in the implementation of this policy; and



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- (d) to comply with his or her responsibilities in terms of section 115 and other applicable provisions of the Act.
- (2) Sections 79 and 106 of the Act apply to the subdelegation of powers and duties delegated to an accounting officer in terms of subparagraph (1).
- (3) The accounting officer may not subdelegate any supply chain management powers or duties to a person who is not an official of municipality or to a committee which is not exclusively composed of officials of the municipality.
- (4) This paragraph may not be read as permitting an official to whom the power to make final awards has been delegated, to make a final award in a competitive bidding process otherwise than through the committee system provided for in paragraph 26 of this policy.





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5. Sub-delegations

- (1) The accounting officer may in terms of section 79 or 106 of the Act sub-delegate any supply chain management powers and duties, including those delegated to the accounting officer in terms of this policy, but any such sub-delegation must be consistent with subparagraph (2) of this paragraph and paragraph 4 of this policy.
- (2) The power to make a final award –
 - (a) above R10 million (VAT included) may not be sub-delegated by the accounting officer;
 - (b) above R2 million (VAT included), but not exceeding R10 million (VAT included), may be sub-delegated but only to –
 - (i) the chief financial officer;
 - (ii) director technical services; or
 - (iii) director corporate services;
 - (iv) a bid adjudication committee of which the chief financial officer or a senior manager member
 - (c) not exceeding R2 million (VAT included) may be subdelegated but only to –
 - (i) the chief financial officer;
 - (ii) director technical services ;
 - (iii) director corporate services; or
 - (iv) a bid adjudication committee.
- (3) An official or bid adjudication committee to which the power to make final awards has been subdelegated in accordance with subparagraph (2) must within five days of the end of each month submit to the accounting officer a written report containing particulars of each final award made by such official or committee during that month, including–
 - (a) the amount of the award;
 - (b) the name of the person to whom the award was made; and
 - (c) the reason why the award was made to that person.
- (4) Subparagraph (3) of this paragraph does not apply to procurements out of petty cash.



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- (5) This paragraph may not be interpreted as permitting an official to whom the power to make final awards has been subdelegated, to make a final award in a competitive bidding process otherwise than through the committee system provided for in paragraph 26 of this policy.
- (6) No supply chain management decision-making powers may be delegated to an advisor or consultant.

6. Oversight role of council

- (1) The council reserves its right to maintain oversight over the implementation of this policy.
- (2) For the purposes of such oversight the accounting officer must –
 - (i) within 30 days of the end of each financial year, submit a report on the implementation of this policy and the supply chain management policy of any municipal entity under the sole or shared control of the municipality, to the council of the municipality; and
 - (ii) whenever there are serious and material problems in the implementation of this policy, immediately submit a report to the council .
- (3) The accounting officer must, within 10 days of the end of each quarter, submit a report on the implementation of the supply chain management policy to the mayor.
- (4) The reports must be made public in accordance with section 21A of the Municipal Systems Act.

7. Supply chain management unit

- (1) A supply chain management unit is hereby established to assist the accounting officer to implement this policy.
- (2) The supply chain management unit operates under the direct supervision of the chief financial officer or an official to whom this duty has been delegated in terms of section 82 of the Act.



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8. Training of supply chain management officials

The training of officials involved in implementing this policy should be in accordance with the MFMA section 119 and the Government Gazette 29967: National Treasury: Local Government: Municipal Regulations on Minimum Competency Levels guidelines on supply chain management training.





CHAPTER 2

FRAMEWORK FOR SUPPLY CHAIN MANAGEMENT SYSTEM

9. Format of supply chain management system

This policy provides systems for –

- (i) demand management;
- (ii) acquisition management;
- (iii) logistics management;
- (iv) disposal management;
- (v) risk management; and
- (vi) performance management.

Part 1: Demand management

10. System of demand management

1. The accounting officer must establish and implement an appropriate demand management system in order to ensure that the resources required by the municipality support its operational commitments and its strategic goals outlined in the Integrated Development Plan.
2. The demand management system must –
 - (a) include timely planning and management processes to ensure that all goods and services required by the municipality are quantified, budgeted for and timely and effectively delivered at the right locations and at the critical delivery dates, and are of the appropriate quality and quantity at a fair cost;
 - (b) take into account any benefits of economies of scale that may be derived in the case of acquisitions of a repetitive nature; and
 - (c) provide for the compilation of the required specifications to ensure that its needs are met.
 - (d) To undertake appropriate industry analysis and research to ensure that innovations and technological benefits are maximized.



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Part 2: Acquisition management

11. System of acquisition management

(1) The accounting officer must implement the system of acquisition management set out in this Part in order to ensure –

- that goods and services are procured by the municipality in accordance with authorized processes only;
 - that expenditure on goods and services is incurred in terms of an approved budget in terms of section 15 of the Act;
 - that the threshold values for the different procurement processes are complied with; that bid documentation, evaluation and adjudication criteria, and general conditions of a contract, are in accordance with any applicable legislation; and
 - that any Treasury guidelines on acquisition management are properly taken into account.
- (2) When procuring goods or services contemplated in section 110(2) of the Act, the accounting officer must make public the fact that such goods or services are procured otherwise than through the municipality's supply chain management system, including -
- (a) the kind of goods or services; and
 - (b) the name of the supplier.

12. Range of procurement processes

- (1) Goods and services may only be procured by way of –
- (a) petty cash purchases, up to a transaction value of R2000 (VAT included);
 - (b) one written or verbal quotations for procurements of a transaction value over R2000 up to R10 000 (VAT included);
 - (c) three formal written price quotations for procurements of a transaction value over R 10 000 up to R200 000 (VAT included); and
 - (d) a competitive bidding process for–
 - (i) procurements above a transaction value of R200 000 (VAT included); and
 - (ii) the procurement of long term contracts.



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- (2) The accounting officer may, in writing-
 - (a) lower, but not increase, the different threshold values specified in subparagraph (1); or
 - (b) direct that –
 - (i) written or verbal quotations be obtained for any specific procurement of a transaction value lower than R10 000;
 - (ii) formal written price quotations be obtained for any specific procurement of a transaction value lower than R200 000; or
 - (iii) a competitive bidding process be followed for any specific procurement of a transaction value above than R200 000.
- (3) Goods or services may not deliberately be split into parts or items of a lesser value merely to avoid complying with the requirements of the policy. When determining transaction values, a requirement for goods or services consisting of different parts or items must as far as possible be treated and dealt with as a single transaction.

13. General preconditions for consideration of written quotations or bids

A written quotation or bid may not be considered unless the provider who submitted the quotation or bid –

- (a) has furnished that provider's –
 - (i) full name;
 - (ii) identification number or company or other registration number; and
 - (iii) tax reference number and VAT registration number, if any;
- has authorised the municipality to obtain a tax clearance from the South African Revenue Services that the provider's tax matters are in order; and
- has indicated –
 - (i) whether he or she is in the service of the state, or has been in the service of the state in the previous twelve months;
 - (ii) if the provider is not a natural person, whether any of its directors, managers, principal shareholders or stakeholder is in the service of the state, or has been in the service of the state in the previous twelve months; or
 - (iii) whether a spouse, child or parent of the provider or of a director, manager, shareholder or stakeholder of a provider who is a company or closed



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corporation is in the service of the state, or has been in the service of the state in the previous twelve months..

14. Lists of accredited prospective providers

- (1) The accounting officer must –
 - keep a list of accredited prospective providers of goods and services that must be used for the procurement requirements through written or verbal quotations and formal written price quotations; and
 - at least once a year through newspapers commonly circulating locally, the website and any other appropriate ways, invite prospective providers of goods or services to apply for evaluation and listing as accredited prospective providers;
 - specify the listing criteria for accredited prospective providers; and
 - disallow the listing of any prospective provider whose name appears on the National Treasury's database as a person prohibited from doing business with the public sector.
- (2) The list must be updated at least quarterly to include any additional prospective providers and any new commodities or types of services. Prospective providers must be allowed to submit applications for listing at any time.
- (3) The list must be compiled per commodity and per type of service.
- (4) This list should also be used effectively to promote the objectives of the Preferential Procurement Regulations 2011 as well as the Broad-Based Black Economic Empowerment Act, Act No. 53 of 2003. Accounting officers should, through newspapers commonly circulating locally, the municipality's / municipal entity's website and by any other appropriate ways, invite prospective providers, including black empowerment entities, to apply for evaluation and listing as a prospective provider. Providers should be allowed to submit applications for listing at any time. The list must be updated at least quarterly. The listing criteria for accredited prospective providers may include:
 - promoting businesses located in a particular municipality;
 - promoting small, medium and micro enterprises;
 - promoting black economic empowerment.



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- 5) The municipality must be registered on Central Supplier Database
 - Price quotations are invited and accepted from prospective suppliers listed on CSD
 - Accounting Officers must not award any bid for price quotations to a bidder(s) not registered on the CSD

Once the list has been compiled per commodity, price quotations should be invited from such a list. The invitation of price quotations from the compiled list of accredited prospective providers per commodity should be done on a rotation basis in such a manner that ongoing competition amongst providers is promoted.

Where no suitable providers are available from the list of accredited prospective providers, quotations may be obtained from other possible providers. If it is not possible to obtain at least three (3) quotations, the reasons should be recorded and approved by the accounting officer or his / her delegate.

Accounting officers must apply the prescripts of the Preferential Procurement Policy Framework Act, Act 5 of 2000 and its associated Regulations for all procurement equal to or above R30000. However, these prescripts may be applied for procurement with a value of less than R 30 000, if and when appropriate.

15. Petty cash purchases

The conditions for the procurement of goods by means of petty cash purchases referred to in paragraph 12 (1) (a) of this policy, are as follows –

- the Chief Financial Officer may delegate responsibility for petty cash to an official reporting to the Accountant: Expenditure on the following terms:
 - (i) Custody of cash and vouchers
 - (ii) Record keeping
 - (iii) Monthly reconciliations and balancing
 - (iv) Recording of petty cash purchases in the general ledger
 - (v) Monthly reporting
- each departmental section may make petty cash purchases not exceeding 3 in number each month, and not exceeding R5 000 in amount for the whole municipality in each calendar month



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- the following types of expenditure from petty cash purchases are excluded, day to day maintenance, stationery, subsistence and traveling claims etc.
- a monthly reconciliation report from Accountant: Expenditure must be provided to the chief financial officer, including –
 - (i) the total amount of petty cash purchases for that month; and receipts and appropriate documents for each purchase.

16. Written or verbal quotations

The conditions for the procurement of goods or services through written or verbal quotations, are as follows:

- Quotations must be obtained from at least three different providers preferably from, but not limited to, providers whose names appear on the list of accredited prospective providers of the Sisonke District municipality, provided that if quotations are obtained from providers who are not listed, such providers must meet the listing criteria set out in paragraph 14(1)(b) and (c) of this policy;
- to the extent feasible, providers must be requested to submit such quotations in writing;
- if it is not possible to obtain at least three quotations, the reasons must be recorded and reported quarterly to the accounting officer or another official designated by the accounting officer;
- the accounting officer must record the names of the potential providers requested to provide such quotations with their quoted prices; and
- if a quotation was submitted verbally, the order may be placed only against written confirmation by the selected provider.

17. Formal written price quotations

- (1) The conditions for the procurement of goods or services through formal written price quotations, are as follows:
 - quotations must be obtained in writing from at least three different providers whose names appear on the list of accredited prospective providers of the municipality;
 - quotations may be obtained from providers who are not listed, provided that such providers meet the listing criteria set out in paragraph 14(1)(b) and (c) of this policy;



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- if it is not possible to obtain at least three quotations, the reasons must be recorded and approved by the chief financial officer or an official designated by the chief financial officer, and
 - the accounting officer must record the names of the potential providers and their written quotations.
- (2) A designated official referred to in subparagraph (1) (c) must within three days of the end of each month report to the chief financial officer on any approvals given during that month by that official in terms of that subparagraph.

18. Procedures for procuring goods or services through written or verbal Quotations and formal written price quotations

The procedure for the procurement of goods or services through written or verbal quotations or formal written price quotations, is as follows:

- when using the list of accredited prospective providers the accounting officer must promote ongoing competition amongst providers by inviting providers to submit quotations on a rotation basis;
- all requirements in excess of R30 000 (VAT included) that are to be procured by means of formal written price quotations must, in addition to the requirements of paragraph 17, be advertised for at least seven days on the website and an official notice board of the municipality;
- offers received must be evaluated on a comparative basis taking into account unconditional discounts;
- the accounting officer or chief financial officer must on a monthly basis be notified in writing of all written or verbal quotations and formal written price quotations accepted by an official acting in terms of a subdelegation;
- offers below R30 000 (VAT included) must be awarded based on compliance to specifications and conditions of contract, ability and capability to deliver the goods and services and lowest price;
 - acceptable offers, which are subject to the preference points system (PPPFA and associated regulations), must be awarded to the bidder who scored the highest points;

19. Competitive bids



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- (1) Goods or services above a transaction value of R200 000 (VAT included) and long term contracts may only be procured through a competitive bidding process, subject to paragraph 11(2) of this policy.
- (2) No requirement for goods or services above an estimated transaction value of R200 000 (VAT included), may deliberately be split into parts or items of lesser value merely for the sake of procuring the goods or services otherwise than through a competitive bidding process.

20. Process for competitive bidding

The procedures for the following stages of a competitive bidding process are as follows:

- Compilation of bidding documentation as detailed in paragraph 21;
- Public invitation of bids as detailed in paragraph 22;
- Site meetings or briefing sessions as detailed in paragraph 22;
- Handling of bids submitted in response to public invitation as detailed in paragraph 23;
- Evaluation of bids as detailed in paragraph 28;
- Award of contracts as detailed in paragraph 29;
- Administration of contracts
- After approval of a bid, the accounting officer and the bidder must enter into a written agreement.
- Proper record keeping
- Original / legal copies of written contracts agreements should be kept in a secure place for reference purposes.

21. Bid documentation for competitive bids

The criteria with which bid documentation for a competitive bidding process must comply, must –

- take into account –
 - (i) the general conditions of contract and any special conditions of contract, if specified;
 - (ii) any Treasury guidelines on bid documentation; and
 - (iii) the requirements of the Construction Industry Development Board, in the case of a bid relating to construction, upgrading or refurbishment of buildings or infrastructure;



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- include the preference points system to be used , goals as contemplated in the Preferential Procurement Regulations and evaluation and adjudication criteria, including any criteria required by other applicable legislation;
- **compel bidders to declare** any conflict of interest they may have in the transaction for which the bid is submitted;
- if the value of the transaction is expected to exceed R10 million (VAT included), require bidders to furnish—
 - (i) if the bidder is required by law to prepare annual financial statements for auditing, their audited annual financial statements —
 - for the past three years; or
 - since their establishment if established during the past three years;
 - (ii) a certificate signed by the bidder certifying that the bidder has no undisputed commitments for municipal services towards a municipality or other service provider in respect of which payment is overdue for more than 30 days;
 - (iii) particulars of any contracts awarded to the bidder 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;
 - (iii) a statement indicating whether any portion of the goods or services are expected to be sourced from outside the Republic, and, if so, what portion and whether any portion of payment from the municipality or municipal entity is expected to be transferred out of the Republic; and
- stipulate that disputes must be settled by means of mutual consultation, mediation (with or without legal representation), or, when unsuccessful, in a South African court of law.

22. Public invitation for competitive bids

- (1) The procedure for the invitation of competitive bids, is as follows:
 - Any invitation to prospective providers to submit bids must be by means of a public advertisement in newspapers commonly circulating locally, the website of the municipality or any other appropriate ways (which may include an advertisement in the Government Tender Bulletin); and



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- the information contained in a public advertisement, must include –
 - (i) the closure date for the submission of bids, which may not be less than 30 days in the case of transactions over R10 million (VAT included), or which are of a long term nature, or 14 days in any other case, from the date on which the advertisement is placed in a newspaper, subject to subparagraph (2) of this policy;
 - a statement that bids may only be submitted on the bid documentation provided by the municipality ;and
 - date, time and venue of any proposed site meetings or briefing sessions.;
- (2) The accounting officer may determine a closure date for the submission of bids which is less than the 30 or 14 days requirement, but only if such shorter period can be justified on the grounds of urgency or emergency or any exceptional case where it is impractical or impossible to follow the official procurement process.
- (3) Bids submitted must be sealed.
- (4) Where bids are requested in electronic format, such bids must be supplemented by sealed hard copies.

23.Procedure for handling, opening and recording of bids

The procedures for the handling, opening and recording of bids, are as follows:

- Bids–
 - (i) must be opened only in public;
 - (ii) must be opened at the same time and as soon as possible after the period for the submission of bids has expired; and
 - (iii) received after the closing time should not be considered and returned unopened immediately.
- (b) Any bidder or member of the public has the right to request that the names of the bidders who submitted bids in time must be read out and, if practical, also each bidder's total bidding price;
- (c) No information, except the provisions in subparagraph (b), relating to the bid should be disclosed to bidders or other persons until the successful bidder is notified of the award; and
- (d) The accounting officer must –



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- (i) record in a register all bids received in time;
- (ii) make the register available for public inspection; and
- (iii) publish the entries in the register and the bid results on the website.

24. Negotiations with preferred bidders

- (1) The accounting officer may negotiate the final terms of a contract with bidders identified through a competitive bidding process as preferred bidders, provided that such negotiation –
 - does not allow any preferred bidder a second or unfair opportunity;
 - is not to the detriment of any other bidder; and
 - does not lead to a higher price than the bid as submitted.
- (2) Minutes of such negotiations must be kept for record purposes.

25. Two-stage bidding process

- (1) A two-stage bidding process is allowed for –
 - large, complex projects;
 - projects where it may be undesirable to prepare complete detailed technical specifications; or
 - long term projects with a duration period exceeding three years.
- (2) In the first stage technical proposals on conceptual design or performance specifications should be invited, subject to technical as well as commercial clarifications and adjustments.
- (3) In the second stage final technical proposals and priced bids should be invited.

Limited bidding

- a) The categories of limited bidding is permitted only under the following circumstances:
- b) Multiple sources: There is limited competition, therefore only a few prospective bidders are allowed to make a proposal. This should be based on a thorough analysis of the market.



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- c) Single source: This should be based on a thorough analysis of the market and use of a transparent and equitable pre-selection process, to request only one amongst a few prospective bidders to make a proposal.
- d) Sole source: There is no competition and only one bidder exists.

26. Committee system for competitive bids

- (1) A committee system for competitive bids is hereby established, consisting of the following committees for each procurement or cluster of procurements as the accounting officer may determine:
 - a bid specification committee;
 - a bid evaluation committee; and
 - a bid adjudication committee;
- (2) The accounting officer appoints the members of each committee, taking into account section 117 of the Act; and
- (3) A neutral or independent observer, appointed by the accounting officer, must attend or oversee a committee when this is appropriate for ensuring fairness and promoting transparency.
- (4) The committee system must be consistent with –
 - (a) paragraph 27, 28 and 29 of this policy; and
 - (b) any other applicable legislation.
- (5) The accounting officer may apply the committee system to formal written price quotations.

27. Bid specification committees

- (1) A bid specification committee must compile the specifications for each procurement of goods or services by the municipality.
- (2) Specifications –
 - must be drafted in an unbiased manner to allow all potential suppliers to offer their goods or services;
 - must take account of any accepted standards such as those issued by Standards South Africa, the International Standards Organisation, or an authority accredited



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- or recognised by the South African National Accreditation System with which the equipment or material or workmanship should comply;
- must, where possible, be described in terms of performance required rather than in terms of descriptive characteristics for design;
 - may not create trade barriers in contract requirements in the forms of specifications, plans, drawings, designs, testing and test methods, packaging, marking or labeling of conformity certification;
 - may not make reference to any particular trade mark, name, patent, design, type, specific origin or producer unless there is no other sufficiently precise or intelligible way of describing the characteristics of the work, in which case such reference must be accompanied by the word “equivalent”;
 - must indicate each specific goal for which points may be awarded in terms of the points system set out in the Preferential Procurement Regulations 2011; and
 - must be approved by the accounting officer prior to publication of the invitation for bids in terms of paragraph 22 of this policy.
- (3) A bid specification committee must be composed of one or more officials of the municipality and one from Supply Chain Management Unit, preferably the manager responsible for the function involved, and may, when appropriate, include external specialist advisors.
- (4) No person, advisor or corporate entity involved with the bid specification committee, or director of such a corporate entity, may bid for any resulting contracts.
- (5) The accounting officer should appoint a bid specification committee that will compile the specification, determine goals as contemplated in the preferential procurement regulations, the evaluation criteria and any special conditions of contract

28. Bid evaluation committees

- The accounting officer should appoint a bid evaluation committee for the evaluation of bids received for goods / works or services.
- An ad-hoc bid evaluation committee shall be constituted for each project or procurement activity to evaluate bids received.



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- The accounting officer, or his delegated authority, shall, taking into account section 117 of the MFMA, appoint the members of the bid evaluation committees.
- The bid evaluation committee shall be comprised of at least three municipality officials, an appointed chairperson, who may be the same person as the chairperson of the bid specification committee, a responsible official and at least one supply chain management practitioner of the municipality.
- A representative of internal audit and/or legal services may form part of this committee where necessary as well as other internal/external experts/specialists. As relevant to the content of the tender, relevant internal/external specialists must be included in an advisory capacity to the bid evaluation committee.
- Where the scoring of functionality forms part of the bid evaluation process, the chairperson of the bid evaluation committee may nominate a panel, comprised of at least three members of the bid evaluation committee, to score such functionality. Notwithstanding the functionality scoring being undertaken by a panel, each member of the bid evaluation committee must apply their mind to the scoring of functionality.

(1) A bid evaluation committee must –

- evaluate bids in accordance with –
 - i. the specifications for a specific procurement; and
 - ii. the points system set out in terms of paragraph 27(2)(f).
- evaluate each bidder's ability to execute the contract;
- check in respect of the recommended bidder whether municipal rates and taxes and municipal service charges are not in arrears, and;
- submit to the adjudication committee a report and recommendations regarding the award of the bid or any other related matter.

(2) A bid evaluation committee must as far as possible be composed of-

- (a) officials from departments requiring the goods or services; and
- (b) at least one supply chain management practitioner of the municipality.

(3) It is recommended that the bid evaluation committee be constituted with different members as that of the specification committee, and only where not possible, the bid specification committee and the bid evaluation committee have the same membership.

(4) Bids should only be evaluated in terms of the criteria stipulated in the bidding documents. Amending the evaluation criteria after closure of the bids should not be allowed, as this would jeopardise the fairness of the system.



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- Firstly, the assessment of functionality must be done in terms of the evaluation criteria and the minimum threshold. A bid must be disqualified if it fails to meet the minimum threshold for functionality as per the bid invitation.
- Thereafter, only the qualifying bids are evaluated in terms of the 80/20 or 90/10 preference points systems. The point scored must be added to the points for B-BBEE status level contributor to obtain the bidder's total points scored out of 100

29. Bid adjudication committees

- (1) A bid adjudication committee must –
 - (a) consider the report and recommendations of the bid evaluation committee; and
 - (b) either –
 - (i) depending on its delegations, make a final award or a recommendation to the accounting officer to make the final award; or
 - (ii) make another recommendation to the accounting officer how to proceed with the relevant procurement.
- (2) A bid adjudication committee must consist of at least four senior managers of the municipality which must include –
 - the chief financial officer or, if the chief financial officer is not available, another manager in the budget and treasury office reporting directly to the chief financial officer and designated by the chief financial officer; and
 - at least one senior supply chain management practitioner who is an official of the municipality; and
 - a technical expert in the relevant field who is an official, if such an expert exists.
- (3) The accounting officer must appoint the chairperson of the committee. If the chairperson is absent from a meeting, the members of the committee who are present must elect one of them to preside at the meeting.
- (4) Neither a member of a bid evaluation committee, nor an advisor or person assisting the evaluation committee, may be a member of a bid adjudication committee.
 - (a) If the bid adjudication committee decides to award a bid other than the one recommended by the bid evaluation committee, the bid adjudication committee must prior to awarding the bid –



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- (i) check in respect of the preferred bidder whether that bidder's municipal rates and taxes and municipal service charges are not in arrears, and;
- (ii) notify the accounting officer.
- (b) The accounting officer may –
 - (i) after due consideration of the reasons for the deviation, ratify or reject the decision of the bid adjudication committee referred to in paragraph (a); and
 - (ii) if the decision of the bid adjudication committee is rejected, refer the decision of the adjudication committee back to that committee for reconsideration.
- (5) The accounting officer may at any stage of a bidding process, refer any recommendation made by the evaluation committee or the adjudication committee back to that committee for reconsideration of the recommendation.
- (6) The accounting officer must comply with section 114 of the Act within 10 working days
- (7) After approval of a bid, both parties should sign a written contract or, if (8) necessary, a service level agreement.
- (8) Original/legal copies of contracts should be kept in a secure location for judicial reference



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30. Procurement of banking services

- (1) A contract for banking services –
 - must be procured through competitive bids;
 - must be consistent with section 7 or 85 of the Act; and
 - may not be for a period of more than five years at a time.
- (2) The process for procuring a contract for banking services must commence at least nine months before the end of an existing contract.
- (3) The closure date for the submission of bids may not be less than 60 days from the date on which the advertisement is placed in a newspaper in terms of paragraph 22(1). Bids must be restricted to banks registered in terms of the Banks Act, 1990 (Act No. 94 of 1990).

31. Procurement of IT related goods or services

- (1) The accounting officer may request the State Information Technology Agency (SITA) to assist with the acquisition of IT related goods or services through a competitive bidding process.
- (2) Both parties must enter into a written agreement to regulate the services rendered by, and the payments to be made to, SITA.
- (3) The accounting officer must notify SITA together with a motivation of the IT needs if –
 - the transaction value of IT related goods or services required in any financial year will exceed R50 million (VAT included); or
 - the transaction value of a contract to be procured whether for one or more years exceeds R50 million (VAT included).
- (4) If SITA comments on the submission and the municipality disagree with such comments, the comments and the reasons for rejecting or not following such comments must be submitted to the council, the National Treasury, the relevant provincial treasury and the Auditor General.



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32. Procurement of goods and services under contracts secured by other organs of state

- (1) The accounting officer may procure goods or services under a contract secured by another organ of state, but only if –
 - the contract has been secured by that other organ of state by means of a competitive bidding process applicable to that organ of state;
 - there is no reason to believe that such contract was not validly procured;
 - there are demonstrable discounts or benefits to do so; and
 - that other organ of state and the provider have consented to such procurement in writing.
- (2) Subparagraphs (1)(c) and (d) do not apply if –
 - (a) a municipal entity procures goods or services through a contract secured by its parent municipality; or
 - (b) a municipality procures goods or services through a contract secured by a municipal entity of which it is the parent municipality.

33. Procurement of goods necessitating special safety arrangements

- (1) The acquisition and storage of goods in bulk (other than water), which necessitate special safety arrangements, including gasses and fuel, should be avoided where ever possible.
- (2) Where the storage of goods in bulk is justified, such justification must be based on sound reasons, including the total cost of ownership, cost advantages and environmental impact and must be approved by the accounting officer.

34. Proudly SA Campaign

The municipality supports the Proudly SA Campaign to the extent that, all things being equal, preference is given to procuring local goods and services from:

- Firstly – suppliers and businesses within the municipality or district;
- Secondly – suppliers and businesses within the relevant province;
- Thirdly – suppliers and businesses within the Republic.



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- from specialised forms of procurement of:
- Goods and services from other organs of state or public entities.
- Public private partnerships
- Publications in the media
- Community based vendors

35. Appointment of consultants

- (1) The accounting officer may procure consulting services provided that any Treasury guidelines in respect of consulting services are taken into account when such procurements are made.
- (2) Consultancy services must be procured through competitive bids if
 - (a) the value of the contract exceeds R200 000 (VAT included); or
 - (b) the duration period of the contract exceeds one year.
- (3) In addition to any requirements prescribed by this policy for competitive bids, bidders must furnish particulars of –
 - (a) all consultancy services provided to an organ of state in the last five years; and
 - (b) any similar consultancy services provided to an organ of state in the last five years.
- (4) The accounting officer must ensure that copyright in any document produced, and the patent rights or ownership in any plant, machinery, thing, system or process designed or devised, by a consultant in the course of the consultancy service is vested in the municipality.

36. Deviation from, and ratification of minor breaches of, procurement processes

- (1) The accounting officer may –
 - (a) dispense with the official procurement processes established by this policy and to procure any required goods or services through any convenient process, which may include direct negotiations, but only –
 - (i) in an emergency;



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- (ii) if such goods or services are produced or available from a single provider only;
 - (iii) for the acquisition of special works of art or historical objects where specifications are difficult to compile;
 - (iv) acquisition of animals for zoos and/or nature and game reserves; or
 - (v) in any other exceptional case where it is impractical or impossible to follow the official procurement processes; and
 - (vi) ratify any minor breaches of the procurement processes by an official or committee acting in terms of delegated powers or duties which are purely of a technical nature.
- (2) The accounting officer must record the reasons for any deviations in terms of subparagraphs (1)(a) and (b) of this policy and report them to the next meeting of the council and include as a note to the annual financial statements.
- (3) Subparagraph (2) does not apply to the procurement of goods and services contemplated in paragraph 11(2) of this policy.

37. Unsolicited bids

- (1) In accordance with section 113 of the Act there is no obligation to consider unsolicited bids received outside a normal bidding process.
- (2) The accounting officer may decide in terms of section 113(2) of the Act to consider an unsolicited bid, only if –
- (a) the product or service offered in terms of the bid is a demonstrably or proven unique innovative concept;
 - (b) the product or service will be exceptionally beneficial to, or have exceptional cost advantages;
 - (c) the person who made the bid is the sole provider of the product or service; and
 - (d) the reasons for not going through the normal bidding processes are found to be sound by the accounting officer.



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- (3) If the accounting officer decides to consider an unsolicited bid that complies with subparagraph (2) of this policy, the decision must be made public in accordance with section 21A of the Municipal Systems Act, together with –
 - (a) reasons as to why the bid should not be open to other competitors;
 - (b) an explanation of the potential benefits if the unsolicited bid were accepted; and
 - (c) an invitation to the public or other potential suppliers to submit their comments within 30 days of the notice.
- (5) The accounting officer must submit all written comments received pursuant to subparagraph (3), including any responses from the unsolicited bidder, to the National Treasury and the relevant provincial treasury for comment.
- (6) The adjudication committee must consider the unsolicited bid and may award the bid or make a recommendation to the accounting officer, depending on its delegations.
- (7) A meeting of the adjudication committee to consider an unsolicited bid must be open to the public.
- (8) When considering the matter, the adjudication committee must take into account that -
 - (a) any comments submitted by the public; and
 - (b) any written comments and recommendations of the National Treasury or the relevant provincial treasury.
- (9) If any recommendations of the National Treasury or provincial treasury are rejected or not followed, the accounting officer must submit to the Auditor General, the relevant provincial treasury and the National Treasury the reasons for rejecting or not following those recommendations.
- (10) Such submission must be made within seven days after the decision on the award of the unsolicited bid is taken, but no contract committing the municipality to the bid may be entered into or signed within 30 days of the submission.

Direct negotiations with suppliers

Direct negotiations with suppliers will only be permitted if:



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- a) There is an urgent need for the goods, works or services, and engaging in bidding proceedings would be impractical, provided that the circumstances giving rise to the urgency were neither foreseeable by the procuring entity nor the result of dilatory conduct on its part;
- b) Owing to a catastrophic event, there is an urgent need for the goods, works or services, making it impractical to use other methods of procurement because of the time involved in using those methods; or
- c) Bidders have been identified as preferred bidders through a competitive bidding process

38. Combating of abuse of supply chain management system

- (1) The accounting officer must—
 - (a) take all reasonable steps to prevent abuse of the supply chain management system;
- investigate any allegations against an official or other role player of fraud, corruption, favouritism, unfair or irregular practices or failure to comply with this policy, and when justified –
 - (i) take appropriate steps against such official or other role player; or
 - (ii) report any alleged criminal conduct to the South African police Service;
- check the National Treasury's database prior to awarding any contract to ensure that no recommended bidder, or any of its directors, is listed as a person prohibited from doing business with the public sector;
- reject any bid from a bidder—
 - (i) if any municipal rates and taxes or municipal service charges owed by that bidder or any of its directors to the municipality, or to any other municipality or municipal entity, are in arrears for more than three months; or
 - (ii) who during the last five years has failed to perform satisfactorily on a previous contract with the municipality or any other organ of state after written notice was given to that bidder that performance was unsatisfactory;
- reject a recommendation for the award of a contract if the recommended bidder, or any of its directors, has committed a corrupt or fraudulent act in competing for the particular contract;
- cancel a contract awarded to a person if –



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- (i) the person committed any corrupt or fraudulent act during the bidding process or the execution of the contract; or
 - (ii) an official or other role player committed any corrupt or fraudulent act during the bidding process or the execution of the contract that benefited that person; and
- reject the bid of any bidder if that bidder or any of its directors –
 - (i) has abused the supply chain management system of the municipality or has committed any improper conduct in relation to such system;
 - (ii) has been convicted for fraud or corruption during the past five years;
 - (iii) has willfully neglected, reneged on or failed to comply with any government, municipal or other public sector contract during the past five years; or
 - (iv) has 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).
- (2) The accounting officer must inform the National Treasury and relevant provincial treasury in writing of any actions taken in terms of subparagraphs (1)(b)(ii), (e) or (f) of this policy.

Part 3: Logistics, Disposal, Risk and Performance Management

39. Logistics management

The accounting officer must establish and implement an effective system of logistics management, which must include -

- (a) the monitoring of spending patterns on types or classes of goods and services incorporating, where practical, the coding of items to ensure that each item has a unique number;
- (b) the setting of inventory levels that includes minimum and maximum levels and lead times wherever goods are placed in stock;
- (c) the placing of manual or electronic orders for all acquisitions other than those from petty cash;
- (d) before payment is approved, certification by the responsible officer that the goods and services are received or rendered on time and is in accordance with the order,



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- the general conditions of contract and specifications where applicable and that the price charged is as quoted in terms of a contract;
- (e) appropriate standards of internal control and warehouse management to ensure that goods placed in stores are secure and only used for the purpose for which they were purchased;
 - (f) regular checking to ensure that all assets including official vehicles are properly managed, appropriately maintained and only used for official purposes; and
 - (g) monitoring and review of the supply vendor performance to ensure compliance with specifications and contract conditions for particular goods or services.

40. Disposal management

- (1) The criteria for the disposal or letting of assets, including unserviceable, redundant or obsolete assets, subject to sections 14 and 90 of the Act are as follows:

Assets may be disposed of by –

- (i) transferring the asset to another organ of state in terms of a provision of the Act enabling the transfer of assets;
 - (ii) transferring the asset to another organ of state at market related value or, when appropriate, free of charge;
 - (iii) selling the asset; or
 - (iv) destroying the asset.
- (2) The accounting officer must ensure that –
 - (a) immovable property is sold only at market related prices except when the public interest or the plight of the poor demands otherwise;
 - (b) movable assets are sold either by way of written price quotations, a competitive bidding process, auction or at market related prices, whichever is the most advantageous;
 - (c) firearms are not sold or donated to any person or institution within or outside the Republic unless approved by the National Conventional Arms Control Committee;
 - (d) immovable property is let at market related rates except when the public interest or the plight of the poor demands otherwise;
 - (e) all fees, charges, rates, tariffs, scales of fees or other charges relating to the letting of immovable property are annually reviewed;



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- (f) where assets are traded in for other assets, the highest possible trade-in price is negotiated; and
- (g) in the case of the free disposal of computer equipment, the provincial department of education is first approached to indicate within 30 days whether any of the local schools are interested in the equipment.

41. Risk management

- (1) The criteria for the identification, consideration and avoidance of potential risks in the supply chain management system, are as follows:

Risk management must include –

- the identification of risks on a case-by-case basis;
- the allocation of risks to the party best suited to manage such risks;
- acceptance of the cost of the risk where the cost of transferring the risk is greater than that of retaining it;
- the management of risks in a pro-active manner and the provision of adequate cover for residual risks; and
- the assignment of relative risks to the contracting parties through clear and unambiguous contract documentation.

42. Performance management

The accounting officer must establish and implement an internal monitoring system in order to determine, on the basis of a retrospective analysis, whether the authorised supply chain management processes were followed and whether the objectives of this policy were achieved.

Part 4: Other matters

43. Prohibition on awards to persons whose tax matters are not in order



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- (1) No award above R30 000 may be made in terms of this policy to a person whose tax matters have not been declared by the South African Revenue Service to be in order.
- (2) Before making an award to a person the accounting officer must first check with SARS whether that person's tax matters are in order.
- (3) If SARS does not respond within 7 days such person's tax matters may for purposes of subparagraph (1) be presumed to be in order.

44. Prohibition on awards to persons in the service of the state

Irrespective of the procurement process followed, no award may be made to a person in terms of this policy –

- who is in the service of the state;
- if that person is not a natural person, of which any director, manager, principal shareholder or stakeholder is a person in the service of the state; or
- a person who is an advisor or consultant contracted with the municipality.

45. Awards to close family members of persons in the service of the state

The accounting officer must ensure that the notes to the annual financial statements disclose particulars of any award of more than R2000 to a person who is a spouse, child or parent of a person in the service of the state, or has been in the service of the state in the previous twelve months, including –

- the name of that person;
- the capacity in which that person is in the service of the state; and
- the amount of the award.

46. Ethical standards

- (1) A code of ethical standards as set out in the “*National Treasury's code of conduct for supply chain management practitioners and other role players involved in supply chain management*” is hereby established for officials and other role players in the supply chain management system of the municipality in order to promote:
 - a. mutual trust and respect: and



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- b. an environment where business can be conducted with integrity and in a fair and reasonable manner.
- (2) A breach of the code of ethics must be dealt with as follows -
 - (a) in the case of an employee, in terms of the disciplinary procedures of the municipality envisaged in section 67(1)(h) of the Municipal Systems Act;
 - (b) in the case a role player who is not an employee, through other appropriate means in recognition of the severity of the breach.
 - (c) In all cases, financial misconduct must be dealt with in terms of chapter 15 of the Act.

47. Inducements, rewards, gifts and favours to municipalities, officials and other role players

- (1) No person who is a provider or prospective provider of goods or services, or a recipient or prospective recipient of goods disposed or to be disposed of may either directly or through a representative or intermediary promise, offer or grant –
 - any inducement or reward to the municipality for or in connection with the award of a contract; or
 - any reward, gift, favour or hospitality to –
 - (i) any official; or
 - (ii) any other role player involved in the implementation of this policy.
- (2) The accounting officer must promptly report any alleged contravention of subparagraph (1) to the National Treasury for considering whether the offending person, and any representative or intermediary through which such person is alleged to have acted, should be listed in the National Treasury's database of persons prohibited from doing business with the public sector.
- (3) Subparagraph (1) does not apply to gifts less than R350 in value.

48. Sponsorship

The accounting officer must promptly disclose to the National Treasury and the relevant provincial treasury any sponsorship promised, offered or granted, whether directly or through a representative or intermediary, by any person who is –



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- (a) a provider or prospective provider of goods or services; or
- (b) a recipient or prospective recipient of goods disposed or to be disposed.

49. Objections and Complaints

Persons aggrieved by decisions or actions taken in the implementation of this supply chain management system, may lodge within 14 days of the decision or action, a written objection or complaint against the decision or action.

- a) If the objection or complaint is against the procurement process, submit a written objection or complaint against the decision or action to the accounting officer of the municipality who shall, in turn, within 24 hours refer the written objection or complaint to the independent and impartial person referred to in paragraph 50 for resolution or
- b) If such complaint or objection is against the award of a bid, lodge a written appeal with the Municipal Bid Appeals Tribunal in accordance with the provisions of paragraph 50A

50. Resolution of disputes, objections, complaints and queries

- (1) The accounting officer must appoint an independent and impartial person, not directly involved in the supply chain management processes –
 - to assist in the resolution of disputes between the municipality and other persons regarding -
 - (i) any decisions or actions taken in the implementation of the supply chain management system; or
 - (ii) any matter arising from a contract awarded in the course of the supply chain management system; or
 - to deal with objections, complaints or queries regarding any such decisions or actions or any matters arising from such contract.
- (2) The accounting officer, or another official designated by the accounting officer, is responsible for assisting the appointed person to perform his or her functions effectively.
- (3) The person appointed must –
 - (a) strive to resolve promptly all disputes, objections, complaints or queries received; and



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- (b) submit monthly reports to the accounting officer on all disputes, objections, complaints or queries received, attended to or resolved.
- (3) If the independent and impartial person referred to in paragraph 50.1 is of the view that a matter which should be dealt with in terms of paragraph 50A, he or she shall forthwith referred the matter to the Municipal Bid Tribunals and that Tribunal shall then hear and determine the matter in accordance with the provisions of paragraph 50A
- (4) A dispute, objection, complaint or query may be referred to the relevant provincial treasury if –
 - (a) the dispute, objection, complaint or query is not resolved within 60 days; or
 - (b) no response is forthcoming within 60 days.
- (5) If the provincial treasury does not or cannot resolve the matter, the dispute, objection, complaint or query may be referred to the National Treasury for resolution.

50A. Municipal Bid Appeals Tribunal

1. The council shall establish a Municipal Bid Appeals Tribunal for its area of jurisdiction to hear and determine an appeal against the award of a bid
2. The accounting officer of the municipality, in consultation with the Provincial Treasury shall appoint the Chairperson, Deputy Chairperson and Members of the Municipal Bid Appeals Tribunal
3. The powers, duties and functions of the Municipal Bid Appeals Tribunal and matters incidental thereto, are set out in the Rules which are appended to this Supply Chain Management policy
4. The administrative and secretarial work involved in the performance of the duties and functions of the Provincial Treasury as set out in the Rules
5. There shall be no further appeal against a decision of the Municipal Bid Appeals Tribunal

51. Contracts providing for compensation based on turnover



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If a service provider acts on behalf of a municipality to provide any service or act as a collector of fees, service charges or taxes and the compensation payable to the service provider is fixed as an agreed percentage of turnover for the service or the amount collected, the contract between the service provider and the municipality must stipulate –

- (a) a cap on the compensation payable to the service provider; and
- (b) that such compensation must be performance based.

52. Preference Point Systems

- The 80/20 preference point system is applicable to bids with a Rand value equal to, or above R30 000 and up to a Rand value of R50 million (all applicable taxes included). Institutions may apply the 80/20 preference point system to price quotations with a value less than R30 000 if and when appropriate.
- The 90/10 preference point system is applicable to bids with a Rand value above R50 million (all applicable taxes included).

53. Calculation of points for price

The PPPFA prescribes that the lowest acceptable bid will score 80 or 90 points for price. Bidders that quoted higher prices will score lower points for price on a pro-rata basis.



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The formulae to be utilised in calculating points scored for price are as follows:

80/20 Preference point system [(for acquisition of services, works or goods up to a Rand value of R50million) (all applicable taxes included)]

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

Where

P_s = Points scored for comparative price of bid or offer under consideration

P_t = Comparative price of bid or offer under consideration

P_{\min} = Comparative price of lowest acceptable bid or offer.

90/10 Preference point system [(for acquisition of services, works or goods with a Rand value above R50million) (all applicable taxes included)]

$$P_s = 90 \left(1 - \frac{P_t - P_{\min}}{P_{\min}} \right)$$

Where

P_s = Points scored for comparative price of bid or offer under consideration

P_t = Comparative price of bid or offer under consideration

P_{\min} = Comparative price of lowest acceptable bid or offer.

Points scored must be rounded off to the nearest 2 decimal places.

Calculation of points for B-BBEE status level of contributor



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Points must be awarded to a bidder for attaining the B-BBEE status level of contribution in accordance with the table below:

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

A bid must not be disqualified from the bidding process if the bidder does not submit a certificate substantiating the B-BBEE status level of contribution or is a non-compliant contributor. Such a bidder will score zero (0) out of a maximum of 10 or 20 points respectively for B-BBEE.

Calculation of total points scored for price and B-BBEE status level of contribution

The points scored for price must be added to the points scored for B-BBEE status level of contribution to obtain the bidder's total points scored out of 100.

EVALUATION OF BIDS THAT SCORED EQUAL POINTS

In the event that two or more bids have scored equal total points, the successful bid must be the one that scored the highest points for B-BBEE.



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If two or more bids have equal points, including equal preference points for B-BBEE, the successful bid must be the one scoring the highest score for functionality, if functionality is part of the evaluation process.

In the event that two or more bids are equal in all respects, the award must be decided by the drawing of lots.

It is important to note that new BBBEE codes of good practice of 2013, Gazette No 36928 impacting on the calculation of points for price shall come into effect as Gazetted.

CANCELLATION AND RE-INVITATION OF BIDS

- a) In the application of the 80/20 preference point system, if all bids received exceed R50 000 000, the bid must be cancelled. If one or more of the acceptable bid(s) received are within the R50 000 000 threshold, all bids received must be evaluated on the 80/20 preference point system.
- b) In the application of the 90/10 preference point system, if all bids received are equal to or below R50 000 000, the bid must be cancelled. If one or more of the acceptable bid(s) received are above the R50 000 000 threshold, all bids received must be evaluated on the 90/10 preference point system.
- c) If a bid was cancelled in terms of paragraph 15.1 or 15.2, the correct preference point system must be stipulated in the bid documents of the re-invited bid.

An AO / AA may, prior to the award of a bid, cancel the bid if:

- a) Due to changed circumstances, there is no longer a need for the services, works or goods requested. [AOs / AAs must ensure that only goods, services or works that are required to fulfil the needs of the institution are procured]; or
- b) Funds are no longer available to cover the total envisaged expenditure. [AOs / AAs must ensure that the budgetary provisions exist]; or
- c) No acceptable bids are received. [If all bids received are rejected, the institution must review the reasons justifying the rejection and consider



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making revisions to the specific conditions of contract, design and specifications, scope of the contract, or a combination of these, before inviting new bids].

AWARD OF CONTRACTS

A contract must be awarded to the bidder who scored the highest total number of points in terms of the preference point systems.

In exceptional circumstances a contract may, on reasonable and justifiable grounds, be awarded to a bidder that did not score the highest number of points. The reasons for such a decision must be approved and recorded for audit purposes and must be defensible in a court of law.

54. Broad-Based Black Economic Empowerment (B-BBEE) Status Level Certificates

- Bidders are required to submit original and valid B-BBEE Status Level Verification Certificates or certified copies thereof together with their bids, to substantiate their B-BBEE rating claims.
- Bidders who do not submit B-BBEE Status Level Verification Certificates or are non-compliant contributors to B-BBEE do not qualify for preference points for B-BBEE but should not be disqualified from the bidding process. They will score points out of 90 or 80 for price only and zero (0) points out of 10 or 20 for B-BBEE.
- A trust, consortium or joint venture must submit a consolidated B-BBEE Status Level Verification Certificate for every separate bid.
- Public entities and tertiary institutions must also submit B-BBEE Status Level Verification Certificates together with their bids.



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- If an institution is already in possession of a valid and original or certified copy of a bidder's B-BBEE Status Level Verification Certificate that was obtained for the purpose of establishing the database of possible suppliers for price quotations or that was submitted together with another bid, it is not necessary to obtain a new B-BBEE Status Level Verification Certificate each time a bid is submitted from the specific bidder.
- Such a certificate may be used to substantiate B-BBEE rating claims provided that the closing date of the bid falls within the expiry date of the certificate that is in the institution's possession.
- Each time this provision is applied, cross-reference must be made to the B-BBEE Status Level Verification Certificate already in possession for audit purposes.

55.Appointment of Service Providers

The municipality will make use of its supplier database and rotation system when appointing service providers for multi-year projects.

56.LOCAL PRODUCTION AND CONTENT

56.1

56.1.1 Bids in respect of services, works or goods that have been designated for local production and content, must contain a specific bidding condition that only locally produced goods, services or works or locally manufactured goods with a stipulated minimum threshold for local production and content will be considered.

56.1.1 If there is no designated sector, an organ of state may include, as a specific condition of the tender, that only locally produced services or goods or locally manufactured goods with a stipulated minimum threshold for local production and content, will be considered.

Subcontracting as condition of tender



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9.(1) If feasible to subcontract for a contract above R30 million, an organ of state must apply subcontracting to advance designated groups.

(2) If an organ of state applies subcontracting as contemplated in sub regulation (1), the organ of state must advertise the tender with a specific tendering condition that the successful tenderer must subcontract a minimum of 30% of the value of the contract to-

(a) an EME or OSE;

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(b) an EME or QSE which is at least 51% owned by black people;

(c) an EME or QSE which is at least 51% owned by black people who are youth ;

(d) an EME or QSE which is at least 51% owned by black people who are women;

(e) an EME or QSE which is at least 51% owned by black people with disabilities ;

(f) an EME or QSE which is 51% owned by black people living in rural or underdeveloped areas or townships;

(g) a cooperative which is at least 51% owned by black people;

(h) an EME or QSE which is at least 51% owned by black people who are military veterans; or

(i) more than one of the categories referred to in paragraphs (a) to (h).

(3) The organ of state must make available the list of all suppliers registered on a database approved by the National Treasury to provide the required goods or services in respect of the applicable designated groups mentioned in subregulation (2) from which the tenderer must select a supplier.

57. APPROVAL AND IMPLEMENTATION OF POLICY

This policy shall be implemented once approved by council and effective from 01 July 2020

**DRAFT ENVIRONMENTAL MANAGEMENT PLAN (EMP) - IBISI SEWER
RETICULATION**

HARRY GWALA DISTRICT MUNICIPALITY



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GLOSSARY OF TERMS

Applicant

Any person who applies for an Authorization to undertake an activity or to cause such activity to be undertaken as contemplated in Sections 24(5), 24M and 44 of the National Environmental Management Act, 19998 (Act No. 107 of 1998).

Audit

A verification process that is used to obtain information regarding the implementation of the EMPr. It is an objective tool used to make improvements at the workplace.

Biophysical Environment

Physical features such as watercourses, groundwater and soils as well as the biological features such as plants and animals.

Contractor

The main organisation appointed by the Developer, through the Project Manager, to undertake construction activities on the site.

Construction Activity

A construction activity is any action taken by the Contractor, his Sub Contractors, suppliers or personnel during the construction process.

Construction Phase

Activity which entails the physical construction of the proposed development.

ECO (Environmental Control Officer)

Individual appointed by the Project Manager and who is responsible for the implementation of the EMPr, liaison between the municipality, Contractor and monitoring, reviewing and verifying compliance with the EMPr by the Contractor.

ESO (Environmental Site Officer)

Environmental site offices are responsible for the day to day duties and administrative task of the development project on site. These day to day duties include provide environmental training to all employees on site, ensuring all mitigation measures and action plans are strictly adhered to. Furthermore, the site officer ensures all environmental policies are well implemented on site.

EMPr (Environmental Management Programme)

The EMPr for the project sets out general instructions that will be included in a contract document for the construction phase of the project. The EMPr will ensure the planning, construction, rehabilitation and operational activities are conducted and managed in an environmentally sound and responsible manner. The EMPr also details the organisational structure required to ensure the effective implementation of the EMPr and measures to monitor and improve the application of the EMPr throughout the phases of the project.

Environment

The surroundings within which humans exist and that are made up of – (i) the land, water and atmosphere of the earth; (ii) micro-organisms, plant and animal life; (iii) any part or combination of (i) and (ii) and the interrelationships among and between them; and (iv) the physical, chemical, aesthetic and cultural properties and conditions of the foregoing that influence human health and wellbeing.

Environmental Impact

An impact or environmental impact is the change to the environment, whether desirable or undesirable, that will result from the effect of a construction activity. An impact may be the direct or indirect consequence of a construction activity.

Environmental consultant

An independent consultant that is appointed by the client to compile an Environmental Management Plan and to undertake environmental audits or Control Officer Functions.

Fauna

Any and all animals identified within or outside of the project area. Animals are not to be harmed in any way.

General Waste

Waste that does not pose an immediate hazard or threat to health or to the environment, and includes Domestic waste, commercial waste, non-hazardous industrial waste e.g. paper, plastics, food, tins, wood, building rubble, etc.

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Pre-Construction Phase

The period prior to commencement of the Construction Phase, during which various activities associated with the preparation for the Construction Phase will be undertaken.

Project

All activities, inclusive of the construction activities, associated with the proposed works.

Rehabilitation

Rehabilitation is defined as the return of a disturbed area, feature or structure to a state that approximates to the state (where possible) that it was before disruption, or to an improved state.

Mitigation

To anticipate and prevent negative impacts and risks, then to minimise them, rehabilitate or repair impacts to the extent feasible.

Operational Phase

The period following the Construction Phase, during which the proposed development will be operational.

Social Environment

Persons likely to be directly or indirectly affected by the project construction activities.

Waste

An unusable or unwanted substance or material.

Watercourse

Natural channel in which water flows regularly or intermittently.

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ABBREVIATIONS

BA	Basic Assessment
BAR	Basic Assessment Report
CLO	Community Liaison Officer
DWS	Department of Water and Sanitation
BAR	Basic Assessment Report
EDTEA	Kwa-Zulu Natal Department of Economic Development, Tourism and Environmental Affairs
EA	Environmental Authorisation
ECO	Environmental Control Officer
EMP	Environmental Management Programme
GNR	Government Notice Regulation
I&AP's/IAPs	Interested and Affected Parties
RE	Resident Engineer
NEMA	National Environmental Management Act (Act No. 107 of 1998) (as amended)
WMA	Water Management Area
WULA	Water Use Licence Application

SECTION 1: INTRODUCTION

1.1 PROJECT DESCRIPTION

Harry Gwala District Municipality proposes to construct an Ibisi sewer reticulation systems. Ibisi town is located in the uMzimkhulu local municipality within the jurisdiction of Harry Gwala District Municipality. The aim of the proposed project is to provide water borne sewerage reticulation system to the community of ibisi. Furthermore, the proposed implementation of the Ibisi sewer reticulation, will provide a medium to high level waterborne sanitation and waste water removal service to the Ibisi community. The scope of works for the proposed development activities entail the following activities:

- The laying of approximately 15.3km of 160mm diameter sewer gravity mains,
- The laying of approximately 10km of 110mm diameter ERF Connections,
- The construction of approximately 258 no. manholes,
- Construction of pump station including the supply and installation of duty and standby pumps
- The laying of approximately 0.37km of 110mmØ sewer rising main.
- The supply and installation of approximately 334 no. toilet top structures and plumbing connections,
- The connection of approximately 39 no. erven which currently have septic tanks into the sewer reticulation, and
- ISD and training of the community.

1.2 LOCATION OF THE PROJECT

The site for the proposed sewer reticulation system is the ibisi town, located in ward 11 of the uMzimkhulu local municipality (Refer to figure 1). The proposed site area is approximately 20km South West of uMzimkhulu CBD.

TABLE 1: PROJECT LOCATION

CENTRAL COORDINATES		
NAME	LONGITUDE	LATITUDE
Ibisi Town	29°53'19" E	30°24'50" S

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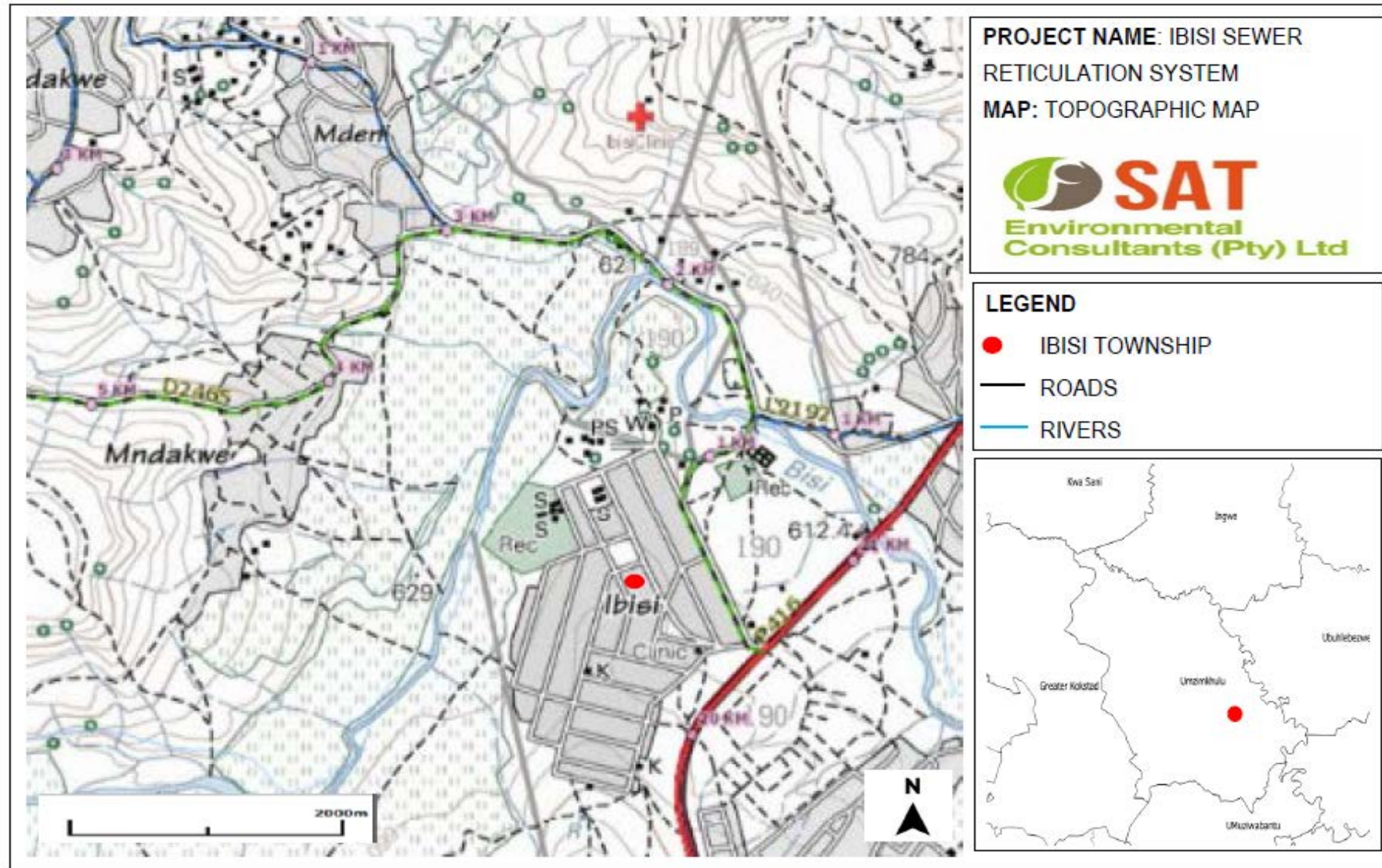


FIGURE 1:FIGURE 1: LOCALITY MAP OF THE TOWN OF IBISI

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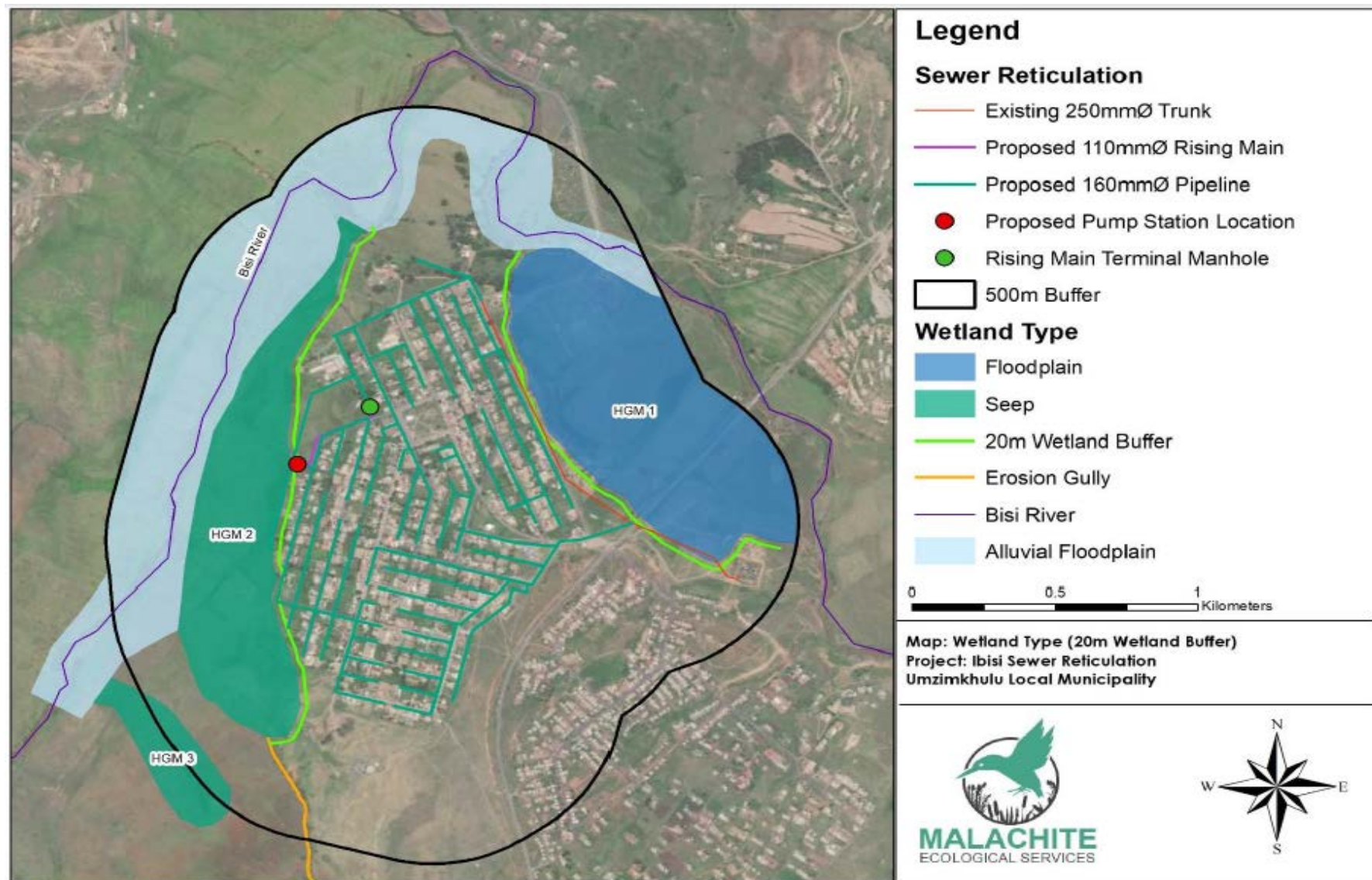


FIGURE 2: WATERCOURSE SENSITIVITY MAP OF THE PROJECT AREA

1.3 PURPOSE OF THE ENVIRONMENTAL MANAGEMENT PROGRAMME

An Environmental Management Programme (EMPr) can be described as an environmental management or a best practice tool within the environmental sector. The EMPr is a report which entails various environmental measures or mitigation action plans in order to minimise the impacts on various environmental aspects. The EMPr is a best practice tool of providing environmental related guidance not only to the ECO but also to the applicant/developer, contractors and sub-contractors with regards to role and responsibility, timeframe and mitigation measures during the phases of the proposed development.

Due to the nature of the proposed development, the EMPr will provide proposed mitigation and management measures for the construction phase, operational phase and rehabilitation phase. This will assist with monitoring and implementing adequate control measures of minimising environmental impacts during the various phases of the project.

The EMPr content of the proposed development was compiled in accordance to the EIA Regulations, GNR 326 of 2014, as amended in 2017 Appendix 4:

(1) An EMPr must comply with section 24N of the Act and include—

(a) details of—

(i) the EAP who prepared the EMPr; and

(ii) the expertise of that EAP to prepare an EMPr;

(b) a detailed description of the aspects of the activity that are covered by the EMPr as identified by the project description;

(c) a description of the impact management objectives, including management statements, identifying the impacts that need to be avoided, managed and/or mitigated as identified through the environmental impact assessment process for all phases of the development including—

(i) planning and design;

(ii) pre-construction activities;

(iii) construction activities;

(iii) where relevant operation activities; and

(iv) rehabilitation of the environment after construction and where applicable post closure;

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(d) a description of impact management outcomes, identifying the standard of impact management required for the aspects contemplated in paragraph (c);

(e) a description of impact management actions, identifying the manner in which the impact management objectives and outcomes contemplated in paragraphs (c) and (d) will be achieved, and may include actions to —

(i) modify, remedy, control or stop any action, activity or process which causes pollution or environmental degradation;

(ii) remedy the cause of pollution or degradation and migration of pollutants;

(iii) comply with any prescribed environmental management standards or practices;

(iv) comply with any applicable provisions of the Act regarding closure, where applicable;

(v) comply with any provisions of the Act regarding financial provisions for rehabilitation, where applicable;

(f) the method of monitoring the implementation of the impact management actions contemplated in paragraph (e);

(g) the frequency of monitoring the implementation of the impact management actions contemplated in paragraph (e);

(h) an indication of the persons who will be responsible for the implementation of the impact management actions;

(i) the time periods within which the impact management actions contemplated in paragraph (e) must be implemented;

(j) the mechanism for monitoring compliance with the impact management actions contemplated in paragraph (e);

(k) a program for reporting on compliance, taking into account the requirements as prescribed by these Regulations; and

(l) an environmental awareness plan describing the manner in which—

(i) the applicant intends to inform his or her employees of any environmental risk which may result from their work; and

(ii) risks must be dealt with in order to avoid pollution or the degradation of the environment.

(2) Where a proposed development and the geographical area within which it is located has been subjected to a pre-assessment using a spatial development tool, and the output of the pre-assessment in the form of a site

specific development protocol has been adopted in the prescribed manner, the content of a EMPr may be determined by the adopted site specific development protocol applicable to the specific proposed development in the specific geographical area it is proposed in.

1.4 AIM OF THE EMPr

The EMPr is prepared based on the requirements of the EIA Regulations, GNR 326 of 2014 as amended in April 2017. Hence, the report aims to provide environmental management guidance to all responsible parties. Most importantly, the EMPr provides management tools for the various phases of the activities in order to minimize the impacts to the receiving environment.

1.5 OBJECTIVE OF THE EMPr

The EMPr comprises of the following objectives in relation to the proposed development:

- Provide applicable legislations to be adhered to by all responsible parties.
- Ensure mitigations and action plans are proposed throughout the various phases of the project.
- Provide general guidelines to monitoring and auditing required documents for the external competent authority.
- Ensure constant monitoring of the construction and operational phases and that the environmental impacts are kept minimal during development.
- Recommendations of constant best practice environmental management principles for all responsible parties.
- Provide guidance on detailing task-specific method statements by the contractors.
- Ensures that all health and safety regulations are adhered to according to the national standards of the relevant legislation.
- Provides an environmental awareness training plan for all responsible parties.

1.6 SCOPE OF THE EMPr

The EMPr entails providing all responsible parties environmental management compliance, monitoring and auditing guidelines. Furthermore, the scope of the EMPr helps in quantifying the relevant legislations and acts applicable to the proposed project during construction and implementation phase.

The mitigation and recommendations are applicable to all the phases (planning and design, construction and post construction phase - rehabilitation phase) of the project.

PLANNING AND DESIGN PHASE: is described as the preconstruction phase of the project. This involves the preparation for the commencement of construction. Preconstruction phase requires various elements/ aspects of executing environmental measures and mitigations provided in the approved Environmental Authorisation and Environmental Management Programme report.

CONSTRUCTION PHASE: outlines the operation related activities that will occur within the development footprint of the site. The construction phase usually has the bulk environmental impacts. Hence, the approved EMPr provides mitigation measures and action plans to minimise the potential environmental impacts.

POST CONSTRUCTION (REHABILITATION PHASE): This entails revegetation, waste management plan and site clearing. Post construction phase is a key requirement of complying with environmental management of the site.

OPERATIONAL PHASE: is the phase after construction in which all the proposed construction activities have been fulfilled. The operational phase entails the functioning of the proposed activity or development.

SECTION 2: APPLICABLE ENVIRONMENTAL LEGISLATION

The following legislations, inter alia are identified to be applicable for this project:

NATIONAL ACTS AND GUIDELINES:	
CONSTITUTION OF THE REPUBLIC OF SOUTH AFRICA (ACT NO. 108 OF 1996)	<p>The Constitution of the Republic of South Africa has major implications for environmental management. The main effects are the protection of environmental and property rights, the change brought about by the sections dealing with administrative law, such as access to information, just administrative action and broadening of the locus standing of litigants. These aspects provide general and overarching support and are of major assistance in the effective implementation of the environmental management principles and structures of the NEMA. Section 24 in the Bill of Rights of the Constitution specifically states that:</p> <p><i>Everyone has the right -</i></p> <ul style="list-style-type: none"> • <i>To an environment that is not harmful to their health or well-being; and</i> • <i>To have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that -</i> <ol style="list-style-type: none"> 1. <i>Prevent pollution and ecological degradation;</i> 2. <i>Promote conservation; and</i> 3. <i>Secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development.</i>

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<p>NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT NO. 107 OF 1998)</p>	<p>As amended control/prevention of pollution; combating of noise; activities which may have a detrimental effect on the environment, preparation and contents of environmental impact reports. KwaZulu-Natal Department of Economic Development, Tourism and Environmental Affairs (KZN DEDTEA). The Act aims to provide for co-operative environmental governance by establishing principles for decision making on matters affecting the environment, institutions that will promote co-operative governance, and procedures for co-ordinating environmental functions exercised by organs of state. Section 24 provides for the prohibition, restriction and control of activities which are likely to have a detrimental effect on the environment.</p> <p>Environmental Authorisation Process: The proposed project triggers a Listed Activities contained within GN R983 and R985 of the Environmental Impact Assessment (EIA) Regulations (2014) promulgated under the NEMA, 1998 (Act No. 107 of 1998). The proposed development therefore requires an Environmental Authorisation (EA) from the Kwazulu-Natal Department of Economic Development, Environmental Affairs and Tourism (DEDEAT).</p>
<p>NATIONAL WATER ACT, 1998 (ACT NO. 36 OF 1998) & WATER SERVICES ACT, 1997 (ACT NO. 108 OF 1997)</p>	<p>The National Water Act, 1998 (Act No. 36 of 1998) (NWA) aims to provide management of the national water resources to achieve sustainable use of water for the benefit of all water users. This requires that the quality of water resources is protected as well as integrated management of water resources with the delegation of powers to institutions at the regional or catchment level. The purpose of the Act is to ensure that the nation's water resources are protected, used, developed, conserved, managed and controlled in responsible ways. Of specific importance to this application is Section 19 of the NWA, which states that an owner of land, a person in control of land or a person who occupies or uses the land which thereby causes, has caused or is likely to cause</p>

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	<p>pollution of a water resource must take all reasonable measures to prevent any such pollution from occurring, continuing or recurring and must therefore comply with any prescribed waste standard or management practices.</p> <p>WATER USES DEFINED IN SECTION 21 OF THE ACT RELEVANT TO THE DEVELOPMENT INCLUDES:</p> <p><i>21 (c) impeding or diverting the flow of water in a watercourse;</i></p> <p><i>21 (g) disposing of waste in a manner which may detrimentally impact on a water resource;</i></p> <p><i>21 (i) altering the bed, banks, course or characteristics of a watercourse;</i></p>
OTHER LEGAL REQUIREMENTS:	
NATIONAL ENVIRONMENTAL MANAGEMENT: BIODIVERSITY ACT, 2004 (ACT NO. 10 OF 2004)	<p>The purpose of the Biodiversity Act is to provide for the management and conservation of South Africa's biodiversity within the framework of the NEMA and the protection of species and ecosystems that warrant national protection. As part of its implementation strategy, the National Spatial Biodiversity Assessment was developed. This Act is applicable to this application for environmental Authorisation, in the sense that it requires the project applicant to consider the protection and management of local biodiversity.</p>
NATIONAL HERITAGE RESOURCES ACT, 1999 (ACT NO. 25 OF 1999)	<p>This Act legislates the necessity for cultural and heritage impact assessment in areas earmarked for development, which exceed 0.5 hectares (ha) and where linear developments (including roads) exceed 300 metres in length. The Act makes provision for the potential destruction to existing sites, pending the archaeologist's recommendations through permitting procedures. Permits are administered by AMAFA KwaZulu-Natal, the Provincial Heritage Resources Authority.</p>

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OCCUPATIONAL HEALTH AND SAFETY ACT, 1993 (ACT NO. 85 OF 1993)	To provide for the health and safety of persons at work and for the health and safety of persons in connection with the use of plant and machinery; the protection of persons other than persons at work against hazards to health and safety arising out of or in connection with the activities of persons at work; to establish an advisory council for occupational health and safety.
NATIONAL AND PROVINCIAL POLICIES AND/OR GUIDELINES:	
INTEGRATED ENVIRONMENTAL MANAGEMENT (IEM)	IEM is a philosophy for ensuring that environmental considerations are fully integrated into all stages of the development process. This philosophy aims to achieve a desirable balance between conservation and development (DEAT, 1992). The IEM guidelines intend encouraging a pro-active approach to sourcing, collating and presenting information in a manner that can be interpreted at all levels. The Department of Environmental Affairs (DEA), Integrated Environmental Management Information Series guidelines were also consulted during this BA process.
KWAZULU-NATAL HERITAGE ACT, 2008 (ACT NO. 4 OF 2008)	KwaZulu-Natal Heritage CCCAct provides for the conservation, protection and administration of both the physical and the living or tangible heritage resources of the Province of KwaZulu-Natal; and to establish a statutory Council to administer heritage conservation in the Province. AMAFA / Heritage Kwa-Zulu-Natali are the provincial heritage conservation agency for KwaZulu-Natal. AMAFA was established as a statutory body in terms of the KZN Heritage Act of 1997, replaced by the KZN Heritage Act of 2008.

SECTION 3: ENVIRONMENTAL MANAGEMENT PROGRAMME

The EMPr has been designed to provide a detailed management action plan for all responsible parties. The EMPr is for all relevant parties in order to comply with legal requirements. All conditions of the EMPr below must be implemented by the responsible person.

3.1 EMPR METHODOLOGY

The compilation of the EMPr is based on the structure of the Integrated Environmental Management (IEM) Guidelines published by the Department of Environment Affairs in 1992 as well as Section 33 of the EIA Regulations, 2014.

Each environmental aspect has been tabulated. The EMP is supported by action plans/measures, responsibilities and timeframe for monitoring. The EMPr consist of the following management frameworks:

- **ENVIRONMENTAL ASPECT:** this includes the identified environmental or related issues to be addressed.
- **ENVIRONMENTAL MEASURE/ ACTION PLAN:** this includes the necessary mitigation measures for each impact/issue.
- **RESPONSIBILITY:** key individuals who have a duty and an obligation to execute the management action plans. The execution of the EMPr along with its measures and mitigations is dependent on the role players of the proposed project. Environmental management and assessment of the project entails all key role players to have a keen interest in the proposed development. According to the EIA Regulations National Environmental Impact Assessment Regulations, GNR 326 of 2014, as amended in 2017 Appendix 4 (H), role players are *'an indication of the persons who will be responsible for the implementation of the impact management actions'*. The key role players of the proposed project are as follows:

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TABLE 1: KEY ROLE PLAYERS OF THE PROPOSED PROJECT

ROLE PLAYER	ROLE	RESPONSIBILITY
DEDTEA	Competent authority	Ensure that the applicant complies with the conditions of the EA and this EMPr in order to be granted authorisation or any applicable permits.
Environmental Assessment Practitioner (EAP)	EAP is appointed by the developers to execute the task of relevant environmental applications, licenses and permits.	<ul style="list-style-type: none"> • Have knowledge in conducting EIAs. • Conduct a basic public participation process based on the public participation guideline in terms of National Environmental Management Act, 1998 Environmental Impact Assessment Regulations. • Responsible for managing, planning, and co-ordinating various environmental management framework (EIA, EMPr and SEAs).
Environmental Site Officer (ESO)	Monitor and oversee the compliance of the development according to the regulations and guidelines.	<p>Ensure all responsible parties adhere to the approved EMPr.</p> <p>Attend all site meetings with regards to the development.</p> <p>Advise team on key environmental decision making.</p> <p>Monitoring environmental incident register.</p> <p>Update and monitor necessary site documentations.</p> <p>Ensure contractors and subcontractors minimise environmental impacts.</p> <p>Fully converse with the EMPr.</p> <p>Liaise with the client, project manager and competent authority throughout the various phases of the project.</p> <p>Ensure all responsible parties adhere to the approved EMPr.</p> <p>Attend all site meetings with regards to the development.</p> <p>Advise team on key environmental decision making.</p> <p>Monitoring environmental incident register.</p> <p>Update and monitor necessary site documentations.</p>

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ROLE PLAYER	ROLE	RESPONSIBILITY
		<p>Ensure contractors and subcontractors minimise environmental impacts.</p> <p>Fully converse with the EMPr.</p> <p>Liaise with the client, project manager and competent authority throughout the various phases of the project.</p>
Environmental Control Officer (ECO)	Monitor compliance and non-compliance during the various phases.	<ul style="list-style-type: none"> • Ensure all necessary site documents are submitted and approved. • Conduct monthly environmental audits for compliance and non-compliance flaws based on permit granted. • Submit audit report to all affected parties. • Regularly liaise with the environmental site Manager on matters relating to the environment and potential impacts. • Present findings of compliance and non-compliance at committee meeting for the interested and affected party.
Resident Engineer (RE)	Monitor the implementation of the EMPr.	<ul style="list-style-type: none"> • Ensure compliance with the EMPr. • Create necessary site documents such as method statements or construction methods document. • Continuously liaise with Project manager, ESO, Contractor/Operator on matters concerning the environment. <p>Attend monthly monitoring/technical committee meeting.</p>
Contractors and Sub-Contractors (C)	To undertake the construction activities for the project.	<ul style="list-style-type: none"> • Ensure the health and safety regulation are adhered to during construction. • Ensure employees and subcontractors receive adequate health and safety induction. • Evaluate and monitor risk assessment within the environmental aspect.

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ROLE PLAYER	ROLE	RESPONSIBILITY
		<ul style="list-style-type: none"> • Ensure designated workers receive adequate training to be on equipment's such as scaffolding, hoists and platforms. • When the contractors hire subcontractors to perform certain task during the construction phase, it is the duty of the principal contractor to monitor and supervisor the subcontractor with regards to the environmental standards and regulations. • Provide visible safety warning signages which indicate a warning or obstacle which needs attention. Construction signages must be yellow warning signages. • Ensure all responsible parties adhere to building permits if applicable. • Monitor offences and penalties of individual who fail to comply with the provided regulation or any other supporting terms and conditions. • Ensure all appropriate measures are in place to avoid risk of fire during the various construction phases.

3.1.1 ENFORCEMENT, MONITORING AND AUDITING

- The ECO must oversee the implementation of the EMPr.
- The ECO and the full time ESO must conduct, at a frequency as determined by the KZN DEDTEA and stipulated in the relevant EA for the project, independent environmental audits. The audits are to verify the projects compliance with the EMPr and conditions of the EA. Before any construction activities commence, the ECO must compile, for the approval by the Department, an audit checklist based on the contents of this EMPr and conditions of the EA. The ECO must at the request of the Department forward audit reports to the Department at a frequency determined by the Department which must be stipulated in the EA.
- **Evidence of the following as key performance indicators must be included in the audit reports where required:**
 1. Complaints received from landowners and actions taken.
 2. Environmental incidents, such as oil spills, etc. and actions taken. This excludes litigation.
 3. Incidents leading to litigation and legal contraventions.
 4. Environmental damage that needs rehabilitation measures to be taken.
 5. A copy of all ESO monitoring reports, and contractor method statements must be held by the ESO and/or the ESO on site and be made available to the Department and or the ECO upon request.

3.1.2 GENERAL GUIDELINES

The following measures provide guideline solutions to frequently anticipated issues on most development activities:

- The prevention of any site degradation due to non-compliance, administrative or financial problems, and inactivity during the construction phase, illegal activities, delays caused by archaeological findings, etc. is ultimately the responsibility of the applicant/developer in terms of Section 28 of NEMA.
- The study area must be clearly defined, surveyed and demarcated according to the project Authorisation. All workforce members and other construction personnel are not to go beyond the fenced footprint. Landowners are not comfortable when strangers come on to their properties. They will look for reasons to interfere with the construction process and may therefore cause delays in the process that can be very costly to the Contractor.
- The Contractors must adhere to agreed and approved access points and haul roads.

GENERAL GUIDELINES (Continued)

- Damage to private or public property such as fences, gates and other infrastructure may occur at any time. All damage to be repaired immediately and to the satisfaction of the owner.
- Relevant landowners and businesses must be informed of the starting date of construction as well as the phases in which the construction shall take place.
- The Contractor must adhere to all conditions of the contract including this EMPr.
- Proper planning of the construction process must be undertaken to allow for disruptions due to rain and very wet conditions.
- Where existing private roads to be utilised as access are in a bad state of repair, such roads' condition must be well documented, including photographs, before they are used for construction purposes. If necessary, some repairs must be done to prevent damage to equipment.
- All private and public manmade structures near the project site must be protected against damage at all times and any damage must be rectified immediately.
- Proper documentation and record keeping of all complaints and actions taken.
- Regular site inspections and good control over the construction process throughout the construction period.
- A positive attitude towards Environmental Management by all site personnel must be motivated through regular and effective awareness and training sessions (see 3.1.3 below).
- An ESO, on behalf of the Contractor, is to be appointed to implement this EMPr. The EO and not the Contractor or his/her ESO is to deal with any landowner related matters.
- Environmental Audits to be carried out during and upon completion of construction.

3.1.3 AWARENESS TRAINING

The ECO is to conduct an environmental awareness training programme prior to construction with the entire project team. Refresher courses must be conducted as and when required. The ESO must ensure daily toolbox talks which include alerting the workforce to particular environmental concerns associated with the tasks for that day or the area/habitat in which they are working. Awareness posters and handouts must be produced to create awareness throughout the site, as and when necessary. The Contractor shall ensure that adequate environmental awareness training of senior site personnel takes place and that all construction phase workers receive an induction presentation on the importance and implications of the EMPr. The presentation shall be conducted, as far as possible, in the employees' language of choice.

As a minimum, training shall include:

- Explanation of the importance of complying with the EMPr;
- Discussion of the potential environmental impacts of construction / operational activities;
- The benefits of improvement personal performance;
- Employees' roles and responsibilities, including emergency preparedness;
- Explanation of the mitigation measures that must be implemented when carrying out their activities;
- Explanation of the specifics of this EMPr and its implementation; and
- Explanation of the management structure of individuals responsible for matters pertaining to the EMPr. The contractor shall keep records of all environmental training sessions, including names, dates and the information presented. These records will be presented at the project meetings and to the ECO on request during his/her audits.

3.1.4 CONTRACTOR ENVIRONMENTAL METHOD STATEMENTS

- Method Statements are written submissions to the Engineer by the Contractor in collaboration with his/her ESO, in response to a request by the EO and or Engineer. The Method Statements set out the plant, materials, labour and method that the contractor proposes using to carry out an activity, identified by the EO and/or Engineer. The Method Statements contain the appropriate detail such that the EO and Engineer are able to assess whether the Contractor's proposal is in accordance with the requirements of the EMPr. The contractor must sign each Method Statement along with the EO and Engineer to formalize the approved Method Statement.
- All Method Statements including those which may be required as ad hoc or emergency construction method statements must be submitted to the Engineer for approval prior to the commencement of the activity. Any changes to the method of works must be reflected by amendments to the original approved Method Statement. Any changes in this regard must be approved by the EO and Engineer on the understanding that such changes are environmentally acceptable and in line with the requirements of this EMPr. Method Statements (MS) are written submissions by the Contractor to the ER in response to the requirements of this EMPr or to a request by the ER.
- The Contractor shall be required to prepare Method Statements for several specific construction activities and/or environmental management aspects. The Contractor shall not commence the activity for which a Method Statement is required until ER has approved the relevant Method Statement.

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- Method Statements must be submitted at least 20 working days prior to date on which approval is required to the ER.
- The ER must in turn accept or reject the Method Statement within 10 working days of receipt.
- Failure to submit a Method Statement may result in suspension of the activity concerned until such time as a Method Statement has been submitted and approved.
- An approved Method Statement shall not absolve the Contractor from any of his obligations or responsibilities in terms of the contract. However, any damage caused to the environment through activities undertaken without an approved Method Statement shall be rehabilitated at the Contractor's expense.

The Method Statements shall cover relevant details with regard to:

- Construction procedures and location of the construction camp
- Start date and duration of the procedure;
- Materials, equipment and labour to be used;
- How materials, equipment and labour would be moved to and from the site as well as on site during construction;
- Storage, removal and subsequent handling of all materials, excess materials and waste materials of the procedure;
- Emergency procedures in case of any reasonably potential accident/incident which would occur during the procedure; and
- Compliance/non-compliance with the EMPr specifications and motivation if non-compliant.

Method Statements (MS) required:

Based on the specifications in this EMPr, the following Method Statements (MS) are required as a minimum:

- **MS1:** Site layout and establishment
- **MS2:** Site Clearing
- **MS3:** Topsoil removal and stockpiling
- **MS4:** Handling, storage and disposal of hazardous substances (if applicable)
- **MS5:** Waste management
- **MS6:** Soil erosion control
- **MS7:** Stormwater management

3.1.5 SITE DOCUMENTATION

The following documentation must be kept on site during construction:

- EMPr;
- Environmental Authorization;
- Licenses/permits related to any other legislation;
- Specialist rehabilitation plans;
- Storm Water Management Plan;
- Environmental Method statements compiled by the Contractor;
- Non-conformance Reports;

Environmental register, which must include the following, but not limited to such:

- Monitoring Results – including environmental monitoring reports, register of audits, Non-Conformance Reports (NCR); and
- Incident book – including copies of notification of Emergencies and Incidents, this must be accompanied by a photographic record.
- Safe disposal certificate for all types of waste disposed off-site;
- Environmental training records; Waste disposal receipts from a registered landfill site;
- Material Safety Data Sheets for all hazardous substances (MSDS);
- Method Statements; and
- Notification of Emergencies and Incidents.

3.1.6 COMPLAINTS REGISTER (APPENDIX A)

- Contain environmental complaints and correspondence received from the public to the Contractor;
- Nature of complaint;
- Cause of complaint;
- Party/parties in responsible for complaint;
- Immediate actions undertaken to stop/reduce/contain the causes of the complaint;
- Additional corrective or remedial action taken and/or to be taken to address and to prevent reoccurrence of the complaint;
- Timeframes and the parties responsible for the implementation of the corrective or remedial actions.

3.1.7 ENVIRONMENTAL INCIDENTS REGISTER (APPENDIX B)

The Contractor will ensure that the following information is recorded for all complaints/incidents:

- Nature of complaint/incident;
- Causes of complaint/incident;
- Party/parties responsible for causing complaint/incident;
- Immediate actions undertaken to stop/reduce/contain the causes of the complaint/incident;
- Additional corrective or remedial action taken and/or to be taken to address and to prevent reoccurrence of the complaint/incident;
- Timeframes and the parties responsible for the implementation of the corrective or remedial actions;
- Procedures to be undertaken and/or penalties to be applied if corrective or remedial actions are not implemented; and
- Copies of all correspondence received regarding complaints/incidents.
- The above records will form an integral part of the Contractors' Records. These records will be kept with the EMP.

3.1.8 NON-CONFORMANCE REPORT

A Non-Conformance Report will be issued to the Contractor as a final step towards rectifying a failure in complying with a requirement of the EMP. This will be issued by the ECO to the Contractor in writing. Preceding the issuing of an NCR, the Contractor must be given an opportunity to rectify the non-conformance issues.

Should the ECO assess an incident or issue and find it to be significant (e.g. non-repairable damage to the environment), it will be reported to the relevant authorities and immediately escalated to the level of a NCR. The following information should be recorded in the NCR:

- Details of non-conformance;
- Any plant or equipment involved;
- Any chemicals or hazardous substances involved;
- Work procedures not followed;
- Any other physical aspects;
- Nature of the risk;

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- Actions agreed to by all parties following consultation to adequately address the non-conformance in terms of specific control measures and should take the hierarchy of controls into account;
- Agreed timeframe by which the actions documented in the NCR must be carried out; and
- ECO should verify that the agreed actions have taken place by the agreed completion date, when completed satisfactorily; the ECO and Contractor should sign the Close-Out portion of the Non- Conformance Form and file it with the contract documentation.

3.1.9 ENVIRONMENTAL EMERGENCY RESPONSE

The Contractor's environmental emergency procedures must ensure appropriate responses to unexpected / accidental actions / incidents that could cause environmental impacts. Such incidents may include:

- Accidental discharges to water (i.e. into the watercourse) and land;
- Accidental spillage of hazardous substances (typically oil, petrol, and diesel);
- Accidental toxic emissions into the air; and
- Specific environmental and ecosystem effects from accidental releases or incidents.

The Environmental Emergency Response Plan is separate to the Health and Safety Plan as it is aimed at responding specifically to environmental incidents and must ensure and include the following:

- Construction employees shall be adequately trained in terms of incidents and emergency situations;
- Details of the organization (i.e. manpower) and responsibilities, accountability, and liability of personnel;
- A list of key personnel and contact numbers;
- Details of emergency services (e.g. the fire department / on-site fire detail, spill clean-up services) shall be listed;
- Internal and external communication plans, including prescribed reporting procedures;
- Actions to be taken in the event of different types of emergencies;
- Incident recording, progress reporting and remediation measures to be implemented; and
- Information on hazardous materials, including the potential impact associated with each, and measures to be taken in the event of accidental release.
- The Contractor and their Sub-Contractor(s) must comply with the environmental emergency preparedness and incident and accident-reporting requirements as per the relevant legal requirements.

3.1.10 METHOD STATEMENTS

It is a statutory requirement to ensure the wellbeing of employees and the environment. To allow the mitigation measures in this document to be implemented, task-specific method statements should be developed for each set of tasks. A Method Statement details how and when a process will be carried out, detailing possible dangers/risks, and the methods of control required.

- Type of construction activity;
- Timing and location of the activity;
- Construction procedures;
- Materials and equipment to be used;
- Transportation of the equipment to / from site;
- How equipment/material will be moved while on site;
- Location and extent of construction site office and storage areas;
- Identification of impacts that might result from the construction activity;
- Methodology and/or specifications for impact prevention / containment;
- Methodology for environmental monitoring;
- Emergency/disaster incident and reaction procedures (required to be demonstrated); and
- Rehabilitation procedures and continued maintenance of the impacted environment.

The Contractor will be accountable for all actions taken in non-compliance of the approved Method Statements. As a minimum, the following Method Statements are required to be generated:

- Bunding; Blasting;
- Construction site and office/yard establishment;
- Cement mixing / concrete batching/bentonite mixing;
- Contaminated water; Dust management;
- Environmental awareness course(s);
- Environmental monitoring; Erosion control;
- Fire, hazardous and/or poisonous substances including their storage;
- Personnel, public and animal safety;
- Rehabilitation of modified environment(s);
- Solid and liquid waste management;
- Sources of materials (including MSDSs);
- Top-soil management;
- Storm water Management.

3.2 SPECIALIST RECOMMENDATIONS

SPECIALIST STUDIES UNDERTAKEN AS PART OF THE BASIC ASSESSMENT APPLICATION

All the specialist studies undertaken are tabulated below, for the ease of reference.

NAME	COMPANY	EXPERTISE
Rowena Harrison	Malachite Ecological Services	Wetland Specialist
Craig Harrison	Malachite Ecological Services	Vegetation Specialist
Frans Prins	Active Heritage CC	Heritage impact specialist
Amit Ramjee	Geo element	Geotechnical Study

3.2.1 GEOTECHNICAL INVESTIGATION

The site for the proposed sewer reticulation system and pumping station is the town of Ibisi as a whole, located in Southern KwaZulu-Natal, positioned approximately 23km south of Umzimkulu and 69km east of Kokstad. Due to the site being relatively large and encompassing the entire town of Ibisi, the testing positions were set out in a manner that would provide a general overview of the site as a whole, therefore, due to the varying locations, a brief site description for each of the testing locations were noted.

The results of the fieldwork indicate that the site is underlain by topsoil, alluvial sediments, residual shale and shale rock.

No groundwater seepage was encountered in any of the test pits excavated on site. However, during periods of prolonged rainfall, a marked increase in the occurrence and magnitude of groundwater seepage flow can be anticipated. Perched groundwater flows at the soil / rock interface are likely to become more prolific in the rainy months

3.2.1.1 RECOMMENDATIONS

The site investigation showed that the materials found at the site comprise of mainly clays, silts, gravels and shale rock. Criteria is given in SABS 1200LB in order to check if excavated material can be used as selected granular material or selected fill material. It was unlikely that the excavated material on site would meet any of the criteria required in SABS 1200LB since it comprised of mainly silts and clays with gravel. Samples that were chosen for testing were based on their possibility of being used as general fills. From the results of the laboratory tests provided in Table 2 above, the materials encountered beneath the site was found to be unsuitable for pipeline construction as predicted.

Material required for use as selected granular material and selected fill material for the pipeline trenches will need to be imported. The light brown sandy clayey GRAVEL classified as a G10 while the reddish blackish brown sandy clayey GRAVEL classified as a G8. Both materials were rated as a good subgrade and may be used as general fill material. It must be noted that the material found on site contained clayey zones which should be removed to spoil when they are encountered. Material found on site may be sieved and mixed in proportions with better quality imported material to save costs.

3.2.1.2 EXCAVATION REQUIREMENTS

The excavation requirements for the materials encountered have been classified according to SABS1200DA. The DPL tests carried out on site all refused on either very dense material, stiff to hard material cobbles/boulders or rock. The refusal of the DPL's were somewhat erratic and sometimes high blow counts were recorded where it is anticipated that the DPL's penetrated through cobbles/boulders. All the TP's carried out where dug using a TLB and penetrated to a deeper depth when compared to the DPL's carried out in each of their vicinities.

3.2.2 CULTURAL HERITAGE IMPACT ASSESSMENT

This study aims to identify and assess the significance of any heritage and archaeological resources occurring on or adjacent to the proposed sewer reticulation area. Based on the significance, the impact of the development on the heritage resources will be determined and appropriate actions to reduce the impact on the heritage resources put forward.

The proposed development site has been disturbed by overgrazing and small-scale subsistence farming activities in the past. The rural homesteads in the area may also mask heritage sites or features. However, no disturbance of any potential heritage features was noted.

The proposed Ibisi Reticulation Project transects the actual Ibisi Village and is situated on the west bank of the R 56. The Bisi River is located to the north of the proposed development. There is no evidence for any heritage site, feature, or artefact associated with the actual footprint. The area does not form part of any known cultural landscape.

The old Bisi Bridge and iBisi Cemetery occurs to the immediate north of the footprint at GPS coordinates S 30 24' 14.36" E 29 3' 40.77" and S 30 24' 7.72" E 29 3' 37.41" respectively. Both these heritage sites are situated more than 100m from the proposed Sewer Reticulation Scheme. They are not threatened by the proposed development and there is no need for any mitigation.

3.2.2.1 DESKTOP PALAEOLOGY ASSESSMENT

The SAHRIS fossil sensitivity map indicates that the proposed Ibisi Sewer Reticulation Scheme falls within an area with a moderate fossil sensitivity. However, the footprint has been disturbed by the location of the present Ibisi Village that is actually transposed on top of the proposed development. Given the present circumstance it is the opinion of the consultant that no further paleontological studies will be required. However, should the developer encounter any fossil material then all excavation and ground shifting work must cease immediately and Amafa must be contacted for further advice.

3.2.2.2 RECOMMENDATIONS

The development of the proposed Ibisi Sewer Reticulation Scheme may proceed in terms of general heritage values as no heritage and archaeological sites are in any danger of being destroyed or altered. There is no need for mitigation. It should also be pointed out that the KwaZulu-Natal Heritage Act requires that operations exposing archaeological and historical residues as well as fossils should cease immediately pending an evaluation by the heritage authorities.

3.2.3 WETLAND IMPACT ASSESSMENT (MALACHITE ECOLOGICAL SERVICES, 2019)

Based on the current identification of the four wetland indicators, three HGM units were delineated within the assessment area. These were classified as one floodplain system (HGM 1) that is associated with the Bisi River and two seep systems (HGM 2 and HGM 3). Furthermore, an alluvial floodplain associated with the Bisi River was identified and delineated within the 500m assessment area. HGM 3, a seep system, was delineated within the 500m assessment area. This wetland system is situated approximately 430m from the proposed pipeline project. Furthermore, the flow direction of the seep does not intersect with the project. As HGM 3 is not discussed in detail as no direct or indirect impact will occur on this water resource.

HGM units 1 and 2 were assessed with regards to their health according to the Wet-Health methodology. Both HGM 1 (floodplain system) and HGM 2 (seep system) have been classified as Largely Modified (PES Category D). The catchments associated with both systems have been impacted by anthropogenic activity within the area including the development of Ibisi town and agricultural activities. The catchment of the floodplain is associated with Bisi River as well as runoff from the Ibisi town. Furthermore, a portion of the floodplain has been transformed and is utilised as sports and recreational area. A historic wastewater treatment works (WWTW), was also noted adjacent to the sports field. These impacts have led to the compaction of the duplex soils within the floodplain and the formation of small-scale erosion gullies were noted adjacent to this area. HGM 2 is situated on the western side of the study site.

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The catchment associated with this seep has been transformed through the planting of Eucalyptus trees, the development of Ibis town, the formation of erosion gullies and the draining of parts of the wetland. Ecosystem goods and services were calculated for both HGM units. Scores received were largely moderate for the provision of natural ecosystem services. Both systems are therefore considered functional. Generally, the wetland systems provide services associated with flood attenuation; streamflow regulation; filtration (phosphate, nitrate and toxicant trapping); the provision of natural resources and erosion control.

The proposed layout indicates that the pump station and rising main manhole will be located outside of this 20m buffer. One section of reticulation pipe will be laid within HGM 2. This pipe will be laid along an existing fence line in order to provide services to the associated houses. The pipe is not expected to significantly impact HGM 2.

Impacts associated with pipelines are generally related to the reduced depth of refusal and soil moisture inside the pipeline corridor. Further to this, the installation of pipelines has the potential to damage soil and vegetation associated with wetlands through the compaction of hydric soils, altering the hydrology of systems, reduction in plant diversity and facilitating encroachment of invasive alien species. The proposed project will only have a direct impact on a portion of HGM 2 and is not expected to have a direct impact on HGM 1, the floodplain system. The trunk sewer pipe, which traverses through HGM 1 has already been installed and does not form part of this project.

As such, impacts related to the wetland systems are largely indirect in nature. They are associated with soil erosion and sedimentation, the increase in the likelihood of pollution entering into the wetlands and the increase in alien invasive species as a result of the disturbance caused by the project. Direct impacts on a portion of HGM 2 (which has already been disturbed through the installation of a fence) are related to the loss of hydric soils within the pipeline servitude and further changes to the hydrological flow of the system at this point.

Impacts associated with the reticulation project received Low Risk Scores with impacts to the water resources and resource quality being small and easily mitigated. This is due to the majority of the project located outside of the 20m recommended buffer. The portion of HGM 2 that will be impacted is already disturbed and is small in nature compared to the size of HGM 2. The installation of a reticulation pipe within this area is not expected to have lasting negative impacts on the health and functional integrity of HGM 2. This is provided all mitigation measures recommended within this report are implemented.

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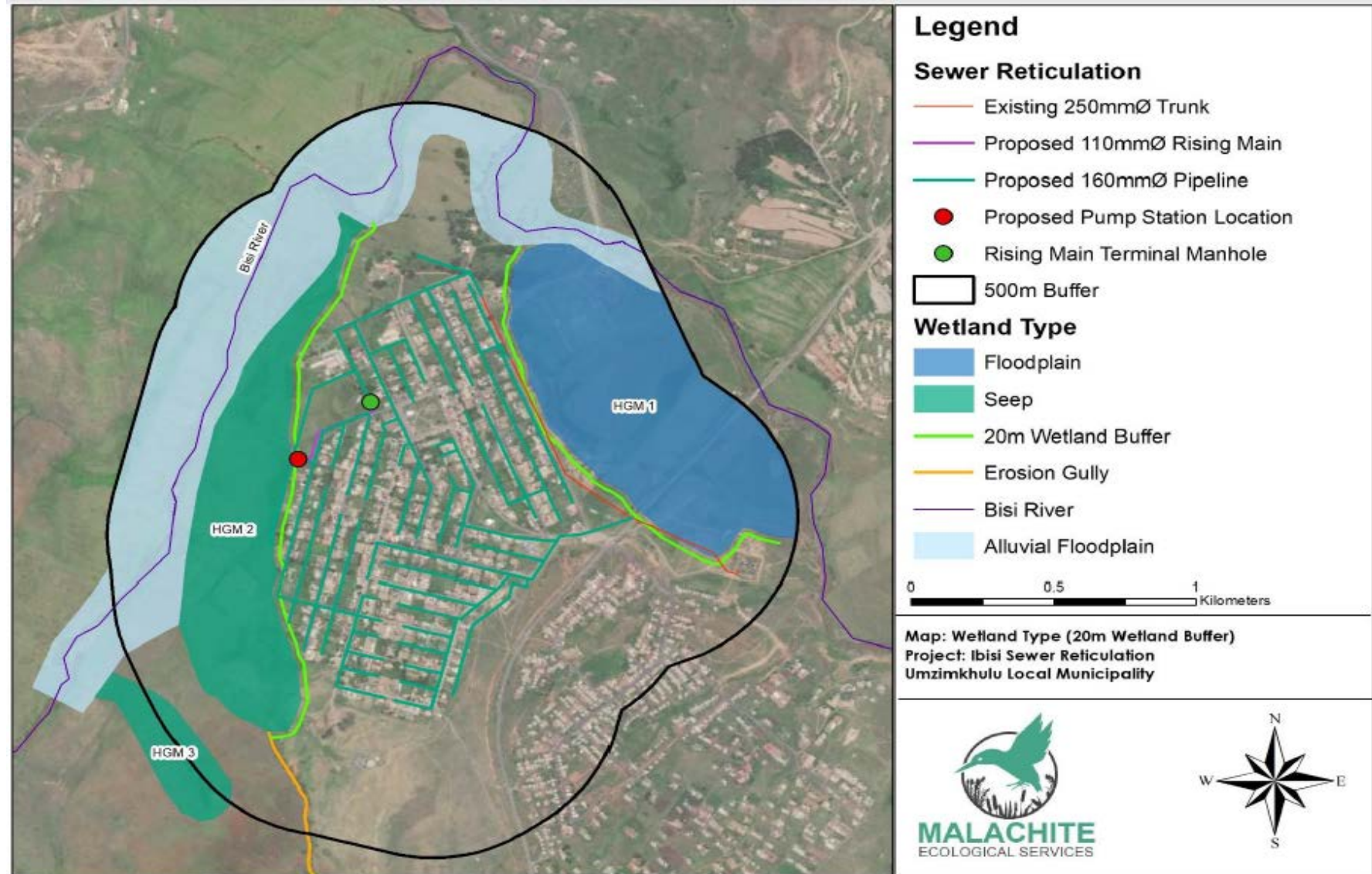


FIGURE 3: WETLAND DELINEATION MAP

SECTION 4: MITIGATION MEASURES AND ACTION

4.1 PRE-CONSTRUCTION PHASE

ENVIRONMENTAL ASPECT	ENVIRONMENTAL MEASURE/ ACTION PLAN	RESPONSIBILITY	MONITORING FREQUENCY
Project Design	- Pipeline routes must be designed in a way to minimise the impact on biologically sensitive area on site.	Engineer	Prior to construction
Monitoring Methods	- An ECO must be appointed to conduct environmental audits during construction and post-construction phase.	Project manager	Prior to construction
Site Clearing	<ul style="list-style-type: none"> - Ensure only the extent of disturbed land is demarcated for construction. - A site plan must be prepared indicating areas to be cleared. The site plan must be submitted and approved by the ECO. - Ensure all landowners consent and permission to occupy are signed and form part of the site documentation. 	ESO, Contractor, CLO	Prior to construction & prior to undertaking an activity requiring site clearing.
Notice to surrounding landowners	- The appointed environmental consultant must adhere to the public participation guideline in terms of National Environmental Management Act, 1998 Environmental Impact Assessment Regulations and inform all surrounding landowners of the proposed development.	EAP, CLO	Prior to construction
Education Environmental Awareness Training	- Ensure appropriate environmental awareness training is provided for site workers prior to commencement of the project.	Contractor, Project Manager, ECO, CLO	Prior to construction and part of tool box meetings. Must be on-going.

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ENVIRONMENTAL ASPECT	ENVIRONMENTAL MEASURE/ ACTION PLAN	RESPONSIBILITY	MONITORING FREQUENCY
Compliance with Environmental Permits & EMPr	<ul style="list-style-type: none"> - Monitor that the applicant is in compliance with the requirements, terms and conditions of all Environmental permits 	ECO	Monthly
Waste Management	<ul style="list-style-type: none"> - At on the onset of the project, bins or skips must be provided on site for the disposal of waste. - All waste to be temporarily stored within a demarcated area within the campsite. - All waste must be finally disposed of at a registered landfill site. - The landfill site must furnish the contractor with safe disposal certificates which must be kept in the on-site Environmental File. - The ECO must ensure that the waste disposal certificates are included in the Environmental File. 	ECO, ESO, Contractor	At the onset of the project & On-going
Establishing Storage Areas	<ul style="list-style-type: none"> - Spill kit must be on-site and easily accessible to all site workers. - Prior to commencement of construction activities, the development area must be demarcated. - Construction activities must be confined to the demarcated area. - No vehicles are to be permitted into the “no-go areas” such as the wetland and drainage lines. 	ECO, ESO, Contractor	At the onset of the project

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ENVIRONMENTAL ASPECT	ENVIRONMENTAL MEASURE/ ACTION PLAN	RESPONSIBILITY	MONITORING FREQUENCY
Establishing Storage Areas (Conti)	<ul style="list-style-type: none"> - These sensitive areas must be clearly marked, fenced and access restricted. - The contractor must consider all limitations identified and recommendations made during environmental studies. - Roads for access must be carefully planned and approved by the Engineer before construction activities begin. They must not be created on an ad-hoc basis. - No trees/ shrubs/ groundcover may be removed without the prior permission of the Engineer/ ECO. All established alien vegetation must be removed as per agreed alien eradication methods. - Before construction activities commence, the contractor must take "before" site photos. - The site photos must be included in the environmental file to be kept on site. 	ECO, ESO, Contractor	At the onset of the project

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ENVIRONMENTAL ASPECT	ENVIRONMENTAL MEASURE/ ACTION PLAN	RESPONSIBILITY	MONITORING FREQUENCY
Campsite Establishment	<ul style="list-style-type: none"> - A campsite plan showing layout of buildings and associated infrastructure must be developed and approved by the Engineer. - The camp must be sited in an area already disturbed and 100m away from any water courses. - The construction camp must not be situated on a floodplain or on slopes greater than 1:3m. - Vegetation and trees to be retained shall not be damaged or felled. - Accommodation of personnel is to include both kitchen and sanitary facilities. - Fires will only be allowed in facilities especially constructed for the purpose and no trees may be specifically felled for obtaining firewood. - Adequate ablution should be supplied to the site staff. These must be approved by the Engineer. Under no circumstances may open areas or surrounding bush be used as a toilet facility. - Regular inspections shall be carried out to ensure toilets are kept clean. - Construction vehicles are to be maintained in good working order, to reduce the probability of leakage of fuels and lubricants; - Vehicles used during the construction phase must be parked in a designated area and drip trays should be used to prevent any oil leaks; 	ECO, ESO, Contractor	At the onset of the project

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ENVIRONMENTAL ASPECT	ENVIRONMENTAL MEASURE/ ACTION PLAN	RESPONSIBILITY	MONITORING FREQUENCY
Hazardous Substances	<ul style="list-style-type: none"> - A walled concrete platform, dedicated store with adequate flooring or bermed area should be used to accommodate chemicals such as fuel, oil, paint, herbicide, and insecticides, as appropriate, in well-ventilated areas; - Storage of potentially hazardous materials should be above the current (i.e. not historic) 1:100-year flood line, or as agreed with the ECO. These materials include fuel, oil, cement, bitumen etc.; - Sufficient care must be taken when handling these materials to prevent pollution; 	ECO, ESO, Contractor	On-going

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4.2 CATEGORY B: CONSTRUCTION PHASE

4.2.1 BIOPHYSICAL IMPACTS

ENVIRONMENTAL ASPECT	ENVIRONMENTAL MEASURE/ ACTION PLAN	RESPONSIBILITY	MONITORING FREQUENCY
	IMPACTS ASSOCIATED WITH WATERCOURSES		
The removal of existing wetland vegetation	<ul style="list-style-type: none"> - Construction camps must be located outside of wetland and riparian systems. - Protect as much indigenous vegetation as possible. Remove invasive alien species where construction activities occur and replace with indigenous vegetation. This can form part of the rehabilitation plan for the pipeline route as the pipeline area must be rehabilitated with appropriate indigenous species as differing wetland systems are comprised of species adapted to the associated zones of saturation. - Sods of wetland plants will be stripped off and stockpiled at a suitable location. Where practical the sods may be stored in a mosaic on the undisturbed wetland area adjacent to the working servitude. - If any vegetation is present within disturbed areas, a rescue and storage operation of riparian and hydrophytic vegetation prior to construction must occur. This vegetation must be stored during the construction phase and replaced after construction in this area is completed. This must be conducted with input from a suitably qualified wetland ecologist or ECO. 	ECO, Project manager	Monthly

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ENVIRONMENTAL ASPECT	ENVIRONMENTAL MEASURE/ ACTION PLAN	RESPONSIBILITY	MONITORING FREQUENCY
	IMPACTS ASSOCIATED WITH WATERCOURSES		
The removal of existing wetland vegetation	<ul style="list-style-type: none"> - Rehabilitation must be aimed at improving the status and function of the ecosystem, i.e. through the removal of invasive alien species and the planting of indigenous species, as well as increasing the basal cover. 	ECO, Project manager	Monthly
Removal of natural vegetation	<ul style="list-style-type: none"> - An invasive alien management programme must be incorporated into the Environmental Management Programme. - Ongoing alien plant control must be undertaken along the pipeline route and particularly in the disturbed wetland areas. Areas which have been disturbed will be quickly colonised by invasive alien species. An ongoing management plan must be implemented for the clearing/eradication of alien species. - Monitor all sites disturbed by construction activities for colonisation by exotics or invasive plants and control these as they emerge. This requirement is in fulfilment of the terms of the National Environmental Management: Biodiversity Act. Areas which have been disturbed will be quickly colonised by invasive alien plant species. 	CO; ESO; ECO	Monthly
Soil Erosion, sedimentation and degradation within the wetland.	<ul style="list-style-type: none"> - The pipeline must be buried at a sufficient depth so that it does not interfere with surface water movement leading to erosion. - Use existing tracks and roads to gain access to the work servitude as much as possible. 	CO; ESO; ECO	Daily/ Weekly

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ENVIRONMENTAL ASPECT	ENVIRONMENTAL MEASURE/ ACTION PLAN	RESPONSIBILITY	MONITORING FREQUENCY
	IMPACTS ASSOCIATED WITH WATERCOURSES		
Soil Erosion, sedimentation and degradation (Conti)	<ul style="list-style-type: none"> - Excavated soils must be stockpiled on the upslope side of the excavated trench so that eroded sediments off the stockpile are washed back into the trench. When soil is excavated for the pipeline trench, the topsoil and subsoil must be separated. In the event of infilling, replacement of subsoil must precede the topsoil replacement, and all material must be well compacted. - In the event of infilling, replacement of subsoil must precede the topsoil replacement, and all material must be well compacted. - No stockpiling of any materials may take place within or directly adjacent to the wetland systems or channels. - Erosion control measures must be implemented in areas sensitive to erosion such as near water supply points, edges of slopes, etc. These measures include but are not limited to - sand bags, hessian sheets, silt fences, retention or replacement of vegetation and geotextiles such as soil cells which must be used in the protection of slopes. - Install sediment barriers across the entire construction right of way at all wetland crossings where necessary to prevent sediment flow into the wetland. 	CO; ESO; ECO	Daily/ Weekly

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ENVIRONMENTAL ASPECT	ENVIRONMENTAL MEASURE/ ACTION PLAN	RESPONSIBILITY	MONITORING FREQUENCY
	IMPACTS ASSOCIATED WITH WATERCOURSES		
Soil Erosion, sedimentation and degradation (Conti)	<ul style="list-style-type: none"> - Do not dig the pipeline trench during a storm event and install the pipeline within HGM 2 during a dry period. This will reduce sediment movement and allow for quicker rehabilitation of the area. - Disturbed sites must be rehabilitated as soon as construction in an area is complete or near complete and not left until the end of the project to be rehabilitated. - Vegetation clearing must be undertaken only in the areas to be affected and must not extend outside of the pipeline footprint. Furthermore, vegetation clearing should be confined to the dry season to avoid high rainfalls transporting unsecured sediments down slope. Cleared areas must be rehabilitated within 2 weeks of initial clearing occurring. Vegetation clearing must be limited to the trench width within wetland areas. - Use vehicular digging in wetland areas only where this is deemed absolutely necessary by the ECO. Manual digging must be the preferred option and working during the winter months will reduce soil erosion potential in disturbed areas. - There shall be no mining of soil/sand required for construction purposes from the banks of channels and wetland areas. Soil must be brought in, if needed, for construction purposes. This soil must also be stockpiled away from the watercourses' and wetland's edge and areas must be demarcated. 	CO; ESO; ECO	Daily/ Weekly

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ENVIRONMENTAL ASPECT	ENVIRONMENTAL MEASURE/ ACTION PLAN	RESPONSIBILITY	MONITORING FREQUENCY
	IMPACTS ASSOCIATED WITH WATERCOURSES		
Pollution of water resources and soil	<ul style="list-style-type: none"> - All waste generated during construction is to be disposed of as per an Environmental Management Programme (EMPr) and washing of containers, wheelbarrows, spades, picks or any other equipment that has been contaminated with cement or chemicals adjacent to or within the wetland systems or drainage channels (including the spring canals) must be strictly prohibited. 	CO; ESO	Daily/ Weekly
	<ul style="list-style-type: none"> - Proper management and disposal of construction waste must occur during the construction of the development. 	ECO	Monthly
	<ul style="list-style-type: none"> - No release of any substance i.e. cement, oil, that could be toxic to fauna or faunal habitats. Excess wet cement and/ or concrete must not be allowed to enter any wetland or watercourse. There may be concrete poured in water courses for encasement of pipelines. 	CO; ESO	Daily/ Weekly
	<ul style="list-style-type: none"> - No re-fuelling or fuel storage must be allowed within 50m of water bodies or wetland areas. - Portable toilets must be placed outside of the 1:100-year flood line of streams/drainage lines or 30m away from the temporary boundary of the wetland. - Do not locate the construction camp or any depot for any substance which causes or is likely to cause pollution within a distance of 100m of the wetlands/watercourses. 	ECO	Monthly

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ENVIRONMENTAL ASPECT	ENVIRONMENTAL MEASURE/ ACTION PLAN	RESPONSIBILITY	MONITORING FREQUENCY
	IMPACTS ASSOCIATED WITH WATERCOURSES		
Pollution of water resources and soil (Conti)	<ul style="list-style-type: none"> - Spillages of fuels, oils and other potentially harmful chemicals must be cleaned up immediately and contaminants properly drained and disposed of using proper solid/hazardous waste facilities (not to be disposed of within the natural environment). Any contaminated soil must be removed and the affected area rehabilitated immediately consult with a wetland/aquatic specialist if spills occur. - All surplus materials must be removed from any impacted wetland and watercourse to preserve water quality and avoid sedimentation of downstream habitats. 		
Impeding or diverting the flow of water within the watercourse	<p>Pipelines crossing riparian tributaries need to be able to withstand the flows, and offer the minimum impediment to water flow into the main drainage line.</p> <p><u>ENVIRONMENTAL CONSIDERATIONS: WATERCOURSE CROSSINGS & CONSTRUCTION IN RIPARIAN ZONES:</u></p> <p>The following should be considered for these construction activities relating to minimizing footprint:</p> <ul style="list-style-type: none"> o Areas earmarked for construction must be clearly and visibly marked to ensure a controlled disturbance footprint area. o The construction corridor will be restricted to 10m. o Minimize size of construction; work area should be as narrow as possible. 	CO; ESO	Daily/ Weekly
		ECO	Monthly

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ENVIRONMENTAL ASPECT	ENVIRONMENTAL MEASURE/ ACTION PLAN	RESPONSIBILITY	MONITORING FREQUENCY
	IMPACTS ASSOCIATED WITH WATERCOURSES		
Impeding or diverting the flow of water within the watercourse (Conti)	<ul style="list-style-type: none"> ○ Barricade entire work area to ensure no works, plant or access ways fall outside of works area; used netting as a boundary marker. ○ Avoid unnecessary traversing of the wetlands in undesignated areas during construction. ○ Sequence and duration of project should be such that actual construction within wetlands should be limited to the low flow periods outside of the rain season 	CO; ESO	Daily/ Weekly
	<p>Relating to concrete works:</p> <ul style="list-style-type: none"> ○ All mixing of concrete must occur outside of the riparian zone. A minimum distance of 32m for concrete mixing must be adhered to at all times. ○ Concrete mixing must take place on an impermeable surface and not directly on the ground. ○ Runoff from the concrete mixing must be controlled and none must enter the watercourse. ○ All evidence of concrete mixing must be removed as waste from site. ○ Materials for concrete mixing are to be stored, as a minimum, 32m away from the water course. 	ECO	Monthly

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ENVIRONMENTAL ASPECT	ENVIRONMENTAL MEASURE/ ACTION PLAN	RESPONSIBILITY	MONITORING FREQUENCY
	IMPACTS ASSOCIATED WITH WATERCOURSES		
Impeding or diverting the flow of water within the watercourse (Conti)	<p>Relating to pollution control:</p> <ul style="list-style-type: none"> ○ Ensure that no pollution enters surface water or has the potential to pollute groundwater by ensuring that there is containment of spillages (examples include: diesel, oils etc.). ○ No hazardous materials are to be stored within 32m of the watercourse. ○ No re-fueling of plant is to be undertaken within 32m of watercourse. ○ No washing of planting/vehicles must take place near river. ○ Drip trays must be utilized for all stationary plant. 	CO; ESO	Daily/ Weekly
	<p>Relating to erosion and sedimentation control:</p> <ul style="list-style-type: none"> - Trenches and foundations will be side dug (where possible) from existing access routes. In absence of access routes, temporary routes may be considered. - The soils will be removed in layers in such a way that they can be easily reinstated in the reverse order as detailed below. - To ensure correct backfilling, the soil that is removed from the trench at its deepest point will laid closest to the trench. - The first layer of topsoil will be laid furthest away from the trench. 	ECO	Monthly

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ENVIRONMENTAL ASPECT	ENVIRONMENTAL MEASURE/ ACTION PLAN	RESPONSIBILITY	MONITORING FREQUENCY
	IMPACTS ASSOCIATED WITH WATERCOURSES		
Impeding or diverting the flow of water within the watercourse (Conti)	<ul style="list-style-type: none"> - Water from any diversions/ dewatering/ outlets will be disposed of in such a way that the erosive force of the water in the outlets is dissipated and erosion does not occur at the outlet discharge point(s). - The channels at the inlet and outlet of any diversions/ flowing river will be protected from erosion by sand bags, berms, gabions etc. - All banks must be protected, and ensure erosion does not occur. - Adequate storm-water management and soil stabilization measures in cleared areas must be implemented to avoid erosion that may lead to siltation of nearby watercourses. Where necessary erect water control berms and sedimentation trapping berms to prevent impacts due to surface runoff. - Any diversions and dewatering is to include erosion and soil stabilization measures, particularly the inlet and outlet of said works. 	CO; ESO	Daily/ Weekly
Altering the beds, banks, or characteristics of the watercourse	<p>Relating to working at the watercourse crossings (Wetland Rehabilitation Plan)</p> <ul style="list-style-type: none"> – The pre-construction profile must be restored, and the banks must not be steeper than at pre- construction; – The pre-construction gradient of the drainage line must be reinstated as accurately as possible, without humping or hollowing over the Construction Right of Way so as to limit 	CO; ESO	Daily/ Weekly

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ENVIRONMENTAL ASPECT	ENVIRONMENTAL MEASURE/ ACTION PLAN	RESPONSIBILITY	MONITORING FREQUENCY
	IMPACTS ASSOCIATED WITH WATERCOURSES		
Altering the beds, banks, or characteristics of the watercourse (Conti)	<p>erosion or replaced material</p> <ul style="list-style-type: none"> Where trenching operations occur within the wetland, the trench must be dug to be as narrow as possible. The soils will be removed in such a way that they can be easily reinstated in the reverse order as detailed below. Bedding (granular material) serves as a layer between the pipe and the underlying material. Geotechnical investigation report to indicate suitability of in-situ material for bedding; if unsuitable commercially sourced bedding material to be imported to site. Where the pipe is to be placed underneath paved areas or tarred roads, material is only to be excavated to the exact width of the pipe trench and this material will be stored separately from other excavated materials. 	CO; ESO	Daily/ Weekly
	<p>Backfilling and compaction:</p> <ul style="list-style-type: none"> Backfilling is completed once the pipeline has been laid successfully. The trench must be filled with suitable subsoil material and compacted to specified value with machinery, and topsoil must be replaced thereafter. Leftover material (spoil) must be removed from site to a registered landfill or alternative suitable sites which have been vetted for spoil acceptance. 	ECO	Monthly

DRAFT ENVIRONMENTAL MANAGEMENT PLAN – IBISI SEWER RETICULATION

ENVIRONMENTAL ASPECT	ENVIRONMENTAL MEASURE/ ACTION PLAN	RESPONSIBILITY	MONITORING FREQUENCY
	IMPACT ASSOCIATED WITH SOIL AND EARTHWORKS		
Soil disturbance from the earthworks	<p>Construction of fills and cuts</p> <ul style="list-style-type: none"> - No major earthworks are required to create level building platforms for the proposed new structures. It is recommended that all earthworks be carried out in accordance with SABS 1200. In general, it is recommended that any cut and fill embankments required have a maximum slope of 1 vertical to 1.7 horizontal to promote stability. Fills should be benched into the in situ residual soils. The benches should be approximately 2.0 m to 4.0 m wide and at least 1.0 m to 2.0 m deep. The need for subsoil drainage both beneath and in fills will have to be assessed during the earthworks, taking into account the height and locality of individual fills. - The in-situ materials on this site generally comprise variations of sands and silty to clayey sands. These materials generally classify as G7 to G10 quality and can possibly be used as general fill. The fills should be placed in layers not exceeding 200 mm loose thickness, and compacted to a minimum of 95% Modified AASHTO maximum dry density. Boulders larger than 2/3 of the layer thickness must be spoiled. - Both during and after construction, the site should be well graded to permit water to drain readily away and to prevent ponding of water anywhere on the ground surface. All terraces and earthworks in general should be sloped to a gradient of not less than 1 vertical in 50 horizontals to prevent ponding and ingress of water into the subsoils. 	ECO/Contractor	Monthly

DRAFT ENVIRONMENTAL MANAGEMENT PLAN – IBISI SEWER RETICULATION

ENVIRONMENTAL ASPECT	ENVIRONMENTAL MEASURE/ ACTION PLAN	RESPONSIBILITY	MONITORING FREQUENCY
	IMPACT ASSOCIATED WITH SOIL AND EARTHWORKS		
Soil disturbance from the earthworks (Continued from the previous page...)	Surface drainage should be directed away from the crests of fill and cut embankments to prevent over-topping and erosion of the slopes.	CO; ESO	Daily/ Weekly
	<ul style="list-style-type: none"> - Cut and fill slopes should be topsoiled and planted with grass with deep root systems such as vetiver. This will limit erosion of these slopes and the problems associated with washaways of fill embankments. - The following procedure should be observed with regard to founding and construction: - Remove in situ material below foundations to a depth and width of 1.5 times the foundation width or to a competent horizon and replace with suitable granular material compacted to 93% MOD AASHTO density at -1% to +2% of optimum moisture content. - Normal construction with lightly reinforced strip foundation and light reinforcement in masonry. 	ECO	Monthly

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ENVIRONMENTAL ASPECT	ENVIRONMENTAL MEASURE/ ACTION PLAN	RESPONSIBILITY	MONITORING FREQUENCY
	IMPACT ASSOCIATED WITH WASTE AND HAZARDOUS MATERIALS		
Handling of hazardous materials, solid waste & stockpiling	<ul style="list-style-type: none"> - Spill kits are to be provided on site during all works to ensure that any spills are contained and managed appropriately. Regular monitoring of the site to ensure environmental safeguards are in place should be carried out as an ongoing task. 	CO; ESO	Daily/ Weekly
	<ul style="list-style-type: none"> - The construction contractor will be required to implement measures to be addressed the above as part of their environmental management plan for the weeks. - In line with the Environmental Best Specifications: Construction, for construction sites. Infrastructure upgrades and Maintenance Works, Edition 3, February 2005, some of the important elements during the construction phase are highlighted below. - Stockpiling: <ul style="list-style-type: none"> – Topsoil stripped from the working servitude must be stored away from the working servitude and suitably protected from washout and compaction through soil retention curtains and sandbags where necessary; to retain the functionality of the wetland uppermost stratum. – If the stockpile material is in danger being washed away or blown away, Contactor must spray it with Duster or cover it with suitable material such as plastic or Hessian. 	ECO	Monthly

DRAFT ENVIRONMENTAL MANAGEMENT PLAN – IBISI SEWER RETICULATION

ENVIRONMENTAL ASPECT	ENVIRONMENTAL MEASURE/ ACTION PLAN	RESPONSIBILITY	MONITORING FREQUENCY
	IMPACT ASSOCIATED WITH WASTE AND HAZARDOUS MATERIALS		
Handling of hazardous materials, solid waste & stockpiling (Continued from previous page...)	Solid Waste Management: <ul style="list-style-type: none"> No on-site dumping of waste materials, litter or refuse must occur, as these could be washed into the stormwater drains. 	CO; ESO	Daily/ Weekly
	Hazardous Substance: <ul style="list-style-type: none"> If potential hazardous materials are to be stored on site, the contractor must submit a method statement to the Engineer detailing the substances/ materials to be used, together with the transport, storage, handling and disposal procedures for the substances. Contaminated Water: <ul style="list-style-type: none"> Water containing pollutants such as chemicals, washing detergents, sewerage, fuels, paints and solvents and hydrocarbons must be contained and discharged into an impermeable storage facility for removal from site. This particularly applies to runoff from fuel depots/ workshops/ truck washing areas. Cement and concrete batching: <ul style="list-style-type: none"> Cement must not be mixed directly on the ground The concrete batching works must be kept neat and clean at all times. Unused cement bags are to be stored so as not to be affected by rain or runoff events. 	ECO	Monthly

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ENVIRONMENTAL ASPECT	ENVIRONMENTAL MEASURE/ ACTION PLAN	RESPONSIBILITY	MONITORING FREQUENCY
	IMPACT ASSOCIATED WITH WASTE AND HAZARDOUS MATERIALS		
Handling of hazardous materials, solid waste & stockpiling (Continued from previous page...)	<ul style="list-style-type: none"> – All visible remains of excess concrete must be physically removed on completion of plaster or concrete work and disposed at an approved disposal site. All excess aggregate and sand shall also be removed. – Wet cement and/ or concrete will not be allowed to enter any watercourse, pond or ditch; this refers to excess concrete. There may be concrete poured in water courses for encasement of pipelines 	CO; ESO	Daily/ Weekly
	<p>Fuels and oil storage:</p> <ul style="list-style-type: none"> - Fuels and oil storage areas must be at least 100m away from any drainage system inlets. Tanks onsite shall not be linked or joined via pipe work, but need to remain separate entities. Tanks shall be situated on a smooth impermeable base with a bund. Tanks and bunded areas are required to be covered to prevent filling up with rain water. 	ECO	Monthly

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ENVIRONMENTAL ASPECT	ENVIRONMENTAL MEASURE/ ACTION PLAN	RESPONSIBILITY	MONITORING FREQUENCY
	IMPACT ASSOCIATED WITH FLORA AND FAUNA		
Alien invasive species encroachment	<ul style="list-style-type: none"> - Ongoing alien plant control must be undertaken along the pipeline route and particularly in the disturbed wetland areas. Areas which have been disturbed will be quickly colonised by invasive alien species. An ongoing management plan must be implemented for the clearing/eradication of alien species. 	CO; ESO	Daily/ Weekly
	<ul style="list-style-type: none"> - Monitor all sites disturbed by construction activities for colonization by exotics or invasive plants and control these as they emerge. This requirement is in fulfilment of the terms of the National Environmental Management: Biodiversity Act (Act 10 of 2004). Areas which have been disturbed will be quickly colonized by invasive alien plant species. - The clearing of vegetation, during the construction phase, must be kept to a minimum. - During the construction phase, workers must be limited to areas under construction and access to the undeveloped areas must be strictly controlled. - Harvesting and collection of any flora must be strictly prohibited - Disturbed areas must be rehabilitated immediately after construction has been completed in that area by planting appropriate indigenous plant species. 	ECO	Monthly

DRAFT ENVIRONMENTAL MANAGEMENT PLAN – IBISI SEWER RETICULATION

ENVIRONMENTAL ASPECT	ENVIRONMENTAL MEASURE/ ACTION PLAN	RESPONSIBILITY	MONITORING FREQUENCY
	IMPACT ASSOCIATED WITH FLORA AND FAUNA		
Alien invasive species encroachment (Continued from previous page...)	<ul style="list-style-type: none"> - Areas that have been disturbed during construction should be rehabilitated with species naturally occurring in the study area, and the disturbed areas should be monitored quarterly to detect any alien plant species. 	CO; ESO	Daily/ Weekly
	Preparing area to be revegetated: <ul style="list-style-type: none"> o Replacing of topsoil o Adding fertilizer, applying seeds or grass sods, mulching (if necessary) o Protecting the revegetated area o Maintaining the revegetated area until the vegetation has established <ul style="list-style-type: none"> - No snaring or hunting will be allowed on or around the site. - Vegetation clearing must be undertaken only in the areas to be developed and must not extend outside of the development footprint. - At the end of the construction phase, the site must be fully re-vegetated to match as closely as possible to the pre-construction conditions. Requirements for an effective Alien Vegetation Control Programme	ECO	Monthly

DRAFT ENVIRONMENTAL MANAGEMENT PLAN – IBISI SEWER RETICULATION

ENVIRONMENTAL ASPECT	ENVIRONMENTAL MEASURE/ ACTION PLAN	RESPONSIBILITY	MONITORING FREQUENCY
	IMPACT ASSOCIATED WITH FLORA AND FAUNA		
Alien invasive species encroachment (Continued from previous page...)	<ul style="list-style-type: none"> - Identify the problem: extent, location and species problem plants 	CO; ESO	Daily/ Weekly
	<ul style="list-style-type: none"> - Identify any sensitive ecosystems, rare or endangered plants, etc. which may be affected by a control programme. Identify the original ecosystem applicable to the area. The method of control will be influenced by the type of vegetation to which the area must revert; - Identify an appropriate control method: mechanical or chemical, type of herbicide, application etc. (Mechanical methods are preferred, compared to chemical methods). The preferred method will be influenced by a variety of factors including applications, sensitivity of the site, species to be controlled and age of the plant. Further to this, the financial implications of the selected method of treatment must be considered to ensure the effective clearing of the site. - Consideration must be given to both the topography of the site and the connectivity of the water resources transport pollutants into downstream habitats, only the use of herbicides approved for use in wetland systems are to be considered. - Make provision for a number of follow up operations. The initial clearing operation is only part of the total programme. Failure to follow up will result in a failure of the entire programme. 	ECO	Monthly

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ENVIRONMENTAL ASPECT	ENVIRONMENTAL MEASURE/ ACTION PLAN	RESPONSIBILITY	MONITORING FREQUENCY
	IMPACT ASSOCIATED WITH FLORA AND FAUNA		
<p>Alien invasive species encroachment (Continued from previous page...)</p>	<ul style="list-style-type: none"> - Recommended methods of control associated with the age and size of target plants are detailed below - <u>Seedlings and saplings</u> - Hand pulling or hoeing: hand pulling, and hoeing are most suited where sparse stands under conditions where seedlings are easily removed from the soil. Seedlings should be severed below the soil surface or removed from the soil. Soil disturbance must be minimized to reduce re-germination. - Foliar applications: spraying of herbicides can be carried out in dense stands or open stands. The use of mist spraying however, is discouraged as this usually results in “drift” occurring and the dying off of non-targeted species. It is best to fit narrow and angle solid cone nozzles and a coarse droplet spray must be used on leaves and small cut stems. Ensure there is sufficient foliage to carry the applied herbicide to the root system. This method uses a sprayer to spray IAPs knee high or below. Leaves are sprayed to the point of run-off <p>Basal Stem Treatments: Application of suitable herbicides in diesel can be carried out to the bottom 250 mm of the stem. Again, applications should be by means of a low pressure,</p>	<p>CO; ESO</p> <p>ECO</p>	<p>Daily/ Weekly</p> <p>Monthly</p>

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ENVIRONMENTAL ASPECT	ENVIRONMENTAL MEASURE/ ACTION PLAN	RESPONSIBILITY	MONITORING FREQUENCY
	IMPACT ASSOCIATED WITH FLORA AND FAUNA		
	coarse droplet spray from a narrow angle solid cone nozzle.		

ENVIRONMENTAL ASPECT	ENVIRONMENTAL MEASURE/ ACTION PLAN	RESPONSIBILITY	MONITORING FREQUENCY
	IMPACT ASSOCIATED WITH POLLUTION		
Noise Pollution	The noise generated by construction activities will be temporary and limited to the construction phase of the project.	CO; ESO	Daily/ Weekly
	<ul style="list-style-type: none"> - Working hours must be limited to day light only i.e. 7:00/8:00 am – 16:00/17:00pm - No construction activities that may cause emissions is permitted during religious holidays and or public holidays - Noise related to the construction activities are to be scheduled to occur within prescribed normal working hours and must comply with the provisions of SABS 0400-1990 with respect to working hours. - Construction vehicles and machinery operating at the water treatment works should be fitted with the appropriate noise muffling devices and must be appropriately maintained so as to ensure that the machines and vehicles do not produce excessive noise disturbance. 	ECO	Monthly

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ENVIRONMENTAL ASPECT	ENVIRONMENTAL MEASURE/ ACTION PLAN	RESPONSIBILITY	MONITORING FREQUENCY
	IMPACT ASSOCIATED WITH POLLUTION		
Dust Emissions	<ul style="list-style-type: none"> - Machinery being used during construction must be shut off when not in use. - Any complaints about noise must be attended to in a reasonable manner and the ECO informed of the complaint. - A complaints register should be maintained, in which any complaints regarding noise are noted. - Emissions into the air can be minimised by ensuring regular maintenance of construction vehicles and equipment in order to reduce emission of exhaust fumes. - Use dust abatement techniques on unpaved, unvegetated surfaces to minimize airborne dust during earthmoving activities, prior to clearing, excavating, backfilling, compacting, or grading, and during blasting. - The application of best management practices for dust suppression will also aid in reducing air pollution. Dust control can be achieved by means of the periodic application of water to open sandy surfaces and to temporary dirt roads. - Loads could be covered to avoid loss of material in transport, especially if material is transported off site. - Dust and mud should be controlled at vehicle exit and entry points to prevent the dispersion of dust and mud beyond the site boundary. 	CO; ESO	Daily/ Weekly
		ECO	Monthly

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ENVIRONMENTAL ASPECT	ENVIRONMENTAL MEASURE/ ACTION PLAN	RESPONSIBILITY	MONITORING FREQUENCY
	IMPACT ASSOCIATED WITH POLLUTION		
Dust Emissions (Cont..)	<ul style="list-style-type: none"> - Facilities for the washing of vehicles should be provided at the entry and exit points. - A speed limit of 40 km/hr should be set for all vehicles travelling over exposed areas. - During the transfer of materials, drop heights should be minimised to control the dispersion of mater being transferred. - No construction activities that may cause emissions is permitted during religious holidays and or public holidays that in the opinion of the local authority may unreasonably disturb or interfere with the amenity of the neighborhood. - Always keep the number of handling operations to a minimum by ensuring that dusty material isn't moved or handled unnecessarily. 	CO; ESO	Daily/ Weekly

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CONSTRUCTION PHASE: SOCIAL ENVIRONMENT

ENVIRONMENTAL ASPECT	ENVIRONMENTAL MEASURE/ ACTION PLAN	RESPONSIBILITY	MONITORING FREQUENCY
	IMPACT ASSOCIATED WITH SOCIAL DYNAMICS		
Social environment	<p>Interested and affected party need to be notified of the development taking place.</p> <p>Ensure community health and safety is not disturbed.</p> <p>A complaints & Incident register must be completed and kept in the on-site Environmental File.</p>	ECO, Project manager	Monthly
Socio-cultural Impacts	<ul style="list-style-type: none"> - Phased, rather than indiscriminate clearing of the site to be undertaken. - Maintenance of buffers should be adhered to. - Warning signage should be placed around the site of development informing the public of construction activities. - All water bodies around the proposed development will not be affected as strict control measures have been enforced so as to protect any water body on-site/close proximity. - Construction workers should be alerted to the importance of not littering. Apart from the 	ECO, Project manager	Monthly

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ENVIRONMENTAL ASPECT	ENVIRONMENTAL MEASURE/ ACTION PLAN	RESPONSIBILITY	MONITORING FREQUENCY
	IMPACT ASSOCIATED WITH SOCIAL DYNAMICS		
	<p>potential environmental impacts of littering, it is unsightly and has a negative visual impact.</p> <ul style="list-style-type: none"> - Sufficient waste bins must be provided onsite and must be emptied regularly. - Any building rubble should not be allowed to accumulate onsite, but must at regular intervals be removed to a licensed landfill site or other licensed disposal site. 		
Socio-cultural Impacts (Conti)	<ul style="list-style-type: none"> - No construction staff must be permitted to trespass on private land. Any construction personnel found to be trespassing on private land must be immediately subjected to a disciplinary hearing; - Construction workers / construction vehicles must take heed of normal road safety regulations; thus, all personnel must obey and respect the law of the road. A courteous and respectful driving manner must be enforced and maintained so as not to cause harm to any individual; - A safe designated speed limit must be set by the project managers to limit possible road strikes and accidents. - Construction workers should not be permitted into sensitive environmental areas (wetland). - Should these impacts take place, it is only anticipated to most likely occur during the construction phase of the project. It is therefore advised that construction workers who 	ECO, Project manager	Monthly

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ENVIRONMENTAL ASPECT	ENVIRONMENTAL MEASURE/ ACTION PLAN	RESPONSIBILITY	MONITORING FREQUENCY
	IMPACT ASSOCIATED WITH SOCIAL DYNAMICS		
	are already housed within the Social Impact Zone of the proposed site, be employed as opposed to establishing temporary housing for workers. It is not advised that temporary workers assimilate with the local communities and suitable accommodation in larger centers should be considered.		
Socio-cultural Impacts (Conti)	<ul style="list-style-type: none"> - To mitigate most of these impacts, the Harry Gwala District Municipality should consider the establishment of a Community Monitoring Forum (CMF) to monitor the construction phase and the implementation of the recommended mitigation measures. The CMF should be established before the construction phase commences, and should include key stakeholders, including representatives from local communities, local councilors, affected landowners and the contractor(s). The CMF should also be briefed on the potential risks to the local community associated with construction workers. - To address any potential health impacts, it is advised that appointed contractor(s) devise and implement an HIV/AIDS awareness programme for all construction workers at the outset of the construction phase. All permanent employees should receive basic HIV/AIDS awareness training at the onset of their employment. - To address this impact, the establishment of accommodation in construction camps should be avoided as far as possible, by employing local labor and by providing transport to main city centers where required. 	ECO, Project manager	Monthly

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ENVIRONMENTAL ASPECT	ENVIRONMENTAL MEASURE/ ACTION PLAN	RESPONSIBILITY	MONITORING FREQUENCY
	IMPACT ASSOCIATED WITH SOCIAL DYNAMICS		
	<ul style="list-style-type: none"> - Transporting of employees will create the opportunity for SMME entrepreneurs to provide shift-time related transport on assigned routes. Consultation with the local taxi associations will be required to discuss options for co-operation. 		
Socio-cultural Impacts (Conti)	<ul style="list-style-type: none"> - It is, furthermore, recommended that the South African Police Services (SAPS) be used to monitor and assist with the management of the negative social effects of incoming job seekers and strangers. Local community policing forums should also be informed of the proposed project, construction and operational timeframes and the movement of construction workers (i.e. from place of transport to construction site). - The following measures are recommended: <ul style="list-style-type: none"> o Establish a code of conduct for workers with strict control measures o Require personnel to wear identification badges to distinguish them from trespassers or unwanted loiterers. o Life orientation programmes, explaining the dangers of drug and alcohol abuse should be organised for workers by appointed contractor o Educate employees of the detrimental effects of drug and alcohol abuse. o Require mandatory testing of all persons involved in accidents. o Conduct tests for reasonable suspicion of substance abuse. 	ECO, Project manager	Monthly

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ENVIRONMENTAL ASPECT	ENVIRONMENTAL MEASURE/ ACTION PLAN	RESPONSIBILITY	MONITORING FREQUENCY
	IMPACT ASSOCIATED WITH SOCIAL DYNAMICS		
	<ul style="list-style-type: none"> - Provide workers with organisation policies and procedures concerning substance abuse. - Provide materials that educate workers about what constitutes substance abuse. 		
Socio-cultural Impacts (Conti)	<ul style="list-style-type: none"> - Construction related public health impacts due to possible air/dust pollution, noise pollution, light pollution and vibration should also be considered. The contractor should strive to abide by the abovementioned Act, in addition to international best practice guidelines - Furthermore, it is advised that the contractor ensure that everyone working at the construction site is competent at the work they do. They must be properly trained and have the experience and knowledge to work in a safe and responsible manner. - Areas of the project where there are health or safety hazards need to be marked and treated as danger areas. All people, other than those who have been specifically authorized to enter, must be excluded from such areas, for example by erecting warning signs and barriers. The barriers should clearly identify the boundary of the danger area and make entry impossible without a conscious effort 	ECO, Project manager	Monthly
Cultural and heritage Artefacts	The development of the proposed Ibisi Sewer Reticulation Scheme may proceed in terms of general heritage values as no heritage and archaeological sites are in any danger of being destroyed or altered. There is no need for mitigation. It should also be pointed out that the	ECO, Project manager	Daily

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ENVIRONMENTAL ASPECT	ENVIRONMENTAL MEASURE/ ACTION PLAN	RESPONSIBILITY	MONITORING FREQUENCY
	IMPACT ASSOCIATED WITH SOCIAL DYNAMICS		
(Adapted from Heritage Impact Assessment ,2019)	KwaZulu-Natal Heritage Act requires that operations exposing archaeological and historical residues as well as fossils should cease immediately pending an evaluation by the heritage authorities.		

4.3. CATEGORY C: POST CONSTRUCTION / REHABILITATION PHASE

ENVIRONMENTAL ASPECT	ENVIRONMENTAL MEASURE/ ACTION PLAN	RESPONSIBILITY	MONITORING FREQUENCY
Waste Management	<ul style="list-style-type: none"> - Remove all construction domestic waste, debris and stockpiles. - The disposal of waste must be in accordance with relevant legislative requirements. - Create method statement for waste disposal of construction debris. Remove all leftover construction materials from the storage area and construction site and either sell, auction, donate to the local community or transfer to the Contractor's base. - Drain all collection sumps and dispose of the contaminated liquid and solids at an approved disposal site. - Remove all construction debris, litter and domestic waste from the construction site and transfer to an appropriate disposal site. - Remove all waste receptacles and either donate to the local community, auction, or transfer to Contractor's base. 	ECO, ESO and Contractor	Weekly

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ENVIRONMENTAL ASPECT	ENVIRONMENTAL MEASURE/ ACTION PLAN	RESPONSIBILITY	MONITORING FREQUENCY
	<ul style="list-style-type: none"> - Burying of rubble on site or dumping in any watercourse is prohibited. A check must be done by the contractor before the site is handed over to the applicant. - The contractor is to check that the stormwater channels and the drainage pipes are free from building rubble, spoil materials and waste materials. - Surfaces are to be checked for waste products from activities such as concreting or asphaltting and cleared in a manner approved by the ECO. 		
Water resource management	<ul style="list-style-type: none"> - Stockpiles must be used to rehabilitate the wetland. - The stockpiles must be free of waste and contaminants - Disturbed sites must be rehabilitated as soon as construction in an area is complete or near complete and not left until the end of the project to be rehabilitated - Rehabilitate and revegetate watercourse areas as soon as work is complete - The landscape profile will need to be restored, matching as closely as possible to the original land form prior to the distribution of the banks/river - All banks and areas disturbed by the works must be re-vegetated 	ECO, ESO and Contractor	Weekly
Re-Vegetation	<ul style="list-style-type: none"> - Bare soil and open spaces are to be rehabilitated or re-vegetated. - Rehabilitated and re-vegetated areas need to be watered and monitored. 	ECO, ESO and Contractor	On completion of construction.

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ENVIRONMENTAL ASPECT	ENVIRONMENTAL MEASURE/ ACTION PLAN	RESPONSIBILITY	MONITORING FREQUENCY
Re-Vegetation (Conti)	<ul style="list-style-type: none"> - Only indigenous species should be used for landscaping. No exotic plants are to be introduced. All areas that have been disturbed by construction activities (including the construction camp area) must be cleared of alien vegetation. - Existing and newly established alien vegetation must be removed from the property and replaced, where necessary, with suitable indigenous / endemic plant species. During this process, it is imperative that indigenous vegetation is not removed or disturbed. - All vegetation that has been cleared during construction is to be removed from site or used as much as per the re-vegetation specification, (except for seeding alien vegetation) - No vegetative matter may be removed for firewood or for similar practice. <p>Working with whole plants requires a systematic approach:</p> <ul style="list-style-type: none"> - A number of existing plants can be transplanted into the cleared areas. The plant must be dug up with as much as possible of their roots intact and the soil around the roots must not be disturbed. The plants must be planted in the medium from which they were removed. - Large clumps of plants can be separated into smaller clumps - When planting, dig a hole large enough to ensure the roots are not cramped and there is an area around them which is loosened allowing the plant to quickly establish itself. - Once all rehabilitation procedures have been completed, monitoring of the disturbed areas must be undertaken, to establish if the re-vegetation has been successful and in 	ECO, ESO and Contractor	On completion of construction.

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ENVIRONMENTAL ASPECT	ENVIRONMENTAL MEASURE/ ACTION PLAN	RESPONSIBILITY	MONITORING FREQUENCY
	order to control re- growth of alien invasive species.		
Pollution control structures & Material Infrastructure	<ul style="list-style-type: none"> - Remove temporary concrete structures that have been created. - Removal of concrete waste must be disposed of at the registered landfill disposal site. - Fences, barriers and demarcations associated with the construction phase are to be removed from the site unless stipulated otherwise by the Engineer. - The Contractor must repair any damage that the construction works has caused to neighbouring properties and services. - All residual stockpiles must be removed to spoil or spread on site as directed by the Engineer. 	Contractor	On completion of the project.
Pollution control structures & Material Infrastructure	<ul style="list-style-type: none"> - Excavate all areas of contaminated substrate, transfer the contaminated substrate to an appropriate disposal site and treat the affected areas with appropriate ameliorants. - Remove all plastic linings used for pollution control and transfer to an appropriate disposalsite. - Break up all concrete structures that have been created (e.g. working and parking surfaces) and remove concrete waste to an appropriate disposal site. - The camp site must be top soiled, re-grassed, and graded to reduce surface run-off. - Indigenous grasses must be used which are suitable to the area. - Fences, barriers and demarcations associated with the construction phase are to be removed from the site unless stipulated otherwise by the Engineer. 	Contractor	On completion of the project.

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ENVIRONMENTAL ASPECT	ENVIRONMENTAL MEASURE/ ACTION PLAN	RESPONSIBILITY	MONITORING FREQUENCY
Construction campsite Rehabilitation	<ul style="list-style-type: none"> - All temporary structures to be removed on completion of the project. This must be monitored by the project manager. - All temporary chemical toilets should be removed from the construction campsite. - All hardened surfaces within the construction camp area should be ripped, all imported materials removed, and the area must be top-soiled and re-grassed. - Upon completion of the project or decommissioning of the construction camp, the sites must be rehabilitated to the pre-use or determined purpose for the areas. If required, the surface must be ripped and re-vegetated. 	Contractor	On completion of the project.
Construction campsite rehabilitation	<ul style="list-style-type: none"> - Disassemble all infrastructure units and remove components from the working and storage areas. This will include temporary office and storage structures and containers, water supply pipelines, water storage containers, waste storage containers, power supply, etc. - Disassemble all fencing around the camp and either sell, auction or donate the components to the local community or transfer the waste components to a disposal site or the contractor's base. 	Contractor	On completion of the project.
Audit and Sign-off	The ECO needs to conduct a final environmental audit (close -out audit) after the construction phase.	ECO/ESO	After construction

DRAFT ENVIRONMENTAL MANAGEMENT PLAN – IBISI SEWER RETICULATION

ENVIRONMENTAL ASPECT	ENVIRONMENTAL MEASURE/ ACTION PLAN	RESPONSIBILITY	MONITORING FREQUENCY
Audit and Sign-off (Conti)	<p>A meeting is to be held on site between the Engineer, ECO and the Contractor to approve all remediation activities and to ensure that the site has been restored to a condition approved by the Engineer.</p> <p>Temporary roads which were used during the construction phase must be closed and access across these blocked.</p> <p>All areas where temporary services were installed are to be rehabilitated to the satisfaction of the Engineer. to ensure final compliance. The Contractor must rectify any non-compliance found by the audit, prior to vacating the site.</p>	ECO/ESO	After construction

DRAFT ENVIRONMENTAL MANAGEMENT PLAN – IBISI SEWER RETICULATION

4.4. CATEGORY D: OPERATIONAL PHASE

ENVIRONMENTAL ASPECT	ENVIRONMENTAL MEASURE/ ACTION PLAN	RESPONSIBILITY	MONITORING FREQUENCY
Soil Erosion, sedimentation and degradation.	<ul style="list-style-type: none"> - Do not allow surface water or Stormwater to be concentrated, or to flow down slopes without erosion protection measures being in place. - Ensure all erosion control measures (drainage systems and energy dissipaters) are well maintained at all times to prevent the blocking. - The community must liaise with the relevant municipal departments should the road upgrade or associated structures require any maintenance. - To prevent the degradation of the road, community members must adhere to the speed control measures that are in place. This would reduce the rate of erosion and degradation of the road. - If construction activities are monitored and confined to the development area, this would lead to minimal disturbance to the natural environment. 	Applicant	Quarterly

DRAFT ENVIRONMENTAL MANAGEMENT PLAN – IBISI SEWER RETICULATION

ENVIRONMENTAL ASPECT	ENVIRONMENTAL MEASURE/ ACTION PLAN	RESPONSIBILITY	MONITORING FREQUENCY
Alien Invasive Species encroachment	<ul style="list-style-type: none"> - The community of Ibisi must be aware of the various alien invasive species within the area, and should any new individuals be observed, they must be removed. - Increasing awareness is not only important for ensuring that the present environmental conditions are maintained, but it is also essential in ensuring a more sustainable future 	Applicant	Annually
Maintenance of the Pipelines & Associated Infrastructure	<ul style="list-style-type: none"> - All applicable legislation, standards, policies and procedures must be adhered to during operation. - Emergency numbers must be visibly displayed near the water mains. - Regular inspections of the pipeline must be undertaken and monitored. 	ECO/ESO	Daily/ Weekly
Degradation of wetlands	<ul style="list-style-type: none"> - Attenuation of stormwater from the development site is important to reduce the velocity of runoff into the downstream river and riparian zone. - Do not allow surface water or storm water to be concentrated, or to flow down cut or fill slopes without erosion protection measures being in place. 	CO; ESO	Daily/Weekly
Pollution of water resources and so	<ul style="list-style-type: none"> - Waste disposal during the operational phase must ensure no litter or other contaminants particularly chemicals stored on site are deposited in the water resource systems. - Spillages of fuels, oils and other potentially harmful chemicals must be contained and cleaned up immediately. Contaminants must be properly drained and disposed of using 	ECO	Monthly

DRAFT ENVIRONMENTAL MANAGEMENT PLAN – IBISI SEWER RETICULATION

ENVIRONMENTAL ASPECT	ENVIRONMENTAL MEASURE/ ACTION PLAN	RESPONSIBILITY	MONITORING FREQUENCY
	<p>proper solid/hazardous waste facilities (never to be disposed of within the natural environment). Any contaminated soil must be removed and the affected area rehabilitated immediately.</p> <ul style="list-style-type: none"> - Monitoring of the reticulation pipes, pump station and rising main pipe will be required to ensure that leakages are prevented during the operational phase. 		

SECTION 5. CONCLUSION

In the event of non-compliance, the following recommended process can be followed:

- The RE shall issue a notice of non-compliance to the Contractor, stating the nature and magnitude of the contravention. A copy shall be provided to the ECO during his/her site audit;
- The Contractor shall act to correct the non-conformance within 24 hours of receipt of the notice, or within a period that may be specified within the notice;
- The Contractor shall provide the RE with a written statement describing the actions to be taken to discontinue the non-conformance, the actions taken to mitigate its effects and the expected results of the actions. A copy shall be provided to the ECO and kept in the Environmental File;
- In the case of the Contractor failing to remedy the situation within the predetermined time frame, the RE shall impose a monetary penalty based on the conditions of contract;
- In the case of non-compliance giving rise to physical environmental damage or destruction, the RE shall be entitled to undertake or to cause to be undertaken such remedial works as may be required to make good such damage and to recover from the Contractor the full costs incurred in doing so; and
- The RE has the right to stop work and/or certain activities on site in the case of non-compliance or failure to implement remediation measures.

5.1 OFFENCES AND PENALTIES

Any avoidable non-compliance with the conditions of the EMPr shall be considered sufficient ground for the imposition of a penalty;

Possible offences, which must result in the issuing of a contractual penalty, include, but are not limited to:

- Unauthorised entrance into No Go areas;
- Unauthorised damage to natural vegetation;
- Unauthorised camp establishment (including stockpiling, storage etc.);
- Hydrocarbons/hazardous material: negligent spills/leaks and insufficient storage;
- Ablution facilities: non-use, insufficient facilities and insufficient maintenance;
- Late Method Statements or failure to submit Method Statements;
- Insufficient solid waste management (including clean-up of litter, unauthorised dumping and absence of weigh bills as proof of disposal at a registered landfill site);
- Excessive cement/concrete spillage/contamination;

APPENDIX A – COMPLAINTS REGISTER

[illegible]

APPENDIX B – ENVIRONMENTAL INCIDENT REPORTING

[illegible]

APPENDIX C – SPILL CONTINGENCY PLAN

Name, address and job title of the owner or person in charge, management or control.

NAME _____

ADDRESS _____

JOBTITLE _____

Name, job title and 24-hour telephone number for the persons responsible for activating the spill contingency plan.

NAME _____

JOBTITLE _____

24-HOUR TELEPHONE NUMBER _____

A description of the facility, including - location, size and storage capacity

A description of the type and amount of contaminants normally stored at the location.

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Reporting is the notification of all parties involved. This can include internal as well as external reporting procedures. A description of a public reporting procedure used to alert anyone who may be affected by the spill is required.

REPORTING

Clean-up is the removal of the contaminant from the environment. This should consider the possible scenarios or spill incidents that could occur at the facility including a worst-case scenario.

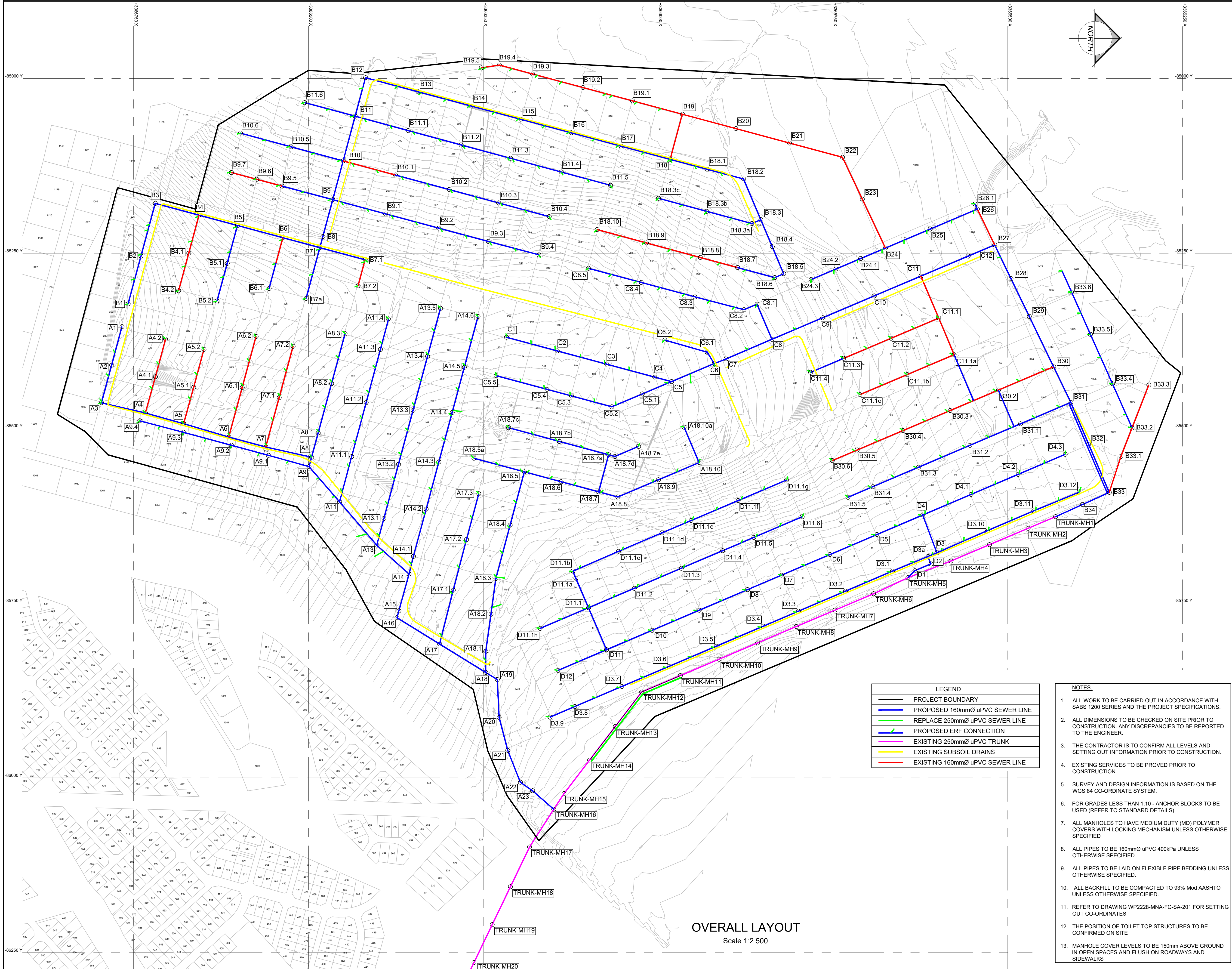
Disposal is the treatment of the contaminant such that it is no longer a threat to the environment. Contingency plans must contain appropriate disposal procedures for the materials stored at the facility.

The means by which the spill contingency plan is activated (i.e. procedures to activate appropriate response equipment and personnel).

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A description of the training provided to employees to respond to a spill. A sound training program is necessary when dealing with an emergency situation. This program should include knowledge and the use of any response equipment.

DRAFT EMP



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AMENDMENTS		
Rev.	Date	Description

ECA CONSULTING

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ISO Registered 9001:2015

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OTHER OFFICES:
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PIETERMARITZBURG |
LADYSMITH

Approved by Engineer: Name: L.K. Fourie
Designation: PrTechEng
ECSA Reg.: 200970182

Signature: _____
Date: 17 Oct 2022

Project Funder/ Client:
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Municipal Infrastructure Grant

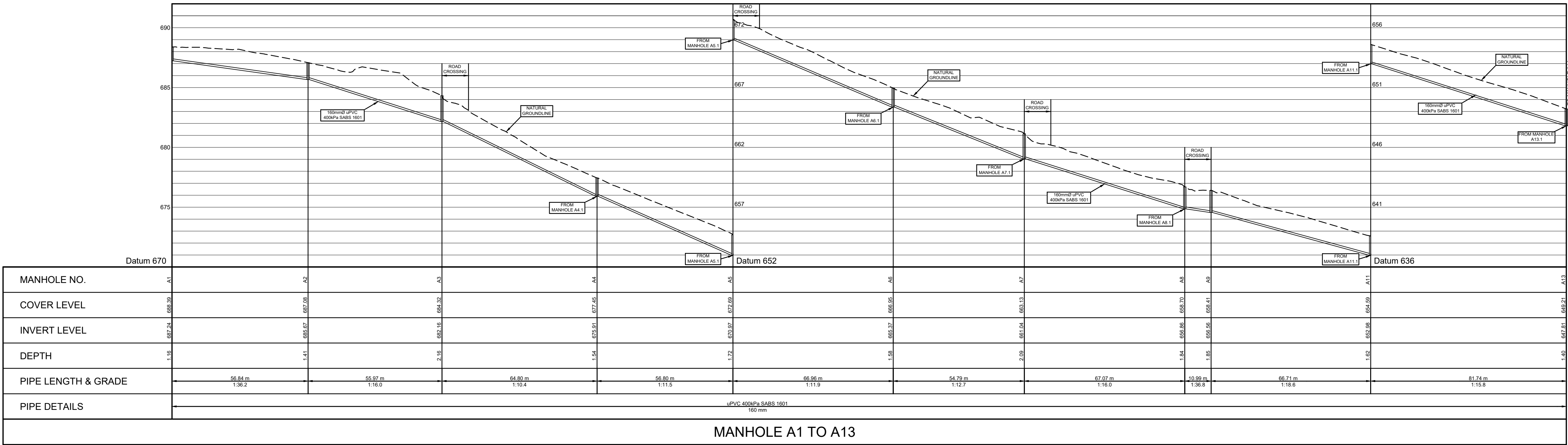
Project Implementing Agent:
HARRY GWALA DISTRICT MUNICIPALITY

Approved by Client: Name: _____
Signature: _____ Date: _____

Project:
IBISI SEWER RETICULATION

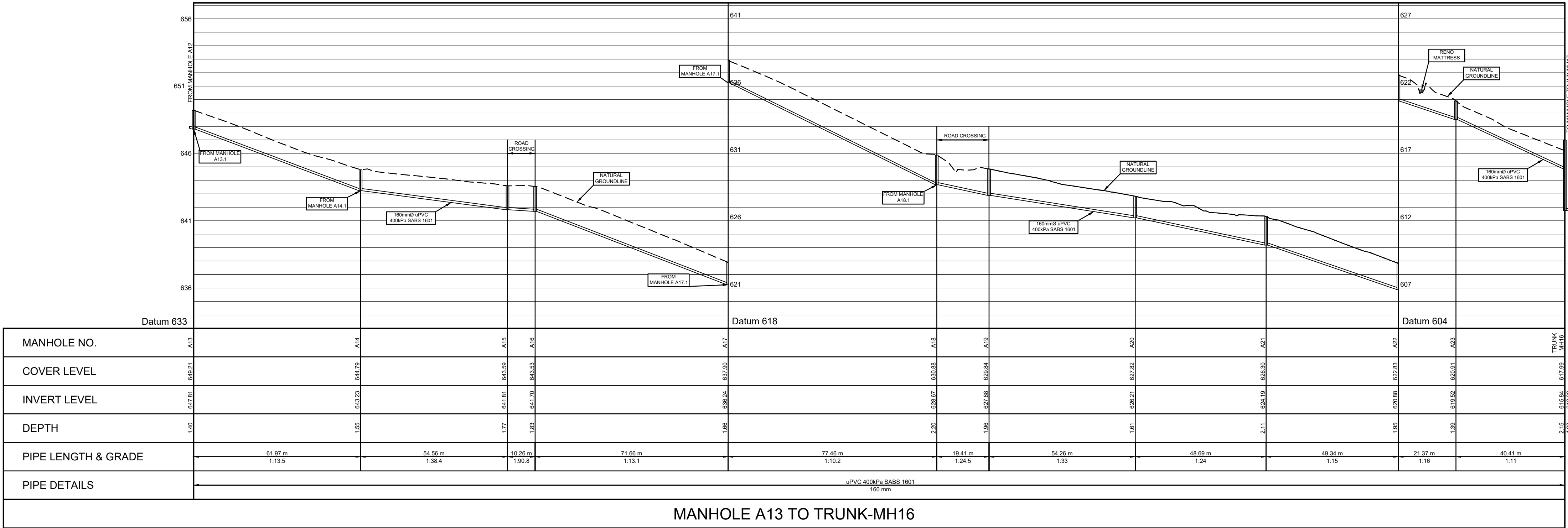
Drawing description:
OVERALL LAYOUT

Drawn: L.K. Fourie Date: Sep 2022
Scale/s: As Shown
Drawing number: 22-009-V-01-01
Rev.: 00



MANHOLE A1 TO A13

REVISION 1 NOTE:
1. MANHOLE A10 WAS REMOVED AND LINE REGRADED
2. MANHOLE A12 WAS REMOVED AND LINE REGRADED
3. REALIGNED MANHOLE A23 & TRUNK MH16 AND REGRADED



MANHOLE A13 TO TRUNK-MH16

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Approved by Engineer:
Name: L. K. Fourie
Designation: PrTechEng
ECSA Reg.: 200970182

Signature:
Date: 21 Sep 2022

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Municipal Infrastructure Grant



Project Implementing Agent:

HARRY GWALA DISTRICT MUNICIPALITY



Approved by Client:

Name: _____

Signature: _____ Date: _____

Project:

IBISI SEWER RETICULATION

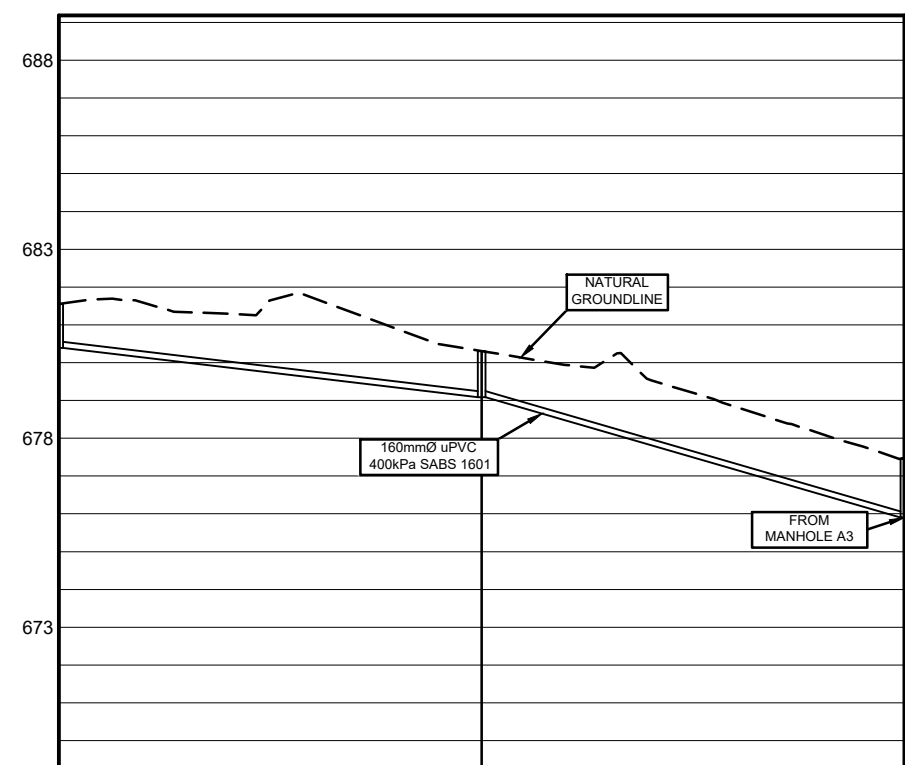
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Drawn: G.D Bezuidenhout Date: Sep 2022

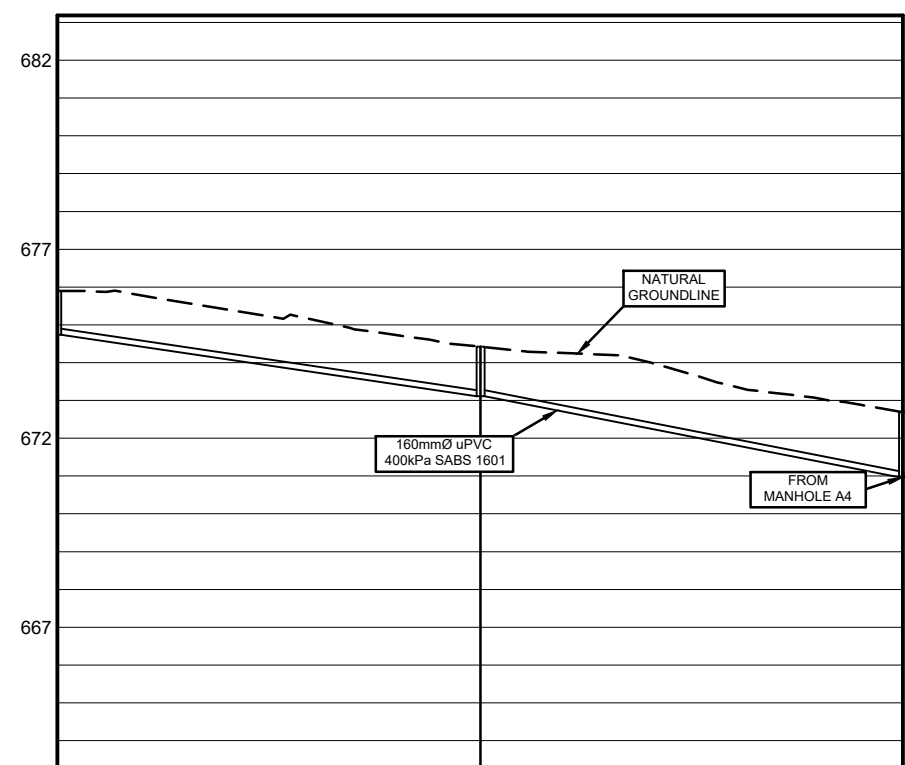
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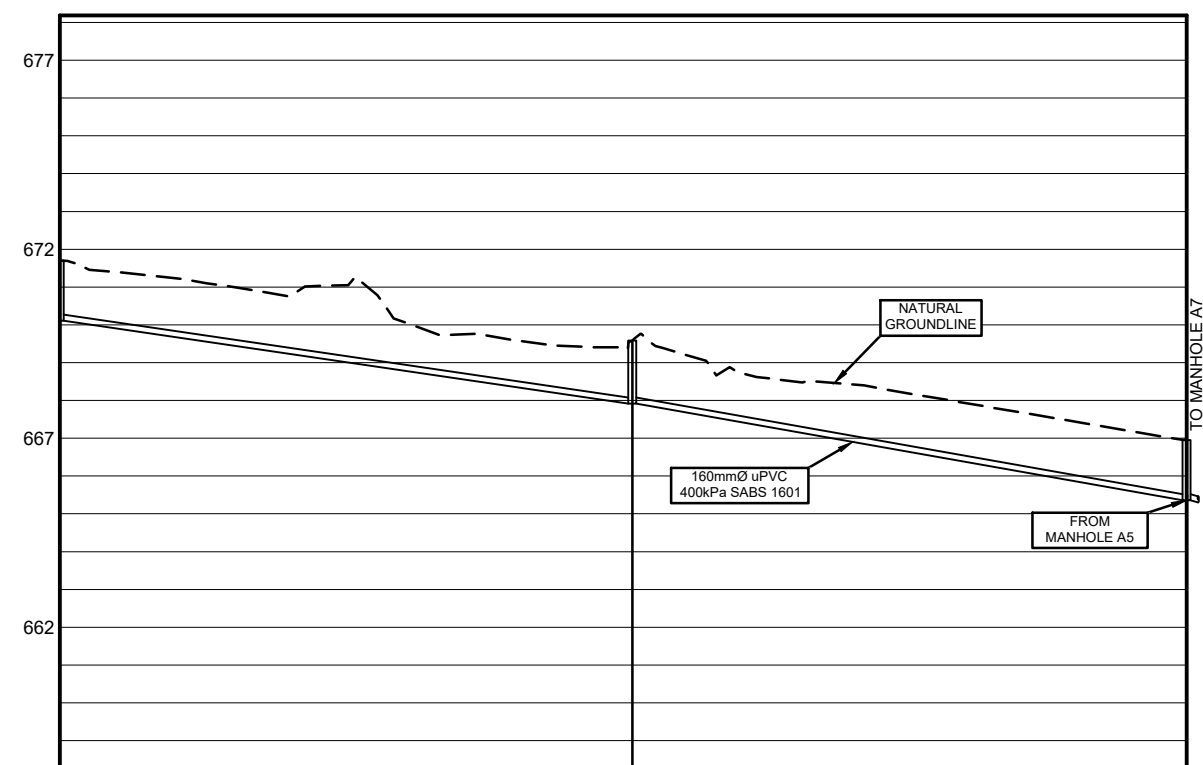
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COVER LEVEL	681.35	680.31	677.45
INVERT LEVEL	680.31	679.09	675.91
DEPTH	1.04	1.22	1.54
PIPE LENGTH & GRADE	55.92 m 1:43.0		
PIPE DETAILS	uPVC 400kPa SABS 1801 160 mm		

MANHOLE A4.2 TO A4



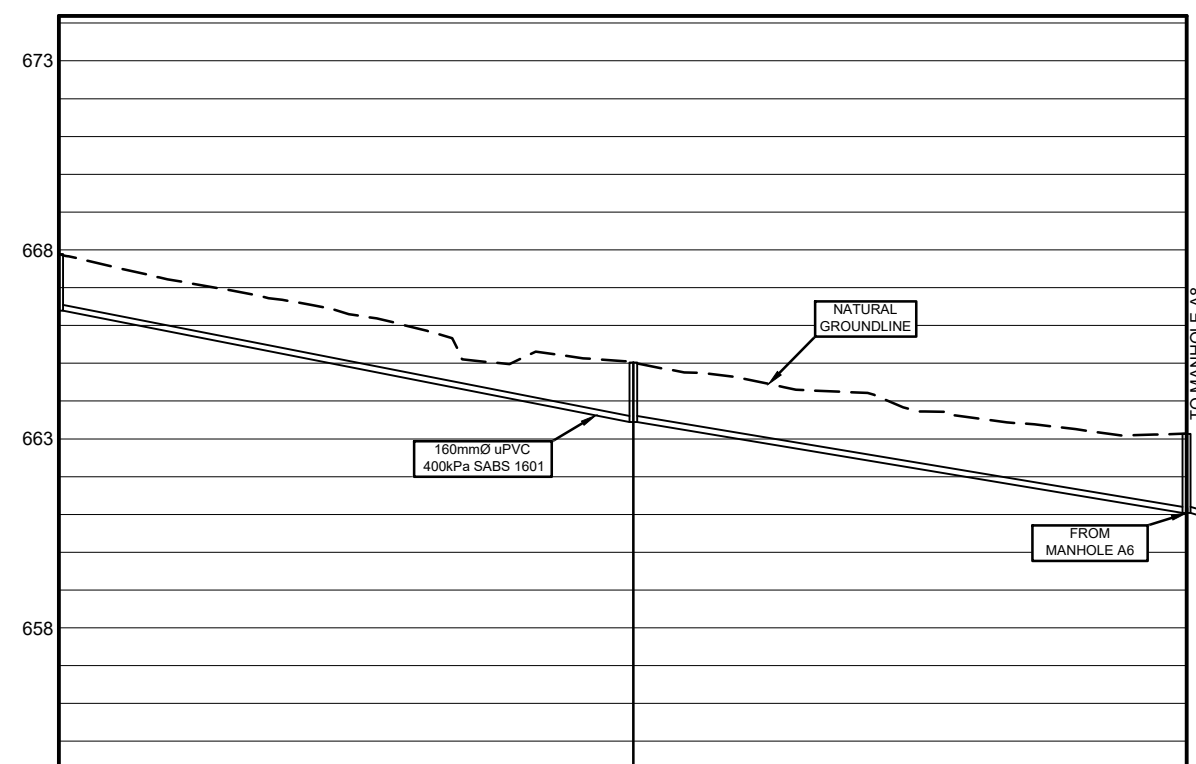
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COVER LEVEL	676.50	674.74	672.07
INVERT LEVEL	674.74	673.12	670.12
DEPTH	1.36	1.30	1.72
PIPE LENGTH & GRADE	55.98 m 1:34.5		
PIPE DETAILS	uPVC 400kPa SABS 1801 160 mm		

MANHOLE A5.2 TO A5



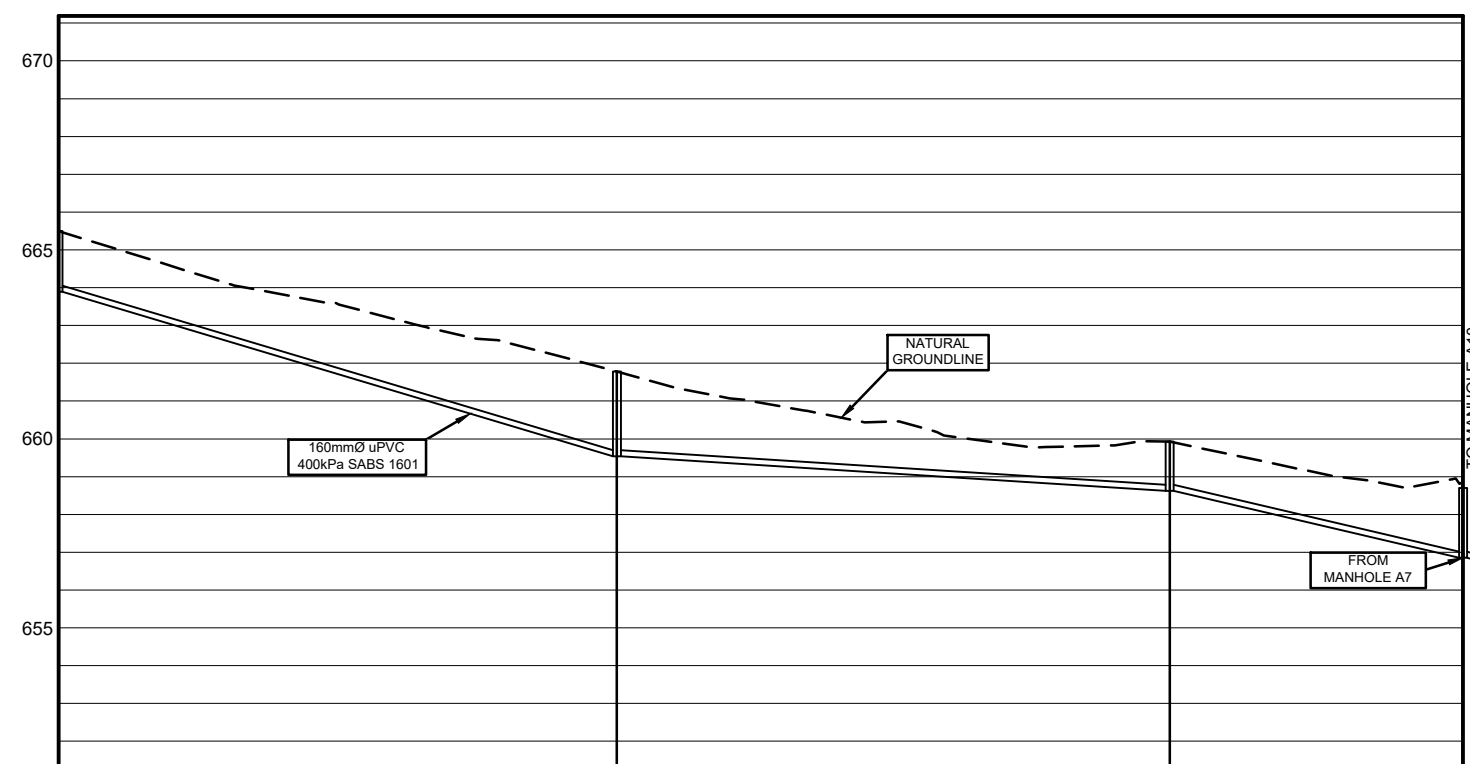
MANHOLE NO.	A6.2	A6.1	A6
COVER LEVEL	669.59	667.70	666.05
INVERT LEVEL	667.52	665.11	663.07
DEPTH	1.89	1.67	1.98
PIPE LENGTH & GRADE	73.72 m 1:34.5		
PIPE DETAILS	uPVC 400kPa SABS 1801 160 mm		

MANHOLE A6.2 TO A6



MANHOLE NO.	A7.2	A7.1	A7
COVER LEVEL	667.88	665.52	663.13
INVERT LEVEL	665.45	663.89	661.04
DEPTH	1.50	1.57	2.09
PIPE LENGTH & GRADE	75.98 m 1:25.8		
PIPE DETAILS	uPVC 400kPa SABS 1801 160 mm		

MANHOLE A7.2 TO A7



MANHOLE NO.	A8.3	A8.2	A8.1	A8
COVER LEVEL	665.50	663.54	662.03	660.70
INVERT LEVEL	663.89	661.78	660.03	658.86
DEPTH	1.91	2.24	1.30	1.94
PIPE LENGTH & GRADE	73.86 m 1:17.0			
PIPE DETAILS	uPVC 400kPa SABS 1801 160 mm			

MANHOLE A8.2 TO A8

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Name: L. K. Fourie
Designation: PrTechEng
ECSA Reg.: 200970182 Date: 21 Sep 2022


Project Funder/ Client:

mig
Municipal
Infrastructure
Grant



Project Implementing Agent:

HARRY GWALA DISTRICT MUNICIPALITY



Approved by Client:
Name: _____
Signature: _____ Date: _____

Project:

**IBISI SEWER
RETICULATION**

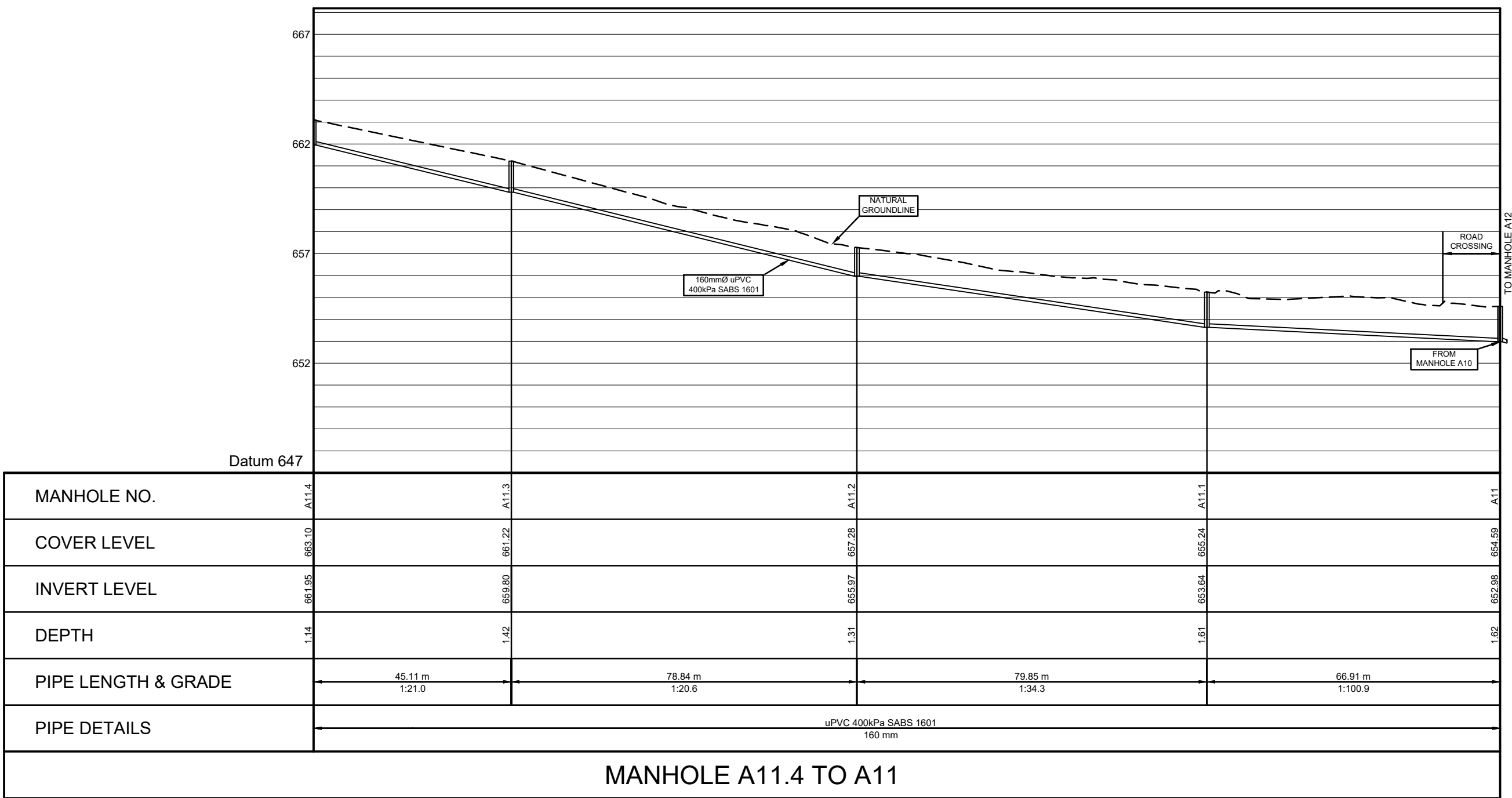
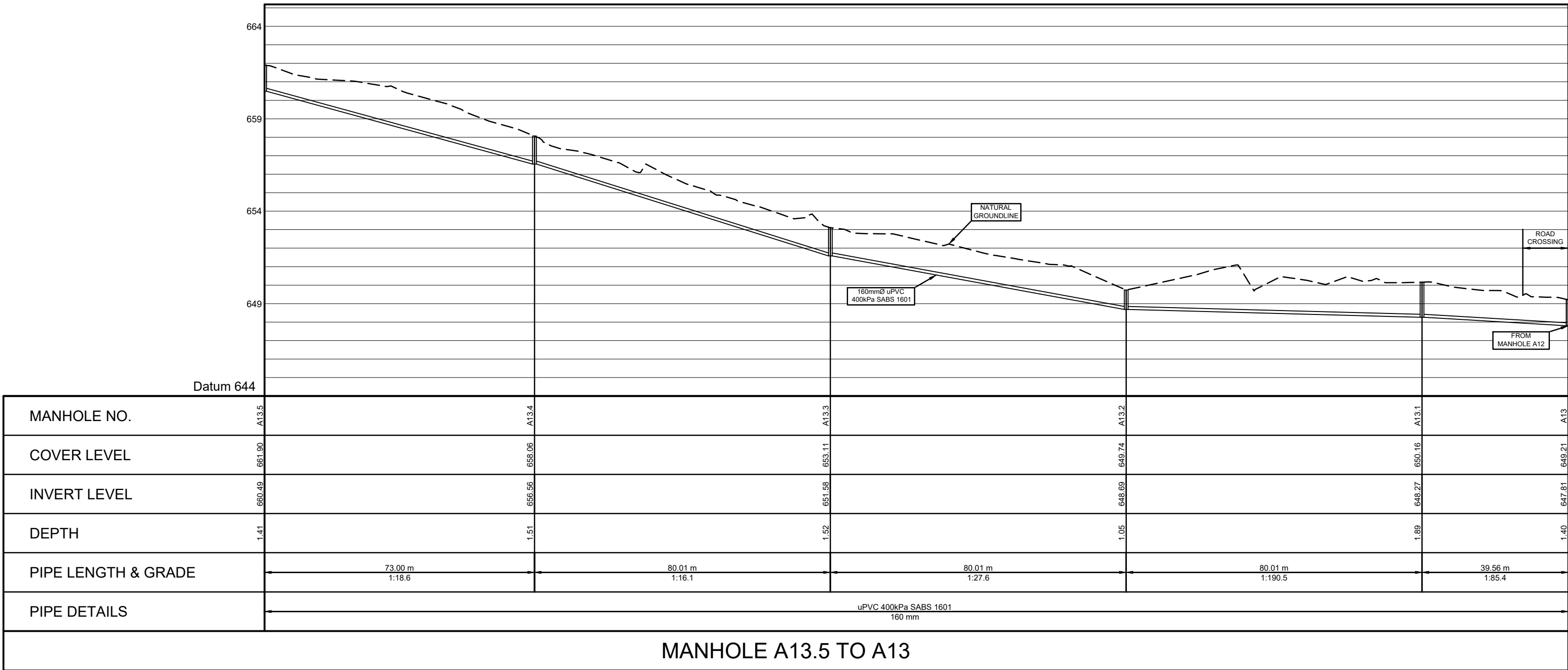
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Approved by Engineer: Signature:
Name: L. K. Fourie
Designation: PrTechEng
ECSA Reg.: 200970182 Date: 21 Sep 2022

Project Funder/ Client:




Municipal
Infrastructure
Grant



Project Implementing Agent:

HARRY GWALA
DISTRICT
MUNICIPALITY



Approved by Client:
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Signature: _____ Date: _____

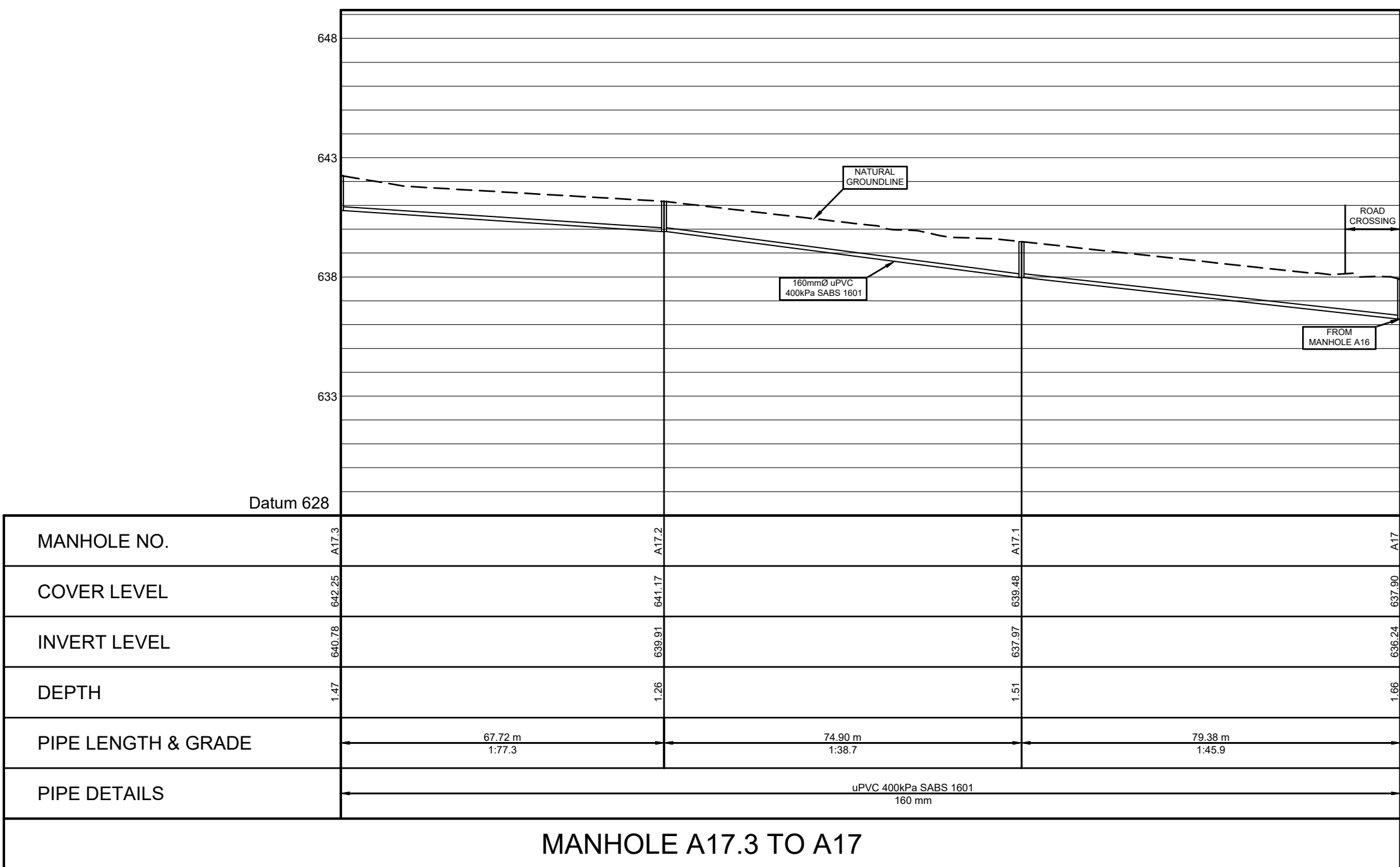
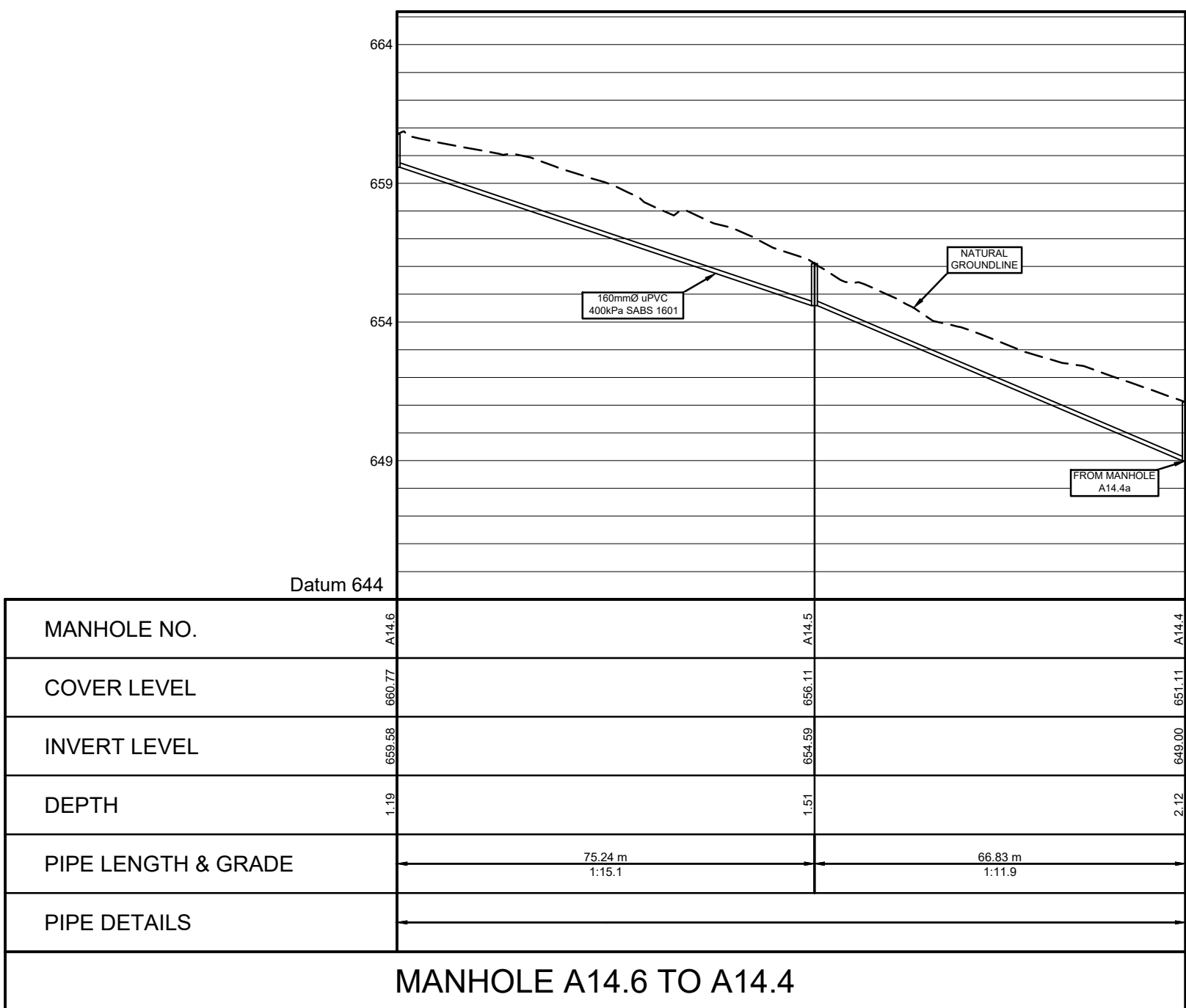
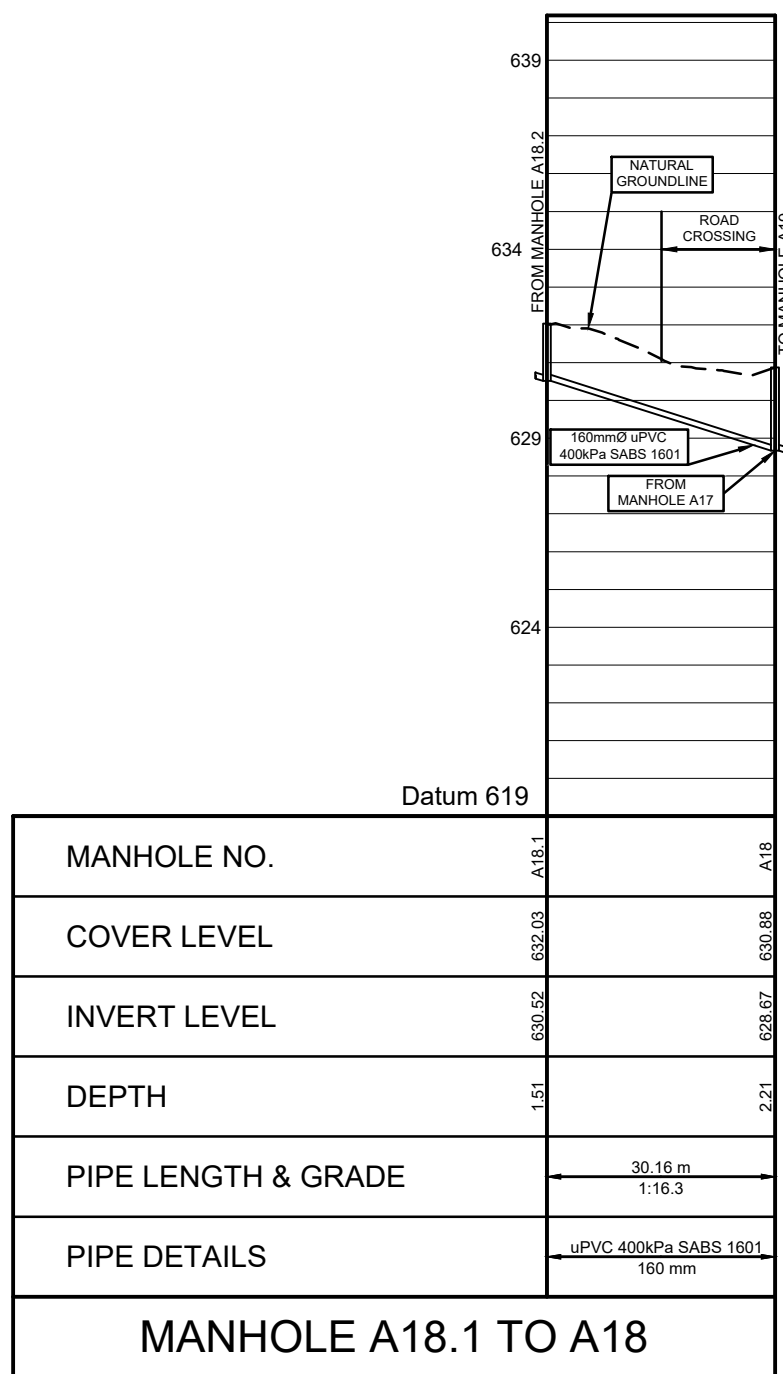
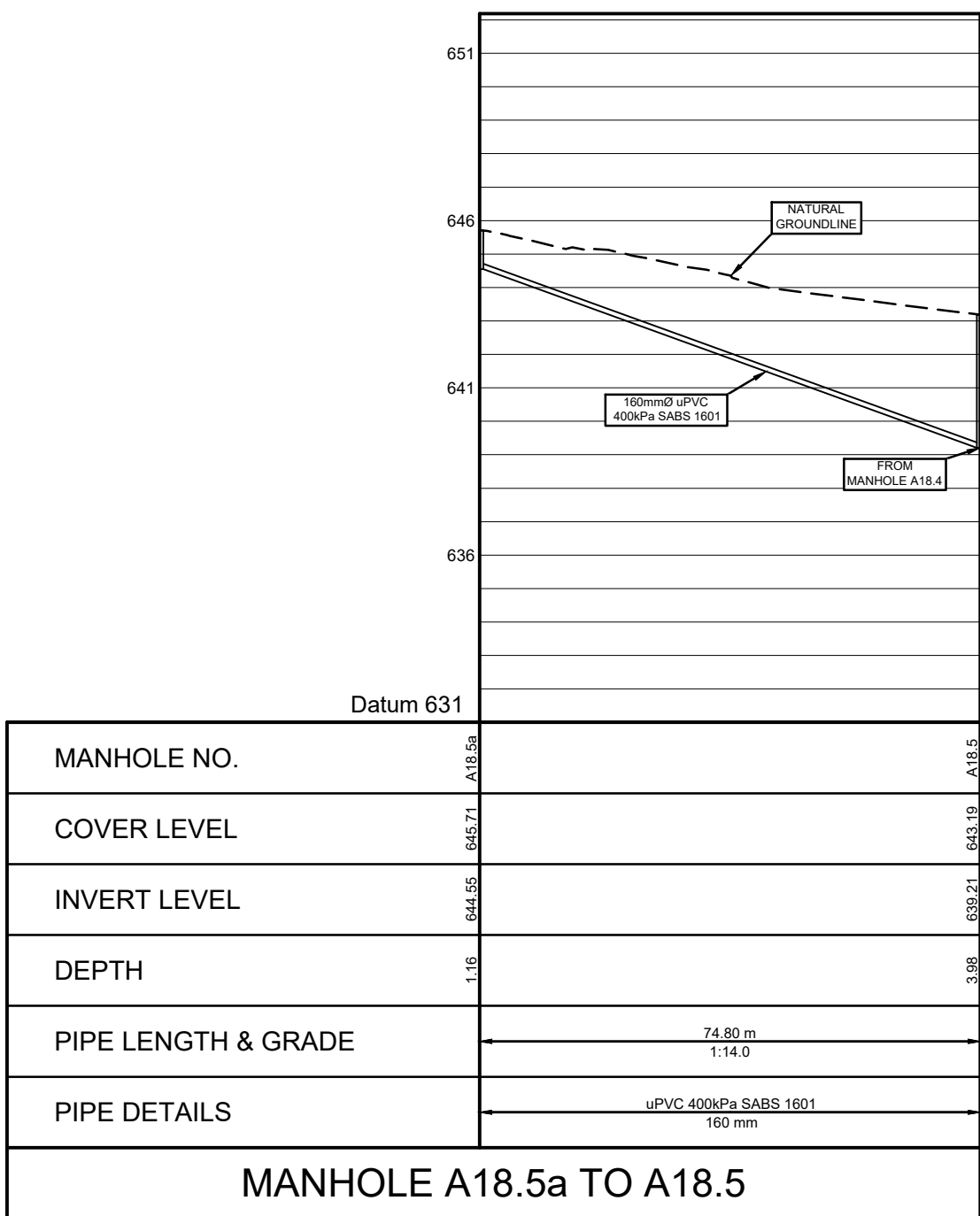
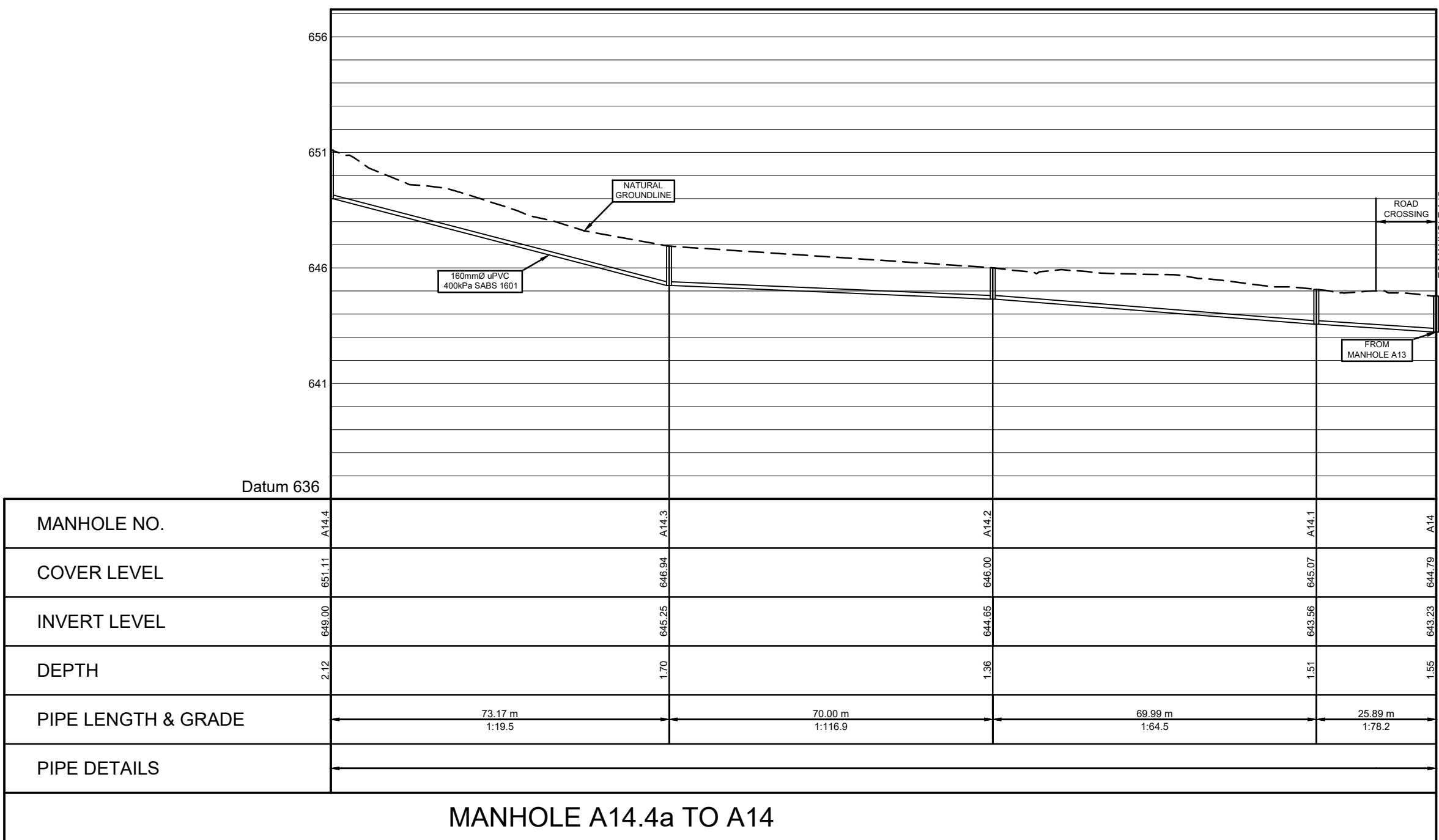
Project:

**IBISI SEWER
RETICULATION**

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Approved by Engineer: _____ Signature: _____
Name: L. K. Fourie
Designation: PrTechEng
ECSA Reg.: 200970182 Date: 21 Sep 2022

Project Funder/ Client:



Project Implementing Agent:

HARRY GWALA DISTRICT MUNICIPALITY

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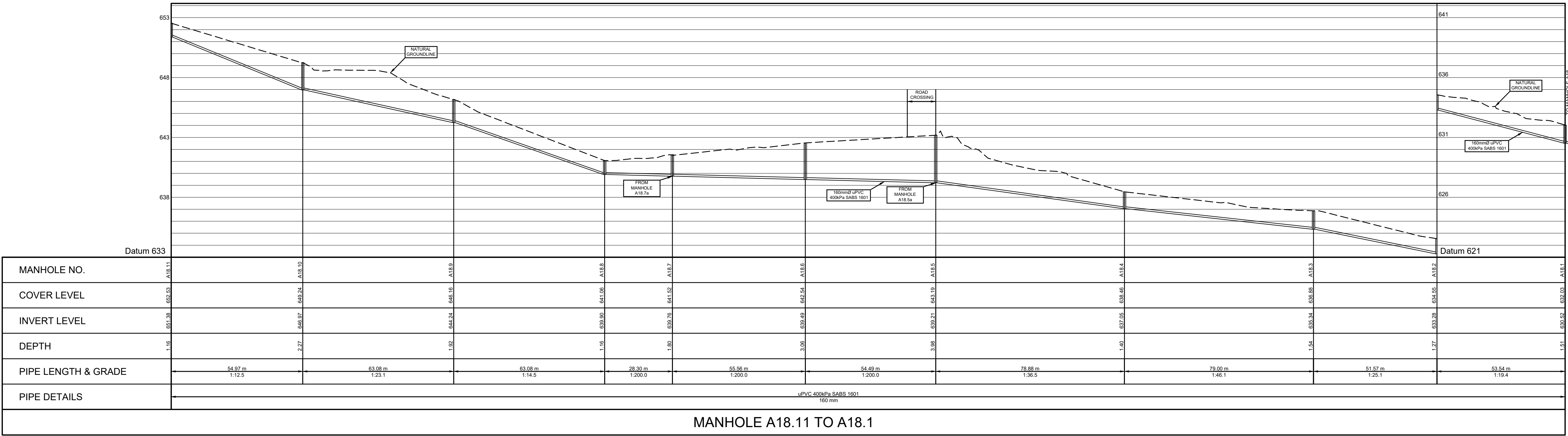
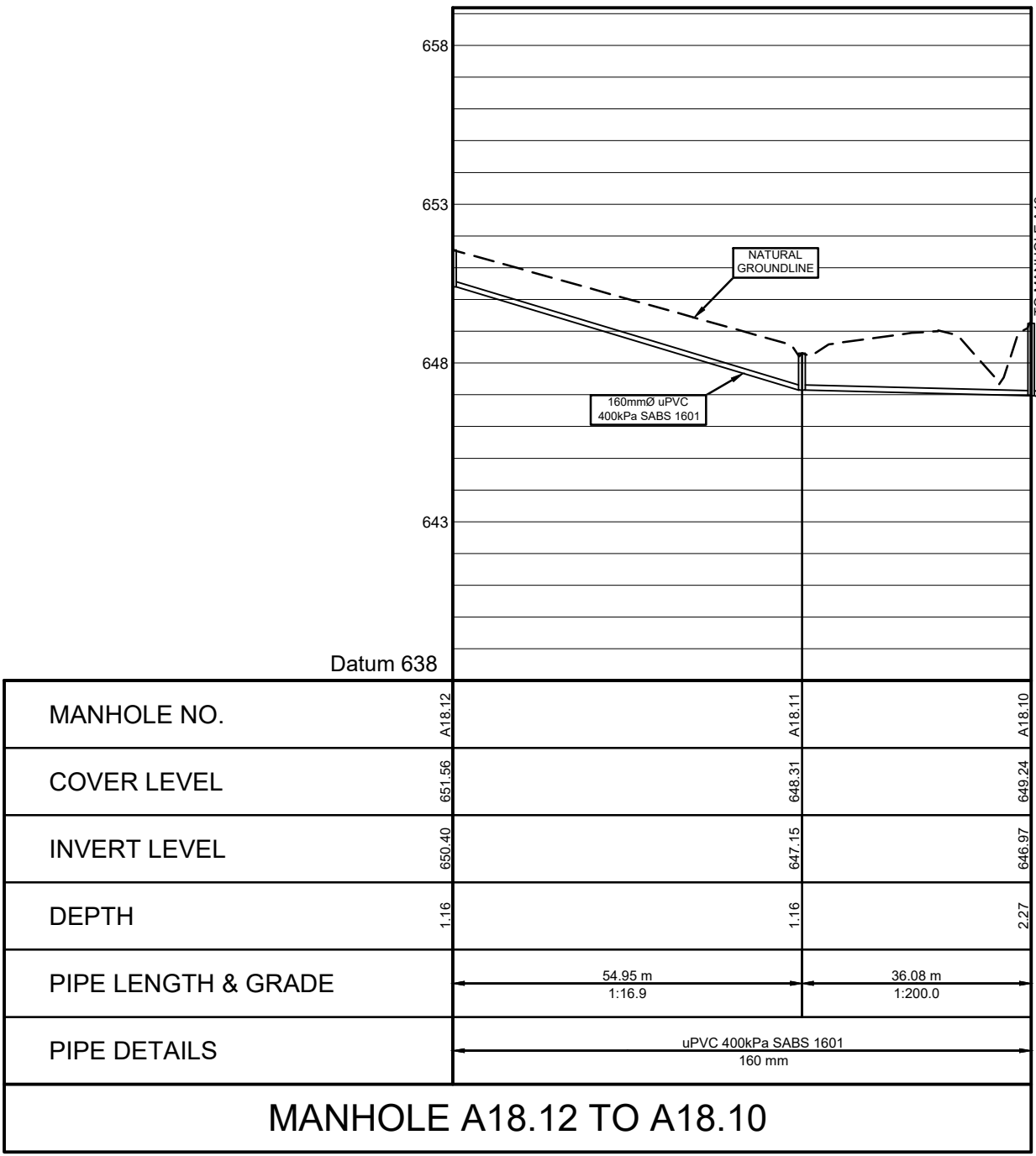
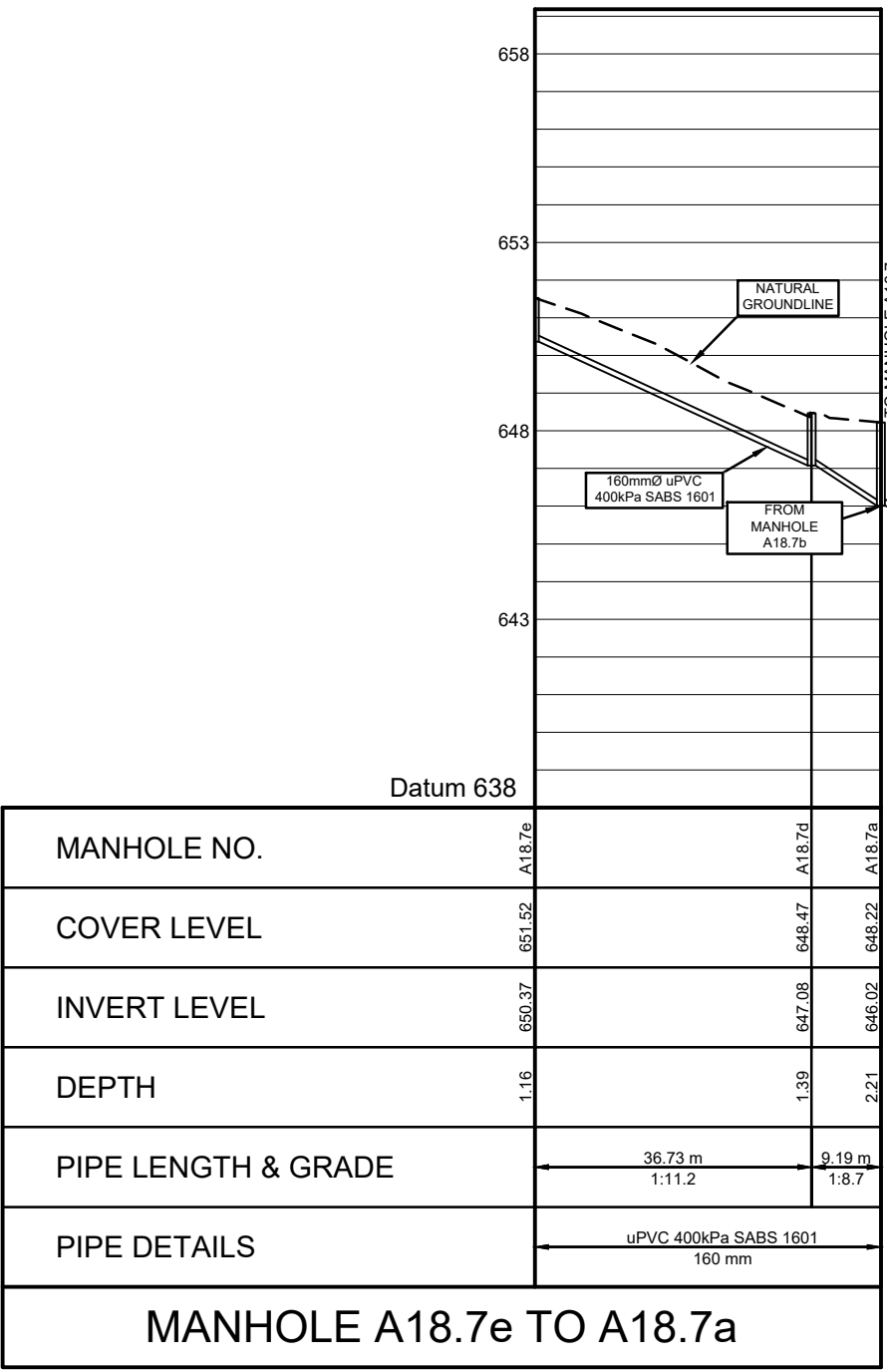
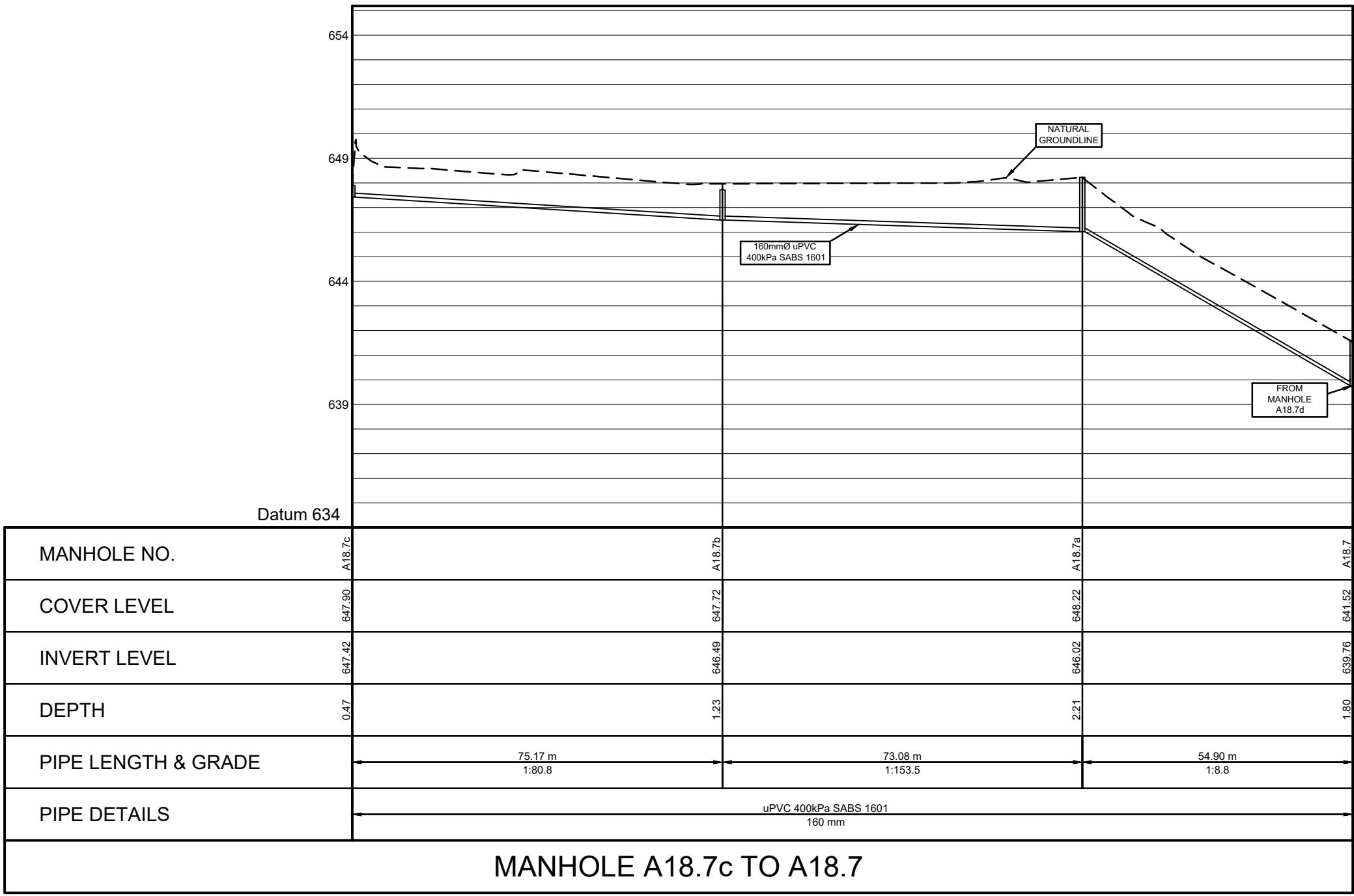
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IBISI SEWER RETICULATION

Drawing description:

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Drawn: G.D Bezuidenhout Date: Sep 2022
Scale/s: As Shown
Drawing number: 22-009-V-02-04 Rev.: 00



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- ALL PIPES TO BE LAID ON FLEXIBLE PIPE BEDDING UNLESS OTHERWISE SPECIFIED.
- ALL BACKFILL TO BE COMPACTED TO 93% Mod AASHTO UNLESS OTHERWISE SPECIFIED.
- ALL MANHOLE COVERS WITHIN ROADWAYS ARE TO BE HEAVY DUTY
- MANHOLE COVER LEVELS TO BE 150mm ABOVE GROUND IN OPEN SPACES AND FLUSH ON ROADWAYS AND SIDEWALKS

AMENDMENTS

Rev.	Date	Description

ECA CONSULTING VRYHEID OFFICE:
161 High Street | Vryheid | Kwa Zulu Natal | RSA
vryheid@ecaconsult.co.za
Tel: +27 (0)34 983 2825
www.ecaconsult.co.za
Civil and Structural Engineers
Company Reg.: 2004/019299/07
ISO Registered 9001:2015

Approved by Engineer: **L. K. Fourie**
Designation: PrTechEng
ECSA Reg.: 200970182
Signature: _____
Date: 21 Sep 2022

Project Funder/ Client: **mig** Municipal Infrastructure Grant

Project Implementing Agent: **HARRY GWALA DISTRICT MUNICIPALITY**

Approved by Client: _____
Name: _____
Signature: _____
Date: _____

Project: **IBISI SEWER RETICULATION**

Drawing description: **LONG SECTION 05**

Drawn: G.D Bezuidenhout Date: Sep 2022

Scale/s: As Shown

Drawing number: 22-009-V-02-05 Rev.: 00

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OTHER OFFICES:
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PIETERMARITZBURG |
LADYSMITH

Approved by Engineer: Signature: _____
Name: L. K. Fourie
Designation: PrTechEng
ECSA Reg.: 200970182 Date: 21 Sep 2022

Project Funder/ Client:

mig
Municipal
Infrastructure
Grant



Project Implementing Agent:

HARRY GWALA DISTRICT MUNICIPALITY



Approved by Client: _____
Name: _____
Signature: _____ Date: _____

Project:

IBISI SEWER RETICULATION

Drawing description:

LONG SECTION 06

Drawn: G.D Bezuidenhout Date: Sep 2022

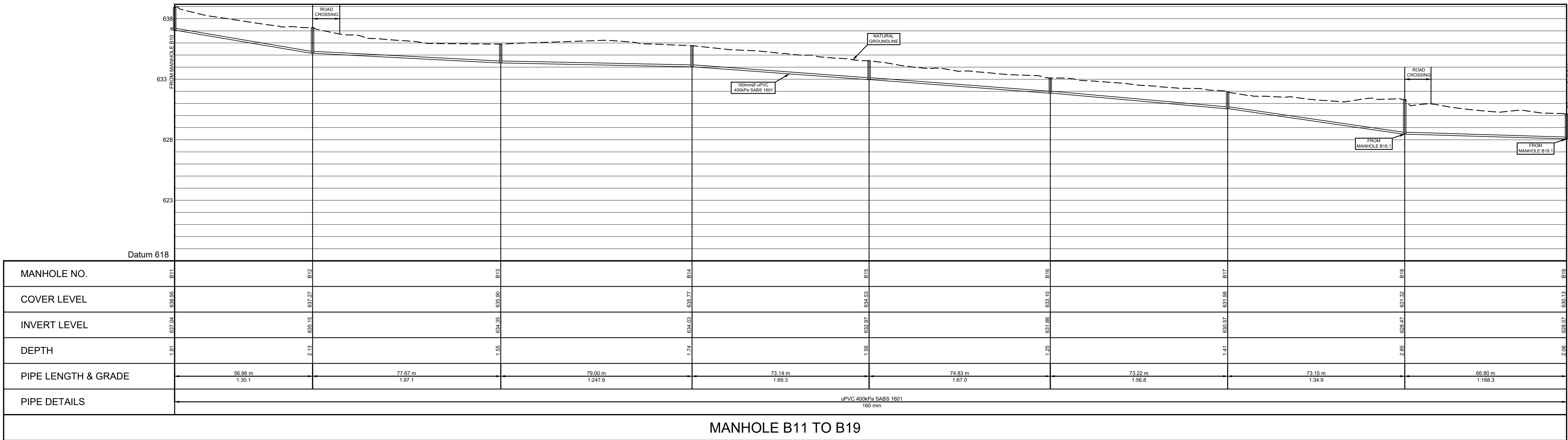
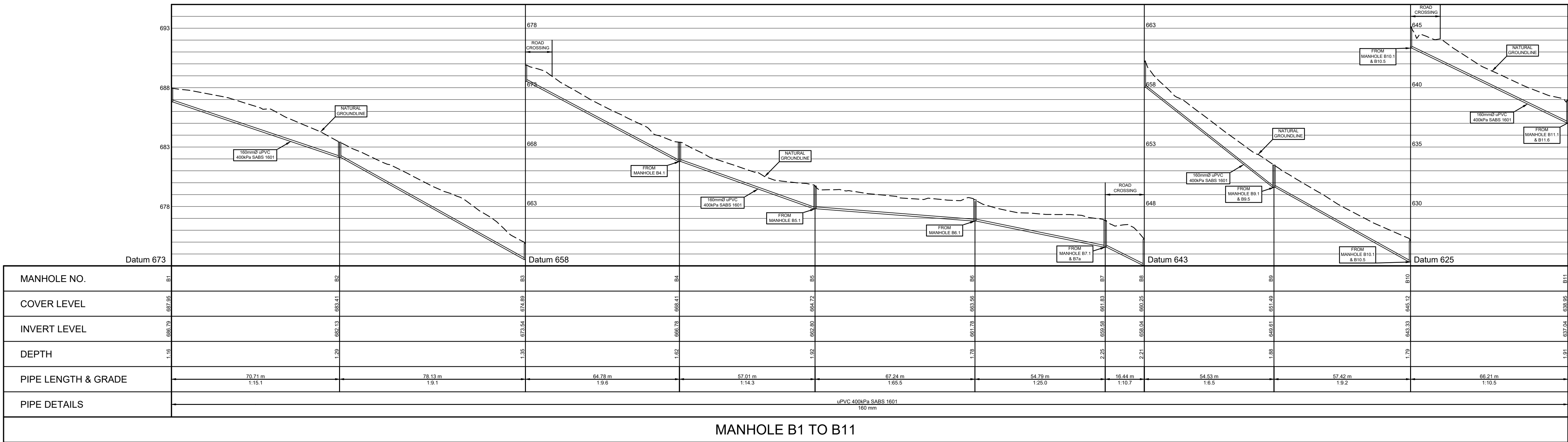
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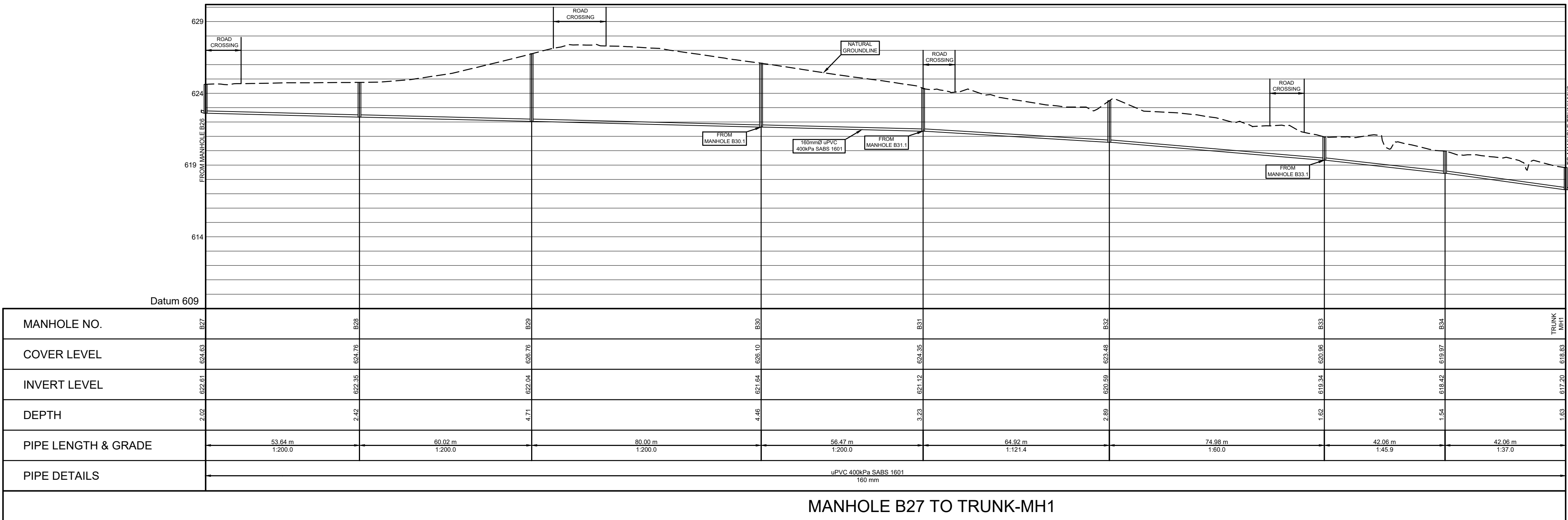
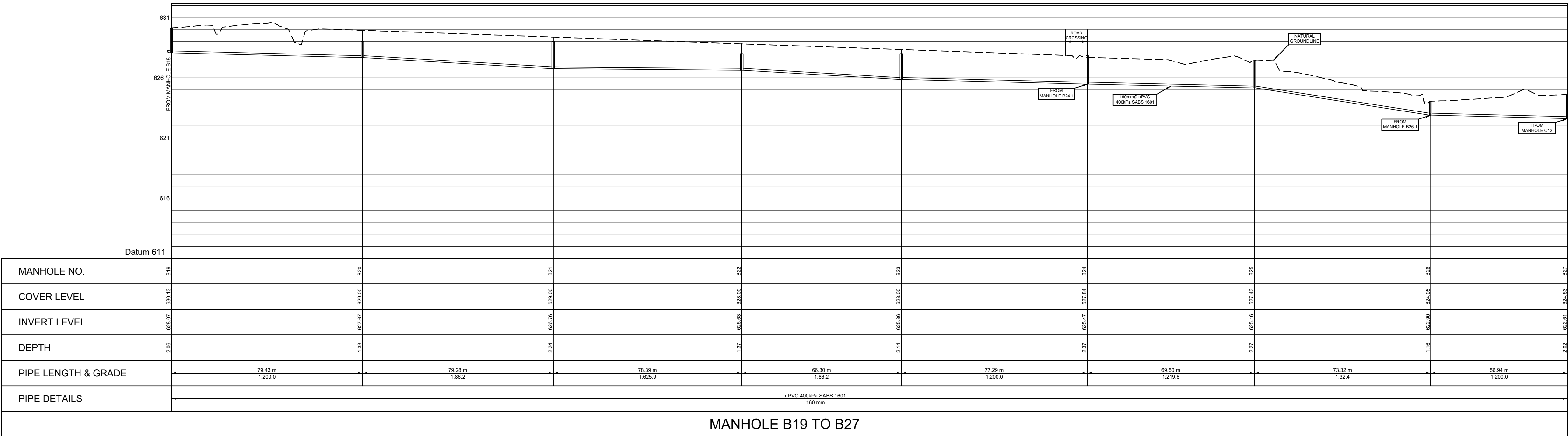
Drawing number: **22-009-V-02-06** Rev.: **00**

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LADYSMITH

Approved by Engineer: Signature:
Name: L. K. Fourie
Designation: PrTechEng
ECSA Reg.: 200970182 Date: 21 Sep 2022

Project Funder/ Client:



Project Implementing Agent:

HARRY GWALA DISTRICT MUNICIPALITY

Approved by Client:
Name: _____
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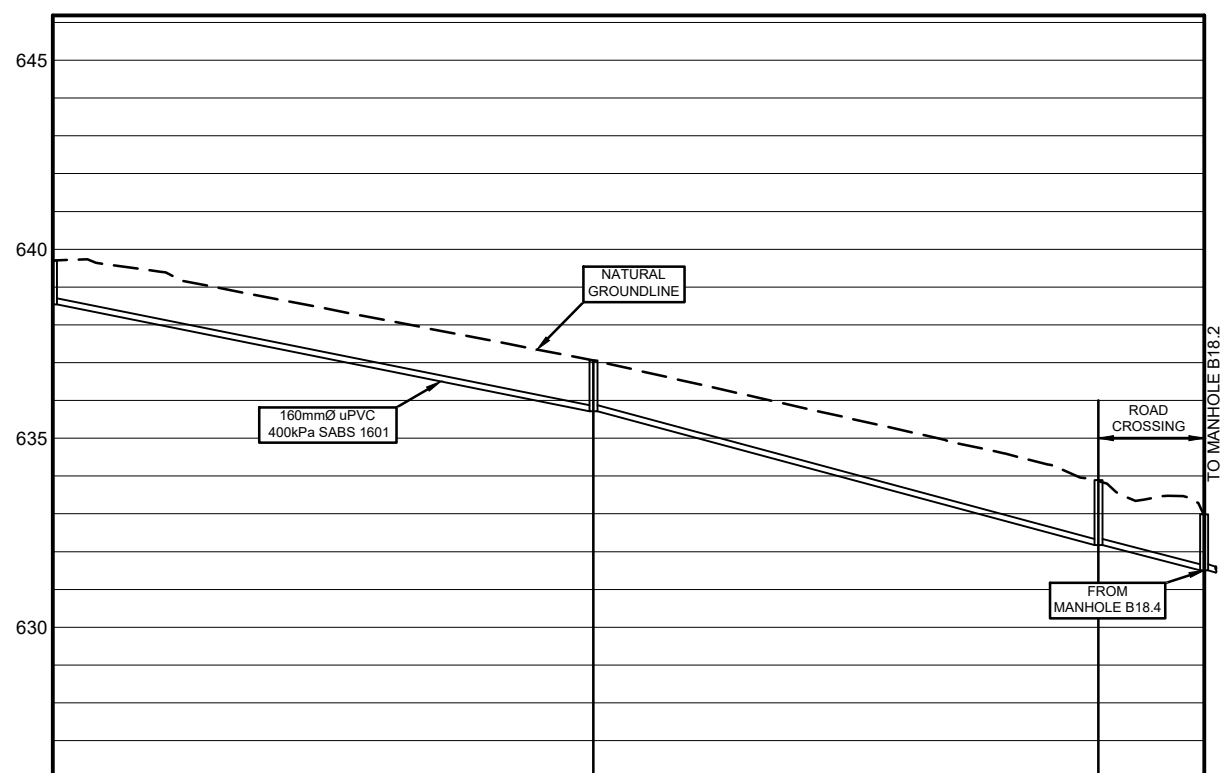
Project:

IBISI SEWER RETICULATION

Drawing description:

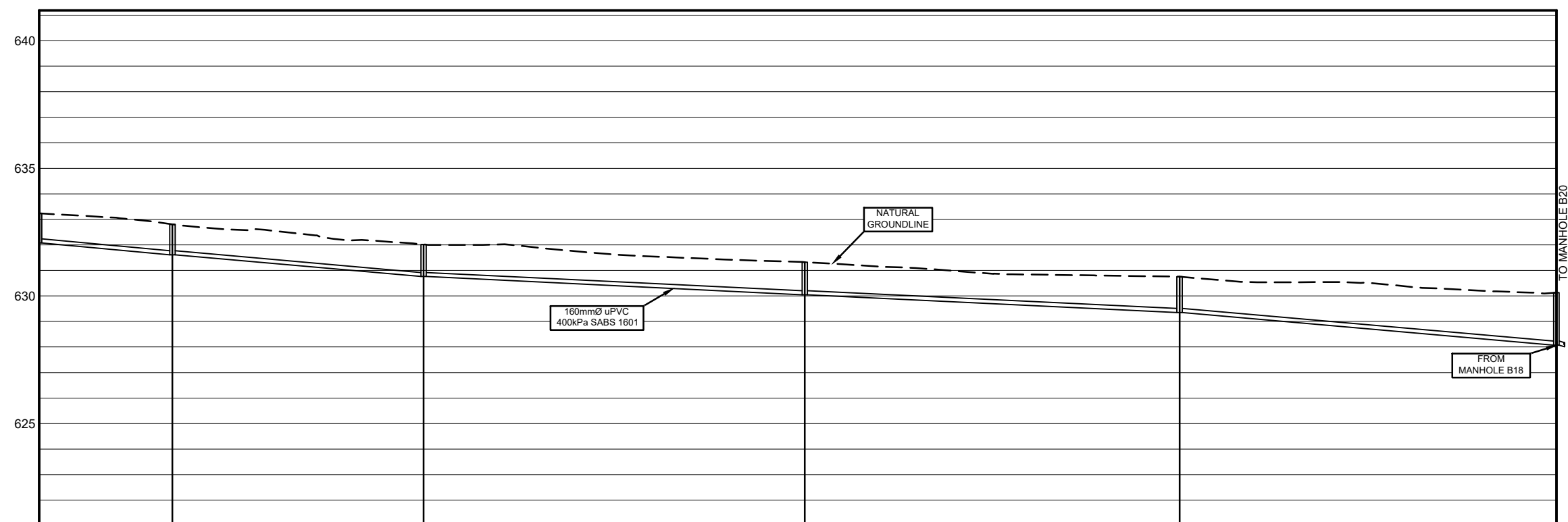
LONG SECTION 07

Drawn: G.D Bezuidenhout Date: Sep 2022
Scale/s: As Shown
Drawing number: 22-009-V-02-07 Rev.: 00



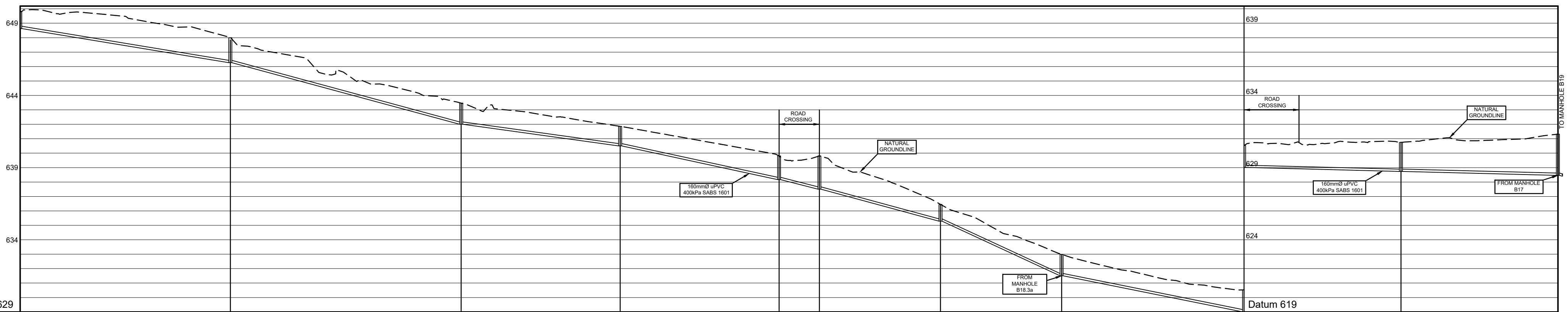
Datum 625	
MANHOLE NO.	B18.3c
COVER LEVEL	639.70
INVERT LEVEL	638.54
DEPTH	1.16
PIPE LENGTH & GRADE	71.50 m 1:23.3
PIPE DETAILS	uPVC 400kPa SABS 1501 150 mm

MANHOLE B18.3c TO B18.3



Datum 620	
MANHOLE NO.	B19.5
COVER LEVEL	633.74
INVERT LEVEL	632.60
DEPTH	1.14
PIPE LENGTH & GRADE	26.09 m 1:25.3
PIPE DETAILS	uPVC 400kPa SABS 1501 150 mm

MANHOLE B19.5 TO B19



Datum 629	
MANHOLE NO.	B18.10
COVER LEVEL	649.72
INVERT LEVEL	648.63
DEPTH	1.10
PIPE LENGTH & GRADE	72.82 m 1:30.9
PIPE DETAILS	uPVC 400kPa SABS 1501 150 mm

MANHOLE B18.10 TO B18

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Name: L. K. Fourie
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ECSA Reg.: 200970182 Date: 21 Sep 2022


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mig
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Project Implementing Agent:

HARRY GWALA DISTRICT MUNICIPALITY



Approved by Client:
Name: _____
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Project:

**IBISI SEWER
RETICULATION**

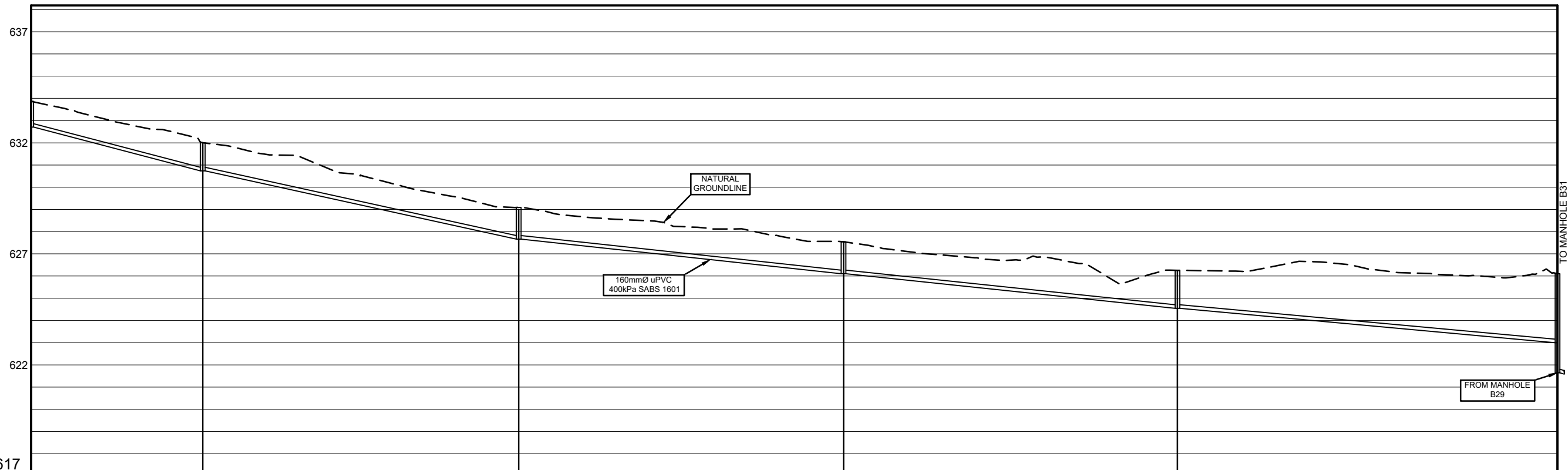
Drawing description:

LONG SECTION 08

Drawn: G.D Bezuidenhout Date: Sep 2022

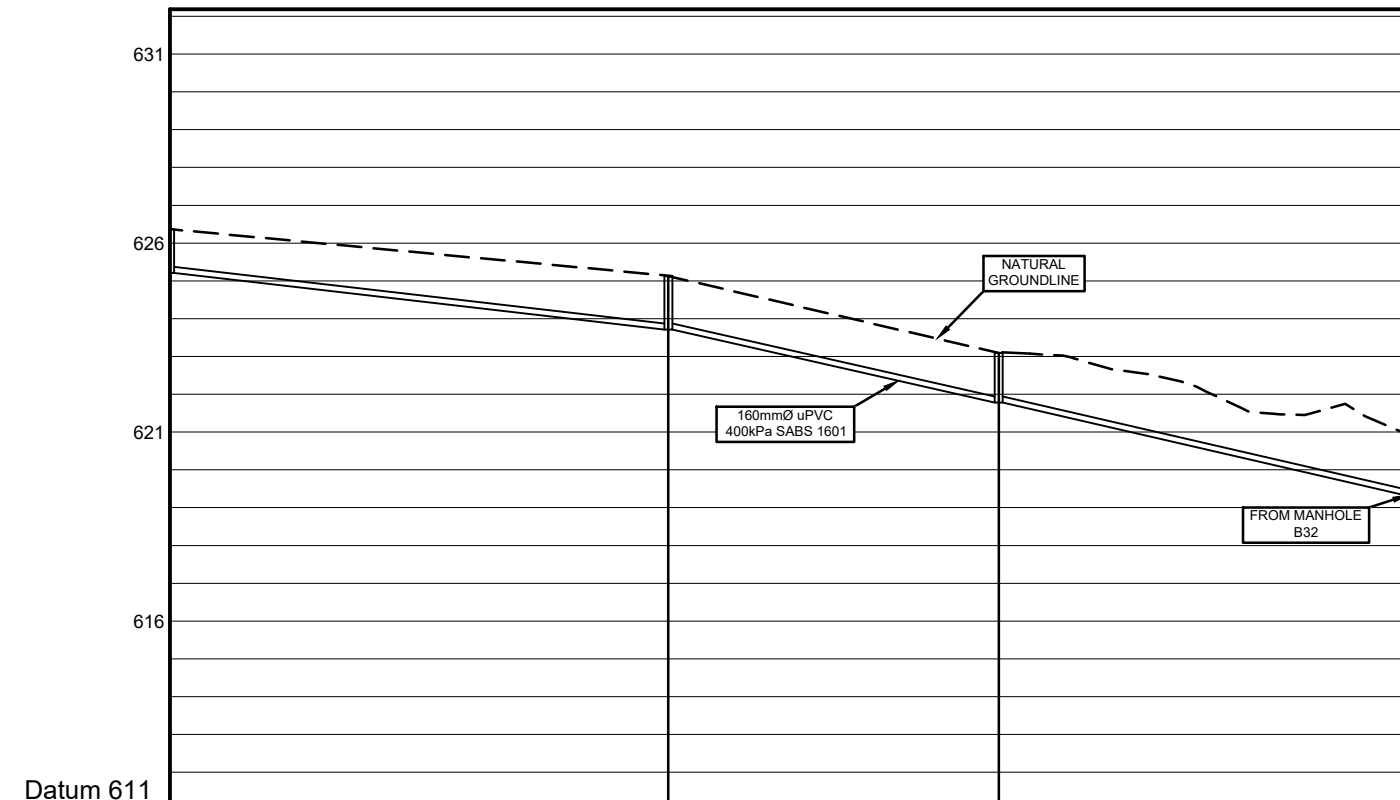
Scale/s: As Shown

Drawing number: 22-009-V-02-08 Rev.: 00



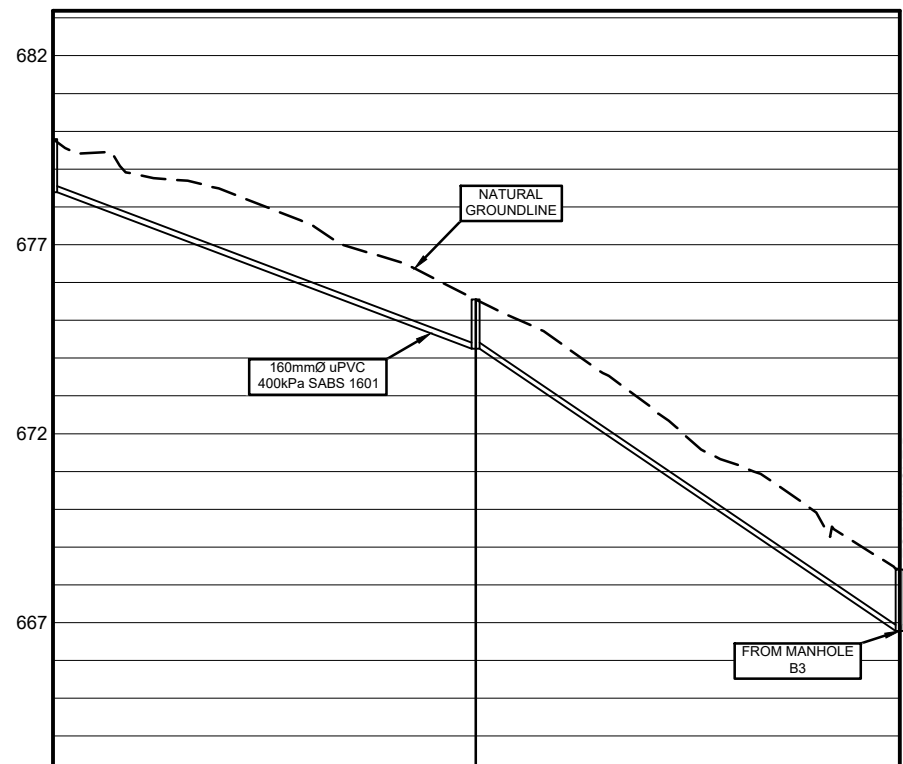
MANHOLE NO.	B30.6	B30.5	B30.4	B30.3	B30.2	B30
COVER LEVEL	630.6	630.5	630.4	630.3	630.2	630.1
INVERT LEVEL	629.6	629.5	629.4	629.3	629.2	629.1
DEPTH	1.16	1.27	1.43	1.44	1.71	2.10
PIPE LENGTH & GRADE	38.85 m 1:18.5	71.15 m 1:25.2	73.17 m 1:47.0	75.20 m 1:46.3	85.59 m 1:55.2	
PIPE DETAILS	uPVC 400kPa SABS 1601 160 mm					

MANHOLE B30.6 TO B30



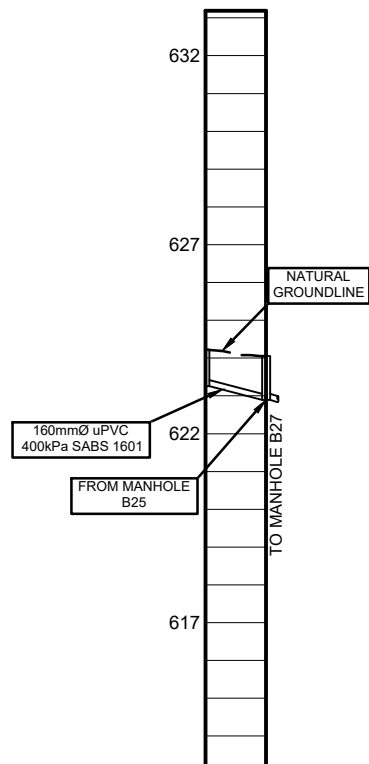
MANHOLE NO.	B33.3	B33.2	B33.1	B33
COVER LEVEL	630.3	630.2	630.1	630.0
INVERT LEVEL	629.3	629.2	629.1	629.0
DEPTH	1.16	1.41	1.31	1.02
PIPE LENGTH & GRADE	85.81 m 1:44.2	43.71 m 1:22.9	54.13 m 1:25.1	
PIPE DETAILS	uPVC 400kPa SABS 1601 160 mm			

MANHOLE B33.3 TO B33



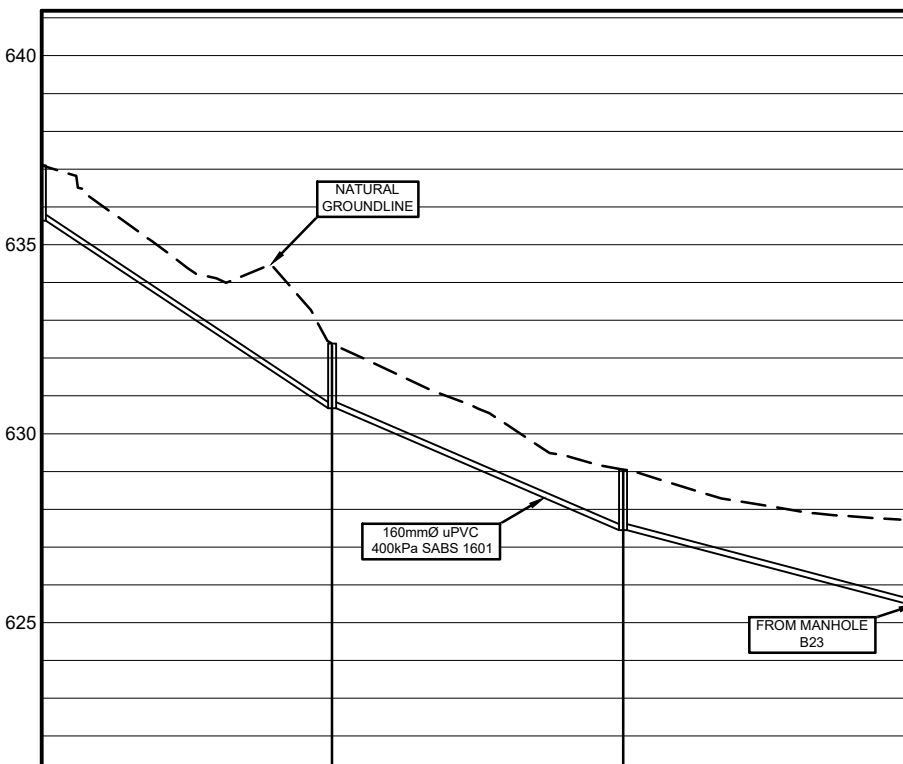
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COVER LEVEL	630.2	630.1	630.0
INVERT LEVEL	629.2	629.1	629.0
DEPTH	1.40	1.30	1.62
PIPE LENGTH & GRADE	55.90 m 1:13.5	56.09 m 1:7.5	
PIPE DETAILS	uPVC 400kPa SABS 1601 160 mm		

MANHOLE B4.2 TO B4



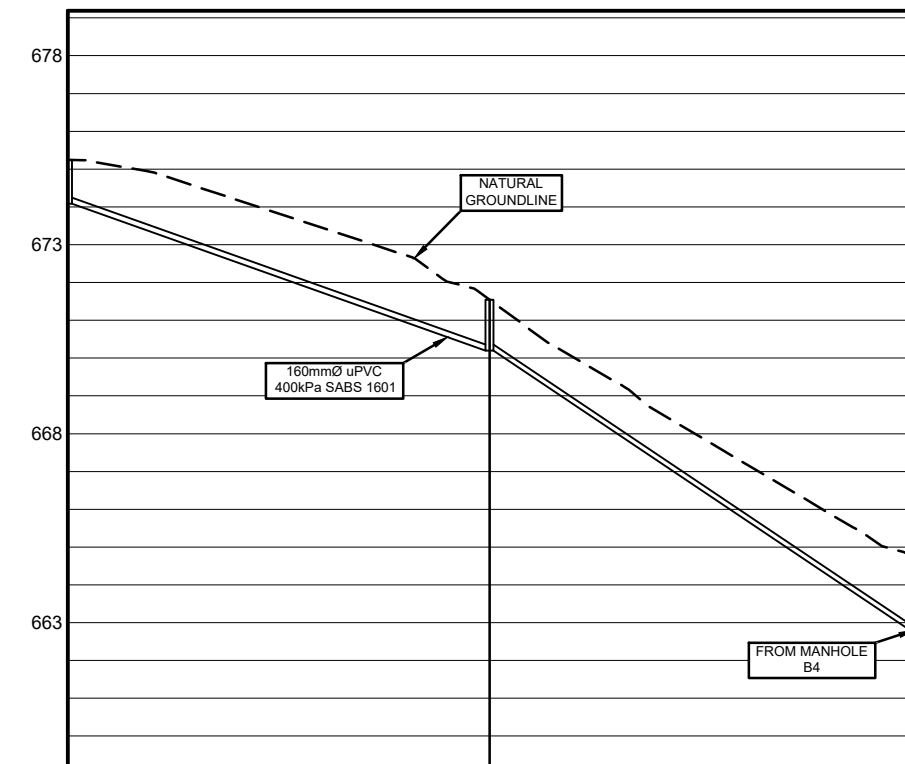
MANHOLE NO.	B26.1	B26
COVER LEVEL	623.1	623.0
INVERT LEVEL	622.1	622.0
DEPTH	0.98	1.16
PIPE LENGTH & GRADE	8.01 m 1:21.9	
PIPE DETAILS	uPVC 400kPa SABS 1601 160 mm	

MANHOLE B26.1 TO B26



MANHOLE NO.	B24.3	B24.2	B24.1	B24
COVER LEVEL	630.3	630.2	630.1	630.0
INVERT LEVEL	629.3	629.2	629.1	629.0
DEPTH	1.46	1.71	1.60	2.37
PIPE LENGTH & GRADE	38.38 m 1:7.7	38.49 m 1:11.9	38.50 m 1:19.5	
PIPE DETAILS	uPVC 400kPa SABS 1601 160 mm			

MANHOLE B24.3 TO B24



MANHOLE NO.	B5.2	B5.1	B5
COVER LEVEL	630.2	630.1	630.0
INVERT LEVEL	629.2	629.1	629.0
DEPTH	1.16	1.35	1.02
PIPE LENGTH & GRADE	55.77 m 1:14.4	56.14 m 1:7.6	
PIPE DETAILS	uPVC 400kPa SABS 1601 160 mm		

MANHOLE B5.2 TO B5

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Approved by Engineer: Signature:
Name: L. K. Fourie
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ECSA Reg.: 200970182 Date: 21 Sep 2022

Project Funder/ Client:
mig
Municipal Infrastructure Grant

Project Implementing Agent:
HARRY GWALA DISTRICT MUNICIPALITY

Approved by Client:
Name: _____
Signature: _____ Date: _____

Project:
IBISI SEWER RETICULATION

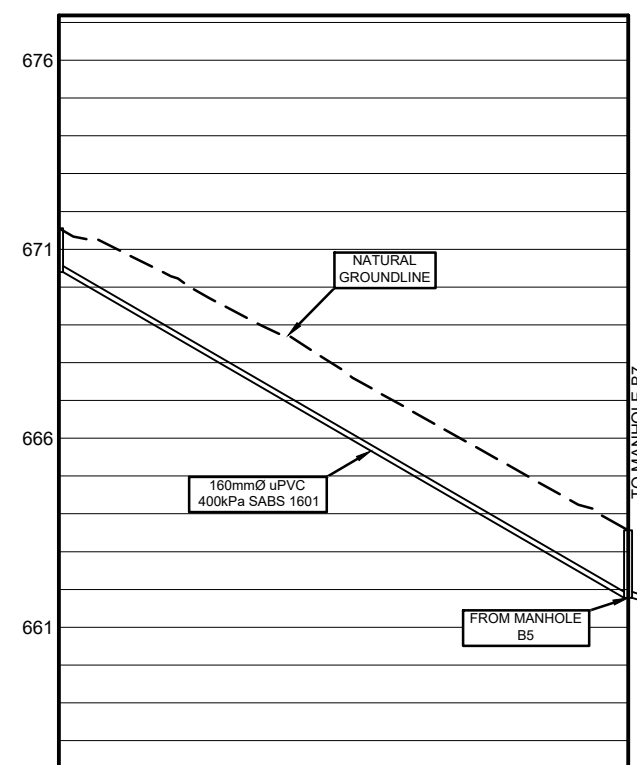
Drawing description:

LONG SECTION 09

Drawn: G.D Bezuidenhout Date: Sep 2022

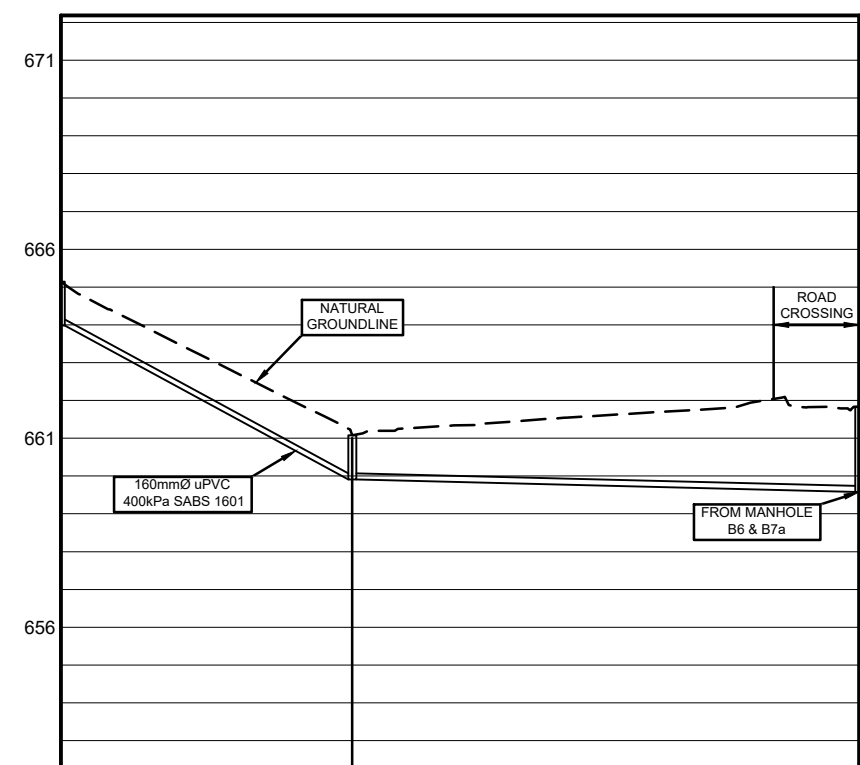
Scale/s: As Shown

Drawing number: 22-009-V-02-09 Rev.: 00



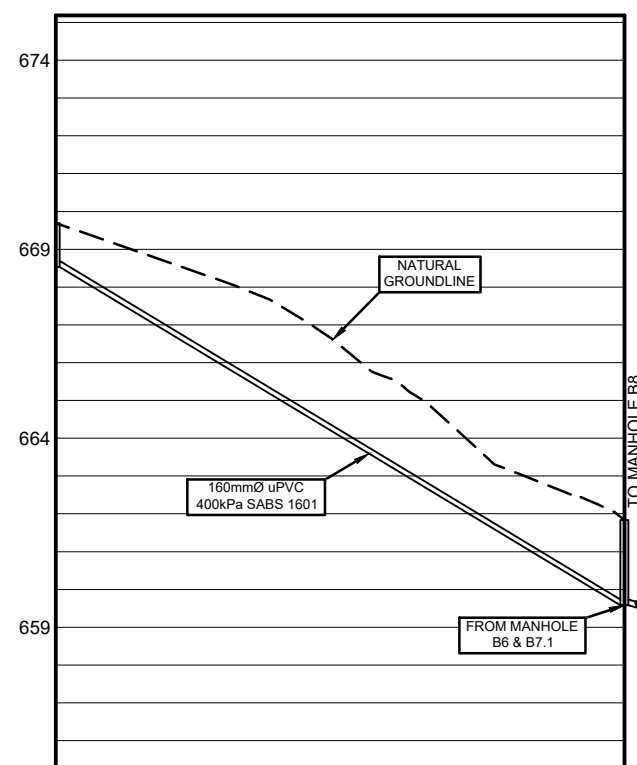
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COVER LEVEL	667.36
INVERT LEVEL	661.00
DEPTH	1.16
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PIPE DETAILS	uPVC 400kPa SABS 1601 160 mm

MANHOLE B6.1 TO B6



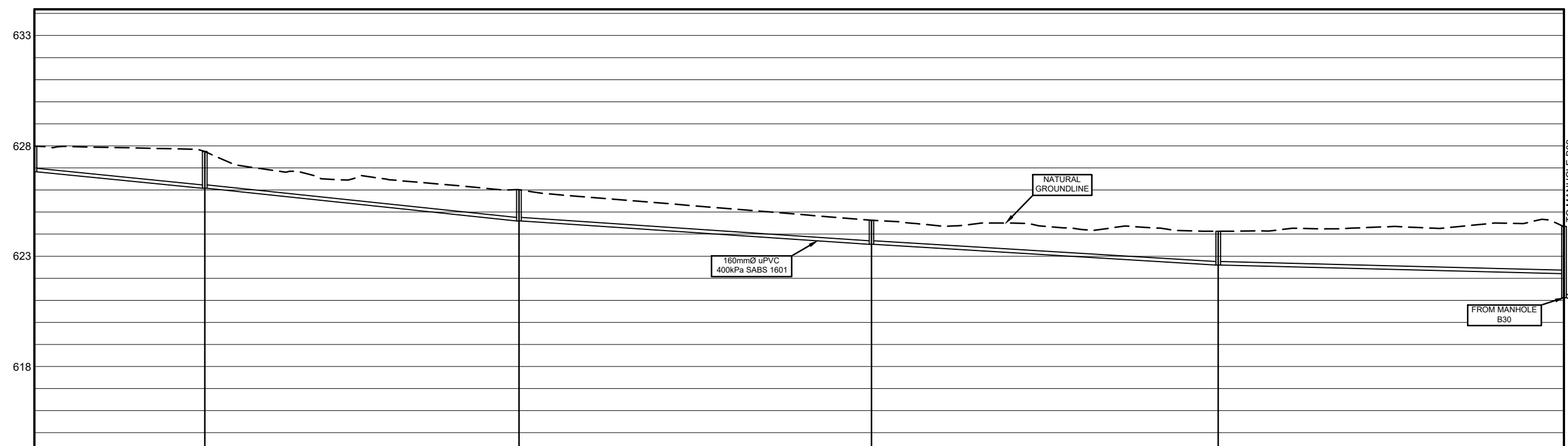
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MANHOLE NO.	B7.2
COVER LEVEL	667.14
INVERT LEVEL	661.00
DEPTH	1.16
PIPE LENGTH & GRADE	38.53 m 1:9.5
PIPE DETAILS	uPVC 400kPa SABS 1601 160 mm

MANHOLE B7.2 TO B7



Datum 654	
MANHOLE NO.	B7a
COVER LEVEL	669.00
INVERT LEVEL	659.00
DEPTH	1.16
PIPE LENGTH & GRADE	75.20 m 1:9.4
PIPE DETAILS	uPVC 400kPa SABS 1601 160 mm

MANHOLE B7a TO B7



Datum 613	
MANHOLE NO.	B31.5
COVER LEVEL	627.06
INVERT LEVEL	618.00
DEPTH	1.16
PIPE LENGTH & GRADE	38.57 m 1:9.7
PIPE DETAILS	uPVC 400kPa SABS 1601 160 mm

MANHOLE B31.5 TO B31

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**IBISI SEWER
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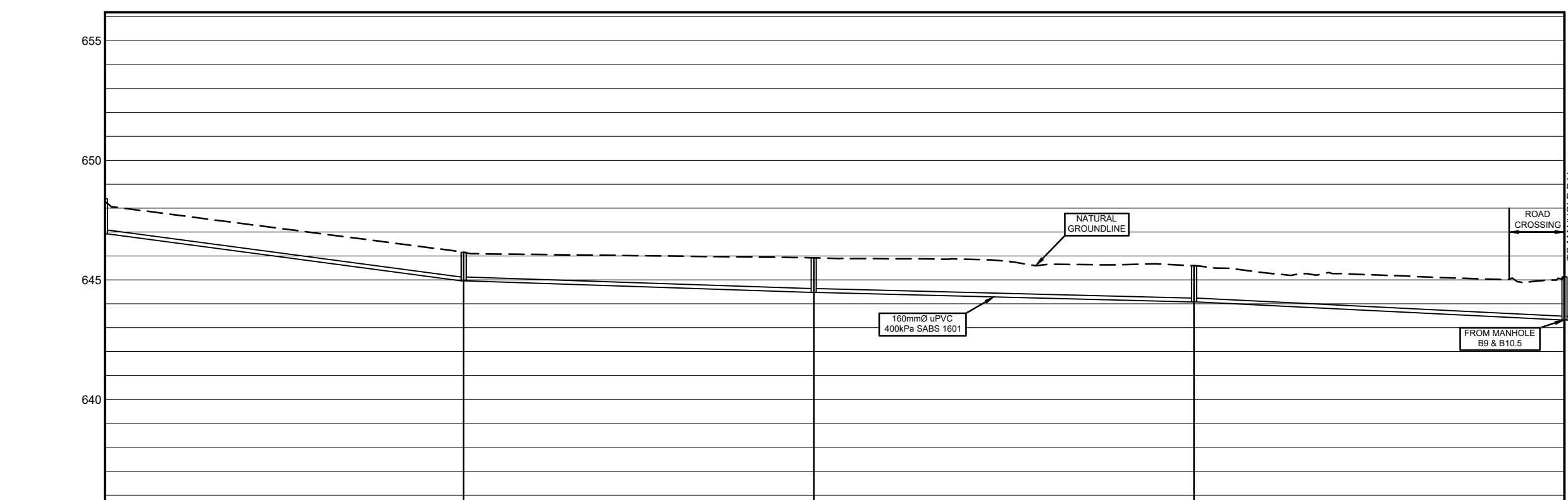
Drawing description:

LONG SECTION 10

Drawn: G.D Bezuidenhout Date: Sep 2022

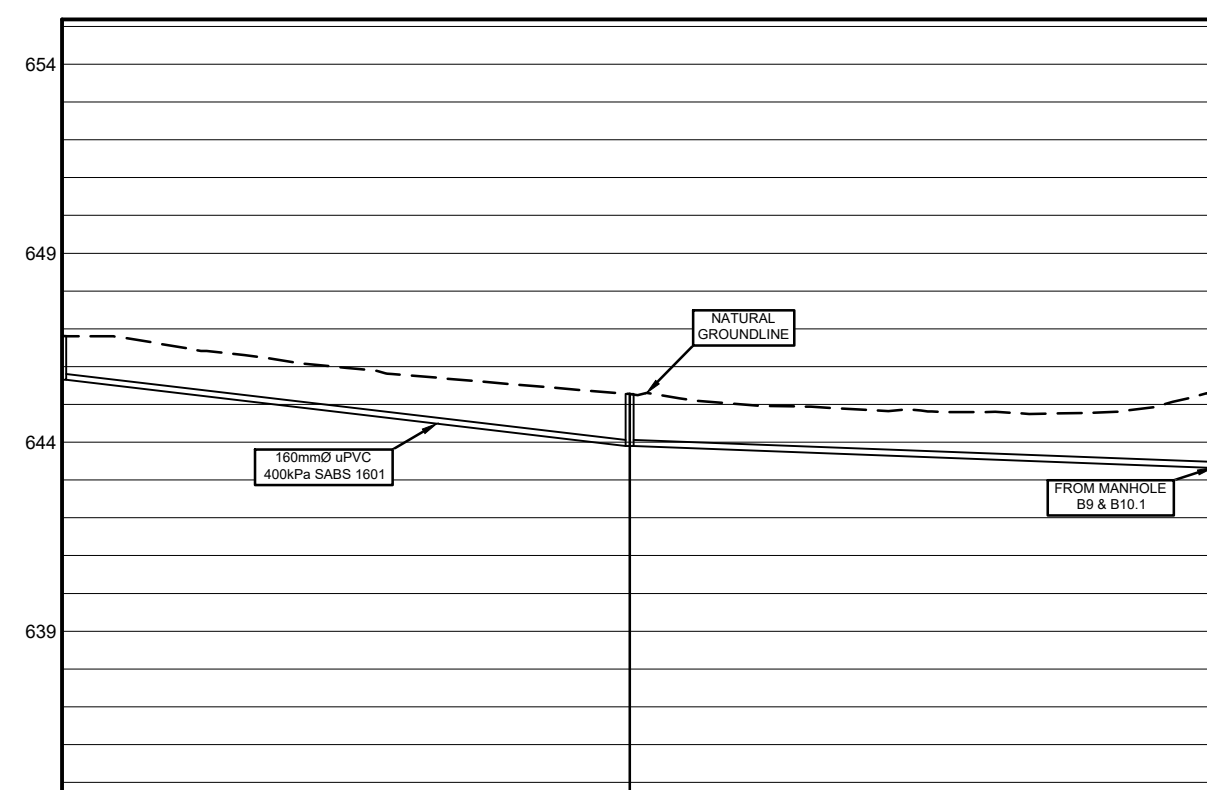
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Drawing number: 22-009-V-02-10 Rev.: 00



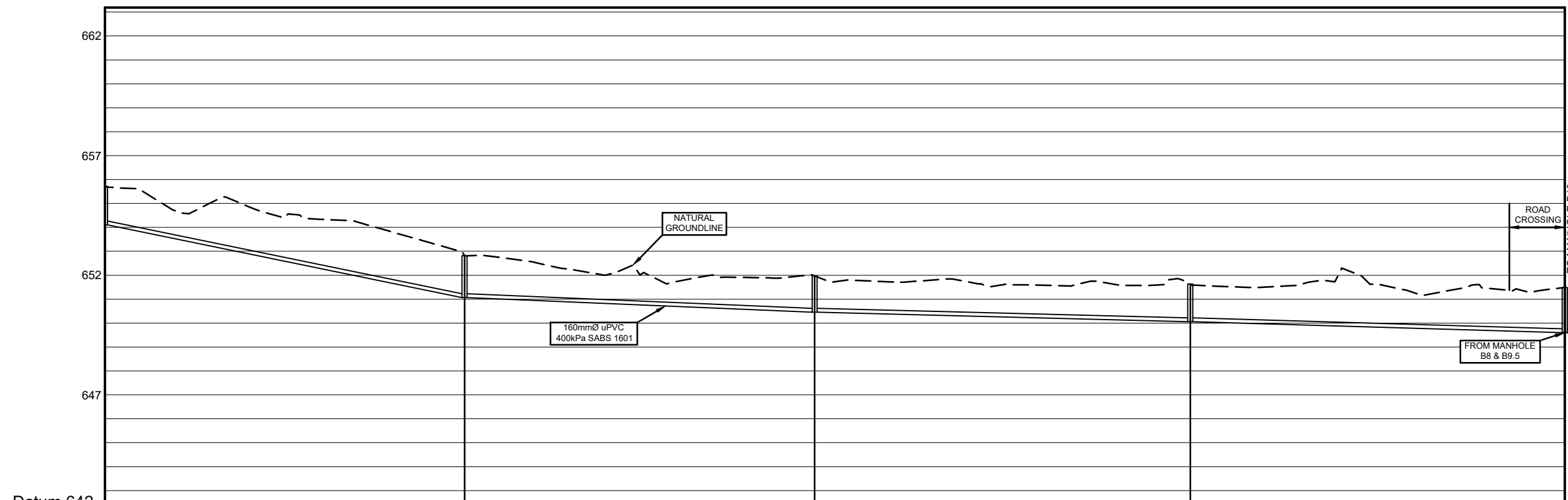
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COVER LEVEL	648.27	646.15	645.92	645.59	645.12
INVERT LEVEL	646.83	644.67	644.48	644.08	643.33
DEPTH	1.24	1.19	1.56	1.51	1.79
PIPE LENGTH & GRADE	<div><div></div><div>78.01 m 1:36.2</div><div></div><div>73.22 m 1:150.3</div><div></div><div>79.51 m 1:201.3</div><div></div><div>77.47 m 1:103.9</div><div></div></div>				
PIPE DETAILS	uPVC 400kPa SABS 1601 160 mm				

MANHOLE B10.4 TO B10



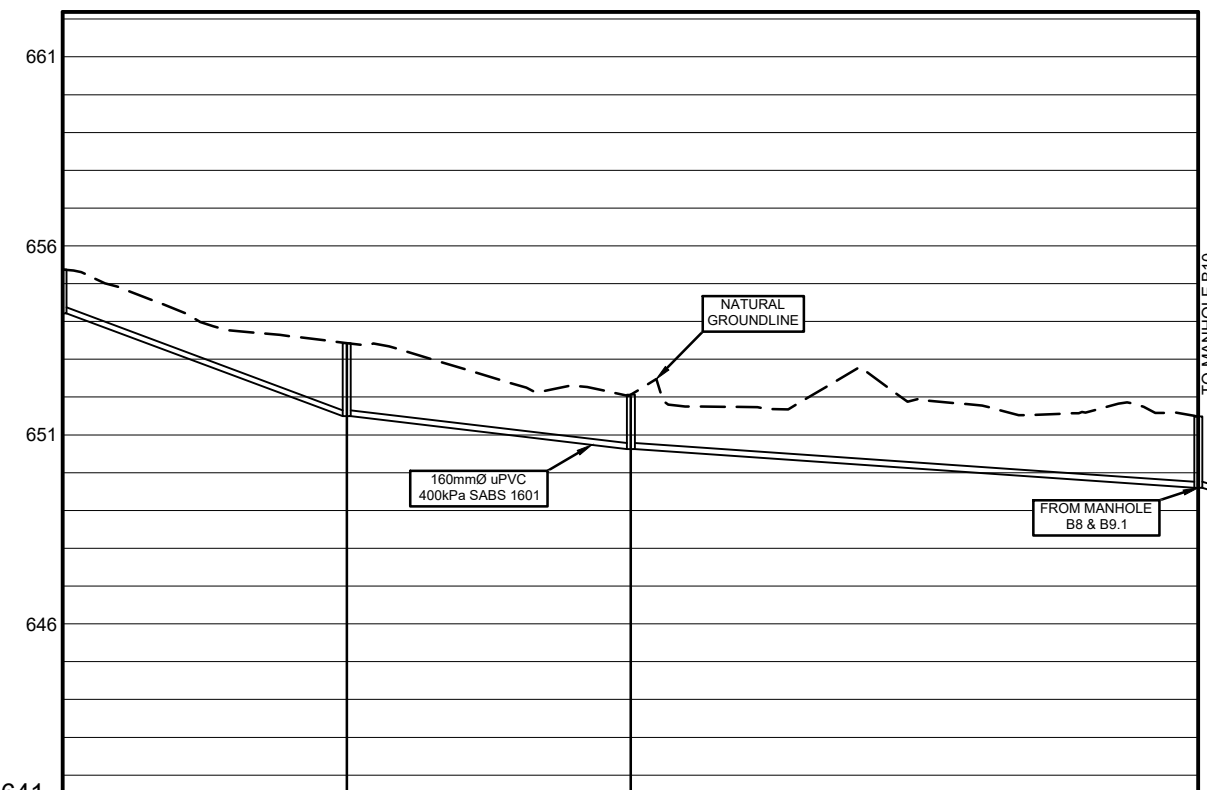
MANHOLE NO.	B10.6	B10.5	B10
COVER LEVEL	648.81	646.26	645.12
INVERT LEVEL	645.05	643.30	643.33
DEPTH	1.16	1.37	1.79
PIPE LENGTH & GRADE	<div><div></div><div>78.07 m 1:43.0</div><div></div><div>77.13 m 1:154.4</div><div></div></div>		
PIPE DETAILS	uPVC 400kPa SABS 1601 160 mm		

MANHOLE B10.6 TO B10



MANHOLE NO.	B9.4	B9.3	B9.2	B9.1	B9
COVER LEVEL	655.71	652.93	651.27	651.03	649.01
INVERT LEVEL	650.49	648.07	646.00	645.09	649.01
DEPTH	1.61	1.74	1.51	1.58	1.89
PIPE LENGTH & GRADE	<div><div></div><div>75.20 m 1:24.7</div><div></div><div>73.20 m 1:120.0</div><div></div><div>78.55 m 1:196.9</div><div></div><div>78.31 m 1:173.3</div><div></div></div>				
PIPE DETAILS	uPVC 400kPa SABS 1601 160 mm				

MANHOLE B9.4 TO B9



MANHOLE NO.	B9.7	B9.6	B9.5	B9
COVER LEVEL	655.38	653.43	652.06	649.01
INVERT LEVEL	650.22	648.50	646.80	649.01
DEPTH	1.16	1.53	1.44	1.89
PIPE LENGTH & GRADE	<div><div></div><div>37.58 m 1:13.8</div><div></div><div>37.58 m 1:43.2</div><div></div><div>75.96 m 1:73.6</div><div></div></div>			
PIPE DETAILS	uPVC 400kPa SABS 1601 160 mm			

MANHOLE B9.7 TO B9

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AMENDMENTS

Rev.	Date	Description

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Approved by Engineer: Signature:
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Designation: PrTechEng
ECSA Reg.: 200970182 Date: 21 Sep 2022

Project Funder/ Client:
mig
Municipal
Infrastructure
Grant



Project Implementing Agent:
HARRY GWALA DISTRICT MUNICIPALITY



Approved by Client:
Name: _____
Signature: _____ Date: _____

Project:
IBISI SEWER RETICULATION

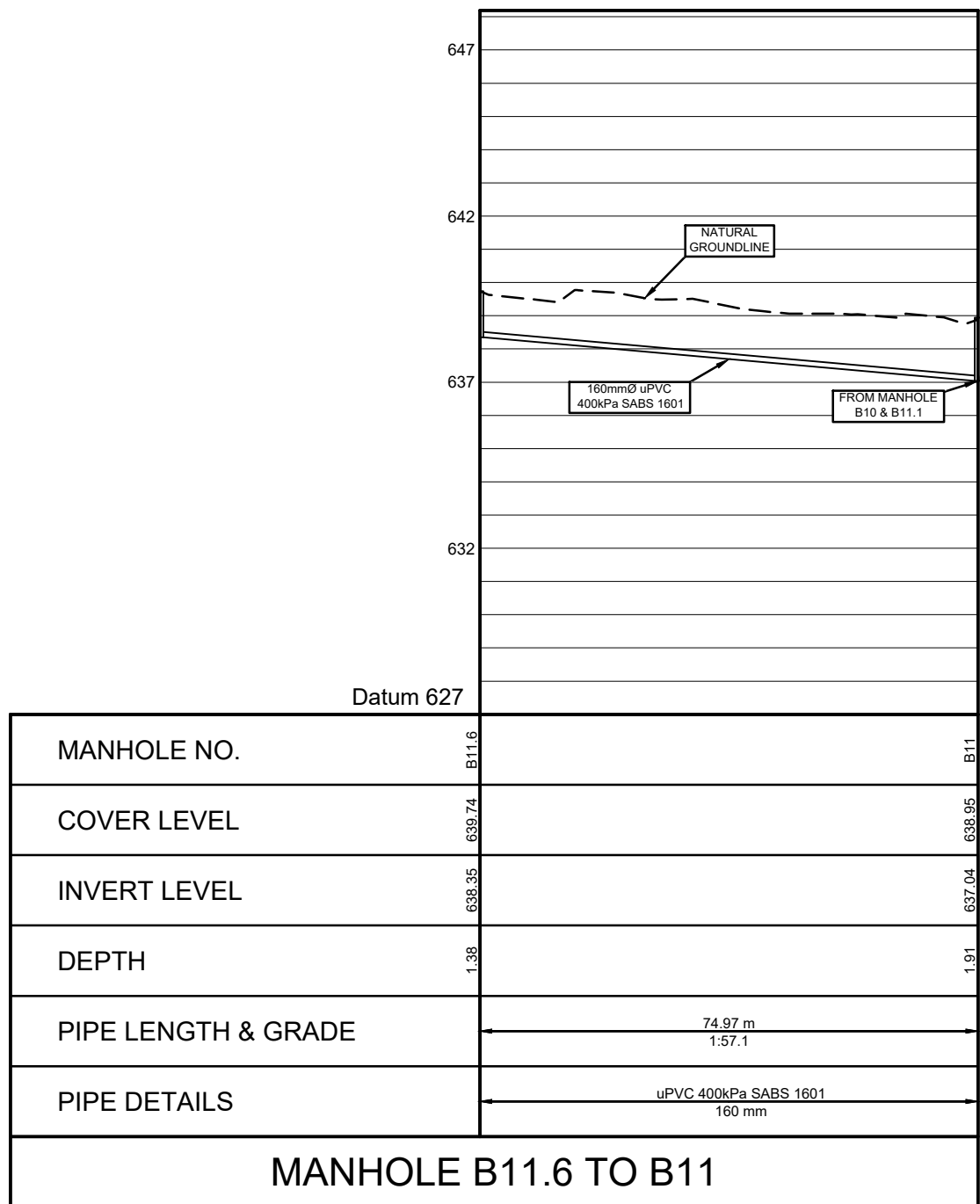
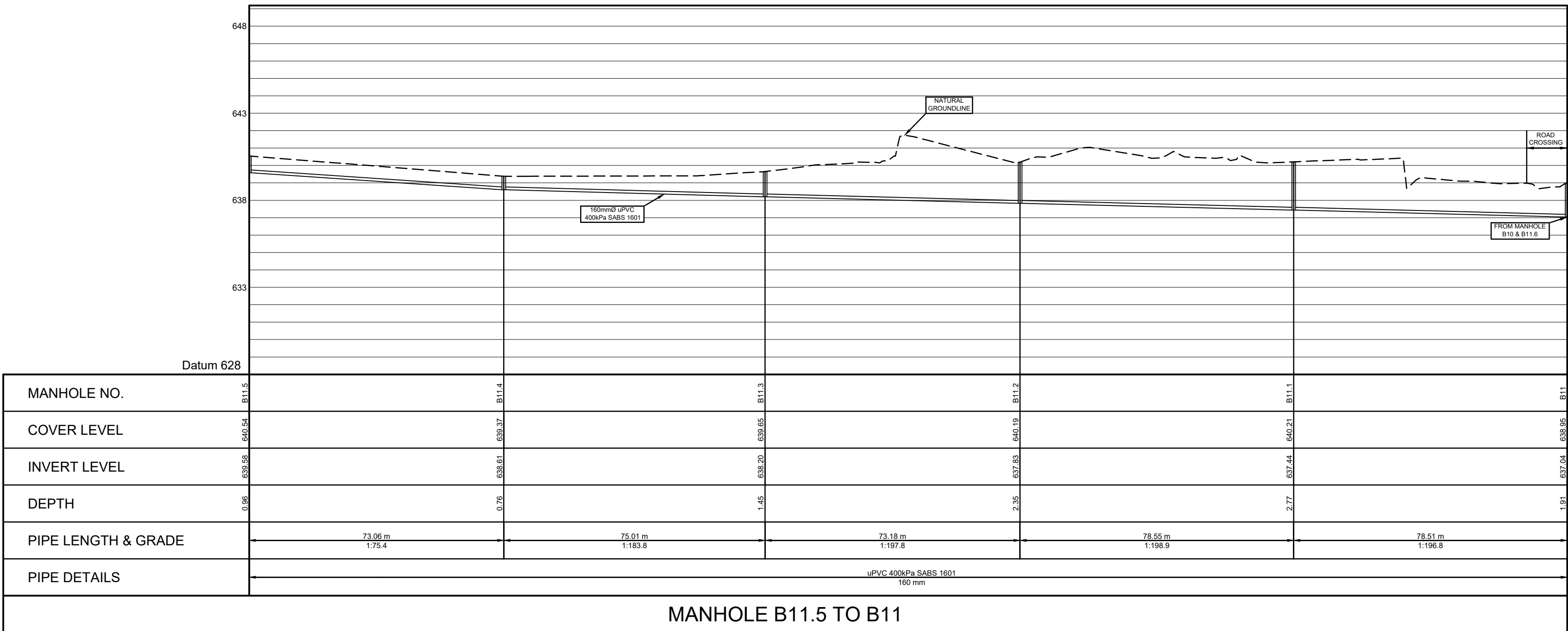
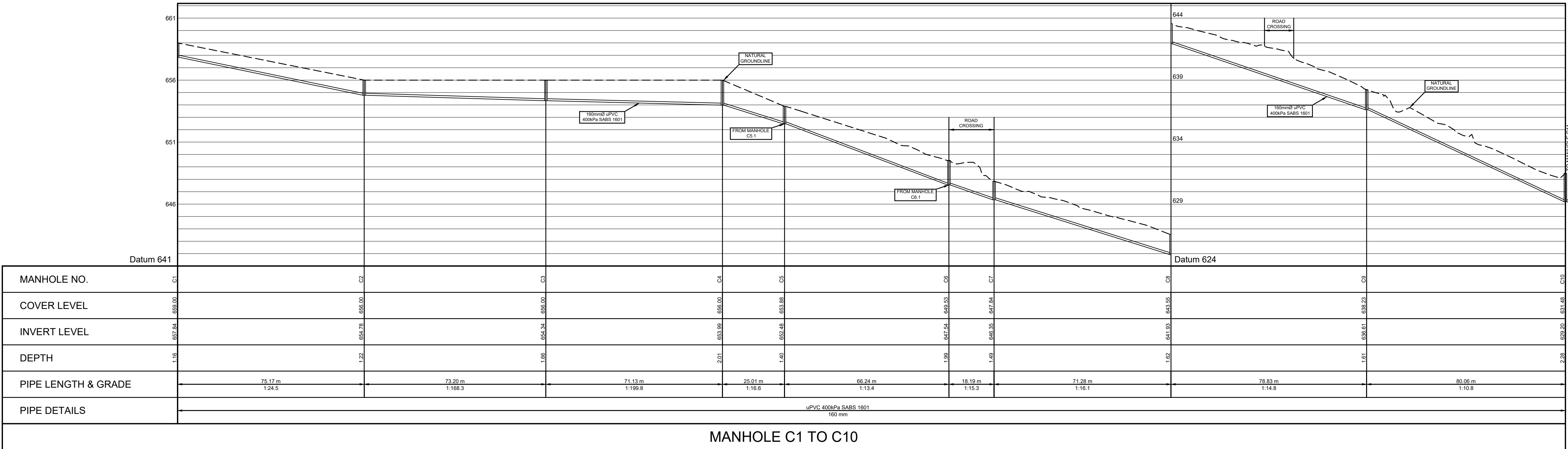
Drawing description:

LONG SECTION 11

Drawn: G.D Bezuidenhout Date: Sep 2022

Scale/s: As Shown

Drawing number: 22-009-V-02-11 Rev.: 00



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Project Funder/ Client:


Municipal Infrastructure Grant



Project Implementing Agent:

HARRY GWALA DISTRICT MUNICIPALITY



Approved by Client: Name: Signature: Date:

Project: **IBISI SEWER RETICULATION**

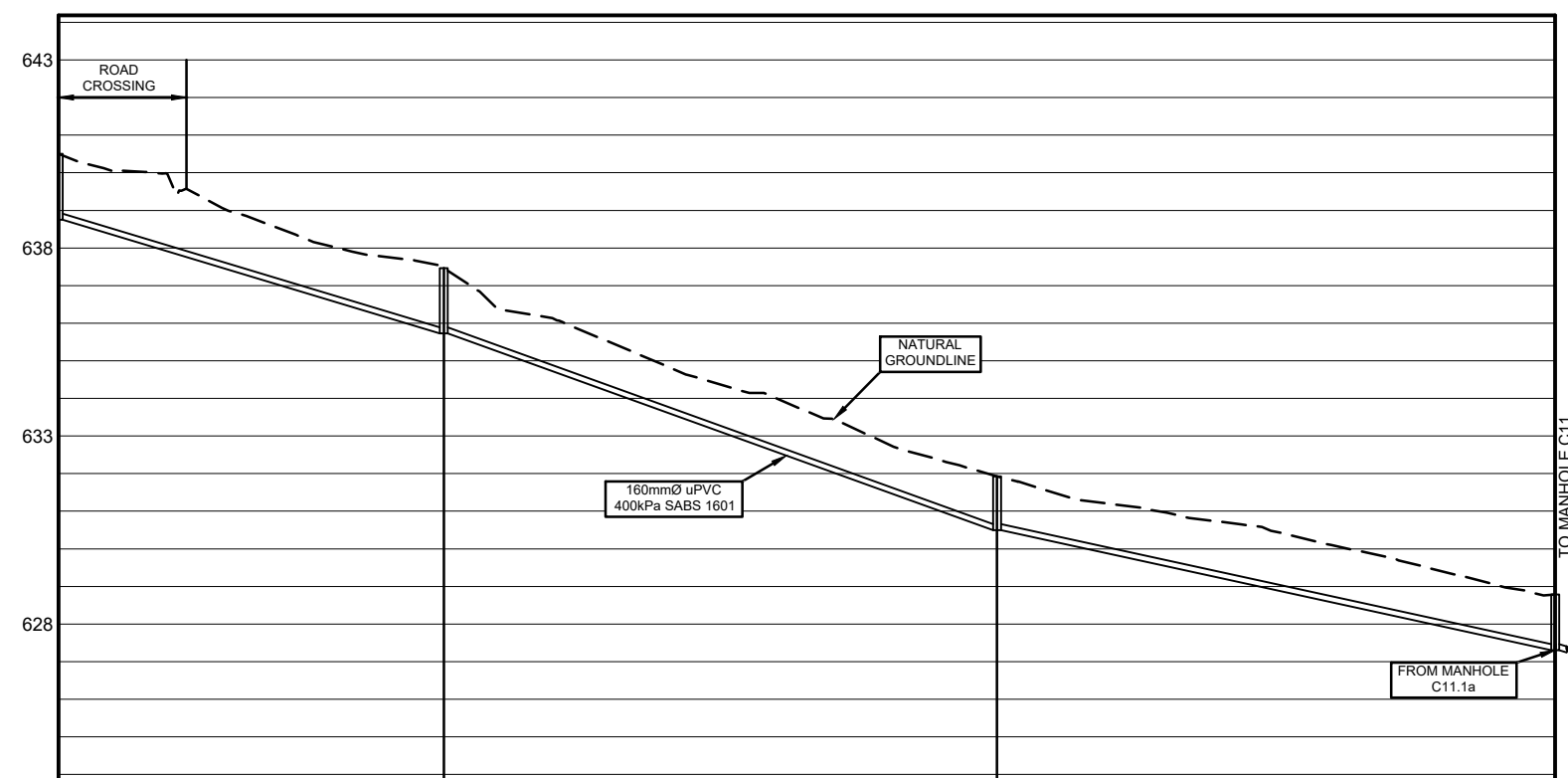
Drawing description:

LONG SECTION 12

Drawn: G.D Bezuidenhout Date: Sep 2022

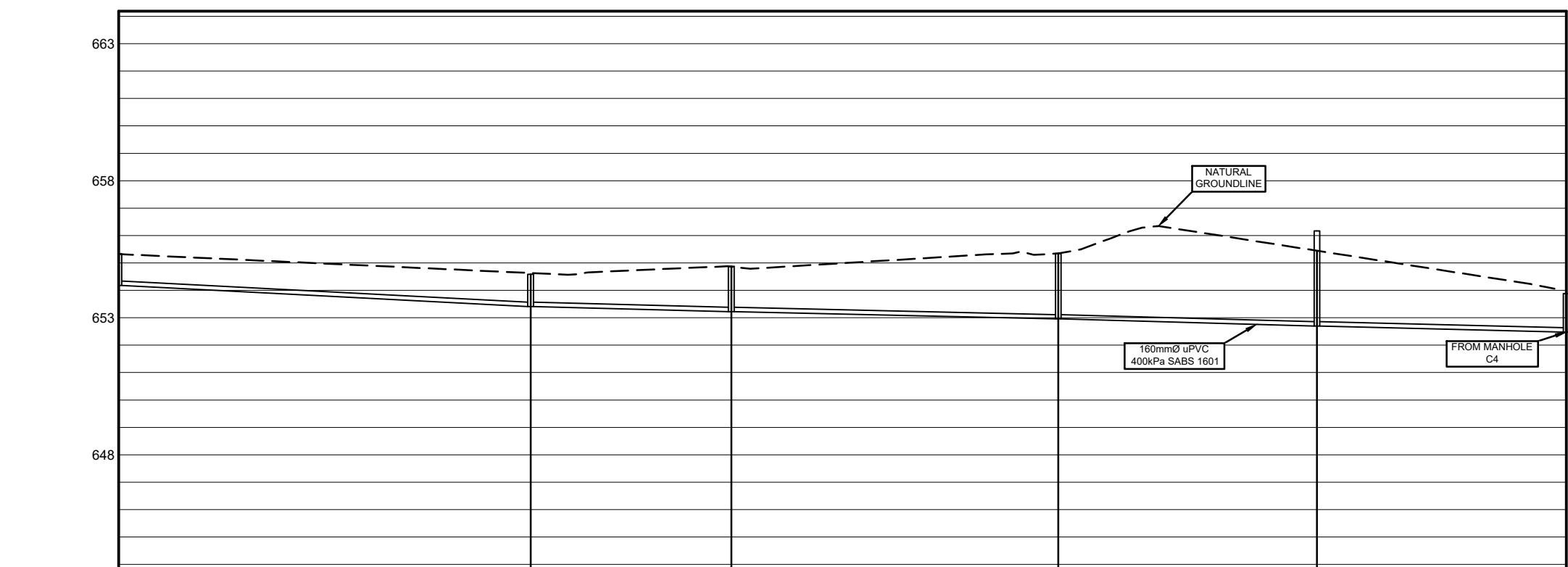
Scale/s: As Shown

Drawing number: 22-009-V-02-12 Rev.: 00



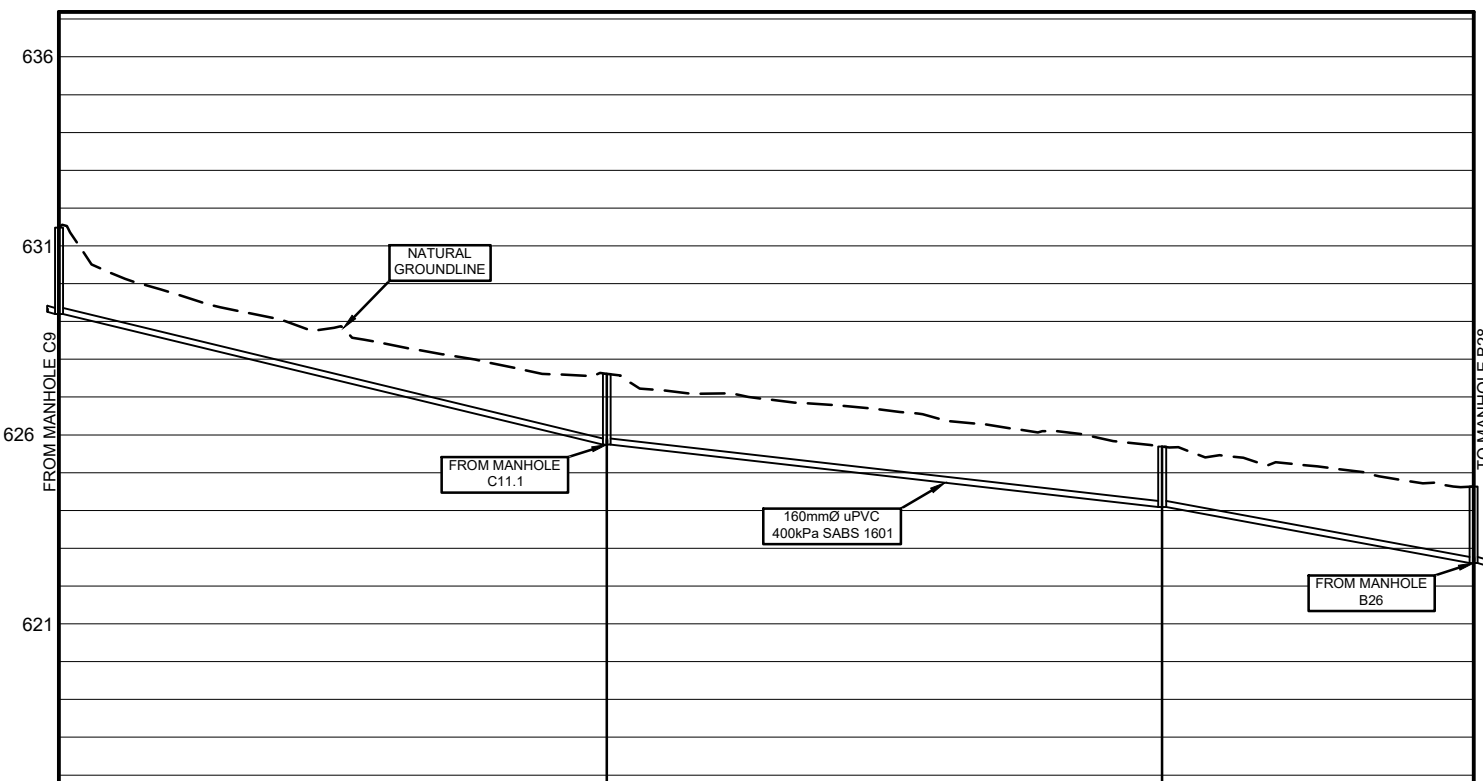
MANHOLE NO.	C11.4	C11.3	C11.2	C11.1
COVER LEVEL	629.75	627.47	621.03	627.31
INVERT LEVEL	629.75	625.73	620.05	627.31
DEPTH	1.75	1.74	1.43	1.46
PIPE LENGTH & GRADE	<div><div></div><div>61.24 m 1:16.3</div><div></div><div>73.61 m 1:14.1</div><div></div><div>74.24 m 1:23.3</div></div>			
PIPE DETAILS	uPVC 400kPa SABS 1601 160 mm			

MANHOLE C11.4 TO C11.1



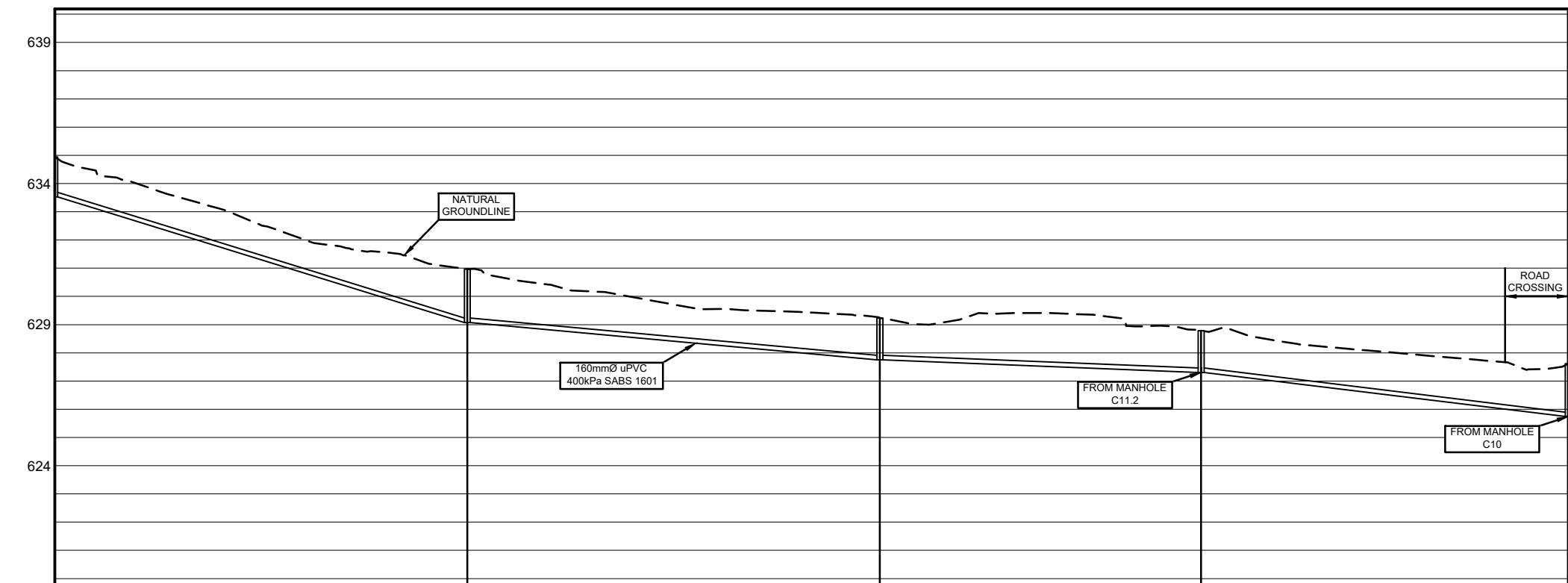
MANHOLE NO.	C5.1	C5.2	C5.3	C5.4	C5.5
COVER LEVEL	655.34	655.34	654.87	654.59	654.18
INVERT LEVEL					
DEPTH	1.16	2.39	1.64	1.18	1.16
PIPE LENGTH & GRADE	<div><div></div><div>75.18 m 1:197.7</div><div></div><div>38.62 m 1:200.1</div><div></div><div>59.65 m 1:221.7</div><div></div><div>47.20 m 1:112.2</div><div></div><div>45.50 m 1:207.7</div></div>				
PIPE DETAILS	uPVC 400kPa SABS 1601 160 mm				
MANHOLE C5.5 TO C5					

MANHOLE C5.5 TO C5



MANHOLE NO.	C10		C11		C12		B27
COVER LEVEL	803.48		802.61		805.09		804.03
INVERT LEVEL	802.20		802.74 1:21.0		804.10		802.61
DEPTH	2.28		1.87		1.59		2.02
PIPE LENGTH & GRADE	<div><div></div><div>73.46 m 1:21.0</div><div></div><div>73.45 m 1:44.6</div><div></div><div>41.21 m 1:27.8</div></div>						
PIPE DETAILS	uPVC 400kPa SABS 1601 160 mm						
MANHOLE C10 TO B27							

MANHOLE C10 TO B27



MANHOLE NO.	C11.1c	C11.1b	C11.1a	C11
COVER LEVEL	634.94	630.97	629.23	627.61
INVERT LEVEL	633.53	630.08	627.76	627.31
DEPTH	1.41	1.39	1.48	1.37
PIPE LENGTH & GRADE	<div><div></div><div>73.12 m 1:16.4</div><div></div><div>73.12 m 1:55.4</div><div></div><div>56.94 m 1:127.7</div><div></div><div>65.08 m 1:41.6</div></div>			
PIPE DETAILS	uPVC 400kPa SABS 1601 160 mm			
MANHOLE C11.1c TO C11				

MANHOLE C11.1c TO C11

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**HARRY GWALA
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MUNICIPALITY**

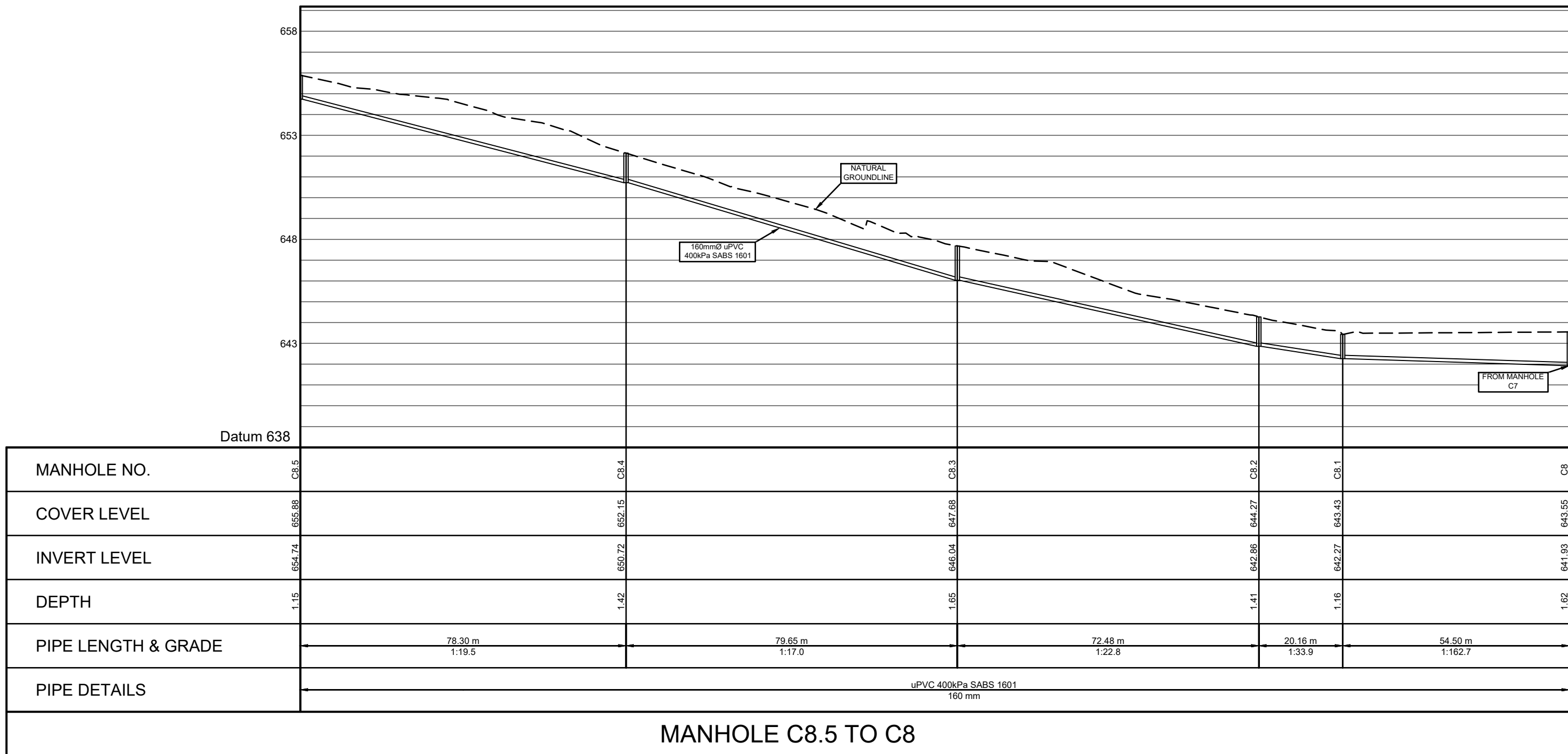
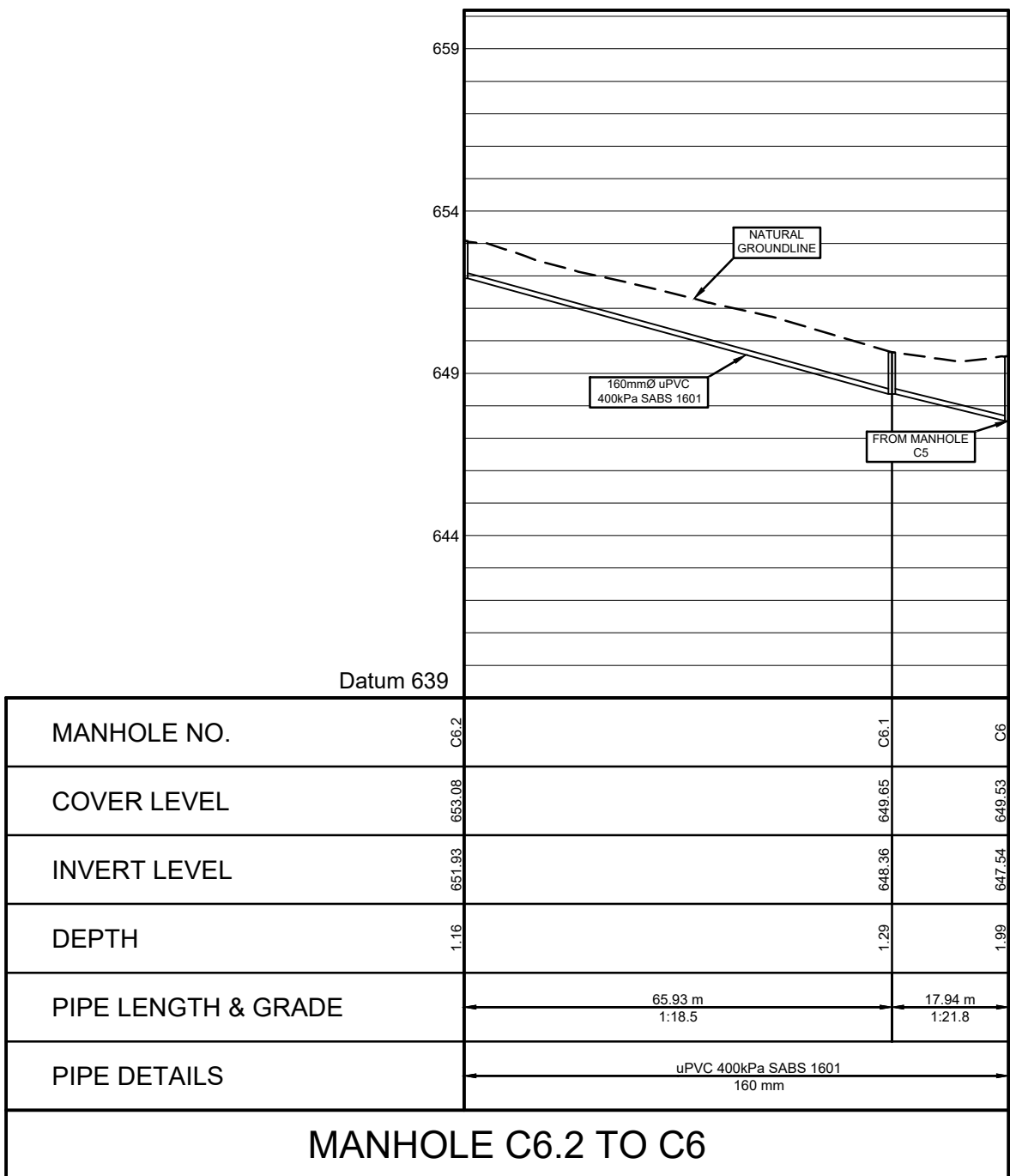
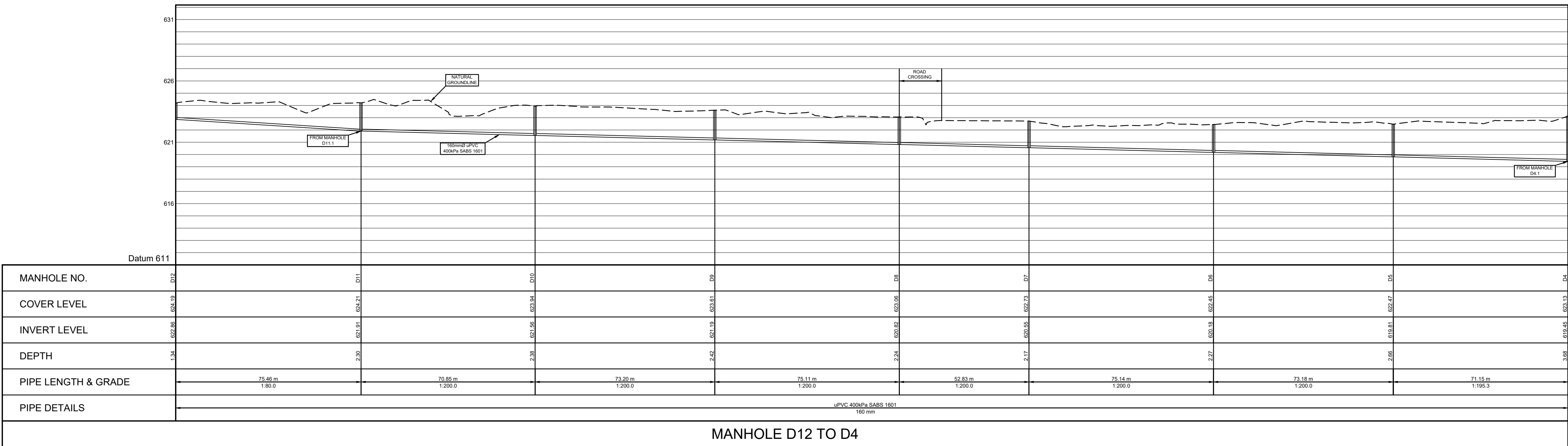


Approved by Client: Name: Signature: Date:

Project: **IBISI SEWER
RETICULATION**

Drawing description: **LONG SECTION 13**

Drawn: G.D Bezuidenhout Date: Sep 2022
Scale/s: As Shown
Drawing number: 22-009-V-02-13 Rev.: 00



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ECSA Reg.: 200970182 Date: 21 Sep 2022


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mig
Municipal
Infrastructure
Grant



Project Implementing Agent:

HARRY GWALA
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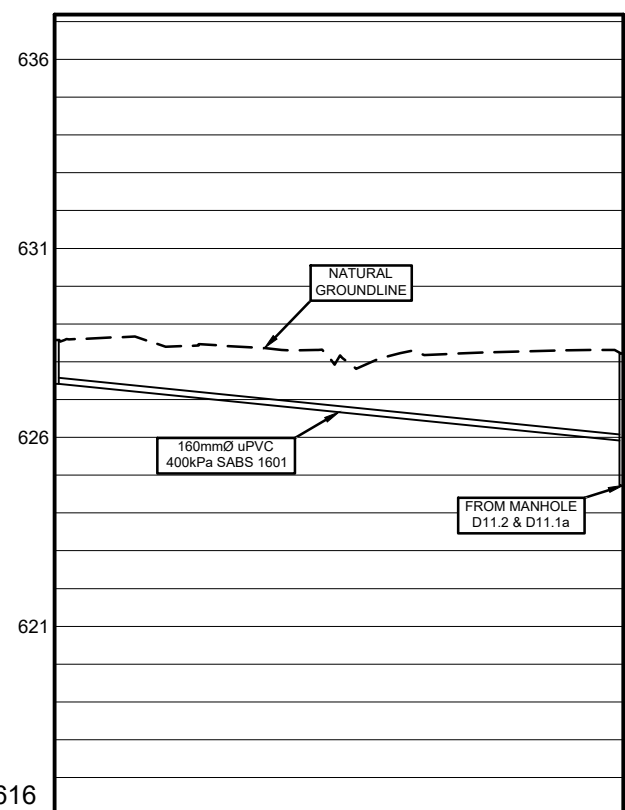
Project:

**IBISI SEWER
RETICULATION**

Drawing description:

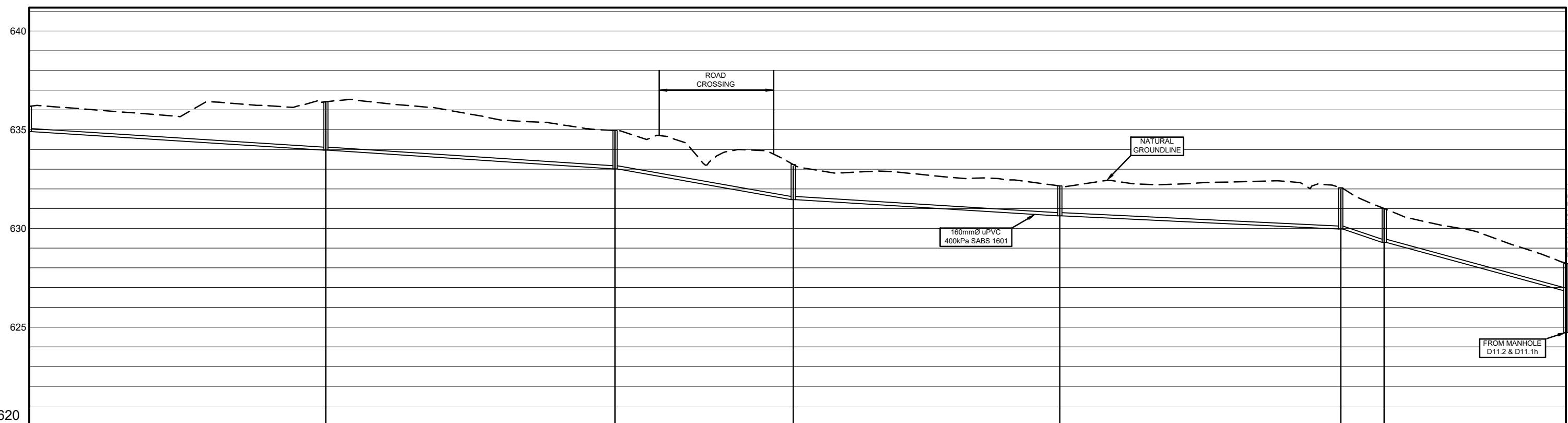
LONG SECTION 14

Drawn: G.D Bezuidenhout Date: Sep 2022
Scale/s: As Shown
Drawing number: 22-009-V-02-14 Rev.: 00



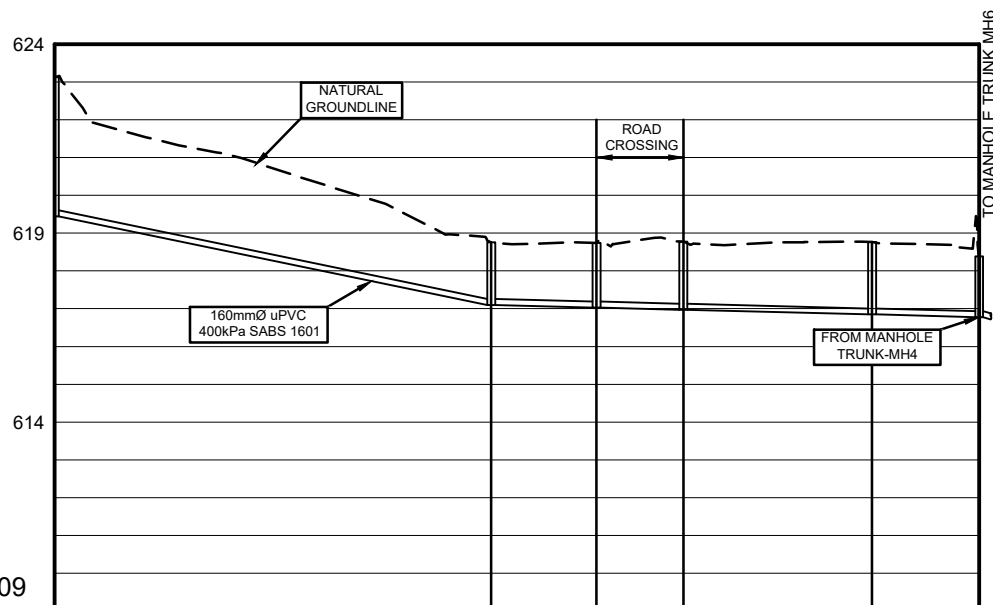
MANHOLE NO.	D11.1h
COVER LEVEL	628.38
INVERT LEVEL	626.46
DEPTH	1.92
PIPE LENGTH & GRADE	75.21 m 1:50
PIPE DETAILS	uPVC 400kPa SABS 1801 160 mm

MANHOLE D11.1h TO D11.1



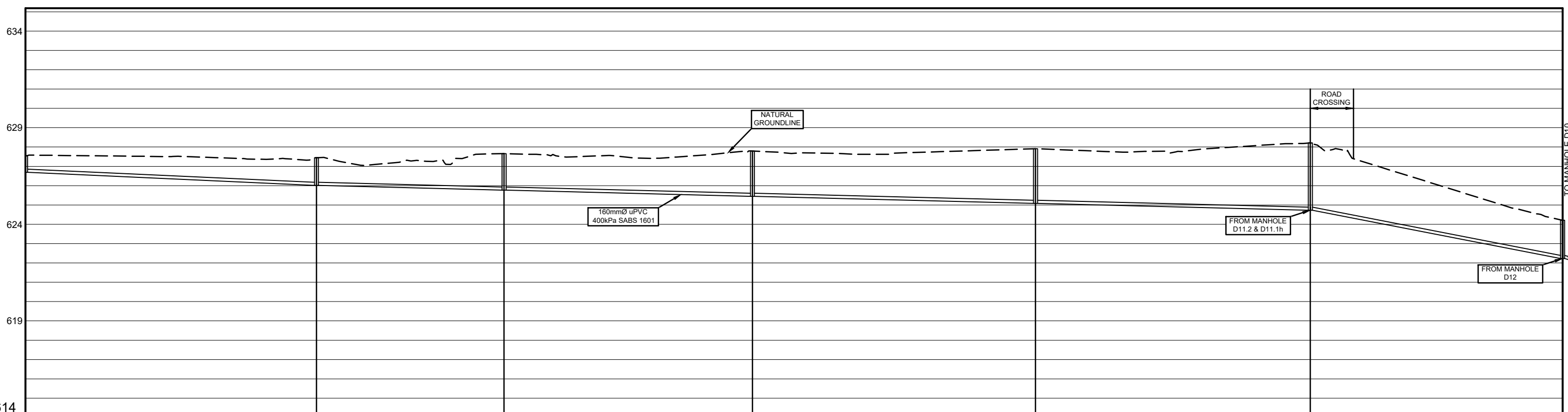
MANHOLE NO.	D11.1g
COVER LEVEL	628.38
INVERT LEVEL	626.46
DEPTH	1.92
PIPE LENGTH & GRADE	75.21 m 1:50
PIPE DETAILS	uPVC 400kPa SABS 1801 160 mm

MANHOLE D11.1g TO D11.1



MANHOLE NO.	D4
COVER LEVEL	621.00
INVERT LEVEL	619.00
DEPTH	2.00
PIPE LENGTH & GRADE	57.79 m 1:25
PIPE DETAILS	uPVC 400kPa SABS 1801 160 mm

MANHOLE D4 TO TRUNK-MH5



MANHOLE NO.	D11.6
COVER LEVEL	621.00
INVERT LEVEL	619.00
DEPTH	2.00
PIPE LENGTH & GRADE	57.79 m 1:25
PIPE DETAILS	uPVC 400kPa SABS 1801 160 mm

MANHOLE D11.6 TO D11

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HARRY GWALA DISTRICT MUNICIPALITY



Approved by Client:
Name: _____
Signature: _____ Date: _____

Project:
IBISI SEWER RETICULATION

Drawing description:

LONG SECTION 15

Drawn: G.D Bezuidenhout Date: Sep 2022

Scale/s: As Shown

Drawing number: 22-009-V-02-15 Rev.: 00


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Project:

IBISI SEWER RETICULATION

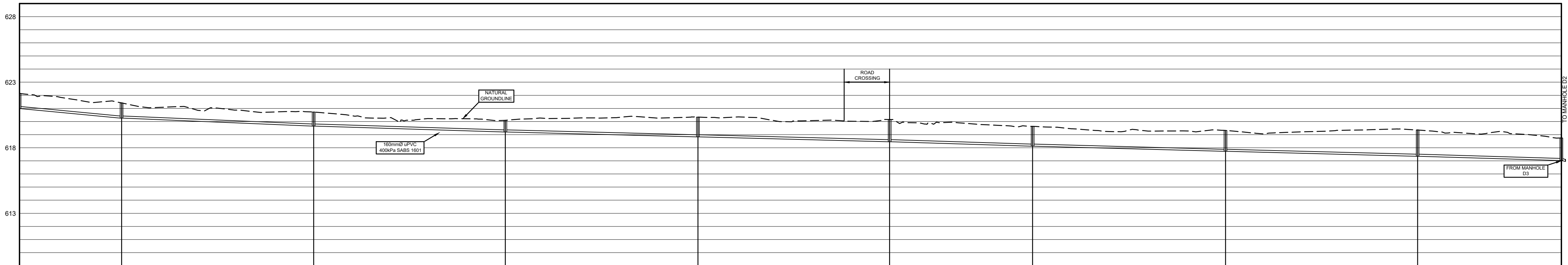
Drawing description:

LONG SECTION 16

Drawn: G.D Bezuidenhout Date: Sep 2022

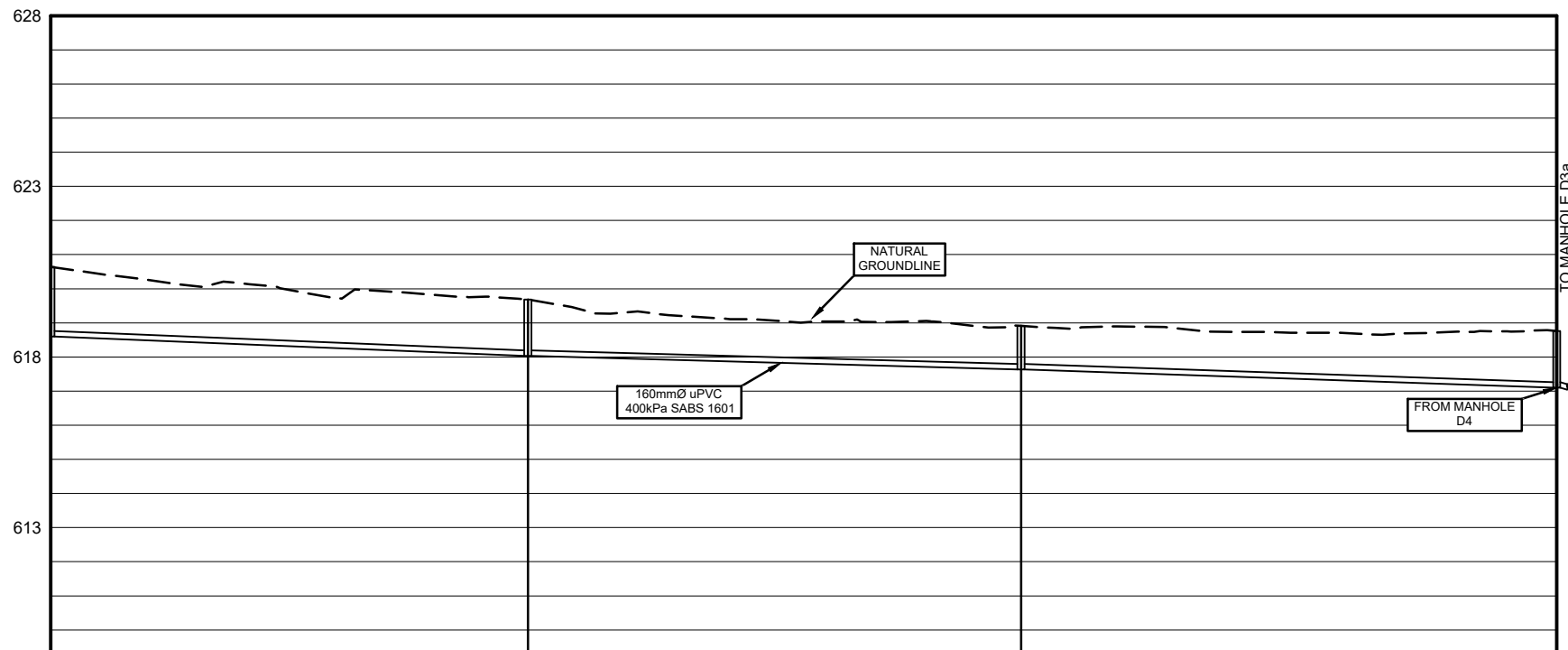
Scale/s: As Shown

Drawing number: **22-009-V-02-16** Rev.: **00**



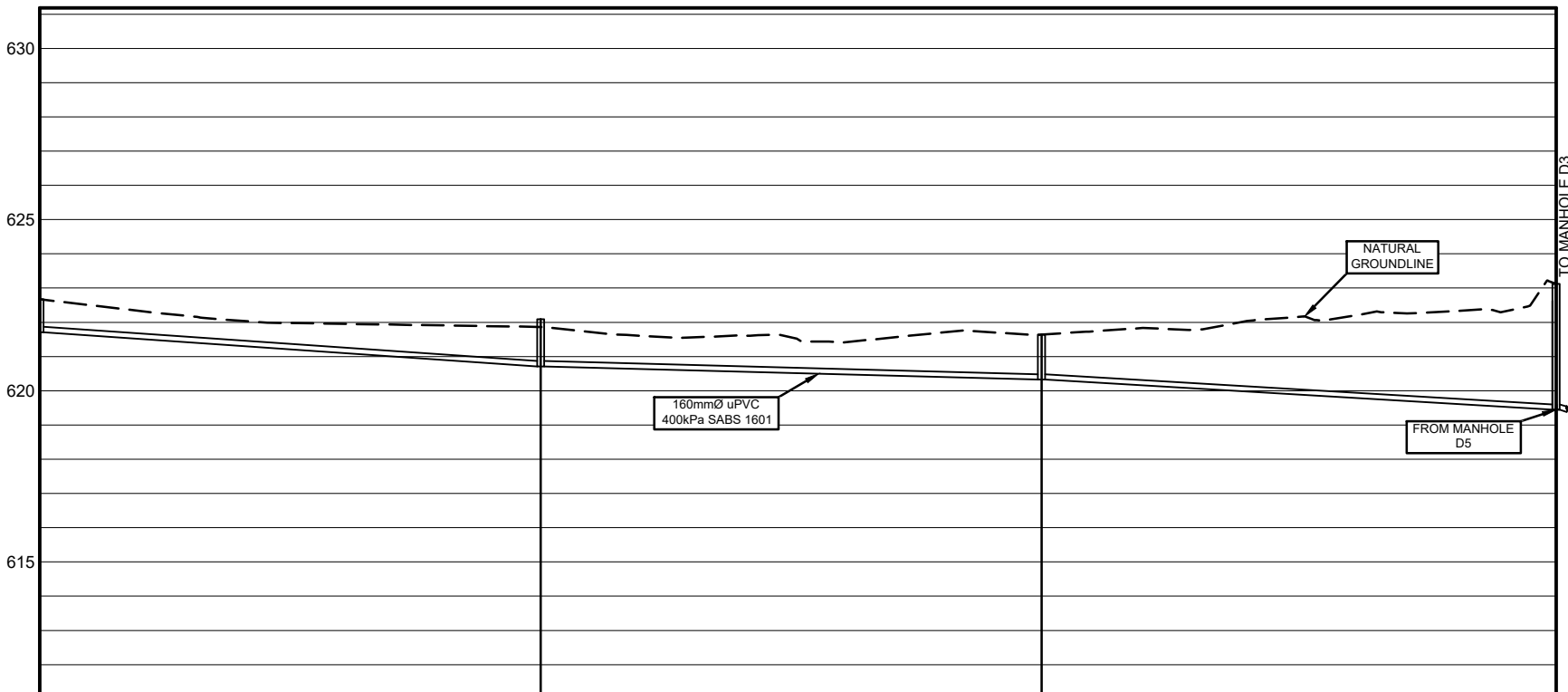
MANHOLE NO.	D3.9	D3.8	D3.7	D3.6	D3.5	D3.4	D3.3	D3.2	D3.1	D3.0
COVER LEVEL	622.14	621.92	620.73	620.09	619.34	620.15	619.03	619.32	619.35	619.74
INVERT LEVEL	620.98	620.26	619.66	619.21	618.83	619.46	618.12	617.73	617.59	617.03
DEPTH	1.15	1.16	1.07	0.88	1.51	1.89	1.51	1.59	2.00	1.71
PIPE LENGTH & GRADE	38.88 m 1:151	73.18 m 1:151	73.05 m 1:152	73.38 m 1:150	73.04 m 1:198	54.48 m 1:161	73.51 m 1:187	73.18 m 1:193	54.78 m 1:173	
PIPE DETAILS	uPVC 400kPa SABS 1801 160 mm									

MANHOLE D3.9 TO D3.1



MANHOLE NO.	D3.12	D3.11	D3.10	D3
COVER LEVEL	620.64	619.69	618.91	618.76
INVERT LEVEL	618.61	618.04	617.63	617.10
DEPTH	2.03	1.65	1.27	1.65
PIPE LENGTH & GRADE	69.95 m 1:123	72.30 m 1:180	79.53 m 1:148	
PIPE DETAILS	uPVC 400kPa SABS 1801 160 mm			

MANHOLE D3.12 TO D3



MANHOLE NO.	D4.3	D4.2	D4.1	D4
COVER LEVEL	622.67	622.09	621.64	620.13
INVERT LEVEL	621.71	620.71	620.33	619.45
DEPTH	0.96	1.38	1.31	3.08
PIPE LENGTH & GRADE	73.17 m 1:73.4	73.17 m 1:190.1	75.18 m 1:85.3	
PIPE DETAILS	uPVC 400kPa SABS 1801 160 mm			

MANHOLE D4.3 TO D4

NOTE:

ECA CONSULTING HEREBY RECOGNISE
MNA CONSULTING AS THE ORIGINAL
DESIGNERS OF THIS PROJECT.

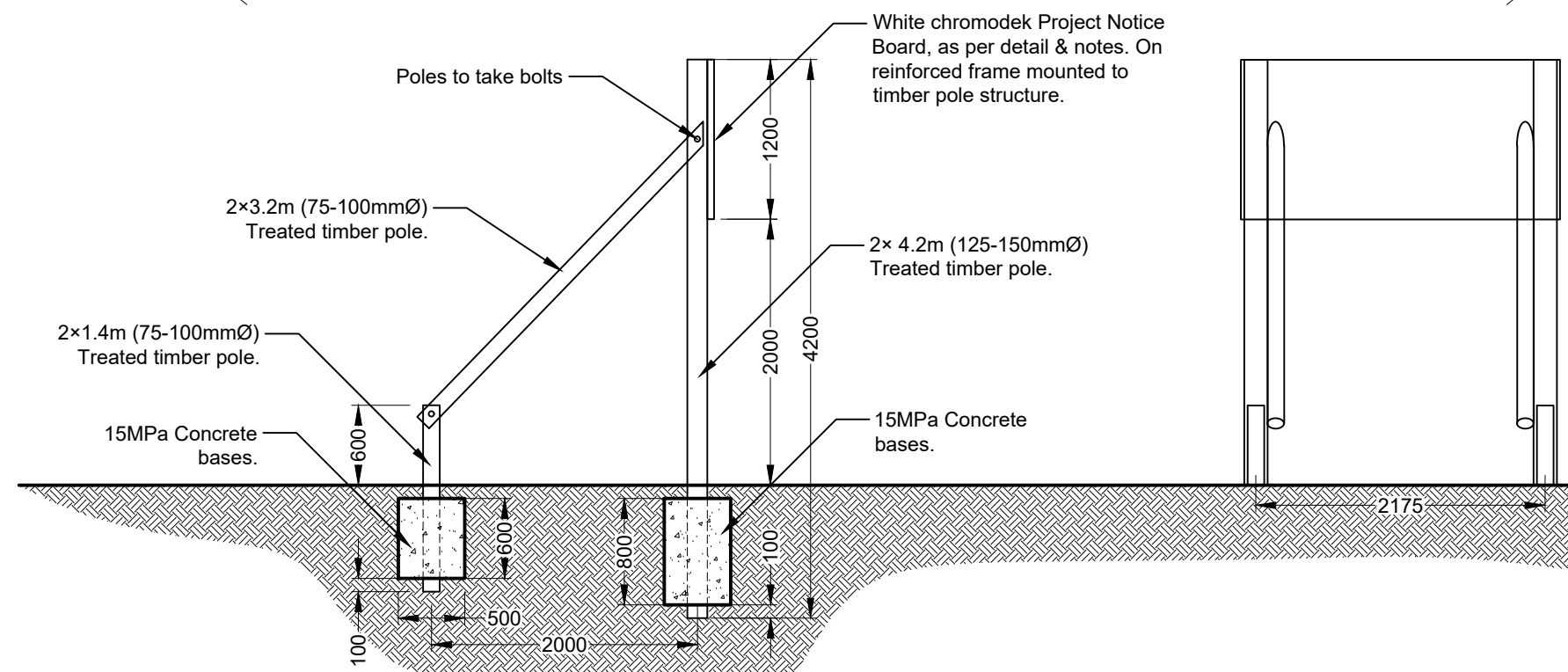
**FOR TENDER
PURPOSES ONLY**

PROJECT NAME: IBISI SEWER RETICULATION : HGDM ×××/HGDM/2022	
<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> public works <small>Department: Public Works REPUBLIC OF SOUTH AFRICA</small> </div> <div style="text-align: center;"> water & sanitation <small>Department: Water and Sanitation REPUBLIC OF SOUTH AFRICA</small> </div> </div> <div style="margin-top: 10px;"> EXPANDED PUBLIC WORKS PROGRAMME <small>Creating opportunities towards human fulfilment</small> </div>	CLIENT: <div style="text-align: center; font-size: 1.2em; font-weight: bold;">HARRY GWALA DISTRICT MUNICIPALITY</div> <div style="text-align: center; margin-top: 20px;">039 - 834 8700</div> <div style="text-align: center; margin-top: 20px;"> </div>
CONSULTING ENGINEER: <div style="font-size: 1.2em; font-weight: bold;">ECA CONSULTING</div>	<div style="text-align: center;"> ECA CONSULTING <small>Civil and Structural Engineers</small> </div> <div style="text-align: right; margin-top: 20px;">TEL: 034 - 983 2825</div>
CONTRACTOR: <div style="font-size: 1.2em; font-weight: bold;">CONTRACTOR</div>	<div style="text-align: right; margin-top: 20px;">TEL: 000 - 000 0000</div>

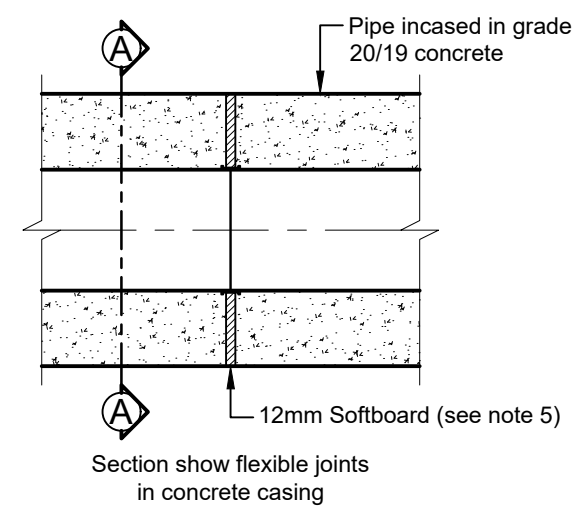
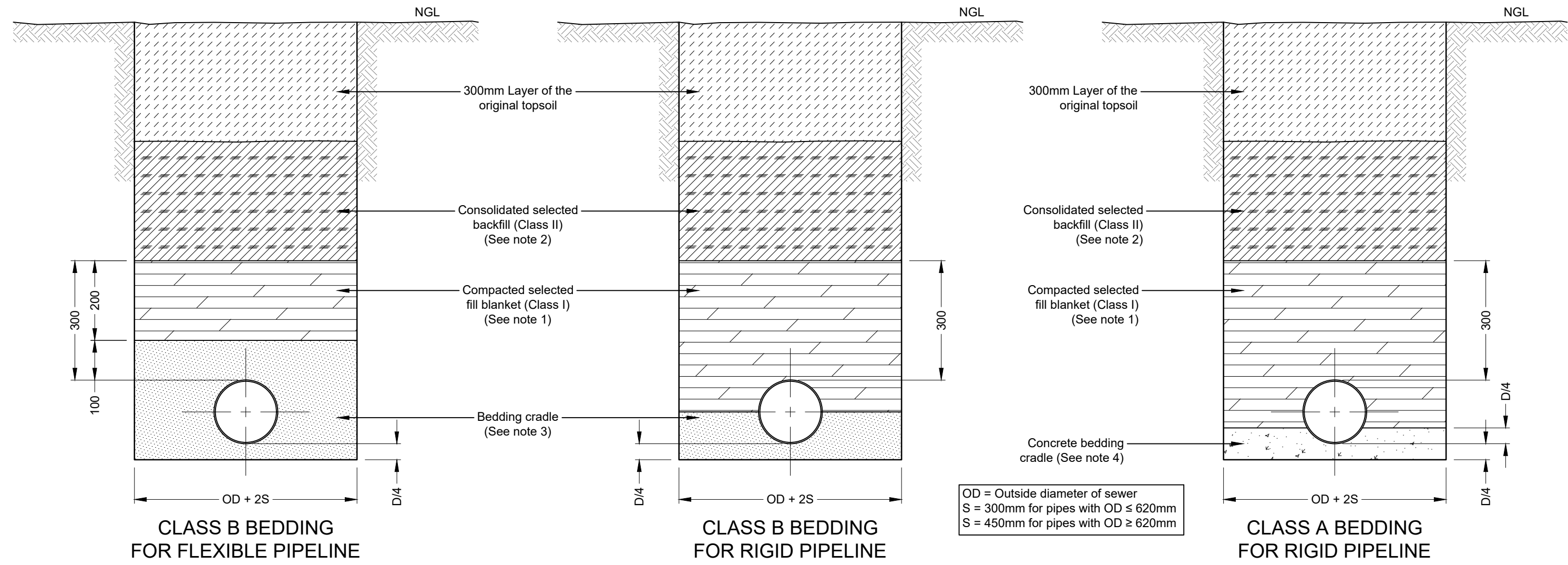
NOTE

The notice board assembling is to be according to the details on this drawing, no changes to be made.

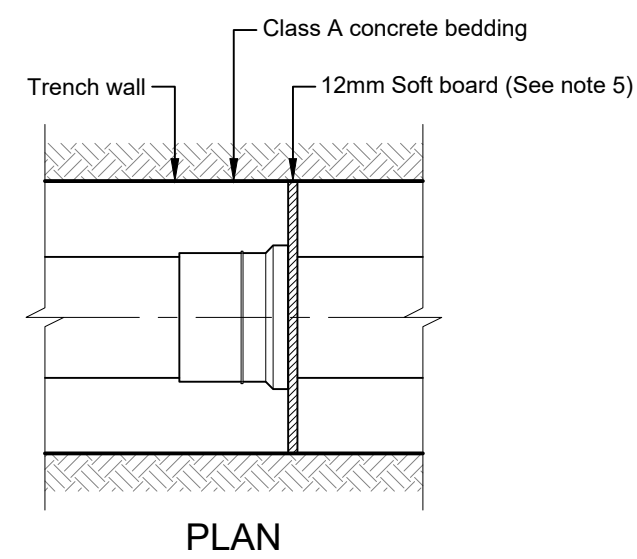
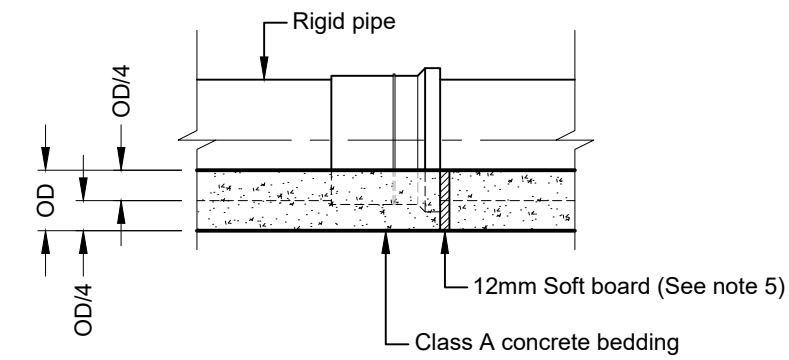
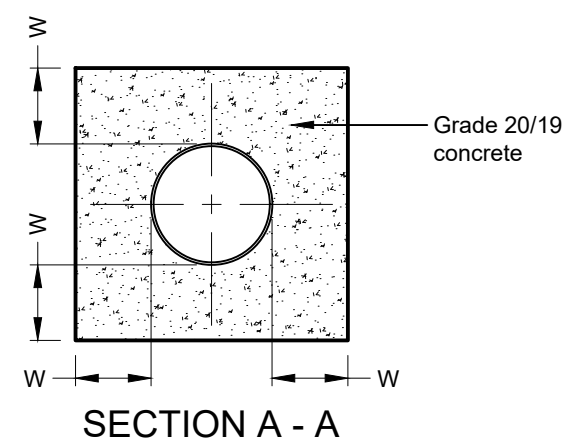
FOR TENDER
PURPOSES ONLY



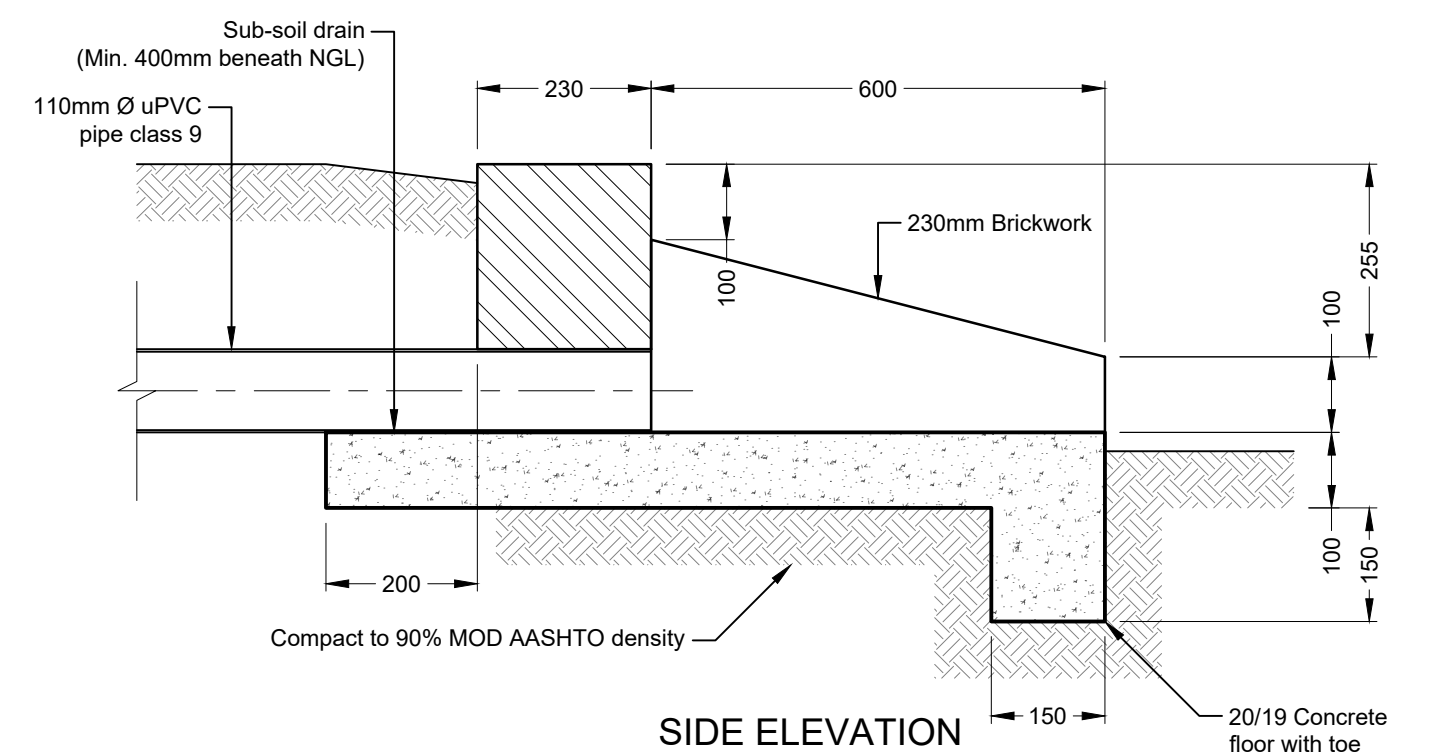
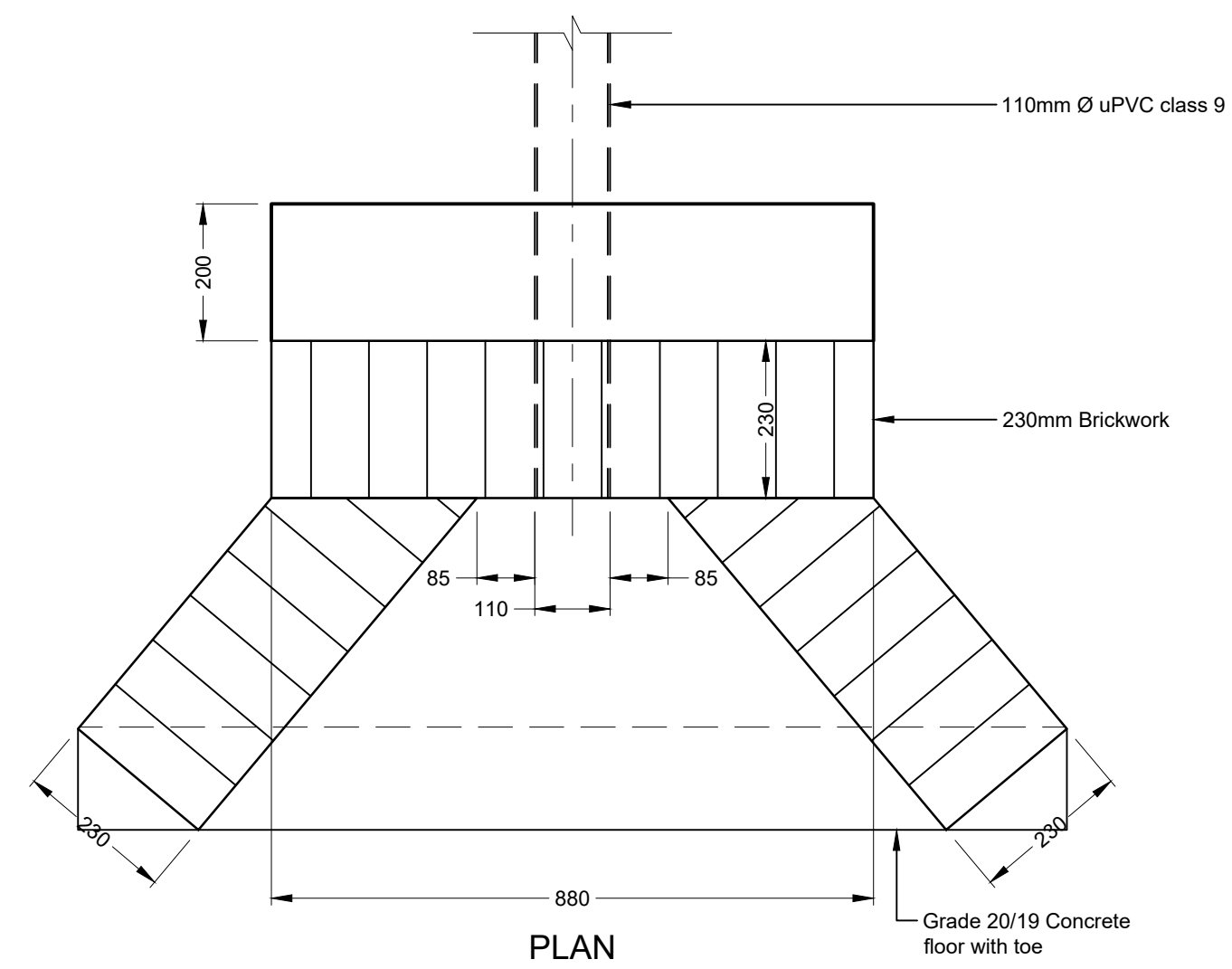
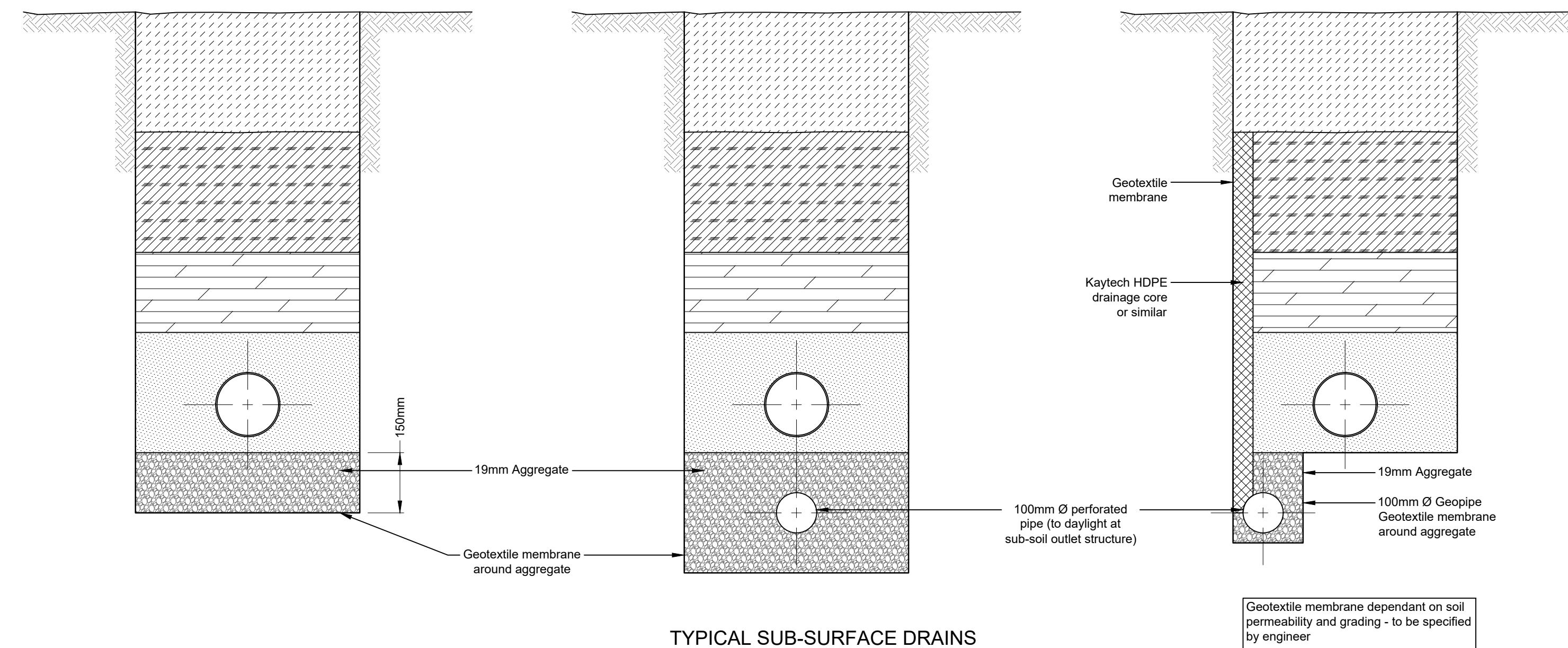
<div style="display: flex; align-items: center;"> <div> ECA CONSULTING <small>Civil and Structural Engineers</small> </div> </div>		VRYHEID OFFICE: 161 High Street Vryheid Kwa Zulu Natal RSA vryheid@ecaconsult.co.za Tel: +27 (0)34 983 2825 www.ecaconsult.co.za OTHER OFFICES: MBOMBELA GAUTENG PIETERMARITZBURG LADYSMITH
Approved by Engineer: Name: L.K. Fourie Designation: PrTechEng ECSA Reg.: 200970182	Signature: _____ Date: 21 Sep 2022	
Client: <div style="text-align: center; font-weight: bold;">HARRY GWALA DISTRICT MUNICIPALITY</div>		
Project: <div style="text-align: center; font-weight: bold;">IBISI SEWER RETICULATION</div>		
Plan: <div style="text-align: center; font-weight: bold;">PROJECT NOTICE BOARD</div>		
Drawn: G.D Bezuidenhout		Date: Jun 2022
Drawing number: 22-009-V-03-01		Rev.: 00



W = 100mm for pipes ≤ 225mm nominal diameter
 W = 150mm for pipes between 225mm and 525mm
 W = D/4 for pipes ≥ 600mm nominal diameter



TYPICAL SUB-SURFACE DRAINS



OUTLET STRUCTURE FOR SUB-SOIL DRAINS

TYPICAL SUB-SOIL OUTLET STRUCTURE DETAILS

Do not scale off drawing - ASK THE ENGINEER IF UNCERTAIN!
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NOTES:

- Selected backfill Class I: implies approved selected material from trench excavation or borrow, free from stones and with an optimum moisture content.
- Selected backfill Class II: implies selected backfill from trench excavation or borrow, which shall not contain any stone larger than 150mm Ø.
- Class B bedding cradle shall consist of an approved selected gravel material with a PI not exceeding 6, free from stones exceeding 20mm, organic matter and lumps of clay.
- Class A bedding / encasing concrete between joints shall be carried out in one continuous operation using class 20/19 concrete.
- Flexible joints must be provided. At each pipe joint in a Class A concrete bedding / encasing, with a 12mm thick softboard place vertically for the entire concrete area. Pipe joint must be sealed with wet clay to prevent slush from penetrating the joint.
- Minimum depth and cover:
 in servitude - 600mm
 in road reserve - 1.0m
 below road carriage - 1.2m
- All material and workmanship must comply with the requirements of the latest relevant SABS requirements.
- All dimensions are in millimeters (unless otherwise specified).
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AMENDMENTS

Rev.	Date	Description

ECA CONSULTING **VRVHEID OFFICE:**
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Civil and Structural Engineers

OTHER OFFICES:
 MBOMBELA | GAUTENG | PIETERMARITZBURG | LADYSMITH

Approved by Engineer: **Name: L. K. Fourie**
 Designation: PrTechEng
 ECSA Reg.: 200970182

Signature: _____
 Date: 21 Sep 2022

Project Funder/ Client:

mig **Municipal Infrastructure Grant**

Project Implementing Agent:

HARRY GWALA DISTRICT MUNICIPALITY

Approved by Client: _____
 Name: _____
 Signature: _____ Date: _____

Project:

IBISI SEWER RETICULATION

Drawing description:

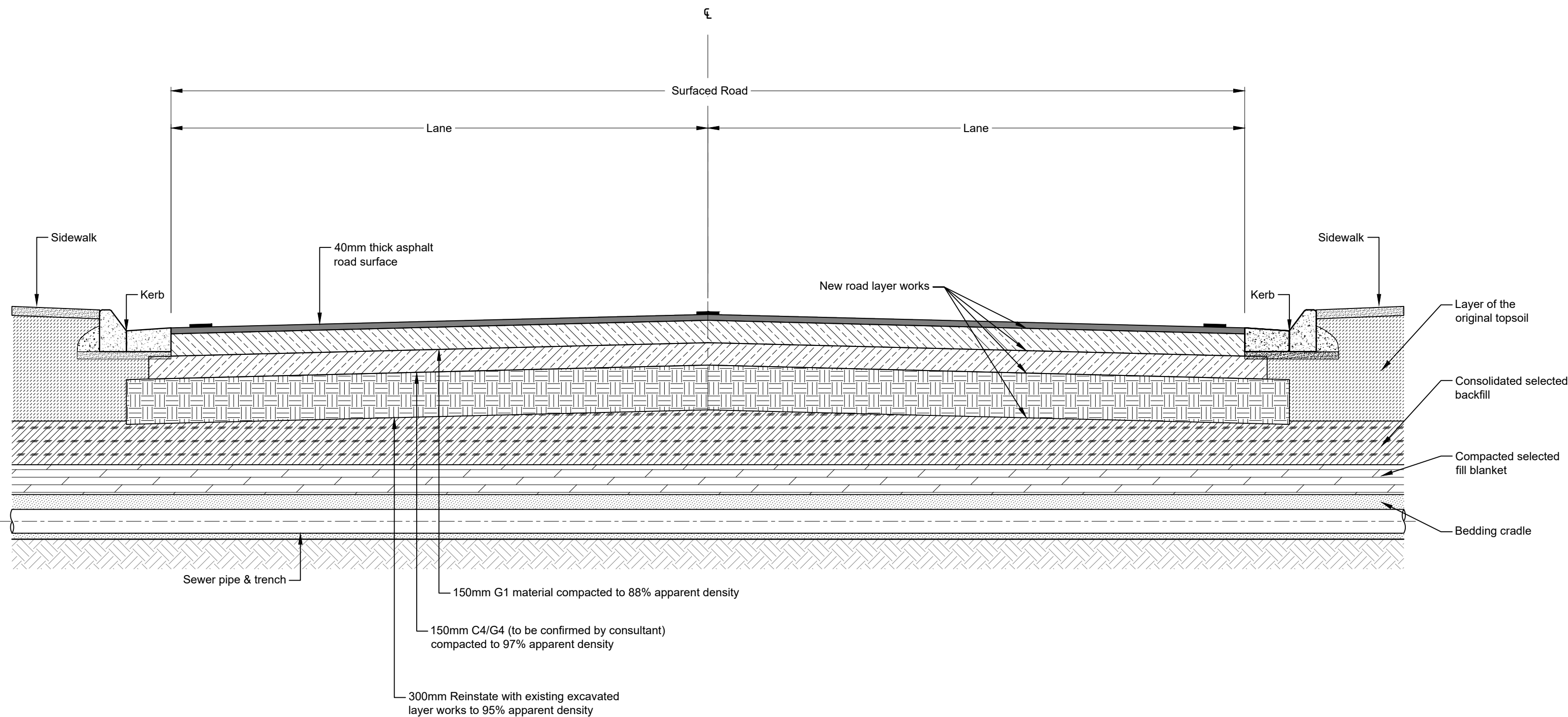
**SEWER DETAILS:
 TRENCH, BEDDING &
 SUB-SOIL DRAIN OUTLET
 STRUCTURE DETAILS**

Drawn: G.D Bezuidenhout Date: Sep 2022

Scale/s: As Shown

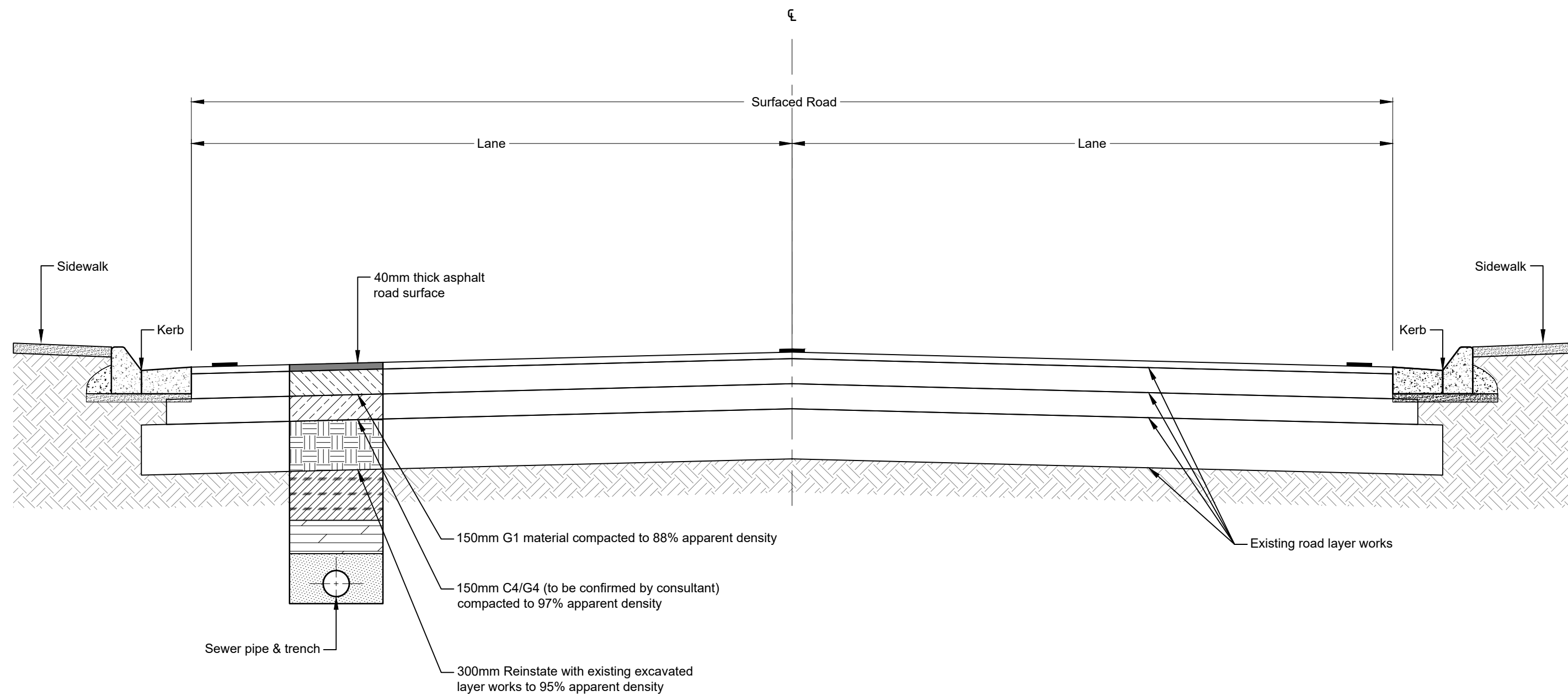
Drawing number: **22-009-V-04-01** Rev.: **00**

FOR TENDER PURPOSES ONLY



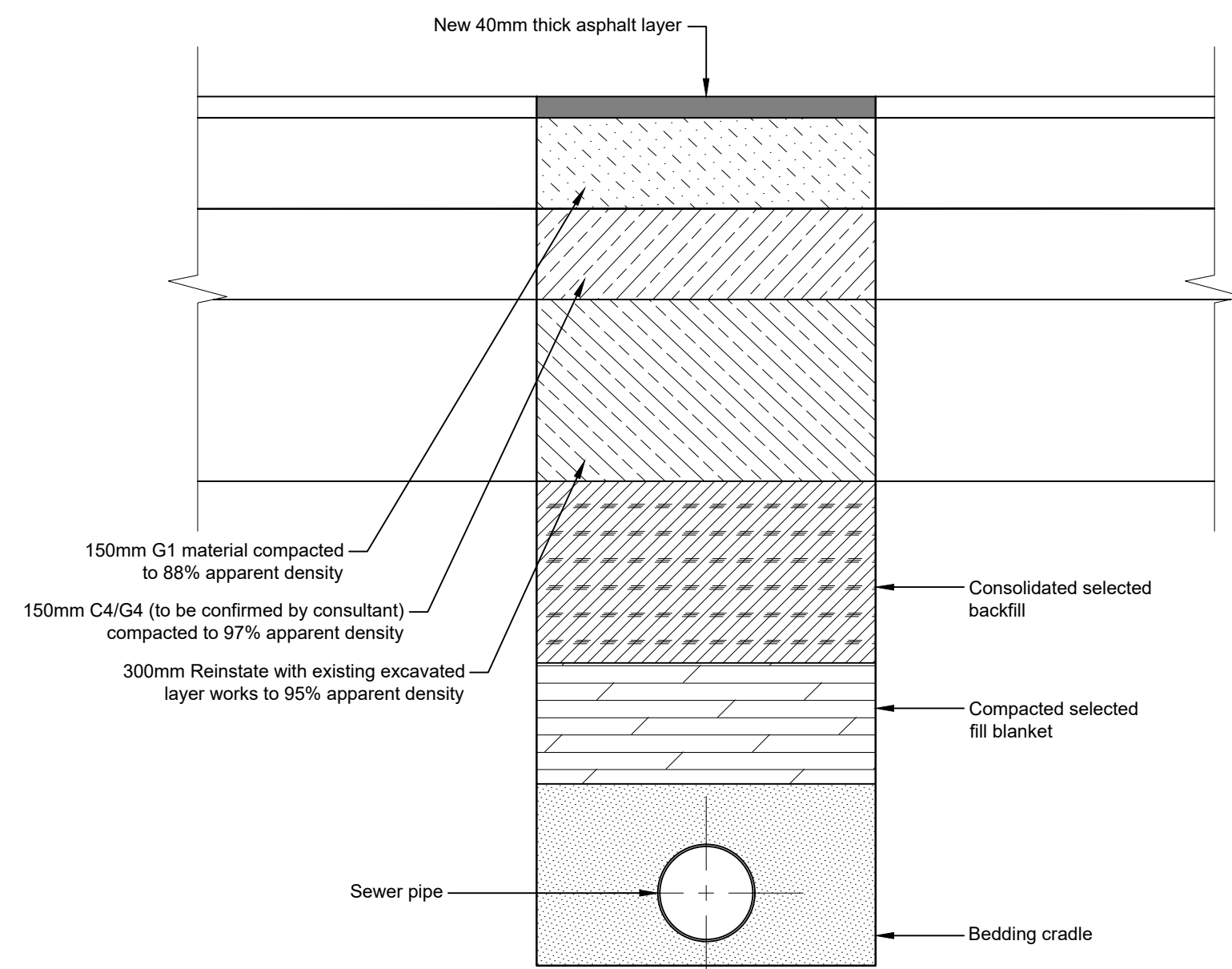
TYPICAL ROAD CROSSING TYPE 01

Scale 1 : 25



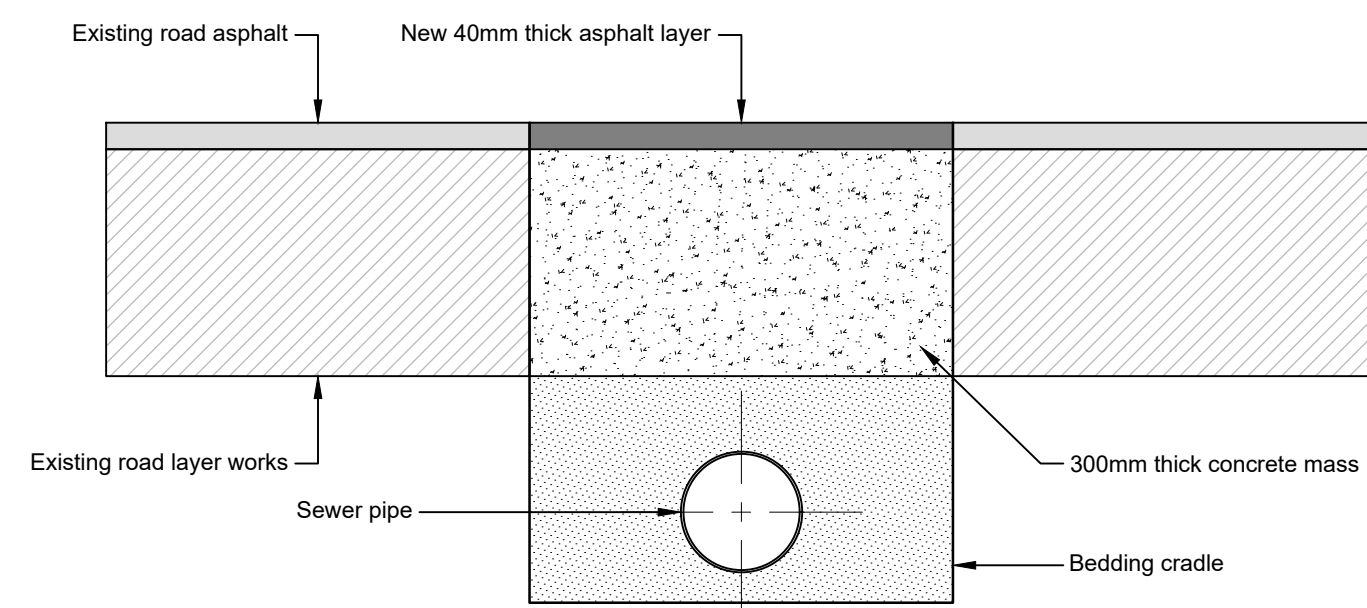
TYPICAL SEWER TRENCH ALONG ROAD

Scale 1 : 25



TYPICAL ROAD CROSSING TYPE 01 SECTION

Scale 1 : 10



TYPICAL DETAIL OF SHALLOW SEWER PIPE CROSSING

Scale 1 : 10

FOR TENDER PURPOSES ONLY


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- Class B bedding cradle shall consist of an approved selected gravel material with a PI not exceeding 6, free from stones exceeding 20mm, organic matter and lumps of clay.
- Class A bedding / encasing concrete between joints shall be carried out in one continuous operation using class 20/19 concrete.
- Flexible joints must be provided. At each pipe joint in a Class A concrete bedding / encasing, with a 12mm thick softboard place vertically for the entire concrete area. Pipe joint must be sealed with wet clay to prevent slush from penetrating the joint.
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PIETERMARITZBURG |
LADYSMITH

Approved by Engineer: Signature:
Name: L. K. Fourie
Designation: PrTechEng
ECSA Reg.: 200970182 Date: 21 Sep 2022


Project Funder/ Client:

mig
Municipal Infrastructure Grant



Project Implementing Agent:

HARRY GWALA DISTRICT MUNICIPALITY



Approved by Client: Name: _____
Signature: _____ Date: _____

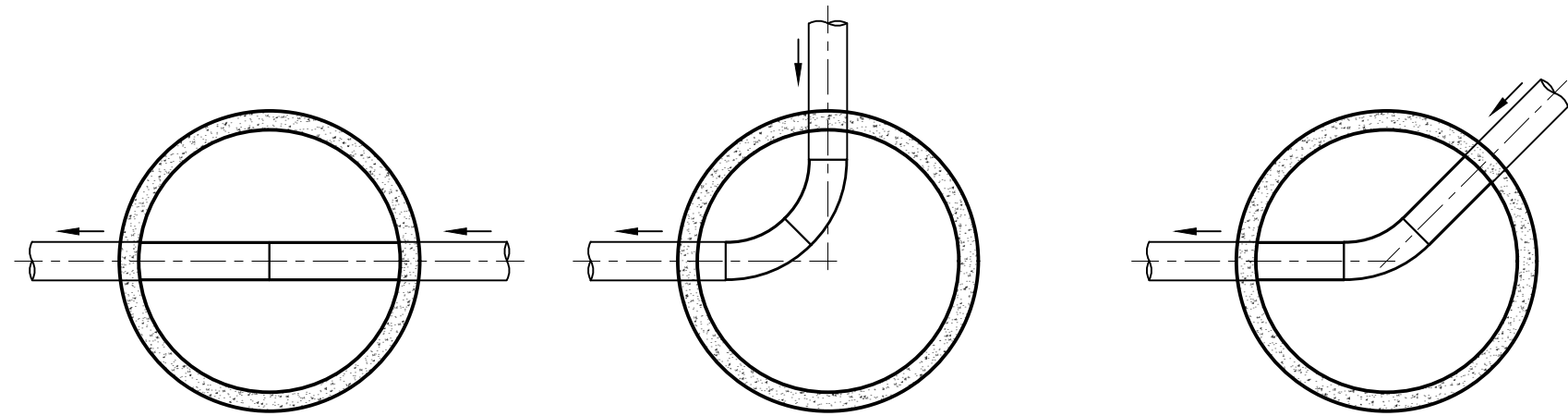
Project: **IBISI SEWER RETICULATION**

Drawing description: **SEWER DETAILS: ROAD CROSSING DETAILS**

Drawn: G.D Bezuidenhout Date: Sep 2022

Scale/s: As Shown

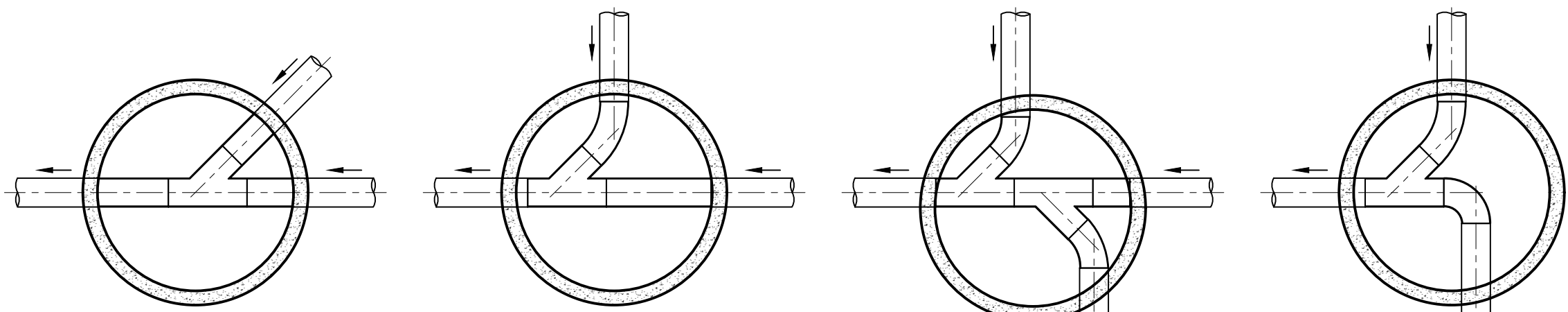
Drawing number: 22-009-V-04-02 Rev.: 00



TYPE A

TYPE B

TYPE C



TYPE D

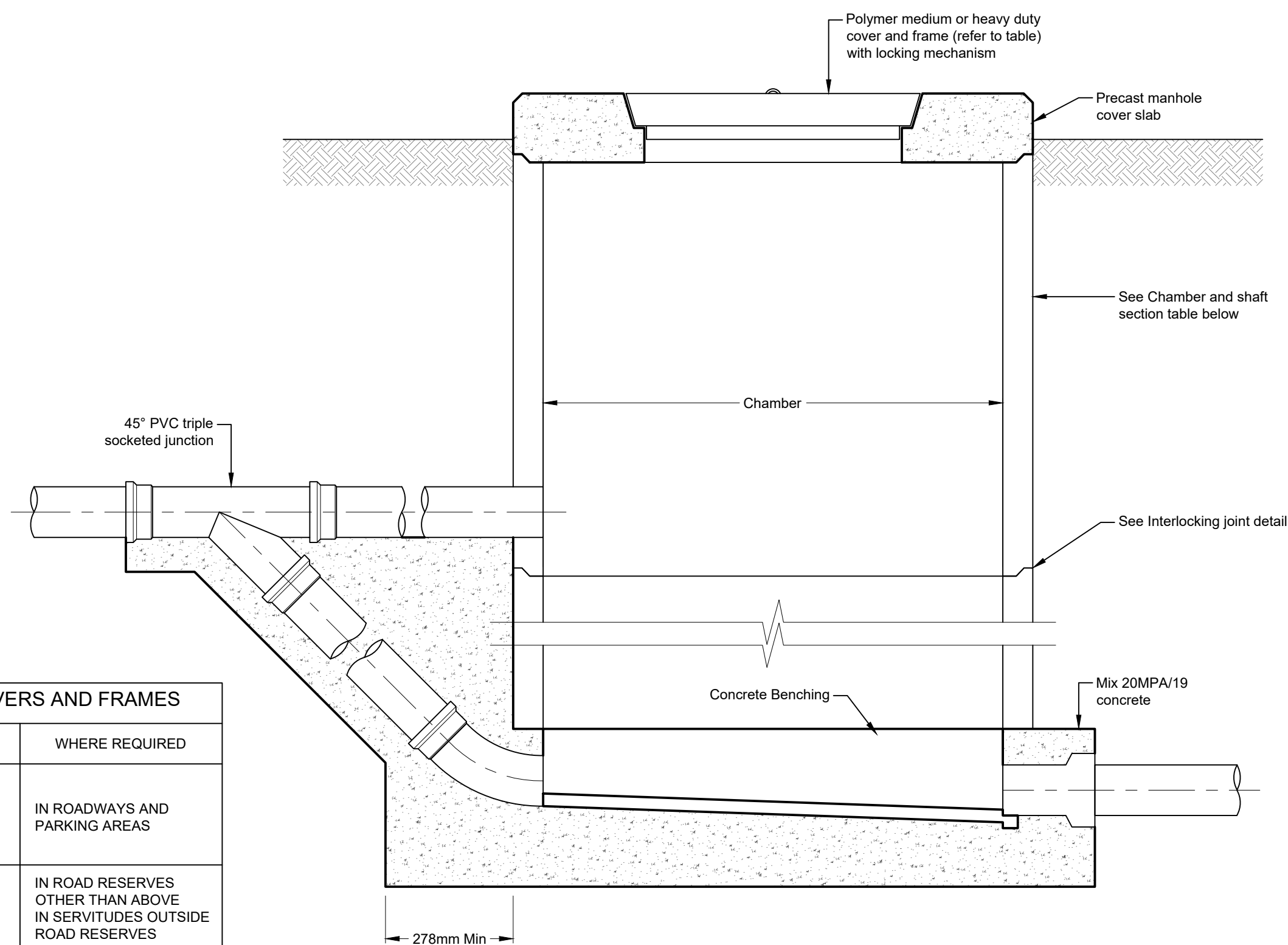
TYPE E

TYPE F

TYPE G

DETAIL No.: - SCALE: 1 : 20 DRAWING DESCRIPTION: TYPICAL ARRANGEMENT OF CHANNELS IN CIRCULAR PRECAST MANHOLES

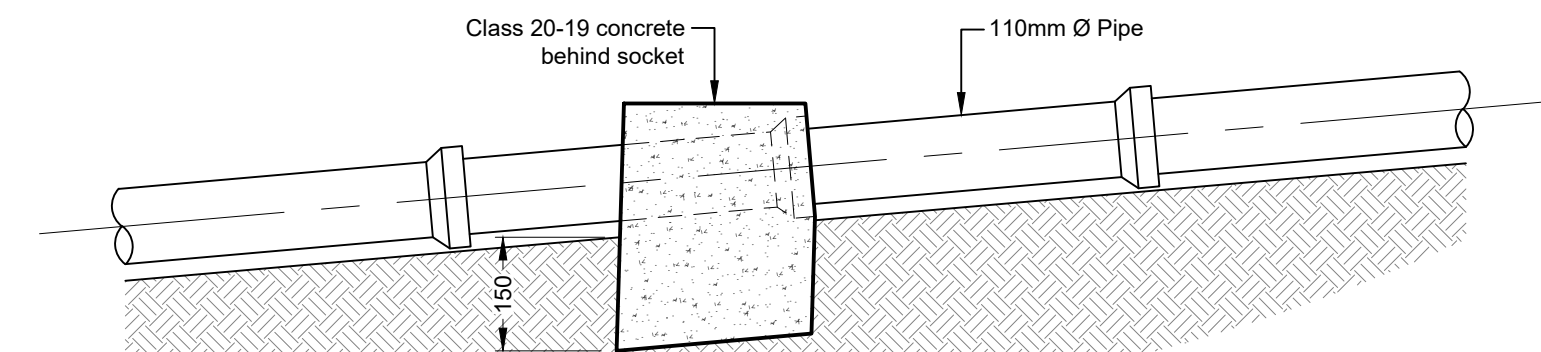
SEE DRAWING No.: -



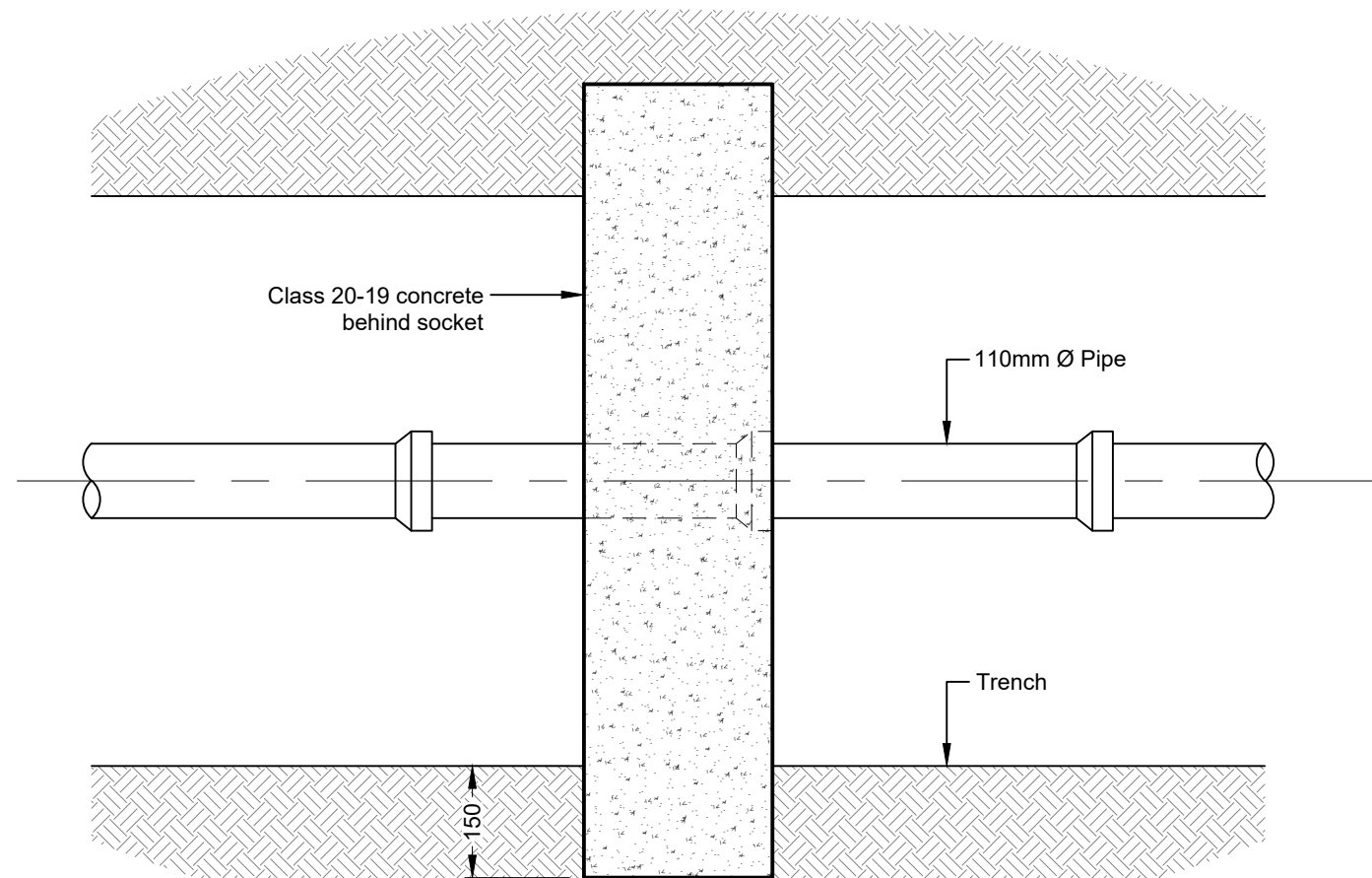
MANHOLE COVERS AND FRAMES	
TYPE	WHERE REQUIRED
POLYMER TYPE 2A HEAVY DUTY SANS 1882/2003	IN ROADWAYS AND PARKING AREAS
POLYMER TYPE 4A MEDIUM DUTY SANS 1882/2003	IN ROAD RESERVES OTHER THAN ABOVE IN SERVITUDES OUTSIDE ROAD RESERVES

DETAIL No.: - SCALE: 1 : 10 DRAWING DESCRIPTION: CONVENTIONAL DROP CONNECTIONS MANHOLE DETAIL

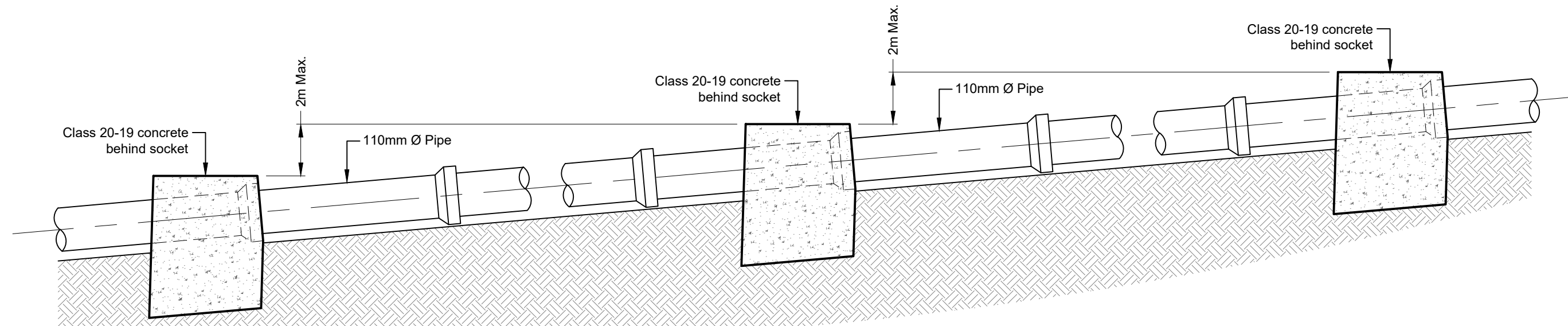
SEE DRAWING No.: -



SECTION



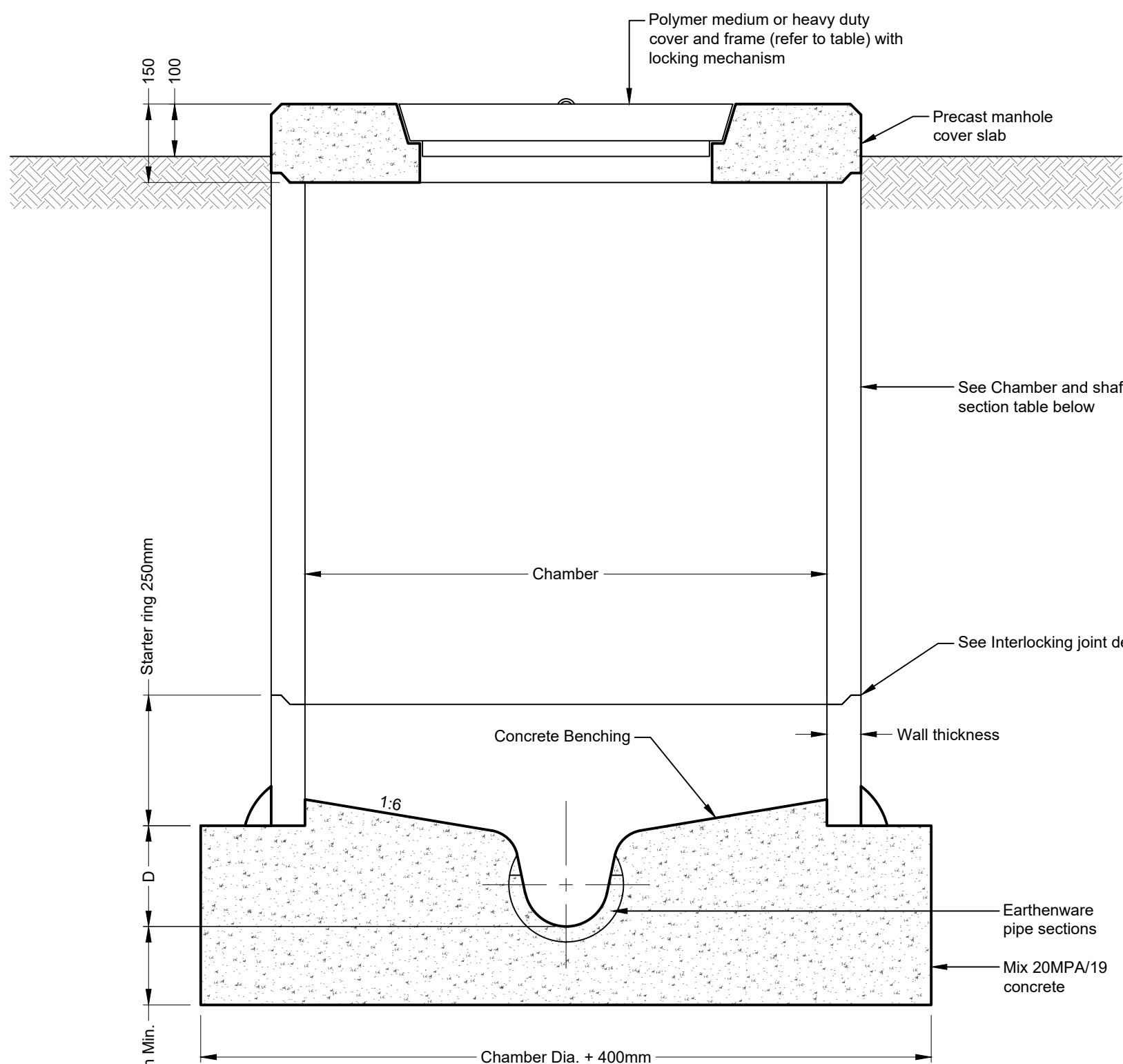
PLAN



SPACING FOR ANCHOR BLOCK ON SLOPE STEEPER THAN 1:10

DETAIL No.: - SCALE: 1 : 10 DRAWING DESCRIPTION: TYPICAL ANCHOR BLOCK DETAILS

SEE DRAWING No.: -

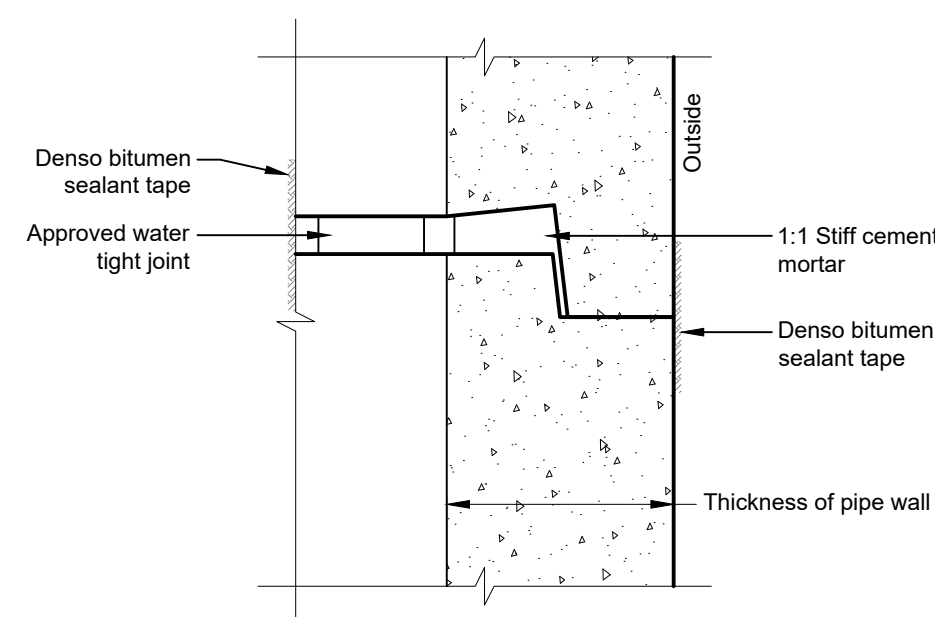


TYPICAL SECTION THROUGH MANHOLE

Scale 1 : 10

DETAIL No.: - SCALE: As shown DRAWING DESCRIPTION: PRECAST CONCRETE MANHOLE DETAILS

SEE DRAWING No.: -



INTERLOCKING JOINT DETAIL

Scale 1 : 1

CHAMBER AND SHAFT SECTIONS		
Type of section	Chamber	Chamber
Nominal Diam. (mm)	1000	1500
Standard length (mm)	250, 500, 1000	250, 500, 1000
Wall thickness (mm) Min.	65	85
Depth	0 - 3m	3 - 5m

FOR TENDER PURPOSES ONLY

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NOTES:

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- Class B bedding cradle shall consist of an approved selected gravel material with a PI not exceeding 6, free from stones exceeding 20mm, organic matter and lumps of clay.
- Class A bedding / encasing concrete between joints shall be carried out in one continuous operation using class 20/19 concrete.
- Flexible joints must be provided. At each pipe joint in a Class A concrete bedding / encasing, with a 12mm thick softboard place vertically for the entire concrete area. Pipe joint must be sealed with wet clay to prevent slush from penetrating the joint.
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Civil and Structural Engineers
Company Reg.: 2004/019299/07
ISO Registered 9001:2015
OTHER OFFICES:
MBOMBELA | GAUTENG |
PIETERMARITZBURG |
LADYSMITH

Approved by Engineer: Signature:
Name: L. K. Fourie
Designation: PrTechEng
ECSA Reg.: 200970182 Date: 21 Sep 2022

Project Funder/ Client:
mig Municipal Infrastructure Grant
Project Implementing Agent:
HARRY GWALA DISTRICT MUNICIPALITY

Approved by Client:
Name: _____
Signature: _____ Date: _____

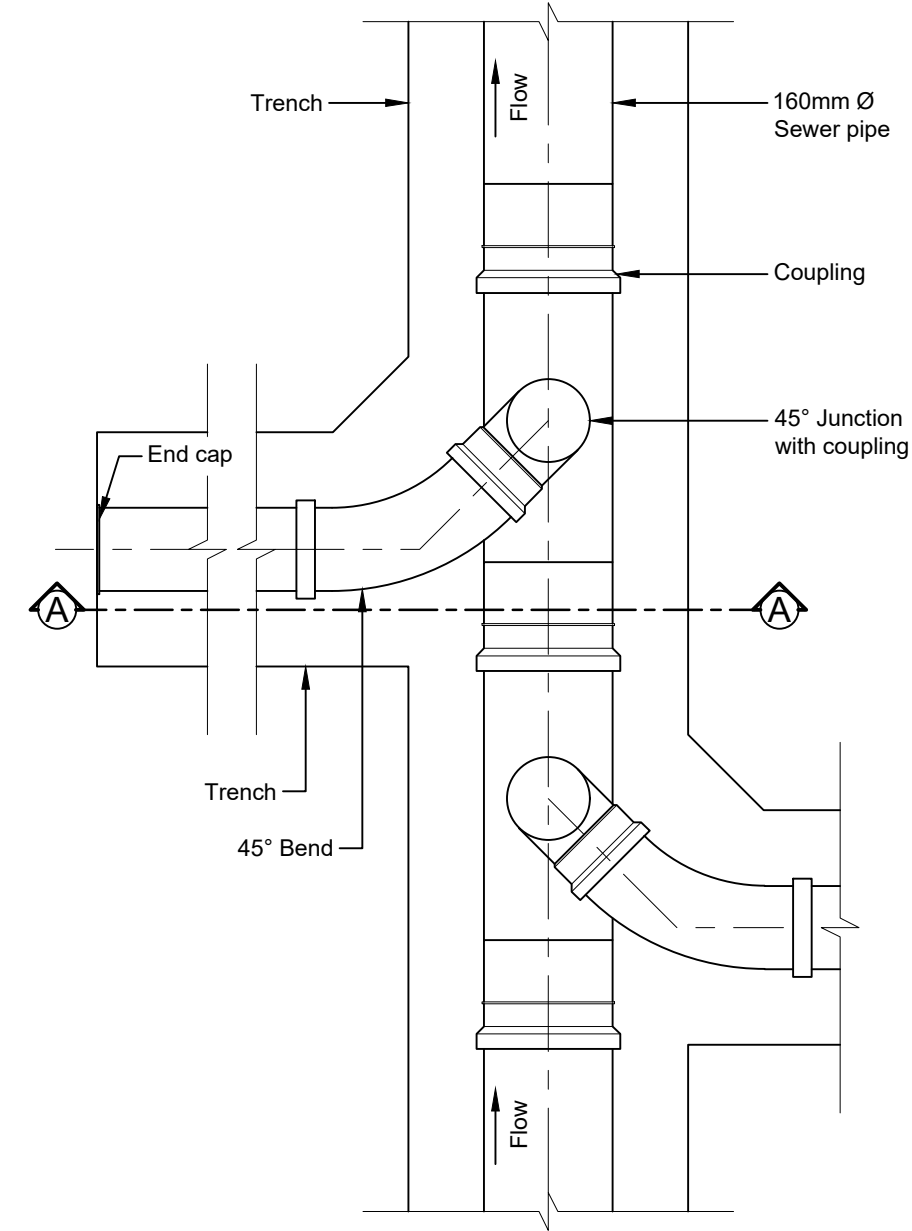
Project:
IBISI SEWER RETICULATION

Drawing description:
**SEWER DETAILS:
ANCHOR BLOCKS &
MANHOLES DETAILS**

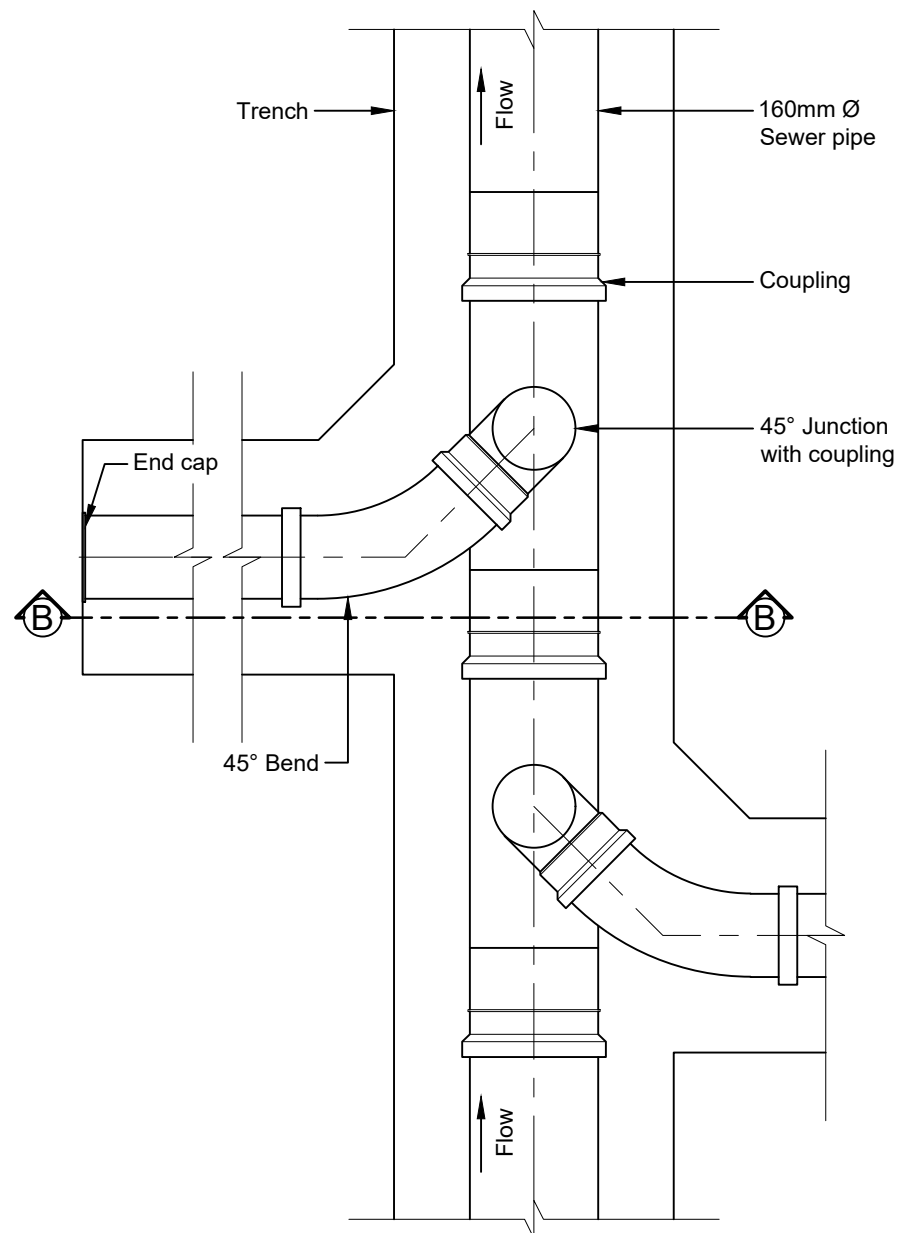
Drawn: G.D Bezuidenhout Date: Sep 2022

Scale/s: As Shown
Drawing number:
22-009-V-04-03

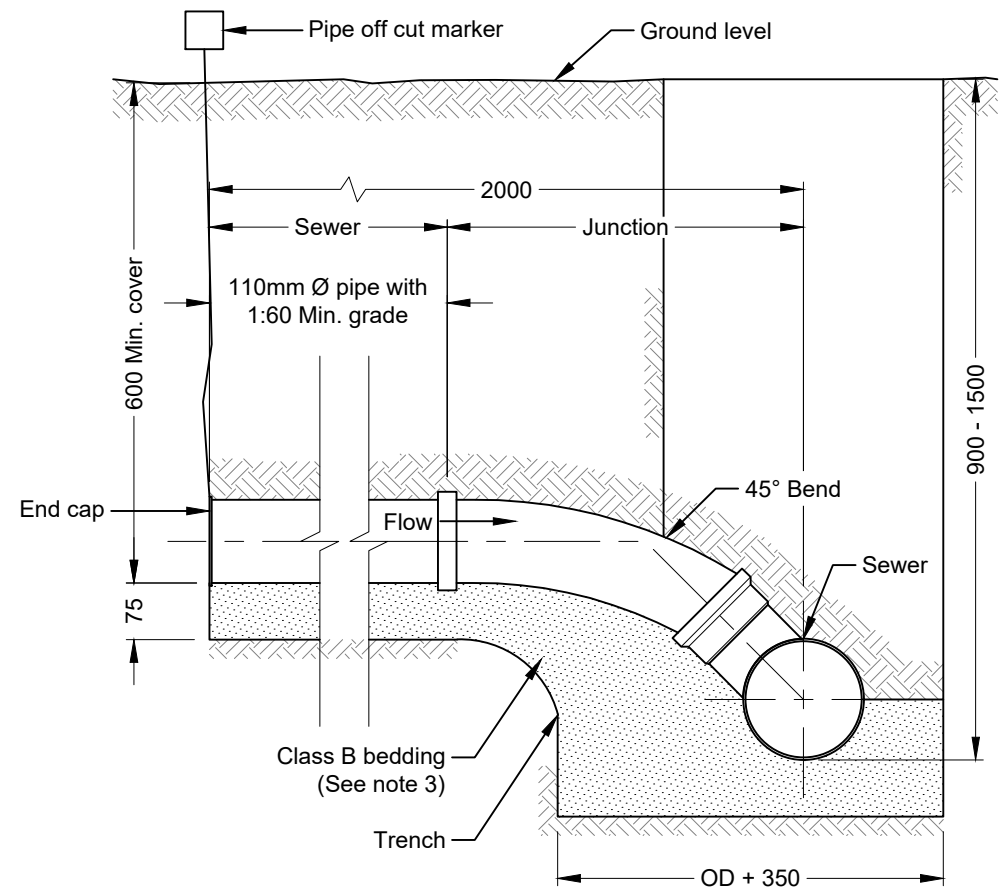
Rev.:
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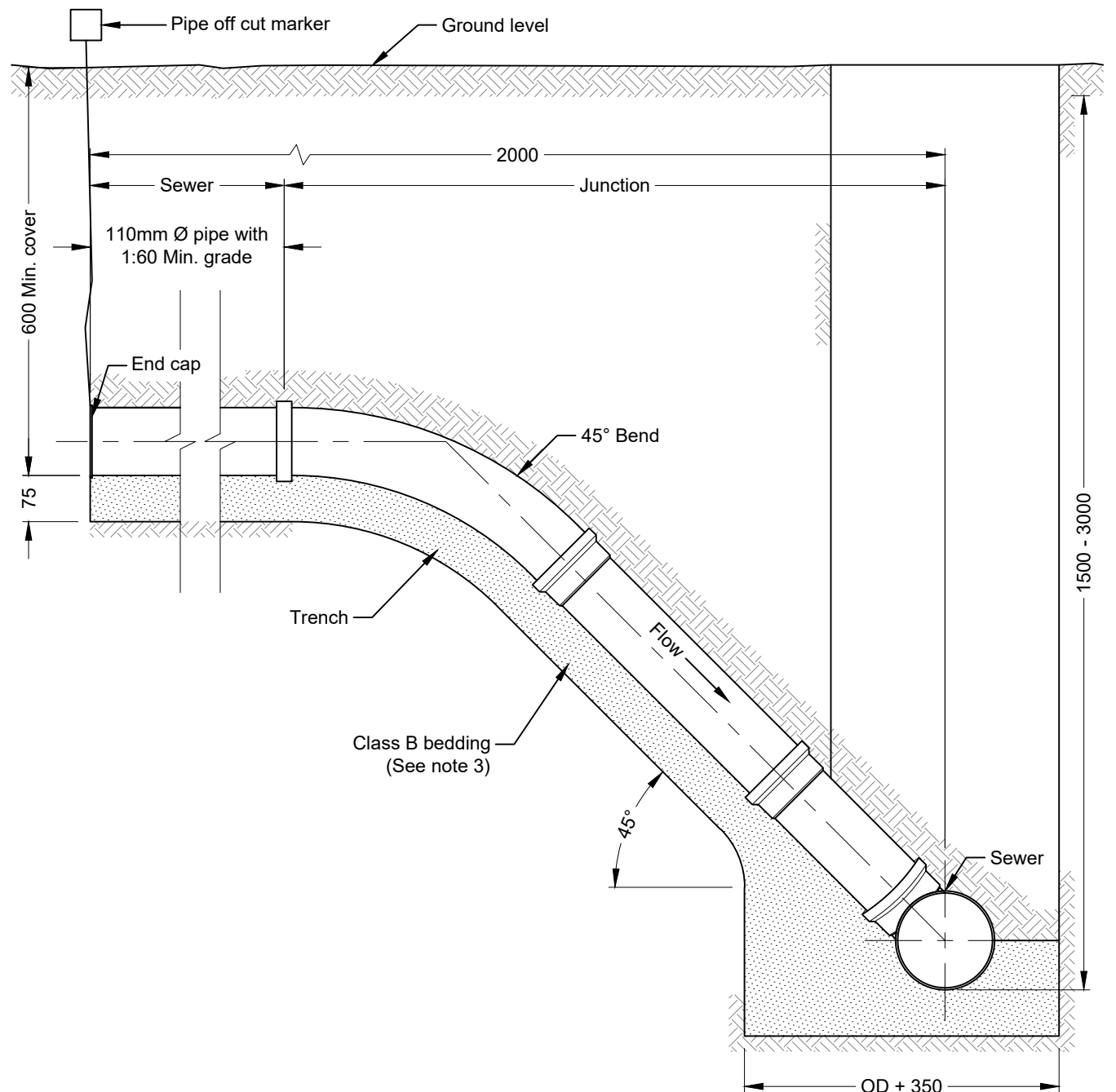
HOUSE CONNECTION TYPE 1: PLAN
Scale 1 : 10



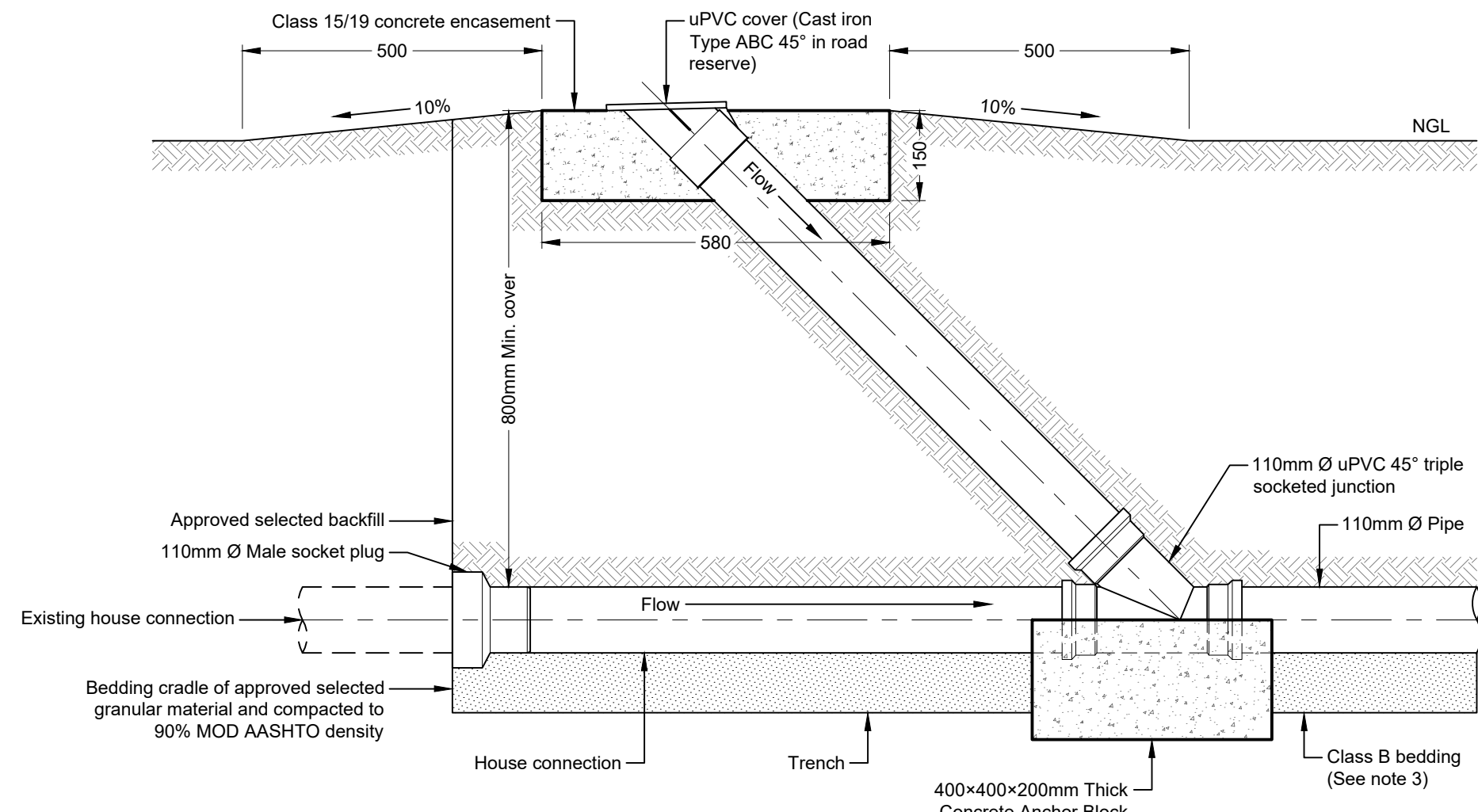
HOUSE CONNECTION TYPE 2: PLAN
Scale 1 : 10



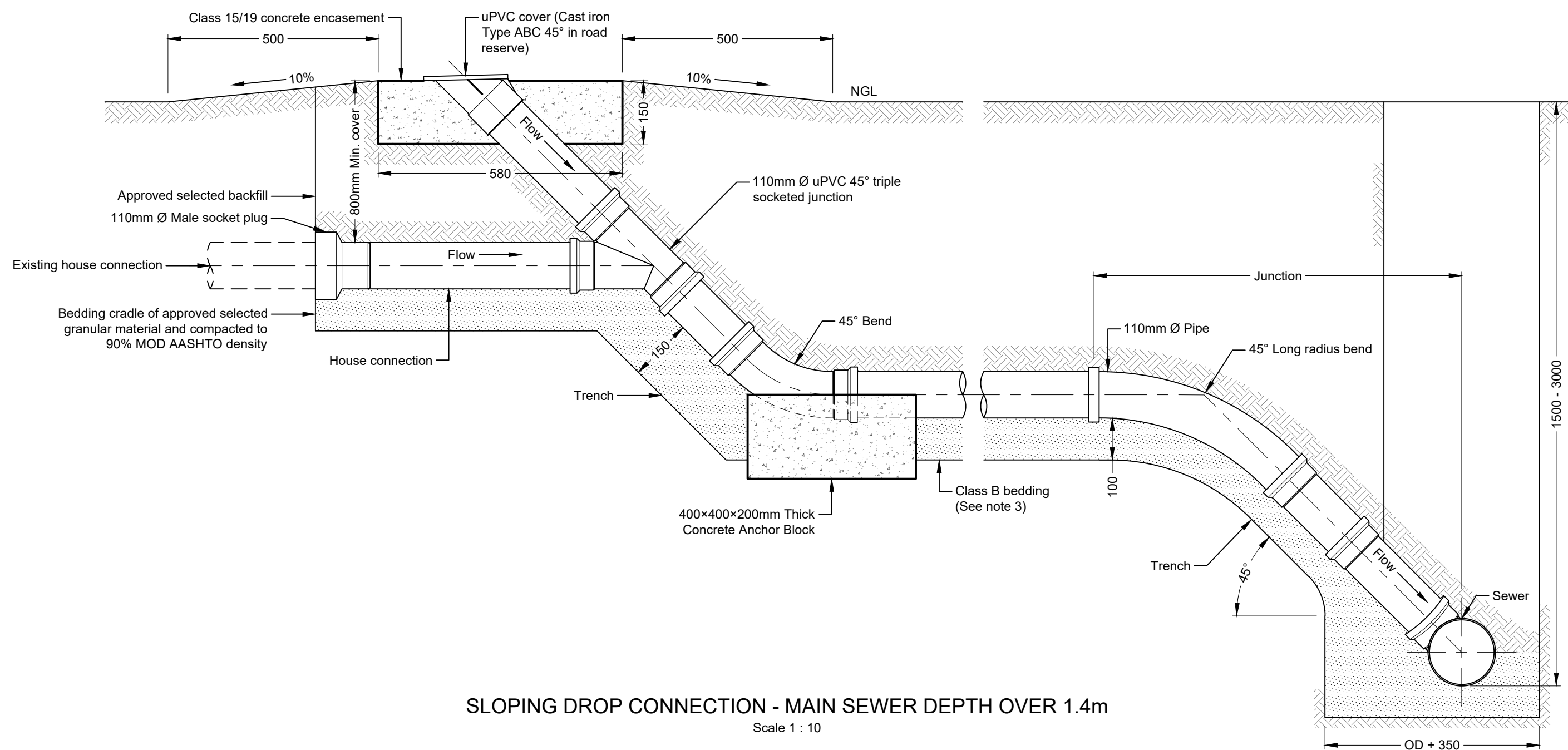
SECTION A - A
Scale 1 : 10



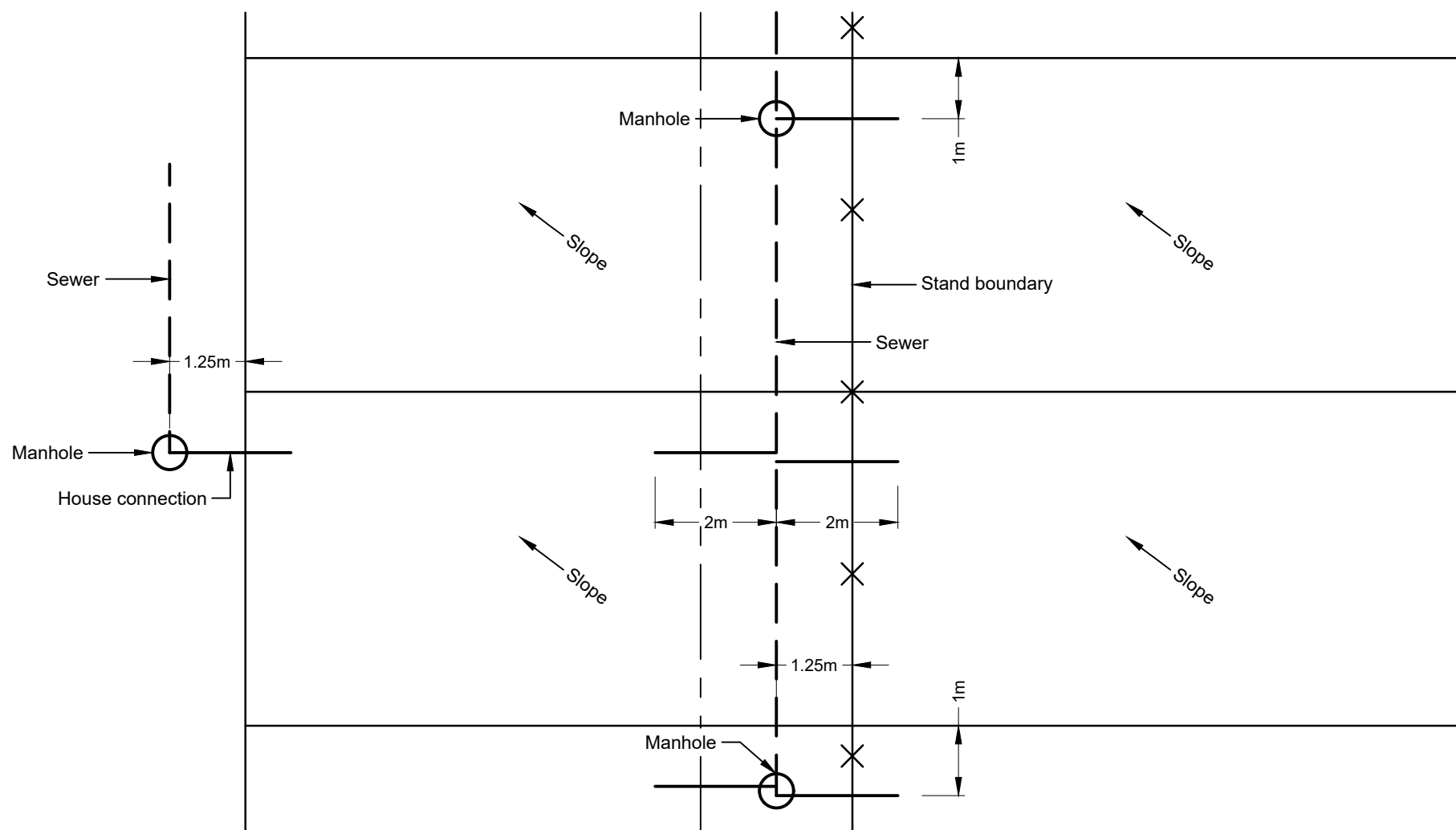
SECTION B - B
Scale 1 : 10



DIRECT CONNECTION - MAIN SEWER DEPTH 1.0m TO 1.4m
Scale 1 : 10



SLOPING DROP CONNECTION - MAIN SEWER DEPTH OVER 1.4m
Scale 1 : 10



POSITION OF HOUSE CONNECTIONS & MANHOLES
N.T.S.

FOR TENDER PURPOSES ONLY

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NOTES:

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- Class A bedding / encasing concrete between joints shall be carried out in one continuous operation using class 20/19 concrete.
- Flexible joints must be provided. At each pipe joint in a Class A concrete bedding / encasing, with a 12mm thick softboard place vertically for the entire concrete area. Pipe joint must be sealed with wet clay to prevent slush from penetrating the joint.
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Rev.	Date	Description

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Approved by Engineer: Signature:
Name: L.K. Fourie
Designation: PrTechEng
ECSA Reg.: 200970182 Date: 21 Sep 2022

Project Funder/ Client:
mig Municipal Infrastructure Grant

Project Implementing Agent:
HARRY GWALA DISTRICT MUNICIPALITY

Approved by Client: Name: Signature: Date:

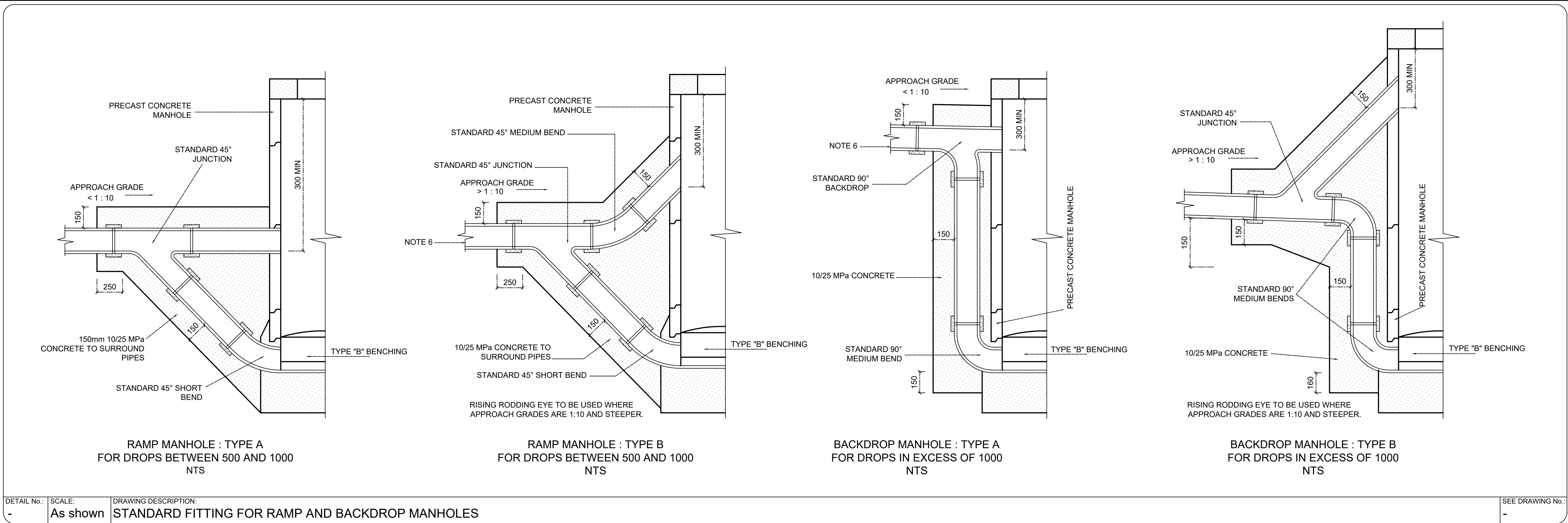
Project: **IBISI SEWER RETICULATION**

Drawing description: **SEWER DETAILS: HOUSE CONNECTION DETAILS**

Drawn: G.D Bezuidenhout Date: Sep 2022

Scale/s: As Shown

Drawing number: 22-009-V-04-04 Rev.: 00



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- Class A bedding / encasing concrete between joints shall be carried out in one continuous operation using class 20/19 concrete.
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AMENDMENTS		
Rev.	Date	Description

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LADYSMITH

Approved by Engineer: Signature:
Name: L. K. Fourie
Designation: PrTechEng
ECSA Reg.: 200970182 Date: 21 Sep 2022

mig
Municipal Infrastructure Grant

Project Implementing Agent:
HARRY GWALA
DISTRICT MUNICIPALITY

Approved by Client:
Name: _____
Signature: _____ Date: _____

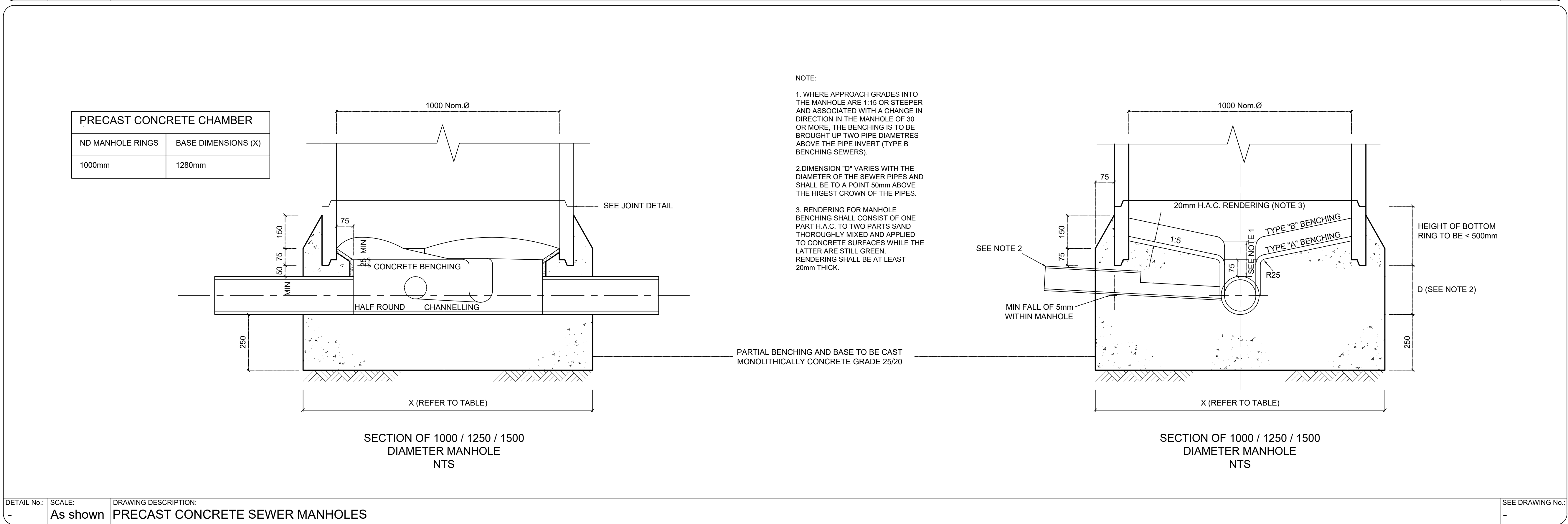
Project:
IBISI SEWER RETICULATION

Drawing description:
**SEWER DETAILS:
MANHOLE FITTING
DETAILS**

Drawn: G.D Bezuidenhout Date: Sep 2022
Scale/s: As Shown
Drawing number: 22-009-V-04-05 Rev.: 00

NOTE:
ECA CONSULTING HEREBY RECOGNISE
MNA CONSULTING AS THE ORIGINAL
DESIGNERS OF THIS PROJECT.

**FOR TENDER
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clarified before work is continued on site.


NOTE:

ECA CONSULTING HEREBY RECOGNISE
MNA CONSULTING AS THE ORIGINAL
DESIGNERS OF THIS PROJECT.

FOR TENDER
PURPOSES ONLY

AMENDMENTS

Rev.	Date	Description
01	00-00-0000	XXXX
02	00-00-0000	XXXX
03	00-00-0000	XXXX
04	00-00-0000	XXXX
05	00-00-0000	XXXX
06	00-00-0000	XXXX

ECA CONSULTING

Civil and Structural Engineers

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OTHER OFFICES:
MBOMBELA | GAUTENG |
PIETERMARITZBURG |
LADYSMITH

Approved by Engineer: Signature:
Name: L. K. Fourie
Designation: PrTechEng
ECSA Reg.: 200970182 Date: 21 Sep 2022

Project Funder/ Client:
mig
Municipal
Infrastructure
Grant



Project Implementing Agent:
HARRY GWALA
DISTRICT
MUNICIPALITY



Approved by Client:
Name: _____
Signature: _____ Date: _____

Project:
**IBISI SEWER
RETICULATION**

Drawing description:
**TOILET TOP
STRUCTURE WITH
WASH TROUGH**

Drawn: G.D Bezuidenhout Date: Sep 2022
Scale/s: As Shown
Drawing number: 22-009-V-05-01 Rev.: 00

