



## MAKHADO MUNICIPALITY

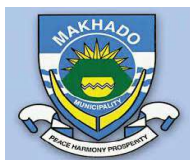
TENDER NO.: 67 OF 2021

### REHABILITATION OF JOE SLOVO STREET AT VLEINFONTEIN TENDER DOCUMENT

CIDB GRADING – 6 CE or higher

SEPTEMBER 2021

**Issued by:**



Makhado Municipality  
Private Bag X2596  
Louis Trichardt  
0920

**Prepared by**



Sizeya Consulting Engineers  
06 Hans van Rensburg  
Polokwane  
0699

**Contact:**

**Technical:**

Name: Mr M.G Raleshuku  
Ms. L.A Thulare  
Telephone: (015) 519 3000/09

Mr. RR Ravele  
015 291 1020

**Procurement Enquiries:**

Ms P Mudau or Mr M Ramabulana  
(015) 519 3044/3024

**Name of tenderer:** .....

**Tender sum: R**.....





## **MAKHADO MUNICIPALITY**

**TENDER No. 67 OF 2021**

**REHABILITATION OF JOE SLOVO STREET AT  
VLEINFONTEIN**

### **Contents**

**Number      Heading**

#### **THE TENDER**

##### **Part T1: Tendering procedures**

- T1.1      Tender notice and invitation to tender (white)
- T1.2      Tender data (Pink)
- T1.3      Standard and particular condition of tender (Pink)

##### **Part T2: Returnable documents**

- T2.1      List of returnable documents (yellow)
- T2.2      Returnable schedules (yellow)

#### **THE CONTRACT**

##### **Part C1: Agreements and Contract data**

- C1.1      Form of offer and acceptance (yellow)
- C1.2      Agreement in terms of the Occupational Health & Safety Act (white)
- C1.3      Performance guarantee (white)
- C1.4      Form agreement in terms of the Mine Health and Safety Act
- C1.5      Abstracts of the Mine Health and Safety Act No. 29
- C1.6      Contract data (yellow)

##### **Part C2: Pricing data**

- C2.1      Pricing instructions (yellow)
- C2.2      Bills of quantities (yellow)
- C2.3      Summary of bill of quantities (yellow)
- C2.4      Calculation of tender sum (yellow)

**Part C3: Scope of work**

C3            Scope of work (blue)

**Part C4: Site Information**

C4            Site Information (green)

**Part C5: RELEVANT DOCUMENTATION**

C5.1          Ministerial Determination (White)

**PART C6: DRAWINGS (WHITE)**



## MAKHADO MUNICIPALITY

TENDER NO.: 67 OF 2021

REHABILITATION OF JOE SLOVO STREET AT  
VLEINFONTEIN

### T1.1 Tender Notice and Invitation to Tender

#### APPOINTMENT OF CONTRACTOR FOR THE REHABILITATION OF JOE SLOVO STREET AT VLEINFONTEIN

All suitable Service providers are hereby invited to bid for the below mentioned project. Bidders are requested to bid as per specification attached to the bid document that will be obtained from **03 September 2021 at non-refundable amount of R600.00** per document at the procurement Office No. B043 Ground Floor, 83 Krogh street, Civic Center, Makhado or can be downloaded from e-tender portal for free <https://etenders.treasure.gov.za/content/advertised-tender> or [www.makhado.gov.za](http://www.makhado.gov.za)

Bidders are requested to bid for the Construction project listed below:



# MAKHADO LOCAL MUNICIPALITY

Tel: (015) 519 3000 Fax: (015) 516 1195 Private Bag X2596 Makhado 0920

## TENDER NOTICE

All suitable service providers are hereby invited to bid for the below mentioned projects. Bidders are requested to bid as per specification attached to the bid documents that will be obtainable from **03 September 2021 at noon -refundable amount of R600.00** per document at the Procurement Office No. D043 Ground Floor, 83 Krogh Street, Civic Centre, Makhado or can be downloaded from e-tender portal for free <https://etenders.treasury.gov.za/content/advised-tender> or [www.makhado.gov.za](http://www.makhado.gov.za).

BID NO:	DESCRIPTION	EVALUATION CRITERIA	SPECIAL REQUIREMENT	TECHNICAL ENQUIRIES	REFERENCE AND NOTICE NO.	CLOSING DATE AND TIME
67 of 2021	Rehabilitation of Joe Slovo street at Vleinfontein.	80/20 preferential points with functionality	<ul style="list-style-type: none"> <li>CIDB Grading 16-CE or higher</li> <li>Attach three years audited financial statement (only those that are required by law)</li> </ul>	Acting Director Technical Services: Mr. MG Faleshuku or Ms. L Thulare at 0155 193000	File No. 6/3/21/1821 Notice No. 134 /2021	01 October 2021 at 12:00pm

### NB: NO COMPULSORY BRIEFING MEETING FOR THE ABOVE MENTIONED BIDS

Completed bid documents signed by a duly authorized person, sealed in an envelope clearly marked "As mentioned above" must reach the undersigned by depositing it into the tender box at the foyer of the main entrance to the Civic Centre by not later than "As mentioned above" when all tenders received will be opened in public in the Council Chamber Ground Floor, Civic Centre, No. 83 Krogh Street, Makhado.

The Municipality is not bound to accept the lowest or any bid and reserves the right to accept any part of a bid. Bids must remain valid for a period of ninety (90) days after closing date of submission thereof. Submitted tenders will be evaluated as mentioned above table.

Bids which are late, incomplete, unsigned or submitted in pencil or by telegraph or facsimile or electronically by e-mail, or not having the following documents attached for evaluation or not complying with the tender specifications, will not be evaluated and will be disqualified.

- Valid Tax Compliance Status pin issued by SARS
- A copy of company registration documents e.g. COK
- Certified copy/copies of company owner(s) ID book(s), not older than three (03) months.
- Attach proof of payment for municipal rates not owing for more than (03) months or formal lease agreement for rental premises or letter from the traditional authority in cases of non-rateable areas. (Attach for both entity and directors of the company)
- Copy of central supplier database report.

### NR:

- Service provider must submit their certified B-BBEE verification certificate from verification agency accredited by South African National Accreditation system (SANAS) or sworn affidavit.
- All Service Provider doing business with Makhado municipality are required to register on the CSD (Central Supplier Database).
- A copy of a certified copy will not be accepted.

All procurement enquiries should be directed to Ms. P Mudau or Mr. M Ramabulana at tel no. 015 516 3044/3024.

Civic Centre  
83 Krogh Street,  
LOUIS TRICHAARD

MF KM NERANAME  
ACTING MUNICIPAL MANAGER

## PART A INVITATION TO BID

MBD 1

YOU ARE HEREBY INVITED TO BID FOR REQUIREMENTS OF THE MAKHADO LOCAL MUNICIPALITY					
BID NUMBER:	67 OF 2021	CLOSING DATE:	01/10/2021	CLOSING TIME:	12:00 PM
DESCRIPTION	REHABILITATION OF JOE SLOVO STREET AT VLEINFONTEIN				
THE SUCCESSFUL BIDDER WILL BE REQUIRED TO FILL IN AND SIGN A WRITTEN CONTRACT FORM (MBD7).					

BID RESPONSE DOCUMENTS MAY BE DEPOSITED IN THE BID BOX SITUATED AT (STREET ADDRESS)

<b>CIVIC CENTRE</b>				
<b>83 KROGH STREET</b>				
<b>MAKHADO</b>				
<b>0920</b>				
<b>SUPPLIER INFORMATION</b>				
NAME OF BIDDER				
POSTAL ADDRESS				
STREET ADDRESS				
TELEPHONE NUMBER	CODE		NUMBER	
CELLPHONE NUMBER				
FACSIMILE NUMBER	CODE		NUMBER	
E-MAIL ADDRESS				
VAT REGISTRATION NUMBER				

TAX COMPLIANCE STATUS	TCS PIN:		OR	CSD No:	
B-BBEE STATUS LEVEL VERIFICATION CERTIFICATE [TICK APPLICABLE BOX]	<input type="checkbox"/> Yes  <input type="checkbox"/> No		B-BBEE STATUS LEVEL SWORN AFFIDAVIT	<input type="checkbox"/> Yes  <input type="checkbox"/> No	
<b>[A B-BBEE STATUS LEVEL VERIFICATION CERTIFICATE/ SWORN AFFIDAVIT (FOR EMES &amp; QSEs) MUST BE SUBMITTED IN ORDER TO QUALIFY FOR PREFERENCE POINTS FOR B-BBEE]</b>					
ARE YOU THE ACCREDITED REPRESENTATIVE IN SOUTH AFRICA FOR THE GOODS /SERVICES /WORKS OFFERED?	<input type="checkbox"/> Yes <input type="checkbox"/> No [IF YES ENCLOSE PROOF]		ARE YOU A FOREIGN BASED SUPPLIER FOR THE GOODS /SERVICES /WORKS OFFERED?	<input type="checkbox"/> Yes <input type="checkbox"/> No [IF YES, ANSWER PART B:3 ]	
TOTAL NUMBER OF ITEMS OFFERED			TOTAL BID PRICE	R	
SIGNATURE OF BIDDER	.....		DATE		
CAPACITY UNDER WHICH THIS BID IS SIGNED					
<b>BIDDING PROCEDURE ENQUIRIES MAY BE DIRECTED TO:</b>			<b>TECHNICAL INFORMATION MAY BE DIRECTED TO:</b>		
DEPARTMENT	PROCUREMENT		CONTACT PERSON	M.G Raleshuku or L Thulare	
CONTACT PERSON	P Mudau or M Ramabulana		TELEPHONE NUMBER	015 519 3000	
TELEPHONE NUMBER	015 519 3044/3024		FACSIMILE NUMBER		
FACSIMILE NUMBER			E-MAIL ADDRESS		
E-MAIL ADDRESS					

## PART B TERMS AND CONDITIONS FOR BIDDING

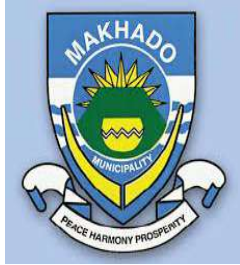
<b>1. BID SUBMISSION:</b>										
<p>1.1. BIDS MUST BE DELIVERED BY THE STIPULATED TIME TO THE CORRECT ADDRESS. LATE BIDS WILL NOT BE ACCEPTED FOR CONSIDERATION.</p> <p>1.2. <b>ALL BIDS MUST BE SUBMITTED ON THE OFFICIAL FORMS PROVIDED–(NOT TO BE RE-TYPED) OR ONLINE</b></p> <p>1.3. THIS BID IS SUBJECT TO THE PREFERENTIAL PROCUREMENT POLICY FRAMEWORK ACT AND THE PREFERENTIAL PROCUREMENT REGULATIONS, 2017, THE GENERAL CONDITIONS OF CONTRACT (GCC) AND, IF APPLICABLE, ANY OTHER SPECIAL CONDITIONS OF CONTRACT.</p>										
<b>2. TAX COMPLIANCE REQUIREMENTS</b>										
<p>2.1 BIDDERS MUST ENSURE COMPLIANCE WITH THEIR TAX OBLIGATIONS.</p> <p>2.2 BIDDERS ARE REQUIRED TO SUBMIT THEIR UNIQUE PERSONAL IDENTIFICATION NUMBER (PIN) ISSUED BY SARS TO ENABLE THE ORGAN OF STATE TO VIEW THE TAXPAYER'S PROFILE AND TAX STATUS.</p> <p>2.3 APPLICATION FOR THE TAX COMPLIANCE STATUS (TCS) CERTIFICATE OR PIN MAY ALSO BE MADE VIA E-FILING. IN ORDER TO USE THIS PROVISION, TAXPAYERS WILL NEED TO REGISTER WITH SARS AS E-FILERS THROUGH THE WEBSITE WWW.SARS.GOV.ZA.</p> <p>2.4 FOREIGN SUPPLIERS MUST COMPLETE THE PRE-AWARD QUESTIONNAIRE IN PART B:3.</p> <p>2.5 BIDDERS MAY ALSO SUBMIT A PRINTED TCS CERTIFICATE TOGETHER WITH THE BID.</p> <p>2.6 IN BIDS WHERE CONSORTIA / JOINT VENTURES / SUB-CONTRACTORS ARE INVOLVED; EACH PARTY MUST SUBMIT A SEPARATE TCS CERTIFICATE / PIN / CSD NUMBER.</p> <p>2.7 WHERE NO TCS IS AVAILABLE BUT THE BIDDER IS REGISTERED ON THE CENTRAL SUPPLIER DATABASE (CSD), A CSD NUMBER MUST BE PROVIDED.</p>										
<b>3. QUESTIONNAIRE TO BIDDING FOREIGN SUPPLIERS</b>										
<table style="width: 100%; border: none;"> <tr> <td style="width: 70%;">3.1. IS THE ENTITY A RESIDENT OF THE REPUBLIC OF SOUTH AFRICA (RSA)?</td> <td style="width: 30%; text-align: right;"> <input type="checkbox"/> YES <input type="checkbox"/> NO         </td> </tr> <tr> <td>3.2. DOES THE ENTITY HAVE A BRANCH IN THE RSA?</td> <td style="text-align: right;"> <input type="checkbox"/> YES <input type="checkbox"/> NO         </td> </tr> <tr> <td>3.3. DOES THE ENTITY HAVE A PERMANENT ESTABLISHMENT IN THE RSA?</td> <td style="text-align: right;"> <input type="checkbox"/> YES <input type="checkbox"/> NO         </td> </tr> <tr> <td>3.4. DOES THE ENTITY HAVE ANY SOURCE OF INCOME IN THE RSA?</td> <td style="text-align: right;"> <input type="checkbox"/> YES <input type="checkbox"/> NO         </td> </tr> <tr> <td>3.5. IS THE ENTITY LIABLE IN THE RSA FOR ANY FORM OF TAXATION?</td> <td style="text-align: right;"> <input type="checkbox"/> YES <input type="checkbox"/> NO         </td> </tr> </table> <p><b>IF THE ANSWER IS "NO" TO ALL OF THE ABOVE, THEN IT IS NOT A REQUIREMENT TO REGISTER FOR A TAX COMPLIANCE STATUS SYSTEM PIN CODE FROM THE SOUTH AFRICAN REVENUE SERVICE (SARS) AND IF NOT REGISTER AS PER 2.3 ABOVE.</b></p>	3.1. IS THE ENTITY A RESIDENT OF THE REPUBLIC OF SOUTH AFRICA (RSA)?	<input type="checkbox"/> YES <input type="checkbox"/> NO	3.2. DOES THE ENTITY HAVE A BRANCH IN THE RSA?	<input type="checkbox"/> YES <input type="checkbox"/> NO	3.3. DOES THE ENTITY HAVE A PERMANENT ESTABLISHMENT IN THE RSA?	<input type="checkbox"/> YES <input type="checkbox"/> NO	3.4. DOES THE ENTITY HAVE ANY SOURCE OF INCOME IN THE RSA?	<input type="checkbox"/> YES <input type="checkbox"/> NO	3.5. IS THE ENTITY LIABLE IN THE RSA FOR ANY FORM OF TAXATION?	<input type="checkbox"/> YES <input type="checkbox"/> NO
3.1. IS THE ENTITY A RESIDENT OF THE REPUBLIC OF SOUTH AFRICA (RSA)?	<input type="checkbox"/> YES <input type="checkbox"/> NO									
3.2. DOES THE ENTITY HAVE A BRANCH IN THE RSA?	<input type="checkbox"/> YES <input type="checkbox"/> NO									
3.3. DOES THE ENTITY HAVE A PERMANENT ESTABLISHMENT IN THE RSA?	<input type="checkbox"/> YES <input type="checkbox"/> NO									
3.4. DOES THE ENTITY HAVE ANY SOURCE OF INCOME IN THE RSA?	<input type="checkbox"/> YES <input type="checkbox"/> NO									
3.5. IS THE ENTITY LIABLE IN THE RSA FOR ANY FORM OF TAXATION?	<input type="checkbox"/> YES <input type="checkbox"/> NO									

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

SIGNATURE OF BIDDER: .....

CAPACITY UNDER WHICH THIS BID IS SIGNED: .....

DATE: .....



## MAKHADO MUNICIPALITY

TENDER NO.: 67 OF 2021

REHABILITATION OF JOE SLOVO STREET AT VLEINFONTEIN

### T1.2 Tender Data

The conditions of tender are the Standard Conditions of Tender as contained in Annex F of the CIDB Standard for Uniformity in Construction Procurement (January 2009) as published in Government Gazette No 31823, Board Notice 12 of 2009 of 30 January 2009. (See [www.cidb.org.za](http://www.cidb.org.za)).

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

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	Tender Data
F.1.1	The employer is Makhado Local Municipality
F.1.2	<p>The Tender Documents issued by the Employer comprise the following documents:</p> <p><b>THE TENDER</b></p> <p><b>Part T1: Tendering procedures</b></p> <p>T1.1 - Tender notice and invitation to tender</p> <p>T1.2 - Tender data</p> <p><b>Part T2: Returnable documents</b></p> <p>T2.1 - List of returnable documents</p> <p>T2.2 - Returnable schedules</p> <p><b>THE CONTRACT</b></p> <p><b>Part C1: Agreements and Contract data</b></p> <p>C1.1 - Form of offer and acceptance</p> <p>C1.2 - Agreement in terms of the Occupational Health &amp; Safety Act</p> <p>C1.3 - Performance guarantee</p> <p>C1.4 - Form agreement in terms of the Mine Health &amp; Safety Act</p> <p>C1.5 - Abstracts of the Mine Health and Safety Act No.29</p> <p>C1.6 - Contract data</p> <p><b>Part C2: Pricing data</b></p> <p>C2.1 - Pricing instructions</p> <p>C2.2 - Bill of Quantities</p> <p><b>Part C3: Scope of work</b></p> <p>C3 - Scope of work</p> <p><b>Part C4: Site information</b></p> <p>C4 - Site information</p>

F.1.4	<p>The employer's agent is:</p> <p>Sizeya Consulting Engineers  Address: No.6 Hans van Rensburg street, office 14, Polokwane 0699  Tel: (015) 291 1020  Fax: (086) 654 7576  E-mail: <a href="mailto:info@sizeya.co.za">info@sizeya.co.za</a></p>
F.2.1	<p>Only those tenderers who are registered with the CIDB, or are capable of being so prior to the evaluation of submissions, in a contractor grading designation equal to or higher than a contractor grading designation determined in accordance with the sum tendered, or a value determined in accordance with Regulation 25 (1B) or 25(7A) of the Construction Industry Development Regulations, for a 6 CE class of construction work, are eligible to have their tenders evaluated.</p> <p>Joint ventures are eligible to submit tenders provided that:</p> <ol style="list-style-type: none"> <li>every member of the joint venture is registered with the CIDB;</li> <li>the combined contractor grading designation calculated in accordance with the Construction Industry Development Regulations is equal to or higher than a contractor grading designation determined in accordance with the sum tendered for a 6CE class of construction work or a value determined in accordance with Regulation 25 (1B) or 25(7A) of the Construction Industry Development Regulations.</li> </ol>
F.2.7	The arrangements for a compulsory clarification meeting -No compulsory clarification meeting for this bid
F.2.12	No alternative tender offers will be considered
F.2.13.3	Parts of each tender offer communicated on paper shall be submitted as an original, plus 0 copies.
F.2.13.5 F.2.15.1	<p>The employer's details and address for delivery of tender offers and identification details that are to be shown on each tender offer package are:</p> <p><b>Location of tender box:</b> Makhado Municipality  <b>Identification details:</b> TENDER NO. 67 OF 2021 REHABILITATION OF JOE SLOVO STREET AT VLEINFONTEIN and the closing date is 01/10/2021 and time is 12h00 of the tender</p>
F.2.13.9	Telephonic, telegraphic, telex, facsimile or e-mailed tender offers will not be accepted.
F.2.15	The closing time for submission of tender offers is as stated in the Tender Notice and Invitation to Tender.
F.2.16	The tender offer validity period is 90 days.
F.2.23	<p>The tenderer is required to submit with his tender:</p> <ul style="list-style-type: none"> <li>A valid tax clearance certificate with tax compliance status pin issued.</li> <li>A copy of company registration certificate/CK.</li> <li>Certified copy/copies of company owner(s) ID book(s), not older than three (03) months.</li> <li>Certified copy BBBEE certificate (For preferential points), not older than three (03) months.</li> <li>CIDB grading (as mentioned above)</li> <li>Proof of payment of Municipal Accounts/Bills/Formal Lease Agreement for rental/letter from Traditional Authority not older than three (03) months for both entity and directors of the company.</li> <li>Copy of central supplier database summary report.</li> </ul>
F.3.1.1	The Employer will respond to requests for clarification received up to 5 working days before the tender closing time.
F.3.4	Tenders will be opened immediately after the closing time for tenders

## EVALUATION CRITERIA

The bids will be evaluated in two stages. The first stage will check whether the bidders have submitted all documents as requested on the advert. Although functionality does not form part of the final tender points scoring for award purpose, tenderer will be assessed for responsiveness and functionality first and if the tender is not responsive or meet the minimum functionality score, the tenderer will be eliminated and not considered further for second stage of evaluation.

The second stage of the evaluation will be based on Price (80) and preference points for B-BBEE status level of contribution (20).

Detailed points scoring for functionality are as follows:

### :COMPETENCE ACHIEVEMENT/FUNCTIONALITY SCHEDULE

**TABLE A1: REPUTATION AND REFERENCES**

TARGETED GOALS Name reference with contact details (Previous 3 yrs, Projects involving Road)		Max Points to be Scored	Points Claimed by Tenderer	Allocated Points
1	Project 1	10		
2	Project 2	10		
3	Project 3	10		
4	Project 4	10		
Sub-Total: Reputation and References		40		

**NOTE:** The tender should attach appointment letters and completion certificates as a proof for having completed such project. Points for each project will be allocated as follows:

7CE: 10 points

6CE: 8 points

5CE: 6 points

4CE: 5 points

3CE: 4 points

2CE: 2 points

**TABLE A2: FINANCIAL REFERENCES**

TARGETED GOALS		Tendered Goal	Points Claimed by Tenderer	Allocated Points
1	Tenderer submitted banking details proof attached	2		
2	Bank rating of "C" or better	5		
3	Registered financial Institution's full details as guarantor in the amount of 10% as specified for surety purpose shall be submitted	3		
Sub-Total: Financial References		10		

**TABLE A3: EXPERIENCE AND QUALIFICATION OF KEY STAFF****Table A3.1 Experience**

TARGETED GOALS	Points Allocation	Points Claimed by Tenderer	Allocated Points
1 Contract Manager: 10 years in Road Projects	>10 yrs=5 6-9 yrs=3 3-5 yrs=2 1-2yrs=1		
2 Construction Manager (Site Agent): 8 years in Road Projects	>8 yrs=5 5-7 yrs=3 3-4 yrs=2 1-2yrs=1		
3 Construction Supervisor (Foreman) 5 years in Road Projects	>5 yrs=3 4 yrs=1.5 3 yrs=1 1-2yrs=0.5		
4 Health and Safety Officer 5 years of experience as OHS in Civil Engineering Construction	>5 yrs=2 4 yrs=1 3 yrs=0.5 1-2yrs=0.25		
<b>Sub-Total: Experience</b>	<b>15</b>		

**NOTE: Project organogram should be attached. Curriculum vitae with detailed experience and contact details should be attached to the tender document for verification by the consultants.**

**Table A3.2 Qualifications**

TARGETED GOALS	Tendered Goal	Points Claimed by Tenderer	Allocated Points
1 Contract Manager: Civil Engineering or construction management	BSc = 5 B-Tech /PrCPM = 5 ND = 3 N6 = 2 Any Cert= 1		
2 Construction Manager (Site Agent): Civil Engineering or construction management or project management (Must have at least NQF 5)	BSc/B-Tech = 5 ND = 4 NQF 5/7 = 3 N6 = 2 Any Cert= 1		
3 Construction Supervisor (Foreman)	ND = 3 NQF 7 =2 N6 = 2 N3= 1.5 NQF5= 1.5 NQF 4= 1 NQF 3= 0.5		
4 Health and Safety Officer 5 years of experience as OHS in Road projects	ND = 2 Cert = 0.5		
<b>Sub-Total: Qualifications</b>	<b>15</b>		

**CV's and Certified Qualifications should be attached.**

**TABLE A4: PLANT AND EQUIPMENT**

TARGETED GOALS	Tendered Goal	Points Claimed by Tenderer	Allocated Points
1. Grader: No (1)	3		
2. TLB: No (1)	2		
3. Excavators: No (1)	5		
4. Water Cart: No (2) (10 000 litre)	2		
5. 10 m <sup>3</sup> Tipper Trucks: No (5)	5		
6. Vibratory Roller 12 ton:No (1)	1		
7. Pad Foot Roller 8 ton: No (1)	1		
8. LDV: No (2)	1		
<b>Sub-Total: Plant and Equipment</b>	<b>20</b>		

**Note:** Tenderers should attach certified proof of ownership certificate for the plant mentioned above if they own such plant. In case of hired plant, tenderers will be required to attach a letter of undertaking by the hiring firm indicating that they will provide the tenderer with such plant should the tenderer becomes a successful bidder. The hiring company should also provide proof of ownership for such plants (For hiring, tenderers will only receive 50% of the full points for Plant and Equipment).

**TABLE A5: SUMMARY**

DESCRIPTION	Maximum Points to be Allocated	Points Claimed by Tenderer	Allocated Points
REPUTATION AND REFERENCE OF THE COMPANY: TABLE A1	40		
FINANCIAL REFERENCES: TABLE A2	10		
EXPERIENCE OF KEY STAFF: TABLE 3.1	15		
QUALIFICATION OF KEY STAFF: TABLE A3.2	15		
PLANT AND EQUIPMENT: TABLE A4	20		
<b>TOTAL</b>	<b>100</b>		

**Minimum functionality requirements of 70 points required for further evaluation.**

**The 80/20-point scoring system will be used on second stage of evaluation**

F.3.11.3	<p>"Functionality" means the measurement according to predetermined norms of a service or commodity designed to be practical and useful, working or operating, taking into account quality, reliability, viability and durability of a service or commodity.</p> <p>Only the qualifying bids will be evaluated in terms of the <b>80/20</b> preference points systems, where the <b>80</b> points were used for price only and <b>20</b> points were used for HDI ownership and / or for achieving the prescribed RDP goals respectively.</p> <p>Based on the firm bidder price provided, the following formula will be used to award points on price evaluation.</p> <p><b><math>Ps = 80(1 - (Pt - Pmin)/(Pmin))</math></b> Where;</p> <p>Ps = Points scored for price of bid under consideration Pt = Rand value of bid under consideration Pmin = Rand value of lowest acc</p>
F.3.13	<p>Tender offers will only be accepted if:</p> <ul style="list-style-type: none"> <li>a) the tenderer submits <b>an original valid</b> Tax Clearance Certificate issued by the South African Revenue Services or has made arrangements to meet outstanding tax obligations;</li> <li>b) the tenderer is registered with the Construction Industry Development Board in an appropriate contractor grading designation;</li> <li>c) the tenderer or any of its directors/shareholders is not listed on the Register of Tender Defaulters in terms of the Prevention and Combating of Corrupt Activities Act of 2004 as a person prohibited from doing business with the public sector;</li> <li>d) the tenderer has not: <ul style="list-style-type: none"> <li>i) abused the Employer's Supply Chain Management System; or</li> <li>ii) failed to perform on any previous contract and has been given a written notice to this effect;</li> </ul> </li> <li>f) the tenderer has completed the Compulsory Enterprise Questionnaire and there are no conflicts of interest which may impact on the tenderer's ability to perform the contract in the best interests of the employer or potentially compromise the tender process and persons in the employ of the state are permitted to submit tenders or participate in the contract;</li> <li>g) the tenderer is registered and in good standing with the compensation fund or with a licensed compensation insurer;</li> <li>h) the employer is reasonably satisfied that the tenderer has in terms of the Construction Regulations, 2003, issued in terms of the Occupational Health and Safety Act, 1993, the necessary competencies and resources to carry out the work safely.</li> </ul>
F.3.17	<p>The number of paper copies of the signed contract to be provided by the employer is 1.</p>

## **T1.2 Standard Conditions of Tender**

As published in Annexure F of the cidb Standard for Uniformity for construction Procurement, Board Notice 136 Government Gazette No 38960 of 10 July 2015

### **F.1 General**

#### **F.1.1 Actions**

**F.1.1.1** 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.

**F.1.1.2** 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 conflict of interest, indicating the nature of such conflict. Tenderers shall declare any potential conflict of 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 that 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 decisions 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 of tender, 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 interests which make it difficult to fulfill 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 price after the factors of a non-firm price and all unconditional discounts it can be utilised to 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;
- 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) **organization** means a company, firm, enterprise, association or other legal entity, whether incorporated or not, or a public body;
- f) **functionality** means the measurement according to the predetermined norms of a service or commodity designed to be practical and useful, working or operating, taking into account quality, reliability, viability and durability of a service and technical capacity and ability of a tenderer.

#### **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 readily read, copied and recorded. Communications 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 Cancellation and Re-Invitation of Tenders**

F1.5.1 An organ of state may, prior to the award of the tender, cancel a tender if-

- (a) due to changed circumstances, there is no longer a need for the services, works or goods requested; or
- (b) funds are no longer available to cover the total envisaged expenditure; or
- (c) no acceptable tenders are received.

F1.5.2 The decision to cancel a tender must be published in the cidb website and in the government Tender Bulletin for the media in which the original tender invitation was advertised.

#### **F.1.6 Procurement procedures**

##### **F.1.6.1 General**

Unless otherwise stated in the tender data, a contract will, subject to 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 position 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 tender data, shall be invited in each round to enter into 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 or 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.2 Tenderer's obligations**

### **F.2.1 Eligibility**

**F.2.1.1** Submit a tender offer only if the tenderer satisfies 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 to do so prior to the closing time for tenders.

### **F.2.2 Cost of tendering**

**F.2.2.1** Accept that, unless otherwise stated in the tender data, 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 complies with 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 Clarification meeting**

Attend, where required, a 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) might 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** Include in the rates, prices, and the tendered total of the prices (if any) all duties, taxes (except Value Added Tax (VAT), and other levies payable by the successful tenderer, such duties, taxes and levies being those applicable 14 days before the closing time stated in the tender data.

**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**

Do 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.

## **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 as well as a schedule that compares the requirements of the tender documents with the alternative requirements that are proposed.

**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 a joint venture to provide the whole of the works, services or supply identified in the contract data and described in the scope of works, 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 legibly in non-erasable 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 will 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 e-mail 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. Accept that proof of posting shall not be accepted as proof of delivery.

**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 with or without any conditions attached to such extension.

**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.

*Note: Sub-clause F.2.17 does not preclude the negotiation of the final terms of the contract with a preferred tenderer following a competitive selection process, should the Employer elect to do so.*

## **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 and policies**

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** Unless otherwise stated in the tender Data, respond to a request for clarification received up to five working days before the tender closing time stated in the Tender Data and notify all tenderers who drew procurement documents.

### **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 that tender documents are available until three 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, shall then notify 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 meeting 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 and, where applicable, the total of his prices, number of points claimed for its BBBEE status level and time for completion 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 functionality 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 functionality evaluation more than the minimum number of points for functionality stated in the tender data, and announce the score obtained for the technical proposals and the total price and any points claimed on BBBEE status level. Return unopened financial proposals to tenderers whose technical proposals failed to achieve the minimum number of points for functionality.

### **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, after opening and before detailed evaluation, whether each tender offer properly received:

- a) complies with 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:

- a) detrimentally affect the scope, quality, or performance of the works, services or supply identified in the Scope of Work,
- b) significantly change the Employer's or the tenderer's risks and responsibilities under the contract, or
- c) 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, omissions and discrepancies**

**F.3.9.1** Check the highest ranked tender or tenderer with the highest number of tender evaluation points after the evaluation of tender offers in accordance with F.3.11 for:

- a) the gross misplacement of the decimal point in any unit rate;
- b) omissions made in completing the pricing schedule or bills of quantities; or
- c) arithmetic errors in:
  - i) line item totals resulting from the product of a unit rate and a quantity in bills of quantities or schedules of prices; or
  - ii) the summation of the prices.

**F.3.9.2** The employer must correct the arithmetical errors in the following manner:

- a) Where there is a discrepancy between the amounts in words and amounts in figures, the amount in words shall govern.
- b) 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 shall govern and the rate shall 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.

- c) 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 bills of quantities apply) 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 the arithmetical error 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**

#### **F.3.11.1 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 R1 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 1 000 000 ( all applicable taxes included):

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

$$\left( \frac{P_s}{P_{min}} \right)$$

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.

- (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 1 million**

(5)(a) The following formula must be used to calculate the points for price in respect of tenders with a Rand value above R1 000 000 (all applicable taxes included):

**90/10**

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

Where

*P<sub>s</sub>* = Points scored for comparative price of tender or offer under consideration;

*P<sub>t</sub>* = Comparative price of tender or offer under consideration; and

*P<sub>min</sub>* = 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>B-BBEE status level of contributor</b>	<b>Number of points</b>
1	10
2	9

B-BBEE status level of contributor	Number of points
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)(b).

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

### F.3.12 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 i.Tender 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 purpose



## **MAKHADO MUNICIPALITY**

**TENDER NO.: 67 OF 2021**

**REHABILITATION OF JOE SLOVO STREET AT VLEINFONTEIN**

### **T.2.1 List of returnable documents**

#### **Returnable Schedules required for tender evaluation purposes**

The tenderer must complete the following returnable schedules as relevant:

- Certificate of authority of signatory
- Record of Addenda to Tender Documents
- Authority of Joint Ventures
- Proposed amendments and qualifications
- Proposed organisation and staffing
- Experience of key staff
- Tenderer's experience
- Original bank rating letter
- MBD 4, Annexure C, Annexure D, MBD 5, MBD 6.1, MBD 8

#### **Other documents required for tender evaluation purposes**

The tenderer must submit the following documents:

- A valid tax clearance certificate with tax compliance status pin issued.
- A copy of company registration certificate/CK.
- Certified copy/copies of company owner(s) ID book(s), not older than three (03) months.
- Certified copy BBBEE certificate (For preferential points), not older than three (03) months.
- CIDB grading
- Proof of payment of Municipal Accounts/Bills/Formal Lease Agreement for rental/letter from Traditional Authority not older than three (03) months for both entity and directors of the company.
- Copy of central supplier database summary report.
- List of similar successfully completed projects
- List of plant and equipment to be used
- CVs and academic qualifications of key staff members

- C1.1 Offer portion of Form of Offer and Acceptance**
- C1.2 Contract Data (Part 2)**
- C2.2 Bills of quantities**

## T.2.2 List of returnable schedules

### Record of Addenda to tender documents

We confirm that the following communications received from the Employer before the submission of this tender offer, amending the tender documents, have been taken into account in this tender offer:			
	<b>Date</b>	<b>Title or Details</b>	
1.			
2.			
3.			
4.			
5.			
6.			
Attach additional pages if more space is required.			
Signed		Date	
Name		Position	
Tenderer			

## Certificate of Authority for Joint Ventures

This Returnable Schedule is to be completed by joint ventures.

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

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

## Proposed amendments and qualifications

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

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

Tenderers must not include deviations or qualifications relating to the scope of work in this schedule where they are required to submit an Approach Paper.

Page	Clause or item	Proposal

Signed .....

Date .....

Name .....

Position .....

*Tenderer* .....

### Proposed Organisation and staffing

The tenderer should propose the structure and composition of their team by completing the table below

Position	Name of Key Staff Member and Qualifications Held
Contract Manager	
Construction Manager (Site Agent)	
Construction Supervisor (Foreman)	
Health and Safety Officer	

The undersigned, who warrants that he / she is duly authorised to do so on behalf of the enterprise, confirms that the contents of this schedule are within my personal knowledge and are to the best of my belief both true and correct.

Signed ..... Date .....

Name ..... Position .....

Tenderer .....

## Experience of Key Staff

The experience of assigned staff member in relation to the scope of work will be evaluated from three different points of view:

- 1) General experience (total duration of professional activity), level of education and training and positions held of each discipline specific team leader.
- 2) The education, training, skills and experience of the Assigned Staff in the specific sector, field, subject, etc which is directly linked to the scope of work.
- 3) The key staff members' / experts' knowledge of issues which the tenderer considers pertinent to the project e.g. local conditions, affected communities, legislation, techniques etc.

A CV of the Contract Manager, site agent and foreman and health and safety officer of not more than 2 pages should be attached to this document:

Each CV should be structured under the following headings:

- 1 Personal particulars
    - name
    - date and place of birth
    - place (s) of tertiary education and dates associated therewith
    - professional awards
  - 2 Qualifications (degrees, diplomas, grades of membership of professional societies and professional registrations)
  - 3 Skills
  - 4 Name of current employer and position in enterprise
  - 5 Overview of post graduate / diploma experience (year, organization and position)
  - 6 Outline of recent assignments / experience that has a bearing on the scope of work
- 

The undersigned, who warrants that he / she is duly authorised to do so on behalf of the enterprise, confirms that the contents of this schedule are within my personal knowledge and are to the best of my belief both true and correct.

Signed \_\_\_\_\_ Date \_\_\_\_\_

Name \_\_\_\_\_ Position \_\_\_\_\_

Tenderer \_\_\_\_\_

## Tenderer's Experience

Tenderers should very briefly describe his or her experience in the table below and attach corresponding appointment letters and completion certificates.

Employer, contact person and telephone number	Description of work (service)	Value of work inclusive of VAT (Rand)	Date completed

The undersigned, who warrants that he / she is duly authorised to do so on behalf of the enterprise, confirms that the contents of this schedule are within my personal knowledge and are to the best of my belief both true and correct.

Signed ..... Date .....

Name ..... Position .....

Tenderer .....

## SCHEDULE OF CONSTRUCTION PLANT

The Tenderer shall state below the constructional plant that will be available for the contract, the number of the plant that is owned by the tenderer and the number of the plant the tenderer intends to hire. Proof of ownership and letter of intent to hire (with proof of ownership) must be provided. For hiring, tenderers will only receive 50% of the full points for Plant and Equipment

Description, size, capacity	Number owned	Number to be hired

The undersigned, who warrants that he / she is duly authorised to do so on behalf of the enterprise, confirms that the contents of this schedule are within my personal knowledge and are to the best of my belief both true and correct.

Signed .....

Date .....

Name .....

Position .....

*Tenderer* .....

#### MBD 4

#### DECLARATION OF INTEREST

1. No bid will be accepted from persons in the service of the state<sup>1</sup>.
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, shareholder<sup>2</sup>):.....

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. ....

.....

<sup>1</sup>MSCM 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.

<sup>2</sup> 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**

## **ANNEXURE C**

### **CERTIFICATE FOR MUNICIPAL SERVICES AND PAYMENTS**

TO: MUNICIPAL MANAGER, MAKHADO LOCAL MUNICIPALITY

FROM: \_\_\_\_\_ (Name of Bidder)

FURTHER DETAILS OF BIDDER(S); DIRECTORS/SHAREHOLDERS/PARTNERS, ETC.

Directors/shareholders/Partner	Physical address of the Business	Municipal Account No.	Physical residential address of the Director/Shareholder/Partner	Municipal Account No.

**NB: Please attach certified copy (ies) of ID document(s)**

\_\_\_\_\_  
**Signatory**

\_\_\_\_\_  
**Date**

#### **Witnesses**

1. \_\_\_\_\_  
**Full Names**

\_\_\_\_\_  
**Signature**

\_\_\_\_\_  
**Date**

2. \_\_\_\_\_  
**Full Names**

\_\_\_\_\_  
**Signature**

\_\_\_\_\_  
**Date**

**ANNEXURE D**

**AUTHORISATION FOR DEDUCTION OF OUTSTANDING AMOUNTS OWED TO COUNCIL**

TO: MUNICIPAL MANAGER, MAKHADO LOCAL MUNICIPALITY

FROM: \_\_\_\_\_ (Name of the Bidder or Consortium)

I, \_\_\_\_\_ the undersigned, hereby authorize the Makhado Local Municipality to deduct the full amount outstanding by the business organization/Director/Shareholder/Partner, etc. from any payment due by us/me.

Signed at \_\_\_\_\_ Date \_\_\_\_\_ Month \_\_\_\_\_ 20 \_\_\_\_\_

Print Name: \_\_\_\_\_

Signature: \_\_\_\_\_

Thus done and signed for and on behalf of the bidder/Contractor

\_\_\_\_\_  
Signatory

\_\_\_\_\_  
Date

**Witnesses**

1. \_\_\_\_\_  
Full Names

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

2. \_\_\_\_\_  
Full Names

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

## 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.

.....  
.....

- 1 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. **YES / NO**

- 2.2 If yes, provide particulars.

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

\* Delete if not applicable

- 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

.....  
.....

Will any portion of goods or services be sourced from outside South Africa? **YES / NO**

If yes, what portion of payment from the municipality / municipal entity is expected to be transferred out of the South Africa? **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**

## MBD 6.1

### 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 with a Rand value of up to R50 000 000 (all applicable taxes included); and
  - the 90/10 system for requirements with a Rand value above R50 000 000 (all applicable taxes included).
- 1.2 The value of this bid is estimated to exceed R1 000 000 (all applicable taxes included) and therefore the 80/20 preference point 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.
- 1.4 The maximum points for this bid are allocated as follows:
- |  | POINTS     |
|--|------------|
| <b>PRICE</b>   | 80         |
| <b>B-BBEE STATUS LEVEL OF CONTRIBUTION</b>               | 20         |
| <b>Total points for Price and B-BBEE must not exceed</b> | <b>100</b> |
- 1.5 Failure on the part of a bidder to 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 a sworn affidavit confirming annual turnover and level of black ownership in case of an EME and QSE together with the bid, will be interpreted to mean that preference points for B-BBEE status level of contribution are not claimed.
- 1.6 The purchaser reserves the right to require of a bidder, either before a bid is adjudicated or at any time subsequently, to substantiate any claim in regard to preferences, in any manner required by the purchaser.

#### 2. DEFINITIONS

- (a) **“all applicable taxes”** includes value-added tax, pay as you earn, income tax, unemployment insurance fund contributions and skills development levies;
- (b) **“B-BBEE”** means broad-based black economic empowerment as defined in section 1 of the Broad-Based Black Economic Empowerment Act;
- (c) **“B-BBEE status level of contributor”** means the B-BBEE status received by a measured entity based on its overall performance using the relevant scorecard contained in the Codes of Good Practice on Black Economic Empowerment, issued in terms of section 9(1) of the Broad-Based Black Economic Empowerment Act;
- (d) **“bid”** means a written offer in a prescribed or stipulated form in response to an invitation by an organ of state for the provision of services, works or goods, through price quotations, advertised competitive bidding processes or proposals;
- (e) **“Broad-Based Black Economic Empowerment Act”** means the Broad-Based Black

Economic Empowerment Act, 2003 (Act No. 53 of 2003) as amended by Act No 46 of 2013;

- (f) **“comparative price”** means the price after the factors of a non-firm price and all unconditional discounts that can be utilized have been taken into consideration;
- (g) **“consortium or joint venture”** 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;
- (h) **“contract”** means the agreement that results from the acceptance of a bid by an organ of state;
- (i) **“EME”** means an Exempted Micro Enterprise as defines by Codes of Good Practice issued in terms of section 9 (1) of the Broad-Based Black Economic Empowerment Act, 2003 (Act No. 53 of 2003);
- (j) **“Firm price”** means the price that is only subject to adjustments in accordance with the actual increase or decrease resulting from the change, imposition, or abolition of customs or excise duty and any other duty, levy, or tax, which, in terms of the law or regulation, is binding on the contractor and demonstrably has an influence on the price of any supplies, or the rendering costs of any service, for the execution of the contract;
- (k) **“functionality”** means the measurement according to predetermined norms, as set out in the bid documents, of a service or commodity that is designed to be practical and useful, working or operating, taking into account, among other factors, the quality, reliability, viability and durability of a service and the technical capacity and ability of a bidder;
- (l) **“non-firm prices”** means all prices other than “firm” prices;
- (m) **“person”** includes a juristic person;
- (n) **“QSE”** means a Qualifying Small Enterprise as defines by Codes of Good Practice issued in terms of section 9 (1) of the Broad-Based Black Economic Empowerment Act, 2003 ( Act No. 53 of 2003);
- (o) **“rand value”** means the total estimated value of a contract in South African currency, calculated at the time of bid invitations, and includes all applicable taxes and excise duties;
- (p) **“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;
- (q) **“total revenue”** bears the same meaning assigned to this expression in the Codes of Good Practice on Black Economic Empowerment, issued in terms of section 9(1) of the Broad-Based Black Economic Empowerment Act and promulgated in the *Government Gazette* on 9 February 2007;
- (r) **“trust”** means the arrangement through which the property of one person is made over or bequeathed to a trustee to administer such property for the benefit of another person; and
- (s) **“trustee”** means any person, including the founder of a trust, to whom property is bequeathed in order for such property to be administered for the benefit of another person.

### 3. ADJUDICATION USING A POINT SYSTEM

- 3.1 The bidder obtaining the highest number of total points will be awarded the contract.
- 3.2 Preference points shall be calculated after prices have been brought to a comparative basis taking into account all factors of non-firm prices and all unconditional discounts;.
- 3.3 Points scored must be rounded off to the nearest 2 decimal places.
- 3.4 In the event that two or more bids have scored equal total points, the successful bid must be the one scoring the highest number of preference points for B-BBEE.
- 3.5 However, when functionality is part of the evaluation process and two or more bids have scored equal points including equal preference points for B-BBEE, the successful bid must be the one scoring the highest score for functionality.

- 3.6 Should two or more bids be equal in all respects, the award shall be decided by the drawing of lots.

#### 4.1 THE 80/20 OR 90/10 PREFERENCE POINT SYSTEMS

..... or .....

Ps = Points scored for comparative price of bid under consideration

#### 5. POINTS AWARDED FOR B-BBEE STATUS LEVEL OF CONTRIBUTION

<b>B-BBEE Status Level of Contributor</b>	<b>Number of points (90/10 system)</b>	<b>Number of points (80/20 system)</b>
1	10	20
2	9	18
3	8	16
4	5	12
5	4	8
6	3	6
7	2	4
8	1	2
Non-compliant contributor	0	0

contract to any other enterprise that does not qualify for at least the points that such a bidder qualifies for, unless the intended sub-contractor is an EME that has the capability and ability to execute the sub-contract.

- 5.8 A person awarded a contract may not sub-contract 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 than the person concerned, unless the contract is sub-contracted to an EME that has the capability and ability to execute the sub-contract.

## 6. BID DECLARATION

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

## 7. B-BBEE STATUS LEVEL OF CONTRIBUTION CLAIMED IN TERMS OF PARAGRAPHS 1.4 AND 5.1

- 7.1 B-BBEE Status Level of Contribution: = (maximum of 10 or 20 points)

(Points claimed in respect of paragraph 7.1 must be in accordance with the table reflected in paragraph 5.1 and must be substantiated by means of a B-BBEE certificate issued by a Verification Agency accredited by SANAS or a Registered Auditor approved by IRBA or a sworn affidavit.

## 8. SUB-CONTRACTING

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

**(Tick applicable box)**

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

- 8.1.1 If yes, indicate:

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

**(Tick applicable box)**

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

## 9. DECLARATION WITH REGARD TO COMPANY/FIRM

- 9.1 Name of Company /Firm:.....

- 9.2 VAT registration number:.....

- 9.3 Company registration number:.....

- 9.4 TYPE OF COMPANY/ FIRM

- ☐ Partnership/Joint Venture / Consortium
- ☐ One person business/sole propriety
- ☐ Close corporation
- ☐ Company
- ☐ (Pty) Limited

[TICK APPLICABLE BOX]

- 9.5 DESCRIBE PRINCIPAL BUSINESS ACTIVITIES

.....

.....

.....

.....

- 9.6 COMPANY CLASSIFICATION

- ☐ Manufacturer
- ☐ Supplier
- ☐ Professional service provider
- ☐ Other service providers, e.g. transporter, etc.

[TICK APPLICABLE BOX]

## 9.7 MUNICIPAL INFORMATION

**Municipality where business is situated:** .....

**Registered Account Number:** .....

**Stand Number:**.....

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

9.9 I/we, the undersigned, who is / are duly authorised to do so on behalf of the company/firm, certify that the points claimed, based on the B-BBE status level of contribution indicated in paragraph 7 of the foregoing certificate, qualifies the company/ firm for the preference(s) shown and I / we acknowledge that:

- i) The information furnished is true and correct;
- ii) The preference points claimed are in accordance with the General Conditions as indicated in paragraph 1 of this form;
- iii) In the event of a contract being awarded as a result of points claimed as shown in paragraph 7, the contractor may be required to furnish documentary proof to the satisfaction of the purchaser that the claims are correct;
- iv) If the B-BBEE status level of contribution has been claimed or obtained on a fraudulent basis or any of the conditions of contract have not been fulfilled, the purchaser may, in addition to any other remedy it may have –
  - (a) disqualify the person from the bidding process;
  - (b) recover costs, losses or damages it has incurred or suffered as a result of that person's conduct;
  - (c) cancel the contract and claim any damages which it has suffered as a result of having to make less favourable arrangements due to such cancellation;
  - (d) restrict the bidder or contractor, its shareholders and directors, or only the shareholders and directors who acted on a fraudulent basis, from obtaining business from any organ of state for a period not exceeding 10 years, after the *audi alteram partem* (hear the other side) rule has been applied; and
  - (e) forward the matter for criminal prosecution.

### WITNESSES

1. ....

2. ....

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

DATE: .....

ADDRESS .....

.....

.....

## Certificate of Authority of Signatory

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

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

**A. Certificate for company**

I,....., chairperson of the board of directors of  
 ..... hereby confirm that by resolution of the  
 board (copy attached) taken on ..... 20....,  
 Mr/Ms/Mrs..... acting in the capacity of  
 ....., was authorised to sign all documents in connection with  
 this tender and any contract resulting from it on behalf of the company.

As witnesses:

1. ....  
 .....  
 Print Name  
 .....  
 Print Name
- .....  
 Print Name
2. ....  
 .....  
 Date  
 .....  
 Print Name

**B. Certificate of partnership**

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

Name	Address	Signature	Date

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

**C. Certificate of partnership**

We, the undersigned, are submitting this tender offer in joint venture and hereby authorise Mr/Ms/Mrs....., authorised signatory of the firm.....,acting in the capacity of lead partner, to sign all documents in connection with this tender 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	Authorisation	
		Signature	Name
Lead Partner:			

### Financial Information of Bidder

This information has to be filled in by the financier of the bidder, duly signed and stamped on behalf of the financial institution he represents.

#### Bidder details

Tender description : .....

Contract Period : .....

Name of bidder : .....

Bank account number : .....

Tendered amount : .....

Demand Guarantee will be provided by this bank?: Yes ☐ No ☐

#### Financial Institution

Name of commercial bank : .....

Branch : .....

Name of Bank Manager : .....

Telephone Number : .....

I/We acting on behalf of the above Commercial Bank confirm that

.....(Bidder)

has operated an account with us for the last ..... years.

We have been requested to provide a bank rating based in relation to the financial capability of the Tenderer, taking into account directives set out in the following two tables.

Financial Capability	
Maximum value of contract that the Bidder is considered capable of	Value on which Bank rating must be used
Up to R300 0000	R 24 000
R1 000 000	R78 000
R3 000 000	R240 000
R5 000 000	R480 000
R10 000 000	R900 000
R30 000 000	R2 400 000
R100 000 000	R7 800 000

<b>BANK RATING</b>	
Bank Code	Description of Bank Code
A	Undoubted for the amount of enquiry
B	Good for the amount of enquiry
C	Good for the amount quoted if strictly in the way of business
D	Fair trade risk for amount of enquiry
E	Figures considered too high
F	Financial position unknown
G	Occasional dishonours
H	Frequent dishonours

The value on which our Bank Rating of the Bidder is based on R .....

(In words .....  
only)

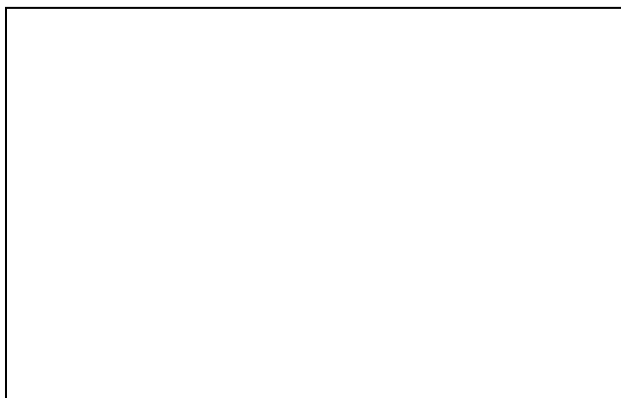
The Bank Rating code is : .....

.....  
Signature: Manager of financial institution

.....  
Print Name

.....  
Date

FINANCIAL INSTITUTION STAMP



## DECLARATION OF BIDDER'S PAST SUPPLY CHAIN MANAGEMENT PRACTICES

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

Item	Question	Yes	No
4.1	<p>Is the bidder or any of its directors listed on the National Treasury's Database of Restricted Suppliers as companies or persons prohibited from doing business with the public sector?</p> <p>(Companies or persons who are listed on this Database were informed in writing of this restriction by the Accounting Officer/Authority of the institution that imposed the restriction after the <i>audi alteram partem</i> rule was applied).</p> <p><b>The Database of Restricted Suppliers now resides on the National Treasury's website(<a href="http://www.treasury.gov.za">www.treasury.gov.za</a>) and can be accessed by clicking on its link at the bottom of the home page.</b></p>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
4.1.1	If so, furnish particulars:		
4.2	<p>Is the bidder or any of its directors listed on the Register for Tender Defaulters in terms of section 29 of the Prevention and Combating of Corrupt Activities Act (No 12 of 2004)?</p> <p><b>The Register for Tender Defaulters can be accessed on the National Treasury's website (<a href="http://www.treasury.gov.za">www.treasury.gov.za</a>) by clicking on its link at the bottom of the home page.</b></p>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
4.2.1	If so, furnish particulars:		

4.3	Was the bidder or any of its directors convicted by a court of law (including a court of law outside the Republic of South Africa) for fraud or corruption during the past five years?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
4.3.1	If so, furnish particulars:		
<b>Item</b>	<b>Question</b>	<b>Yes</b>	<b>No</b>
4.4	Does the bidder or any of its directors owe any municipal rates and taxes or municipal charges to the municipality / municipal entity, or to any other municipality / municipal entity, that is in arrears for more than three months?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
4.4.1	If so, furnish particulars:		
4.5	Was any contract between the bidder and the municipality / municipal entity or any other organ of state terminated during the past five years on account of failure to perform on or comply with the contract?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
4.7.1	If so, furnish particulars:		

### CERTIFICATION

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

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

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

.....

**Signature**

.....

**Date**

.....

**Position**

.....

**Name of Bidder**

# **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 Institution)

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 consortium<sup>3</sup> 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

**MBD 9**

- (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.

**<sup>3</sup> 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.**

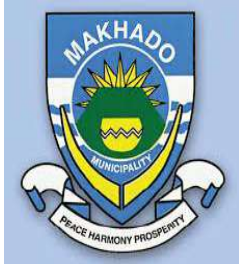
10. I am aware that, in addition and without prejudice to any other remedy provided to combat any restrictive practices related to bids and contracts, bids that are suspicious will be reported to the Competition Commission for investigation and possible imposition of administrative penalties in terms 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



## **MAKHDO MUNICIPALITY**

**TENDER NO.: 67 OF 2021**

**REHABILITATION OF JOE SLOVO STREET AT VLEINFONTEIN**

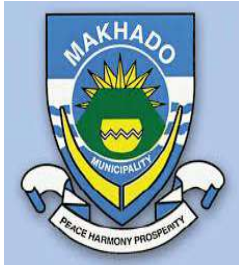
### **THE CONTRACT**

PART C1 ..... AGREEMENT AND CONTRACT DATA

PART C2 ..... PRICING DATA

PART C3 ..... SCOPE OF WORKS

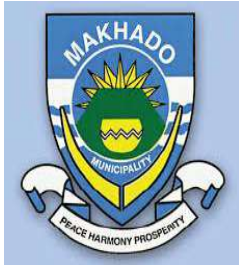
PART C4 ..... SITE INFORMATION



## MAKHADO MUNICIPALITY

### PART C1: AGREEMENT AND CONTRACT DATA

- C1.1 FORM OF OFFER AND ACCEPTANCE
- C1.2 AGREEMENT IN TERMS OF THE OCCUPATIONAL  
HEALTH AND SAFETY ACT 85 OF 1993 AND APPOINTMENT AS MINE  
MANAGER IN TERMS OF SECTION 3(1)A OF MINE HEALTH AND  
SAFETY ACT 29 OF 1996
- C1.3 PERFORMANCE GUARANTEE
- C1.4 ABSTRACTS OF THE MINE AND SAFETY ACT NO.29 OF 1996 AND  
AMENDMENT ACT NO.72 OF 1997
- C1.5 CONTRACT DATA



## MAKHADO MUNICIPALITY

TENDER NO.: 67 OF 2021

### REHABILITATION OF JOE SLOVO STREET AT VLEINFONTEIN

#### C.1.1 Form of offer and acceptance

##### Offer

The employer, identified in the acceptance signature block, has solicited offers to enter into a contract for the procurement of: **TENDER NO.: 67 OF 2021. REHABILITATION OF JOE SLOVO STREET AT VLEINFONTEIN.** The tenderer, identified in the offer signature block, has examined the documents listed in the tender data and addenda thereto as listed in the tender schedules, and by submitting this offer has accepted the conditions of tender.

By the representative of the tenderer, deemed to be duly authorized, signing this part of this form of offer and acceptance, the tenderer offers to perform all of the obligations and liabilities of the contractor under the contract including compliance with all its terms and conditions according to their true intent and meaning for an amount to be determined in accordance with the conditions of contract identified in the contract data.

#### THE OFFERED TOTAL OF THE PRICE INCLUSIVE OF VALUE ADDED TAX IS (CONTRACT PRICE)

.....

.....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(s) .....

Name(s) .....

Capacity .....

for the tenderer .....  
(Name and address of organization)

Name of Witness..... Signature.....

Date .....

## 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, which must be signed by the authorised representative(s) of both parties.

The tenderer shall within two weeks after receiving a completed copy of this agreement, including the schedule of deviations (if any), contact the employer's agent (whose details are given in the contract data) to arrange the delivery of any bonds, guarantees, proof of insurance and any other documentation to be provided in terms of the conditions of contract identified in the contract data at, or just after, the date this agreement comes into effect. Failure to 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 copy of the fully signed original document, including the schedule of deviations (if any). Unless the tenderer (now contractor) within five days of the date of such receipt notifies the employer in writing of any reason why he cannot accept the contents of this agreement, this agreement shall constitute a binding contract between the parties.

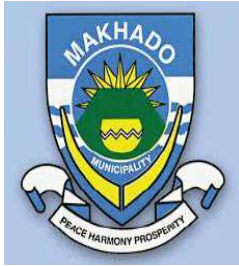
Signature(s) .....  
Name(s) .....  
Capacity .....  
for the Employer.....  
(Name and address or organization)

Name of Witness..... Signature.....  
Date .....

**For the Contractor:**

Signature(s) .....  
Name(s) .....  
Capacity .....  
.....  
(Name and address of organization)

Name of Witness..... Signature.....  
Date .....



## MAKHADO MUNICIPALITY

TENDER NO.: 67 OF 2021

### REHABILITATION OF JOE SLOVO STREET AT VLEINFONTEIN

#### C.1.2 Agreement in terms of the occupational Health & Safety Act

This AGREEMENT made at ..... on this ..... day of ..... in the year ..... between MAKHADO MUNICIPALITY (hereinafter called “the Employer” on the one part, herein represented by ..... in his capacity as ..... And delegate of the Employer and ..... (hereinafter called “the Principal Contractor”) of the other part, herein represented by ..... in his capacity as .....

WHEREAS the Employer is desirous that certain works be constructed, as stated for in Bid No ..... For (description of contract).....

..... in the ..... District of Limpopo Province and has accepted a tender by the Principal Contractor for the construction, completion and maintenance of such works and whereas the Employer and the Principal Contractor have agreed to certain arrangements and procedures to be followed in order to ensure compliance by the Principal Contractor with the provisions of the Occupational Health and Safety Act 1993 (Act 85 of 1993 and the Construction Regulation, February 2014):

NOW THEREFORE THIS AGREEMENT WITNESSETH AS FOLLOWS:

1. The Principal Contractor 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 of a written notice from the employer or engineer requiring him to commence the execution of the Works, to either:
  - a) The date of the final certificate issued in terms of clause 6.10 of the General Conditions of Contract for Construction Works 2015 (3<sup>rd</sup> Edition) as issued by the South African Institution of Civil Engineering (hereinafter referred to as “the GCC 2015”), as contained in the contract documents pertaining to this contract, or
  - b) The date of termination of the contract in terms of clauses 9.1, 9.2 or 9.3 of the GCC 2015.
3. The Principal Contractor declares himself to be conversant with the following:-
  - a) All requirements, regulations and standards of the Occupational Health and Safety Act (Act 85 of 1993), 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 employers to their employees.

- ii. Section 9: General duties of employers and self-employed persons to persons other than employees
    - iii. Section 37: Acts or omissions by employees or mandatories and
    - iv. Sub-section 37(2) relating to the purpose and meaning of this Agreement.
    - v. Construction Regulations 2014, and other safety regulations, as applicable.
    - vi. Environmental Regulations for Workplaces, 1987, and Facilities Regulations, 1990.
    - vii. Any New Regulation amended due to Covid19
  - b) The procedures and safety rules of the employer as pertaining to the Principal Contractor and to his sub-contractors.
4. The Principal Contractor is responsible for the compliance with the Act by his sub-contractors, whether or not selected and/or approved by the employer.
  5. The Principal Contractor warrants that all his and his sub-contractors' employees (permanent and temporary) are covered in terms of the Compensation for Occupational Injuries and Diseases Act 1993 which cover shall remain in force whilst any such employees are present on site. The Principal Contractor shall submit a written report to this effect at each Progress Site Meeting
  6. The Principal Contractor undertakes to ensure that he and/or his sub-contractors and/or their respective employees will at all times comply with the following conditions:
    - a) The Principal Contractor shall assume the responsibility in terms of Section 16.1 of the Occupational Health and Safety Act. The Principal contractor shall not delegate any duty in terms of Section 16.2 of this Act without the prior written approval of the Employer. If the Principal contractor 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 Employer.
    - b) All incidents referred to in the Occupational Health and Safety Act shall be reported by the Principal Contractor to the Department of Labour as well as to the Employer. The Employer will further be provided with copies of all written documentation relating to any incident.
    - c) The Employer hereby obtains an interest in the issues of any formal enquiry conducted in terms of Section 32 of the Occupational Health and Safety Act into any incident involving the Principal Contractor and/or his employees and/or his sub-contractors.

Further to the abovementioned, where contracts involve quarries or borrow pits, the following shall be applicable:-

In terms of Section 3(1)(a) of the Mine Health and Safety Act of 1996, The Roads Agency Limpopo (Pty) Ltd. shall appoint a manager for its mine/s.

You are hereby appointed as the mine manager for  
 ..... , with effect from .....  
 until further notice.

In terms of this appointment you are charged with the functions, duties and responsibilities imposed by the aforementioned Act and its regulations. Without derogating from the duties, functions and responsibilities imposed by this legislation, you are to:

- i) Control, manage and direct employees at the Mine (borrow pit or quarry).
- ii) Take all reasonable measures to ensure the health and safety of employees and proper discipline at the Mine.
- iii) Take all reasonable measures to ensure that the provisions of the Mine Health and Safety Act and its regulations (as may be amended from time to time) are implemented and adhered to at the Mine.
- iv) Ensure and maintain a healthy and safe mine environment for all persons.
- v) Ensure an adequate supply of health and safety equipment and facilities.
- vi) Staff the Mine, with due regard to health and safety.
- vii) Provide health and safety training as far as reasonably practicable to all employees.
- viii) Initiate, prepare and implement codes of practice, relating to health and safety.
- ix) Maintain an effective risk identification and management system.
- x) Ensure the effective maintenance of hazard identification and medical monitoring records.
- xi) Prepare and or review the Health and Safety Policy for the Mine.
- xii) Ensure that an annual medical report is compiled at the Mine, and forwarded to the owner or the appointed owner representative of the Mine.
- xiii) Ensure compliance with relevant environmental legislation.
- xiv) Assist with implementation and maintenance of the Makhado Municipality SHE Management Standards, the Contractor's Compliance Pack and operational procedures.
- xv) Enhance a culture of high performance in safety and health.

You are to appoint the prescribed persons to assist you in your duties and functions, and you are hereby authorised and obliged to take all reasonable measures to comply with legislative requirements. You are to ensure that an acting mine manager is appointed when you are to be absent, or on leave for a period longer than five (5) days.

Instructions and procedures are from time to time issued by the board of Makhado Municipality, and it will be your responsibility to ensure the implementation and adherence to these instructions and procedures at the Mine.

You are further responsible to ensure that relevant environmental legislative requirements are complied with, including the implementation of all internal procedures and systems to ensure compliance with such legislation.

It would be the responsibility of yourself to report any shortcomings, in relation to the implementation of applicable legislation which you are unable to rectify, immediately in writing to the appointed owner representative.

In witness thereof the parties have set their signatures heron in the presence of the subscribing witnesses:

**SIGNED FOR ON BEHALF OF THE EMPLOYER/SECTION 4.1 APPOINTEE**

.....

**WITNESS:** 1..... 2.....  
**NAME**  
**(IN CAPITALS)** 1..... 2.....

**DATE:** .....

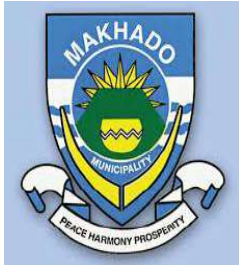
**SIGNED FOR AND ON BEHALF OF THE PRINCIPAL CONTRACTOR/MINE  
MANAGER**

.....

**WITNESS:** 1..... 2.....  
**NAME**  
**(IN CAPITALS)** 1..... 2.....

**DATE:** .....

**Copy to:** The Chief Inspector - Department of Minerals and Energy



## MAKHADO MUNICIPALITY

### C.1.3 Performance guarantee

I/We, the undersigned, .....

.....

.....

acting                      herein                      in                      my/our                      capacity                      as

.....

..... and as such duly authorized  
to represent

.....(Hereinafter  
referred to as "the Guarantor") (in the case of a Company a resolution to be attached) do hereby  
bind the said Guarantor for the

obligations of .....  
(hereinafter referred to as "the Contractor") in terms of the above-mentioned Contract between the  
Municipal Manager of Makhado Municipality Limpopo and the said Contractor, and/or for the refund  
by the Contractor of any excess payments to the Contractor not due and which cannot be recovered  
from the amount of the retention money to the credit of the Contractor in terms of Clauses 7 and 49 of  
the General Conditions of Contract 2010, and do further bind the Guarantor as surety and co-principal  
debtor with the Contractor for any other amounts which may become payable to the said Municipal  
Manager from any cause whatsoever arising from the insolvency of the Contractor.

The Guarantor's liability in terms hereof shall be limited to the sum of R .....  
((..... %) of the contract amount) which amount I/we agree to hold at your disposal.

I/we declare that I/we on behalf of the Guarantor am/are fully acquainted with the terms and  
conditions of the said contract

and the Guarantor undertakes to pay the said amount of R  
.....

or such portion thereof as may be demanded immediately on receipt of a written demand from you in  
terms of Clause 7 of the General Conditions of Contract 2015. A certificate under your hand shall be  
sufficient and satisfactory evidence as to the amount of the Guarantor's liability for the purpose of  
enabling provisional sentence or any similar relief to be obtained against the Guarantor.

It is recorded that this guarantee shall remain in force until all moneys which might become due and  
payable by the Contractor to the Municipal Manager have been paid and you or the said Municipal  
Manager shall always be entitled without your or the Municipal Manager's rights being affected, to  
release securities, to give time, to compound or to make any other arrangements with the Contractor,  
and any alteration or variation of the said Contract shall in no way release the Guarantor from liability  
in terms of this Guarantee.

This Guarantee is neither negotiable nor transferable, and must be surrendered to the Guarantor in  
the event of the full amount of the Guarantee being paid to your Municipality.

This Guarantee shall lapse upon the issue of the Completion Certificate in terms of Clause 51(4) of  
the General Conditions of Contract 2015.

SIGNED at ..... on the ..... day of ..... 20.....

AS WITNESSES:

1. .... GUARANTOR

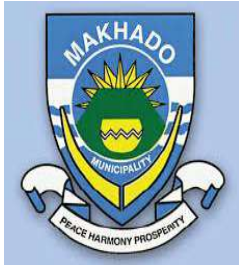
ADDRESS: .....

.....

2. ....

ADDRESS: .....

.....



## MAKHADO MUNICIPALITY

### C.1.4 Form agreement in terms of the Mine Health & Safety Act

#### EXAMPLE FOR USE BY CONTRACTOR WHEN APPOINTING SUB-ORDINATES IN TERMS OF THE MINE HEALTH AND SAFETY ACT (1996) AS AMENDED.

(To be printed on Contractors letter head)

#### APPOINTMENT AS COMPETANT PERSON IN CHARGE OF MACHINERY IN TERMS OF REGULATION 2.13.2 IN FORCE IN TERMS OF SCHEDULE 4 OF THE MINE HEALTH AND SAFETY ACT (ACT NO. 29 OF 1996) AS AMENDED BY THE HEALTH AND SAFETY AMENDEMENT ACT (ACT NO. 72 OF 1997)

I, ..... in my capacity as ....., having been appointed in terms of **Section 3(1)** of the Act (as amended), by the Senior General Manger: Engineering, who is our client, 'Makhado Municipality' and owner of the Mine(s) to be worked under the requirements of the above mentioned Acts hereby, in terms of **Regulations 2.13.2** of the Act as amended, appoint ..... as Competent Person in charge of machinery for the Contractor, ..... of address ..... and contact number, ..... on all contracts in the Limpopo Province that are undertaken by the contractor.

You are to report any accident to the mine manager immediately and personally visit the scene of the accident without delay.

You must familiarise yourself with the Mine Health and Safety Act and the Minerals Act and the Regulations and ensure that you have a copy in your possession and you must take all reasonable measures to ensure that the provisions of this Act are complied with.

Your attention are further drawn to Regulation 2.13.4.1 as well as the requirements of Chapter 18,20 and 21.

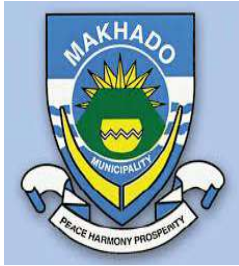
Please confirm this appointment by signing at the bottom.

SIGNED: .....  
NAME: .....

DATE: .....

SIGNED: .....  
NAME: .....

DATE: .....



## MAKHADO MUNICIPALITY

### C.1.5 Abstracts of the Mine Health and Safety Act No.29 of 1996 and amendment Act No.: 72 Of 1997

#### DEFINITIONS:

Section 102 of the Mine Health and Safety Act refers.

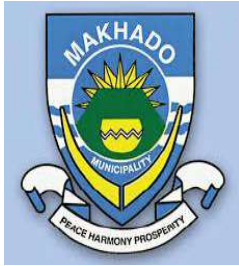
“mine” means, when –

- a. “used as a noun-
  - i. any borehole, or excavation, in any tailing or in the earth, including the portion of the earth that is under the sea or other water, made for the purpose of searching for or winning a mineral, whether is being worked or not, or
  - ii. any other place where a mineral deposit is being exploited, including the mining area and all buildings, structures, machinery, mine dumps, access roads or objects situated on or in that area that are used or intended to be used in connection with searching, winning, exploiting or processing of a mineral, or for health and safety purposes. But, if two or more excavations, boreholes or places are being worked in conjunction with one another
  - iii. a works; and
- b) used as a verb, the making of any excavation or borehole referred to in paragraph (a) (i), or the exploitation of any mineral deposit in any other manner, for the purpose of winning a mineral including prospecting in connection with the winning of a mineral.
  - i. whether that substance is in solid, liquid or gaseous form;
  - ii. that occurs naturally in or on the earth, in or under water or in tailings, and
  - iii. that has been formed by or subjected to a geological process.

“processing” means the recovering, extracting, concentrating, refining, calcimining, classifying, crushing, milling, screening, washing, reduction, smelting or gasification or any mineral, and “process” has a similar meaning

“works” means any place, excluding a mine, where any person carries out-

- a). The transmitting and distributing to another consumer of any form of power from a mine, by the owner thereof, to the terminal point of bulk, to the power supply meter on any such other consumer’s premises, or
- b). Training at any central rescue station, or
- c). The making, repairing, re-opening or closing of any subterranean tunnel, or
- d). Any operations necessary in connection with any of the operational listed in this paragraph.



## MAKHADO MUNICIPALITY

### C.1.6 Contract data

#### C.1.6.1 Conditions of Contract

The Conditions of Contract are:

- the “General Conditions of Contract” as they appear in the commercially-available publication “General Conditions of Contract for Construction Works, Third Edition, 2015”, hereinafter referred to as “GCC 2015”; and
- specific data as contained in this Contract Data.

Each party to the Contract shall purchase its own copy of the GCC 2015 that applies to this Contract, available from its publisher:

South African Institution of Civil Engineering  
Private Bag X200  
Halfway House  
1685  
South Africa

Tel +27 (0)11 805 5947

#### The following Notes apply:

##### Note 1

The GCC 2015 makes several references to the Contract Data.

Each item of data below is cross-referenced to the clause in the Conditions of Contract to which it applies. Notwithstanding anything specified to the contrary, the Contract Data shall take precedence in the interpretation of any ambiguity or inconsistency between it and the GCC 2015.

The documents forming the Contract are to be taken as mutually explanatory of one another. For the purpose of interpretation, the priority of the documents shall be in accordance with the following order of precedence:

- (a) The Form of Offer and Acceptance.
- (b) Amendments to the General Conditions of Contract within the Contract Data.
- (c) Additional conditions to the General Conditions of Contract within the Contract Data.
- (d) Corrigenda to the General Conditions of Contract.
- (e) The General Conditions of Contract.
- (f) The Specifications, Drawings, Schedules and other documents forming part of the Contract (in that order) contained in the Scope of Work and the Site Information.

If any ambiguity or discrepancy is found in the documents, the Engineer needs to be contacted to issue any necessary clarification or instruction.

## Note 2

Certain pro-forma forms and pro-forma agreements contained in the GCC 2015 have been adapted for this particular contract. Those pro-forma forms and pro-forma agreements contained in the GCC 2015 do not apply where replaced by similar pro-forma forms and pro-forma agreements in this document.

### C.1.6.2 Contract-specific Data

The following contract-specific data, referring to the General Conditions of Contract, are applicable to this Contract:

#### C.1.6.2.1 Compulsory Data

Clause	Data
1.1.1.13	The Defects Liability Period is <b>12 months</b>
1.1.1.14	The time for achieving Practical Completion is <b>06 months</b>
1.1.1.15	The name of the Employer is Makhado Municipality
1.1.1.26	The Pricing Strategy of a Re-measurement Contract shall apply
1.2.1.2	<p>The address of the Employer is:</p> <p>Makhado Local Municipality</p> <p>Physical address:</p> <p>Postal address: Private Bag X2596 Louis Trichardt 0920</p> <p>e-mail address: manager@makhado.gov.za</p> <p>Contact numbers: Corporate: (015) 519 3000 Direct: Fax: (015) 516 1198</p>
1.1.1.16	<p>The name of the Engineer is:</p> <p>Sizeya Consulting Engineers</p>

Clause	Data
1.2.1.2	<p>The address of the Engineer is:</p> <p>Physical address: No.6 Hans van Rensburg, office 14 Polokwane; 0699</p> <p>Postal address: P/Bag x9676 Postnet suite 141 Polokwane; 0700</p> <p>e-mail address info@sizeya.co.za</p> <p>Contact numbers: Corporate: 015 291 1020 Fax: 086 654 7576</p>
3.2.3	The Engineer is required to obtain the specific approval of the Employer in order to authorize any expenditure in excess of the Tender Sum.
3.1.4	Delete this clause.
4.9.1	The Contractor shall deliver to the Engineer, on a monthly basis, a detailed inventory of Construction Equipment kept on Site, full particulars given for each day of the month. Distinction shall be made between Owned Equipment and Hired Equipment as well as Equipment in working order and Equipment out of order. Such inventory shall be submitted by the seventh day of the month following the month to be reported.
4.10.2	The Contractor shall deliver to the Engineer, on a monthly basis, a return in detail of supervisory staff and the number of categorized classes of labour employed each day for the said period by the Contractor for execution of the Contract. Such return shall be submitted by the seventh day of the month following the month to be reported.
5.3.1	<p>The documentation required before commencement with Works execution are:</p> <ul style="list-style-type: none"> <li>• Health and Safety Plan (Refer to Clause 4.3)</li> <li>• A signed Agreement between the Employer and the Contractor for the Works to be completed by the Contractor in terms of the provisions of Section 37(2) of the Occupational Health and Safety Act (Act No.85 of 1993) and the Construction Regulations promulgated thereunder (Refer to Clause 4.3).</li> <li>• Proof of payment to the Employer, that the Contractor has paid all contributions required in terms of the Compensation for Occupational Injuries and Diseases Act, No 130 of 1993 (Refer to Clause 4.3).</li> <li>• Initial programme (Refer to Clause 5.6).</li> <li>• Security (Refer to Clause 6.2).</li> <li>• Insurance (Refer to Clause 8.6).</li> </ul>
5.3.2	The time to submit the documentation required before commencement with Works execution is <b>14 Days</b> .
5.4.2	The access and possession of Site shall not be exclusive to the Contractor but shall be as set out elsewhere in the Contract.

Clause	Data
5.8.1	<p>The non-working Days are Sundays.</p> <p>The special non-working Days are:</p> <ul style="list-style-type: none"> <li>a) Public holidays; and</li> <li>b) All annual year-end shutdown periods as recommended by the South African Federation of Civil Engineering Contractors (SAFCEC), and which commence after the Commencement Date and which commence before the Due Completion Date.</li> </ul>
5.13.1	The penalty for failing to complete the Works is <b>R 10 000.00</b> of contract price per calendar day.
5.16.3	The latent defect period is 1 year, commencing on the Day after the date of certification of Practical Completion.
6.8.2	<p><i>Add to sub clause 6.8.2:</i></p> <p>The Contract Price Adjustment Schedule shall apply to this Contract, as follows:</p> $(1-x) [aL_t/L_o + bP_t/P_o + cM_t/M_o + dF_t/F_o - 1]$ <p>a=30%</p> <p>b=30%</p> <p>c=30%</p> <p>d=10%</p> <p>x=10%</p> <p>Applications of Contract Price Adjustment Factor</p> <p>“CPA shall only be used for contracts with an estimated value over R1 million and a contract period of more than 6 months. <b>(The adjustment will only be applicable from the 7<sup>th</sup> months of the Contract)</b></p> <p>Contracts with an estimated value below R1 million and a contract period of up to 6 months shall be treated as a fixed price contract.”</p> <p>Applications of Contract Price Adjustment Factor</p> <p>CPA will be applicable. The value of the payment certificates is to be adjusted in accordance with the Contract Price Adjustment Schedule, where:</p> <p>The value of “x” is 0.10</p> <p>The value of the coefficients are:</p> <ul style="list-style-type: none"> <li>a = 0.3 (Labour)</li> <li>b = 0.3 (Contractor’s equipment)</li> <li>c = 0.3 (Material)</li> <li>d = 0.1 (Fuel)</li> </ul> <p>The urban area nearest the Site is <b><i>Makhado/Louis Trichardt.</i></b></p> <p>The base month is <b><i>the month prior to closing of the tender.</i></b></p>

Clause	Data
6.8.3	Variations in cost of special materials Price adjustments for variations in the costs of special materials are not allowed
6.10.1.5	The percentage advance on materials not yet built into the Permanent Works is 80%. Proof of ownership is required.
6.10.3	The limit of <b>retention money</b> is <b>10%</b> of the value of the Contract Price. <b>A Retention Money Guarantee is compulsory.</b> A penalty will be applied for non-delivery of the Retention Money Guarantee as required. The penalty will be R 10 000,00 of the value of the completion Retention Money Amount per calendar day for late delivery of the said Retention Money Guarantee.
8.6.1.1.2	The value of Plant and materials supplied by the Employer to be included in the insurance sum is <b>nil</b> .
8.6.1.1.3	The amount to cover professional fees for repairing damage and loss to be included in the insurance sum is a maximum of <b>10% (ten percent)</b> of the Contract Sum.
8.6.1.3	The limit of indemnity for liability insurance is equal to the contract amount.
10.5.1	Dispute resolution shall be by standing adjudication, use GCC 2015, Appendix 5.
10.7.1	The determination of disputes shall be by arbitration.
	<p><b>Payment for labour-intensive component of the works</b></p> <p><i>Payment for works identified in the Scope of Works as being labour-intensive shall only be made in accordance with the provisions of the Contract if the works are constructed strictly in accordance with the provisions of the Scope of Work. Any payment for such works shall not relieve the Contractor in any way from his obligations either in contract or in delict.</i></p>
	<p><b>Linkage of payment for labour-intensive component of works to submission of project data</b></p> <p><i>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 timeframe stipulated by the Employer. The contractor's invoices shall not be paid until all pending labour information has been submitted.</i></p>
	<p><b>Applicable Labour Laws</b></p> <p><i>The current Ministerial Determination (also downloadable at <a href="http://www.epwp.gov.za">www.epwp.gov.za</a>), Expanded Public Works Programmes, issued in terms of the Basic Condition of Employment Act of 1997 by the Minister of Labour in Government Notice, shall apply to works described in the scope of work as being labour-intensive and which are undertaken by unskilled workers.</i></p>

**C.1.2.1.2.2 Variations to the General Conditions of Contract**

<b>Clause</b>	<b>Data</b>
2.5.1	<p><b>Cession</b></p> <p><i>Amend Clause 2.5.1 as follows:</i></p> <p><i>Delete the words “without the written consent of the other”</i></p>
5.14.5.1	<p><b>Consequences of Completion</b></p> <p><i>Amend Clause 5.14.5.1 as follows:</i></p> <p><i>In the second line, substitute the word ‘Guarantor’ with ‘Contractor’.</i></p>
6.2	<p><b>Security</b></p> <p><i>Replace Sub-Clauses 6.2.1 and 6.2.2 with:</i></p> <p>“The Contractor shall deliver to the Employer within such time as may be stated in the Contract Data, a Demand Guarantee, of an Insurance Company registered in terms of the Short-term Insurance Act (Act 53 of 1998) or of a registered Commercial Bank, in a sum equal to the amount stated in the Contract Data. The Demand Guarantee shall be issued by an entity subject to the approved of the Employer, and shall conform in all respects to the format contained in the Contract Data.</p> <p>The security to be provided by the Contractor shall be a Demand Gurantee of 10% of the Contract Sum.</p> <p>Wherever a joint venture constitutes the contracting party, the Demand Guarantee shall be issued on behalf of the joint venture.</p> <p>Failure to produce an acceptable Demand Guarantee within the period stated in the Contract Data, is a fundamental breach of Contract, entitling the Employer to cancel the Contract by due notice in terms of Clause 9.2 with specific reference to Sub-clause 9.2.2 as amended in the Contract Data.”</p>
6.3.1	<p><b>Variations</b></p> <p><i>Amend Clause 6.3.1, as follows:</i></p> <p><i>In the first paragraph, third line, after the words "or for any reason appropriate", add the phrase</i>  <i>", including the limiting of contract expenditure so as not to exceed the Employer's budgeted project funding, "</i></p> <p><i>Add the following phrase to the last paragraph of Clause 6.3.1.6, after the words "ascertaining the amount of the Contract Price":</i></p> <p><i>", and no such variation shall give reason for consideration of any claim in terms of Clause 6.11."</i></p>
6.3.2	<p><b>Orders for Variations to be in writing</b></p> <p>Omit the words “Provided that” under Clause 6.3.2 and omit Clause 6.3.2.1.</p>
6.10.1	<p><b>Interim Payments</b></p> <p><i>Amend Clause 6.10.1.5 as follows:</i></p> <p><i>In the third line, add the words ‘not yet’ before the words ‘built into’</i></p>

Clause	Data
6.10.5	<p><b>Payment of retention money</b></p> <p><i>Amend Clause 6.10.5 as follows:</i></p> <p><i>In the second line, add the words ‘, if any,’ after the words ‘Defects Liability Period’</i></p>
6.11	<p><b>Variations exceeding 15 per cent</b></p> <p><i>Replace the marginal heading with:</i></p> <p><b>“Variations exceeding 20 per cent”</b></p> <p><i>Replace “15 per cent” with “20 per cent” in the text of this Sub-Clause</i></p>
7.4.4 7.8.2	<p><b>Cost of test specimens and tests</b></p> <p><b>Cost of making good of defects</b></p> <p><i>Amend Clause 7.8.2.1 as follows:</i></p> <p><i>In the first line, correct the spelling of ‘therefore’.</i></p>
8.3.1	<p><b>Excepted risks</b></p> <p><i>Amend Clause 8.3.1.12 as follows:</i></p> <p><i>In the second line, delete the words ‘Employer or any of their’ and substitute with ‘or any of its’.</i></p>
8.6.6	<p><b>Contractor to produce proof of payment</b></p> <p>“The Contractor shall before commencement of the Works produce to the Engineer:</p> <p>8.6.6.1 The policies by which the insurances are effected,</p> <p>8.6.6.2 Proof that due payment of all premiums there under, covering the full required period has been made, and</p> <p>8.6.6.3 Proof of continuity of the policies for the required period.</p>
	<p>Should, during the currency of the Contract, the required period of insurance be extended for any reason, the Contractor shall timeously extend (so as to maintain) the said insurances for the full extended duration.</p> <p>The Engineer shall be empowered to withhold all payment certificates until the Contractor has complied with his obligations in terms of this Clause 8.6.6.”</p>
8.6.7	<p><b>Remedy on Contractor’s failure to insure</b></p> <p><i>Delete sub-clause 8.6.7 and substitute with:</i></p> <p>“Failure on the part of the Contractor to effect and keep in force any of the insurances referred to in Clause 8.6.1 and its sub-clauses, is a fundamental breach of Contract, entitling the Employer to cancel the Contract by due notice in terms of Clause 9.2 and with specific reference to sub-clause 9.2.2, as amended in the Contract Data.”</p>
9.1.2	<p><b>State of emergency</b></p> <p><i>In the <u>fourth</u> line, delete the words ‘supply of’ and substitute with ‘availability of’.</i></p>
9.2	<p><b>Termination by Employer</b></p>

Clause	Data
	<p><i>Delete the contents of Clause 9.2 and substitute with:</i></p> <p>“9.2.1 The Employer may terminate the Contract by written notice to the Contractor if:</p> <p>9.2.1.1 Sequestration of the Contractor’s estate is ordered by a Court with due jurisdiction, or</p>
	<p>9.2.1.2 The Contractor publishes a notice of surrender or presents a petition for the surrender of his estate as insolvent, or makes a compromise with his creditors, or assigns in favour of his creditors, or agrees to carry out the Contract under the supervision of a committee representing his creditors, or (being a company) goes into liquidation, whether provisionally or finally (other than a voluntary liquidation for the purpose of amalgamation or reconstruction), or if the Contractor assigns the Contract without having first obtained the Employer’s consent in writing, or if execution is levied on his goods, or</p>
	<p>9.2.1.3 The Contractor, or anyone on his behalf, or in his employ, offers to any person in the employ of the Employer or the Engineer, a gratuity or reward or commission, or</p>
	<p>9.2.1.4 The Contractor furnished materially inaccurate information in his Tender, which had a bearing on the award of the Contract, or</p>
	<p>9.2.1.5 The Contractor has abandoned the Contract.</p> <p>9.2.2 If the Contractor:</p> <p>9.2.2.1 Has failed to commence the Works in terms of Clause 10 hereof, or has suspended the progress of the Works for fourteen (14) days after receiving from the Engineer written notice to proceed, or</p> <p>9.2.2.2 Has failed to provide the Guarantee in terms of Clause 7 within the time stipulated in the Contract Data, or</p> <p>9.2.2.3 Has failed to proceed with the Works with due diligence, or</p> <p>9.2.2.4 Has failed to remove materials from the Site or to pull down and replace work within fourteen (14) days after receiving from the Engineer written notice that the said materials or work have been condemned and rejected by the Engineer in terms of these conditions, or</p> <p>9.2.2.5 Is not executing the Works in accordance with the Contract, or is neglecting to carry out his obligations under the Contract, or</p> <p>9.2.2.6 Has, to the detriment of good workmanship or in defiance of the Engineer’s instructions to the contrary, sublet any part of the Contract, or</p> <p>9.2.2.7 Has assigned the Contract or any part thereof without the Employer’s consent in writing,</p>

Clause	Data
	<p>then the Employer may give the Contractor 14 days notice to rectify the default, and if the Contractor fails to rectify the default in said 14 days, then, without further notice, notify the Contractor in writing of the termination of the Contract and expel the Contractor and order the Contractor to vacate the site within 24 hours of issue of the Notice of Termination and to hand the Site over to the Employer, and the Employer may then enter upon the Site and the Works without affecting the rights and powers conferred on the Employer or the Engineer by the Contract and the Employer may himself complete the Works or may employ another contractor to complete the Works, and the Employer or such other contractor may use for such completion so much of the Construction Equipment, Temporary Works and materials brought onto the Site by the Contractor as the Employer may think proper, and the Employer may at any time sell any of the said Construction Equipment, Temporary Works and unused materials and apply the proceeds of sale towards payment of any sums that may be due or become due to the Employer by the Contractor under the Contract. In such circumstances the Contractor shall forthwith vacate the Site and shall not be entitled to remain on the Site on the grounds that he is entitled to do so on a right of retention until amounts due to him have been paid, neither will the Contractor be entitled to any further payments in terms of this Contract.</p>
9.2.3	<p>If the Contractor, having been given notice to rectify a default in terms of 9.2.2 above, rectifies said default, but later repeats the same or substantially the same default, then the Employer may notify the Contractor of the immediate termination of the Contract, and proceed as stated in the paragraph following the word 'writing' in Clause 9.2.2.7 above.</p>
9.2.4	<p>Should the amounts that the Employer must pay to complete the Works, exceed the sum that would have been payable to the Contractor on due completion by him, then the Contractor shall upon demand pay to the Employer the difference, and it shall be deemed a debt due by the Contractor to the Employer and shall be recoverable accordingly. Provided that should the Contractor on demand not pay the amount of such excess to the Employer, such sum may be determined and deducted by the Employer from any sum due to or that may become due to the Contractor under this or any previous or subsequent contract between the Contractor and the Employer."</p>

**C.1.6.2.2 Additional clauses to the General Conditions of Contract:**

Clause	Data
1.1	<p><b>Definitions</b></p> <p><i>Add the following at the end of Sub-Clause 1.1.1:</i></p>
1.1.1.35	<p>“Client”, as used in the Occupational Health and Safety Act - Construction Regulations, means Employer.</p>
1.1.1.36	<p>“Principal Contractor”, as used in the Occupational Health and Safety Act - Construction Regulations, means Contractor.</p>
4.12	<p><b>Contractor’s superintendence</b></p> <p><i>Add the following sub-clause 4.12.4 to Clause 4.12:</i></p> <p>“Where a form is included in the Contract Data for this purpose, the Tenderer shall fill in the name of the person he proposes to entrust with the post of Contractor’s Site Agent on this Contract in the space provided therefore. Previous experience of this person on work of a similar nature during the past five (5) years is to be entered on the form.</p> <p>The Contractor’s Site Agent shall be on Site at all times when work is being performed.</p> <p>The person shall be subject to approval of the Engineer in writing and shall not be replaced or removed from Site without the written approval of the Engineer.”</p>
5.6	<p><b>Programme</b></p> <p><i>Add the following sub-clause 5.6.6 to Clause 5.6:</i></p> <p>“Failure on the part of the Contractor to deliver to the Engineer, the</p> <ul style="list-style-type: none"> <li>• programme of the Works in terms of Clause 5.6.1 and</li> <li>• supporting documents in terms of Clause 5.6.2</li> </ul> <p>Within the period stated in the Contract Data, shall be sufficient cause for the Engineer to retain 25 per centum of the value of the Fixed Charge and Value-related items in assessment of amounts due to the Contractor, until the Contractor has submitted aforementioned first Programme of the Works and Supporting Documents”.</p>
5.9.7	<p><b>Engineer to approve Contractor’s Designs and Drawings</b></p> <p><i>Add the following sub-clause 5.9.7.1 to Clause 5.9:</i></p> <p>“All designs, calculations, drawings and operation and maintenance manuals shall be fully endorsed by a third party registered engineer, accomplished in such specific field of practice and the cost thereof shall be borne solely by the Contractor.</p> <p>Once the alternative design has been approved, the Contractor shall indemnify and hold harmless the Engineer, the Employer, their agents and assigns, against all claims howsoever arising out of the said design, whether in contract or delict”.</p>

Clause	Data
5.11	<p><b>Suspension of the Works</b></p> <p><i>Add the following sub-clause 5.11.7 to Clause 5.11:</i></p> <p>“If the Contractor does not receive from the Employer the amount due under an Interim Payment Certificate within 28 days after expiry of the time stated in sub-clause 6.10.4 within which payment is to be made (except for deductions in accordance with sub-clauses 6.10.1.6 and 6.10.1.7), the Contractor may, after giving 14 days’ notice to the Employer, suspend the progress of the Works.</p> <p>The Contractor’s action shall not prejudice his entitlements to a claim in terms of Clause 10.1 and to cancellation of the Contract in terms of Clause 9.3.</p> <p>If the Contractor subsequently receives full payment of the amount due under such Interim Payment Certificate before giving a notice of cancellation of the Contract, the Contractor shall resume normal working as soon as is reasonably practicable.”</p>
5.12	<p><b>Extension of Time for Practical Completion</b></p> <p><i>Add the following at the end of Sub-Clause 5.12.2.2:</i></p> <p>“The extension of time to be allowed due to abnormal rainfall shall be calculated separately for each calendar month or part thereof in accordance with the following formula:</p> $V = (Nw - Nn) + \frac{Rw - Rn}{x}$ <p>where</p>

Clause	Data																																																																																																																																																																																																																																																																																																									
	<div>V = Extension of time in calendar days for the calendar month under consideration</div> <div>Nw = Actual number of days during the calendar month on which a rainfall of 10 mm or more has been recorded</div> <div>Nn = Average number of days for the calendar month on which a rainfall of 10 mm or more has been recorded, as derived from existing rainfall records</div> <div>Rw = Actual recorded rainfall for the calendar month</div> <div>Rn = Average rainfall for the calendar month, as derived from existing rainfall records</div> <div>x = 20</div> <div>The rainfall records which shall provisionally be accepted for calculation purposes are</div> <div><table><tr><th colspan="13">Table 1 – RAINFALL RECORDS FOR PERIOD: 2006– 2016</th></tr><tr><th colspan="13">RAINFALL STATION:</th></tr><tr><th colspan="13">Average No of Days with Rainfall exceeding 10mm: 9.8 days/year</th></tr><tr><th colspan="13">Average Rainfall: 488.6 mm/year station no: 0677802BX</th></tr><tr><th>MON</th><th>AVE</th><th>ST</th><th>N DAY</th><th>NUM</th><th>1</th><th>5.1</th><th>10.1</th><th>20.1</th><th>50.1</th><th>100.1</th><th>MAX R</th><th>MAX RAIN</th></tr><tr><th>MON</th><th></th><th>DEV</th><th>RAIN</th><th>MON</th><th>5</th><th>10</th><th>20</th><th>50</th><th>100</th><th>900</th><th>DAY</th><th>DATE</th></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><th>MON</th><th>AVE</th><th>ST</th><th>N DAY</th><th>NUM</th><th>1</th><th>5.1</th><th>10.1</th><th>20.1</th><th>50.1</th><th>100.1</th><th>MAX R</th><th>MAX RAIN</th></tr><tr><th>MON</th><th></th><th>DEV</th><th>RAIN</th><th>MON</th><th>5</th><th>10</th><th>20</th><th>50</th><th>100</th><th>900</th><th>DAY</th><th>DATE</th></tr><tr><td>JAN</td><td>65.9</td><td>39.3</td><td>65.9</td><td>11</td><td>3.4</td><td>2.1</td><td>1.3</td><td>0.7</td><td>0</td><td>0</td><td>38</td><td>1/18/2013</td></tr><tr><td>FEB</td><td>47.3</td><td>49.7</td><td>47.3</td><td>11</td><td>1.6</td><td>0.9</td><td>1.1</td><td>0.6</td><td>0</td><td>0</td><td>49</td><td>2/26/2006</td></tr><tr><td>MAR</td><td>58.4</td><td>33.2</td><td>58.4</td><td>11</td><td>3</td><td>1.3</td><td>1.1</td><td>0.7</td><td>0.1</td><td>0</td><td>51.5</td><td>3/27/2006</td></tr><tr><td>APR</td><td>43.3</td><td>46.6</td><td>43.3</td><td>11</td><td>1.5</td><td>1</td><td>0.7</td><td>0.5</td><td>0.1</td><td>0</td><td>68</td><td>4/4/2011</td></tr><tr><td>MAY</td><td>10.4</td><td>14</td><td>10.4</td><td>11</td><td>0.5</td><td>0.4</td><td>0.3</td><td>0.1</td><td>0</td><td>0</td><td>29.2</td><td>5/8/2009</td></tr><tr><td>JUN</td><td>1.7</td><td>3.6</td><td>1.7</td><td>11</td><td>0.3</td><td>0</td><td>0.1</td><td>0</td><td>0</td><td>0</td><td>12</td><td>6/10/2009</td></tr><tr><td>JUL</td><td>2.4</td><td>4.3</td><td>2.4</td><td>11</td><td>0.3</td><td>0.1</td><td>0.1</td><td>0</td><td>0</td><td>0</td><td>12.1</td><td>7/4/2007</td></tr><tr><td>AUG</td><td>2.3</td><td>5.6</td><td>2.3</td><td>11</td><td>0.2</td><td>0</td><td>0.1</td><td>0</td><td>0</td><td>0</td><td>19.2</td><td>8/15/2011</td></tr><tr><td>SEP</td><td>6.6</td><td>8.2</td><td>6.6</td><td>11</td><td>0.4</td><td>0.4</td><td>0.1</td><td>0.1</td><td>0</td><td>0</td><td>22.5</td><td>9/4/2015</td></tr><tr><td>OCT</td><td>48.1</td><td>29.5</td><td>48.1</td><td>11</td><td>1.5</td><td>0.7</td><td>1.4</td><td>0.6</td><td>0</td><td>0</td><td>38.2</td><td>10/29/2009</td></tr><tr><td>NOV</td><td>97.7</td><td>40.5</td><td>97.7</td><td>11</td><td>3.1</td><td>2</td><td>1.3</td><td>1.5</td><td>0.2</td><td>0</td><td>65.5</td><td>11/12/2008</td></tr><tr><td>DEC</td><td>104.6</td><td>56.3</td><td>104.6</td><td>11</td><td>3.8</td><td>1</td><td>1.7</td><td>1.9</td><td>0.1</td><td>0</td><td>55</td><td>12/16/2014</td></tr><tr><td>YR</td><td>488.6</td><td></td><td>67.9</td><td></td><td>19.5</td><td>9.8</td><td>9.2</td><td>6.8</td><td>0.5</td><td>0</td><td>488.6</td><td></td></tr></table></div> <div>The factor (Nw - Nn) shall be considered to represent a fair allowance for days during which rainfall exceeds 10 mm and the factor (Rw - Rn)/x shall be considered to represent a fair allowance for those days when rainfall does not exceed 10 mm but wet conditions prevent or disrupt work.</div>												Table 1 – RAINFALL RECORDS FOR PERIOD: 2006– 2016													RAINFALL STATION:													Average No of Days with Rainfall exceeding 10mm: 9.8 days/year													Average Rainfall: 488.6 mm/year station no: 0677802BX													MON	AVE	ST	N DAY	NUM	1	5.1	10.1	20.1	50.1	100.1	MAX R	MAX RAIN	MON		DEV	RAIN	MON	5	10	20	50	100	900	DAY	DATE														MON	AVE	ST	N DAY	NUM	1	5.1	10.1	20.1	50.1	100.1	MAX R	MAX RAIN	MON		DEV	RAIN	MON	5	10	20	50	100	900	DAY	DATE	JAN	65.9	39.3	65.9	11	3.4	2.1	1.3	0.7	0	0	38	1/18/2013	FEB	47.3	49.7	47.3	11	1.6	0.9	1.1	0.6	0	0	49	2/26/2006	MAR	58.4	33.2	58.4	11	3	1.3	1.1	0.7	0.1	0	51.5	3/27/2006	APR	43.3	46.6	43.3	11	1.5	1	0.7	0.5	0.1	0	68	4/4/2011	MAY	10.4	14	10.4	11	0.5	0.4	0.3	0.1	0	0	29.2	5/8/2009	JUN	1.7	3.6	1.7	11	0.3	0	0.1	0	0	0	12	6/10/2009	JUL	2.4	4.3	2.4	11	0.3	0.1	0.1	0	0	0	12.1	7/4/2007	AUG	2.3	5.6	2.3	11	0.2	0	0.1	0	0	0	19.2	8/15/2011	SEP	6.6	8.2	6.6	11	0.4	0.4	0.1	0.1	0	0	22.5	9/4/2015	OCT	48.1	29.5	48.1	11	1.5	0.7	1.4	0.6	0	0	38.2	10/29/2009	NOV	97.7	40.5	97.7	11	3.1	2	1.3	1.5	0.2	0	65.5	11/12/2008	DEC	104.6	56.3	104.6	11	3.8	1	1.7	1.9	0.1	0	55	12/16/2014	YR	488.6		67.9		19.5	9.8	9.2	6.8	0.5	0	488.6	
Table 1 – RAINFALL RECORDS FOR PERIOD: 2006– 2016																																																																																																																																																																																																																																																																																																										
RAINFALL STATION:																																																																																																																																																																																																																																																																																																										
Average No of Days with Rainfall exceeding 10mm: 9.8 days/year																																																																																																																																																																																																																																																																																																										
Average Rainfall: 488.6 mm/year station no: 0677802BX																																																																																																																																																																																																																																																																																																										
MON	AVE	ST	N DAY	NUM	1	5.1	10.1	20.1	50.1	100.1	MAX R	MAX RAIN																																																																																																																																																																																																																																																																																														
MON		DEV	RAIN	MON	5	10	20	50	100	900	DAY	DATE																																																																																																																																																																																																																																																																																														
MON	AVE	ST	N DAY	NUM	1	5.1	10.1	20.1	50.1	100.1	MAX R	MAX RAIN																																																																																																																																																																																																																																																																																														
MON		DEV	RAIN	MON	5	10	20	50	100	900	DAY	DATE																																																																																																																																																																																																																																																																																														
JAN	65.9	39.3	65.9	11	3.4	2.1	1.3	0.7	0	0	38	1/18/2013																																																																																																																																																																																																																																																																																														
FEB	47.3	49.7	47.3	11	1.6	0.9	1.1	0.6	0	0	49	2/26/2006																																																																																																																																																																																																																																																																																														
MAR	58.4	33.2	58.4	11	3	1.3	1.1	0.7	0.1	0	51.5	3/27/2006																																																																																																																																																																																																																																																																																														
APR	43.3	46.6	43.3	11	1.5	1	0.7	0.5	0.1	0	68	4/4/2011																																																																																																																																																																																																																																																																																														
MAY	10.4	14	10.4	11	0.5	0.4	0.3	0.1	0	0	29.2	5/8/2009																																																																																																																																																																																																																																																																																														
JUN	1.7	3.6	1.7	11	0.3	0	0.1	0	0	0	12	6/10/2009																																																																																																																																																																																																																																																																																														
JUL	2.4	4.3	2.4	11	0.3	0.1	0.1	0	0	0	12.1	7/4/2007																																																																																																																																																																																																																																																																																														
AUG	2.3	5.6	2.3	11	0.2	0	0.1	0	0	0	19.2	8/15/2011																																																																																																																																																																																																																																																																																														
SEP	6.6	8.2	6.6	11	0.4	0.4	0.1	0.1	0	0	22.5	9/4/2015																																																																																																																																																																																																																																																																																														
OCT	48.1	29.5	48.1	11	1.5	0.7	1.4	0.6	0	0	38.2	10/29/2009																																																																																																																																																																																																																																																																																														
NOV	97.7	40.5	97.7	11	3.1	2	1.3	1.5	0.2	0	65.5	11/12/2008																																																																																																																																																																																																																																																																																														
DEC	104.6	56.3	104.6	11	3.8	1	1.7	1.9	0.1	0	55	12/16/2014																																																																																																																																																																																																																																																																																														
YR	488.6		67.9		19.5	9.8	9.2	6.8	0.5	0	488.6																																																																																																																																																																																																																																																																																															

Clause	Data
	<p>The total extension of time shall be the algebraic sum of all monthly totals for the contract period, but if the algebraic sum is negative the time for completion shall not be reduced due to subnormal rainfall. Extensions of time for a part of a month shall be calculated using pro rata values of Nn and Rn.”</p> <p>For this project the rainfall formula will only apply as background information, or dispute resolution. Extension of time for rainfall will only be granted on Actual Delays experienced; noted and agreed upon by the engineer.</p>
6.10	<p><b>Payments</b></p> <p><i>Add the following at the end of Sub-Clause 6.10.1:</i></p> <p>“The Contractor shall complete the ‘Contractor’s Monthly Report Schedule’, which pro forma documentation is obtainable from the Engineer. Pursuant to Sub-Clause (1), these, duly signed by all concerned, together with the Contractor’s statement and a VAT invoice in original format are to be submitted to the Engineer. Issue by the Engineer to the Employer and Contractor of any signed payment certificate is conditional to this information being fully endorsed, accurately and timeously submitted to the Engineer”.</p>
	<p><i>Add the following at the end of Sub-Clause 6.10.1.5:</i></p> <p>“All documentary evidence of such materials shall be unambiguous with respect to ownership having fully passed to the Contractor on or before the date of submittal of the Contractor’s monthly statement.</p> <p>Should the Contractor fail to supply unambiguous documentary evidence, he shall, prior to submittal of his monthly statement, deliver to the Employer a Guarantor Guarantee in the form contained in the Appendices to the Contract Data.”</p>
9.3	<p><b>Termination by the Contractor</b></p> <p><i>Add the following at the end of Sub-Clause 9.3:</i></p> <p>9.3.5 “In addition to, or as an alternative to the rights to termination contained in this Clause 9.3, the Contractor may notify the default to the Employer, with a copy to the Engineer, and if the default is not rectified within 10 days the Contractor may suspend progress of the works until a date 7 days after the default is rectified. The Contractor shall be entitled to extension of time to the extent of delay caused by or resulting from such suspension, and to payment of additional costs caused by or resulting from the suspension. Such extension of time and additional costs shall be promptly ascertained by the Engineer, who shall then grant the extension of time and include the additional costs in all future payment certificates. Such suspension, extension of time and/or payment of additional costs, shall not prejudice the Contractor’s rights to cancel the contract.”</p>

### C.1.6.2.3 Data provided by the Contractor

The General Conditions of Contract, as specified in Part 1, shall be used as a basis for this Data which is required to be completed.

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

Clause	Data
1.1.1.9	The Name of the Contractor is:  .....  .....
1.2.1.2	The address of the Contractor is:  Physical address:  .....  .....  .....  .....  .....
1.2.1.2	Postal address:  .....  .....  .....  .....  e-mail address:  .....  Contact numbers:  Corporate: .....  Direct: .....  Mobile: .....  Fax: .....

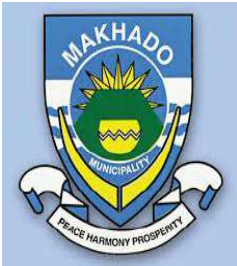


## MAKHADO MUNICIPALITY

### C.2 Pricing data

C2.1 PRICING INSTRUCTIONS

C2.2 BILL OF QUANTITIES



## MKHADO MUNICIPALITY

### C.2.1 Pricing instructions

Measurement and payment shall be in accordance with the relevant provisions of the COLTO Standard Specification for Road and Bridge Works for State Authorities (March 1998 Edition) and the Preamble to Electrical Works.

- 1 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 standard specifications or the project specifications.

Quantity: The number of units of work for each item.

Rate: The payment per unit of work for which the tenderer tenders to do the work.

Amount: The product of the quantity and the rate tendered for an item.

Lump 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.

- 2 This bill of quantities forms part of the contract documents and must be read in conjunction with all the other documents comprising the contract documents.

- 3 The quantities set out in the bill of quantities are only approximate quantities. The quantities of work finally accepted and certified for payment, and not the quantities given 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 finally certified for payment. Work is valued at the rates or lump sums tendered, subject only to the provisions of sub-clause 1209 (a) of the standard specifications.

- 4 Rates and lump sums shall include full compensation for overheads, profits, incidentals, tax (other than VAT), etc, and for the completed items of work as specified, all in accordance with sub-clause 1209 (b) of the standard specifications. Full compensation for completing and maintaining, during the defects liability period, all the work shown on the drawings and specified in the standard specifications and project specifications and for all the risks, obligations and responsibilities specified in the general conditions of contract, special conditions of contract, standard specifications and project specifications shall be considered as provided for collectively in the items of payment given in the bill of quantities, except in so far as the quantities given in the bill of quantities are only approximate.
- 5 The tenderer shall fill in a rate or a lump sum for each item where provision is made for it even where no quantities are given. Items against which no rate or lump sum has been entered in the tender will not be paid for when the work is executed, as payment for such work will be regarded as being covered by other rates or lump sums in the bill of quantities.

The tenderer shall fill in a rate against all items where the words “rate only” appear in the amount column. Although no work is foreseen under such item and no quantities are consequently given in the quantity column, the tendered rate shall apply should work under this item actually be required. Tenders should note the provisions of paragraph 12 of this preamble.

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

The tendered lump sums and rates shall be valid irrespective of any change in the quantities during the execution of the contract.

- 6 The works executed are measured for payment in accordance with the methods described in the contract documents under the various payment items, notwithstanding any custom to the contrary. Attention is directed to the provisions of clause 1220 of the standard specifications regarding the measurements of quantities for payment. Except where specified otherwise than in clause 1220, the nett measurement or mass of the finished work in place shall be taken for payment, and any volume or mass of work in excess of that prescribed, shall be excluded.
- 7 The amount of work or the quantities of material stated in the bill of quantities shall not be considered as restricting or extending the amount of work to be done or quantity of material to be supplied by the contractor.
- 8 The statement of quantities of material or the amount of work in the bill of quantities shall not be regarded as authorisation for the contractor to order material or to execute work.

The contractor shall obtain the engineer's detailed instructions for all work before ordering any materials or executing work or making arrangements in this regard.

- 9 The short descriptions of the payment items in the bill of quantities are only given to identify the items and to provide specific details. Reference shall, inter alia, be made to the drawings, standard specifications, project specifications, general conditions of contract and special conditions of contract for more detailed information regarding the extent of work entailed under each item.
- 10 The provisions of clause 45 of the general conditions of contract shall apply to provisional sums and prime cost sums.
- 11 Subject to the conditions stated in paragraph 12 below, the rates and lump sums filled in by the tenderer in the bill of quantities shall be final and binding with regard to submitting the tender, and may not be adjusted should there be any mistakes in the extensions thereof and in the total sums appearing in the tender. Should there be any discrepancies between the tender sum and the correctly extended and totalled bill of quantities, the rates will be regarded as being correct, and the employer shall have the right to make adjustments to the tender sum to reconcile the tender sum with the total of the bill of quantities. In such an event the contractor will be consulted but, failing agreement between the parties, the decision of the employer shall be final and binding. Adjustment of the tender sum will take place prior to the signing of the contract. In their own interest tenderers must make doubly sure of the correctness of their tendered rates, the extensions and the tender sum.
- 12 A tender may be rejected if the unit rates or lump sums for some of the items in the bill of quantities are, in the opinion of the employer, unreasonable or out of proportion, and if the tenderer fails, within a period of seven (7) days of having been notified in writing by the employer to adjust the unit rates or lump sums for such items, to make such adjustments.
- 13 The units of measurement indicated in the bill of quantities are metric units

The following abbreviations are used in the bill of quantities:

mm	=	millimetre
m	=	metre
km	=	kilometre
km-pass	=	kilometre-pass
m <sup>2</sup>	=	square metre
m <sup>2</sup> -pass	=	square metre pass
ha	=	hectare
m <sup>3</sup>	=	cubic metre
m <sup>3</sup> km	=	cubic metre kilometre
l	=	litre
kl	=	kilolitre
kg	=	kilogram

t	=	ton (1000 kg)
No	=	number
mn	=	meganewton
mn-m	=	meganewton-metre
%	=	per cent
kW	=	kilowatt
Kn	=	kilonewton
PC sum	=	prime cost sum
Prov sum	=	provisional sum

- 14 All rates and sums of money quoted in the bill of quantities shall be in rands and whole cents. Fractions of a cent shall be discarded
- 15 The item numbers appearing in the bill of quantities refer to the corresponding item numbers in the standard specifications. Item numbers prefixed by the letter B refer to payment items described under part B of the project specifications, those with C to payment items described under part C, and so on for further parts of the project specifications.

Item numbers in schedule B of the bill of quantities are, in addition, preceded by the number of each separate part of schedule B of the bill of quantities, e.g. payment item 62.02 described in the standard specifications (clause 6210), when used in part 3 of schedule B of the bill of quantities, would be numbered 3/62.02, and if this payment item had been amended in part B of the project specifications, the payment item would be indicated as 3/B62.02.

16. Labour intensive items are highlighted in the bills of quantities for the payment items relating to labour intensive works.

16.1 Those parts of the contract to be constructed using labour intensive methods have been marked in the bills of quantities with the letters LI in a separate column filled in against every item so designated. The works or part 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 variation to the contract. The letters marked with LI are **not necessarily an exhaustive list** of all items which must be done by hand, and this clause does not override any of the requirements in the generic labour intensive specification in the Scope of Works.

16.2 Payment for items which are designated to be constructed using 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 work so constructed will not be certified for payment. If a contractor, through innovation on other activities, achieved the set LI requirement, but he did not perform all LI-marked activities through labour, he will not be penalized. However, if a contractor did not achieve the set LI target and constructed a LI-marked activity through other means, he **will not be paid** for

that activity.

17. All cost for formal training to the targeted workforce (amongst others: allowances, wages, administration, transport, etc) shall be deemed to be included in the rates for Labour Intensive items.



## MAKHADO MUNICIPALITY

### C.2.2 Bill of quantities

1200	General requirements and provisions
1300	Contractor's establishment and provisions
1400	Housing, offices and laboratories for the engineer's personnel
1500	Accommodation of traffic
1600	Overhaul
1700	Clearing and Grubbing
1800	Dayworks
2100	Drains
2200	Prefabricated Culverts
2300	Concrete Kerbing, Channeling, Open Chutes, and Concrete Linings for Open Drains
3100	Borrow Materials
3300	Mass Earthworks
3400	Pavement Layers of Gravel Material
3500	Stabilization
4100	Prime Coat
4200	Asphalt Surfacing and Seals
5100	Pitching, Stonework and Protection against Erosion
5200	Gabions
5400	Guardrails
5600	Road Signs
5700	Road Markings

5900	Finishing the Road Reserve and Treatment of Old Roads
7300	Concrete block paving for roads
8100	Testing Materials and Workmanship



## **MAKHADO MUNICIPALITY**

### **BILL OF QUANTITIES**

**CONTRACT No. 67 of 2021**  
**REHABILITATION OF JOE SLOVO STREET AT VLEIFONTEIN**

**SCHEDULE A: ROAD CONSTRUCTION**

**SECTION 1200**

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
<b>1200</b>	<b><u>GENERAL REQUIREMENT AND PROVISIONS</u></b>				
B12.01	Provision for a Community Liason Officer:				
	(a) Community Liason Officer	Prov Sum	1	36,000.00	36,000.00
	(b) Contractors's handling costs, profits and all other charges in respect of subitem B12.01 (a)	%	36,000		
B12.02	Remuneration of Student Training:				
	(a) Student training - Civil Engineering	Prov Sum	1	39,000.00	39,000.00
	Student training - Environmental Science				
	c) (For Compliance Monitoring)	Prov Sum	1	39,000.00	39,000.00
	(b) Contractors's handling costs, profits and all other charges in respect of subitem B12.02 (a)	%	39,000		
B12.03	Community Participation				
	(a) Costs of community participation and PLC support	Prov Sum	1	12,000.00	12,000.00
	(b) Contractors's handling costs, profits and all other charges in respect of subitem B12.03 (a)	%	12,000.00		
B12.04	Excavation				
	Excavating material within the following depth ranges below ground level for exposing of/or searching for services				
	(a) 0-2m				
	(i) Soft material	m³			
	(ii) Hard material	m³			
B12.05	Backfilling				
	(a) Using the excavated material	m³			
	(b) Using imported selected fill	m³			
B12.06	replacement of services as ordered by the engineer				
	(a) Utility services				
	The removal, protection and replacement of services.	Prov Sum	1	50,000.00	50,000.00
	(i) Handling cost and profit in respect of item B12.07(l)	%	50,000		
	(ii)				
B12.07	Land Aqcusition for stormwater crossings	Prov sum	1	120,000.00	120,000.00
1200	<b>TOTAL CARRIED FORWARD TO SUMMARY</b>				

**CONTRACT No. 67 of 2021****REHABILITATION OF JOE SLOVO STREET AT VLEIFONTEIN****SCHEDULE A: ROAD CONSTRUCTION****SECTION 1300**

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
1300	<b><u>CONTRACTOR'S ESTABLISHMENT ON SITE AND GENERAL OBLIGATIONS</u></b>  (NB- Project implemented as a multi-year project, and Contractors rates should accommodate the re-establishment and de-establishment				
B13.01	Contractor's general obligations				
	(a) Fixed obligations	L/Sum	1		
	(b) Value-related obligations	L/Sum	1		
	(c ) Time-related obligations	Months	6		
	NOTE: The combined total tendered for subitems (a), (b) and (c ) should not exceed 15% of the tender sum (excluding the contingent sum, CPA and VAT). Refer to form H ' CONTRACTOR'S ESTABLISHMENT ON SITE)				
1300	<b>TOTAL CARRIED FORWARD TO SUMMARY</b>				

**CONTRACT No. 67 of 2021****REHABILITATION OF JOE SLOVO STREET AT VLEIFONTEIN****SCHEDULE A: ROAD CONSTRUCTION****SECTION 1400**

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
<b>1400</b>	<b><u>HOUSING, OFFICES AND LABORATORIES FOR THE ENGINEER'S SITE PERSONNEL</u></b>				
14.01	Office and laboratory accommodation:				
	(a) Offices (interior floor space only)	m <sup>2</sup>	20		
14.02	Office and laboratory furniture:				
	(a) Chairs	No	4		
	(d) Desks, complete with drawers and locks	No	1		
14.03	Office and laboratory fittings, installations and equipment:				
	(a) Items measured by number:				
	(i) 220/250 volt power points	No	2		
	(iii) Double 80 watt fluorescent-light fittings complete with ballast and tubes	No	2		
	(x) Fire extinguishers, 2,5 kg all purpose dry powder type, complete, mounted on wall with brackets	No	1		
	(xi) Air-conditioning units with 2,2 kW minimum capacity, mounted and with own power connection	No	1		
	(xiv) General purpose steel cupboards with shelves	No	1		
	(xv) Steel filing cabinets with drawers	No	1		
	(xvii) Colour inkjet printer A3 size	No	1		
B14.03	(ix) 1. Provision sum for the costs of cellular calls and other charges	Prov Sum	1	5,000.00	R 5,000.00
	2. Handling costs and profit in respect of sub-item B14.03 (b) (ix) 2	%	5000		
14.04	Carports				
	(a) Carports as specified at offices and laboratory buildings	No	1		
<b>1400</b>	<b>TOTAL CARRIED FORWARD</b>				

**CONTRACT No. 67 of 2021**  
**REHABILITATION OF JOE SLOVO STREET AT VLEIFONTEIN**

**SCHEDULE A: ROAD CONSTRUCTION**

**SECTION 1400**

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
<b>Brought Forward</b>					
14.08	Services:				
	(a) Services at offices and laboratories:				
	(i) Fixed costs	L/sum	1		
	(ii) Running costs	month	6		
	(c) Services for rented houses	month	6		
14.10	Provision of photostat facilities	month	6		
1400	<b>TOTAL CARRIED FORWARD TO SUMMARY</b>				

**CONTRACT No. 67 of 2021**  
**REHABILITATION OF JOE SLOVO STREET AT VLEIFONTEIN**

**SCHEDULE A: ROAD CONSTRUCTION**

**SECTION 1500**

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
<b>1500</b>	<b><u>ACCOMMODATION OF TRAFFIC</u></b>				
15.01	Accommodation of traffic and maintaining temporary deviation	km	1.6		
15.02	Earthworks for temporary deviation				
	(a) Shaping of temporary deviation	km	1.6		
	(b) Cut and borrow to fill	m³	100		
B15.03	Temporary traffic control facilities				
	(a) Flag persons	man-day	1056		
	(b) Portable STOP and GO-ROUND signs	No.	4		
	(e) Road signs, R- and TR- series; (1200mm dia.)	No.	10		
	(f) Road signs, TW- series, 1500 mm	No.	10		
	(g) Road signs, STW-, DTG-, TGS- and TG-series excluding delineators and barricades				
	(i) 1600mm x 1200mm	'''	4		
	(ii) 2400mm x 1800mm	'''	2		
	(h) Delineators DTG50J, size 800 mm x 200 mm:				
	(i) Single	No.	20		
	(ii) Mounted back to back	No.	60		
	(i) Movable barricade/road sign combination, size 1800 x 300 and 900 dia.	No.	2		
	(j) Traffic cones (750mm high)	No.	20		
	(m) Two-way communication devices	No.	2		
	(n) Provision of high visibility safety jackets and hats	No	4		
B15.04	Relocation of traffic-control facility	L/Sum	4		
<b>1500</b>	<b>TOTAL CARRIED FORWARD TO SUMMARY</b>				

**CONTRACT No. 67 of 2021****REHABILITATION OF JOE SLOVO STREET AT VLEIFONTEIN****SECTION 1600****SCHEDULE A: ROAD CONSTRUCTION**

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
<b>1600</b>	<b><u>OVERHAUL</u></b>				
16.01	Overhaul of material hauled in excess of a free-haul distance of 1.0km.	m <sup>3</sup> -km	42,768.0		
1/00	<b>TOTAL CARRIED FORWARD TO SUMMARY</b>				

**CONTRACT No. 67 of 2021**  
**REHABILITATION OF JOE SLOVO STREET AT VLEIFONTEIN**

**SECTION 1700**

**SCHEDULE A: ROAD CONSTRUCTION**

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
<b>1700</b>	<b><u>CLEARING AND GRUBBING</u></b>				
B17.01	Clearing and grubbing				
	(a) Normal Areas				
	(i) Within the road reserve	ha	0.64		
	(b) Existing till embankments with slopes steeper than 1:4	ha	Rate only		Rate only
17.02	Removal and grubbing of large trees and tree stumps:				
	(a) Girth exceeding 1 m up to and including 2 m	No	2		
	(b) Girth exceeding 2 m up to and including 3 m	No	1		
1700	<b>TOTAL CARRIED FORWARD TO SUMMARY</b>				

**CONTRACT No. 67 of 2021**  
**REHABILITATION OF JOE SLOVO STREET AT VLEIFONTEIN**

**SCHEDULE A: ROAD CONSTRUCTION**

**SECTION 1800**

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
<b>1800</b>	<b><u>DAYWORKS</u></b>				
B18.01	Labourers:				
	(i) Unskilled labour	hr	Rate Only		Rate Only
	(ii) Semi-skilled labour	hr	Rate Only		Rate Only
	(iii) Skilled labour	hr	Rate Only		Rate Only
B18.02	Foreman	hr	Rate Only		Rate Only
B18.03	Plant				
	(a) Tipper trucks				
	(i) 3 - 5 ton	hr	Rate Only		Rate Only
	(ii) 5,1 - 10 ton	hr	Rate Only		Rate Only
B18.04	Loader (0,5m <sup>3</sup> bucket)	hr	Rate Only		Rate Only
B18.05	Grader (CAI 14G or similar)	hr	Rate Only		Rate Only
B18.06	LDV	hr	Rate Only		Rate Only
B18.07	Compaction Rollers:				
	(i) Vibrator roller (as per 33.04 (b)(i))	hr	Rate Only		Rate Only
	(ii) Tamping roller	hr	Rate Only		Rate Only
	(iii) Grid roller	hr	Rate Only		Rate Only
B18.08	Hand controlled compactors:				
	(i) Pedestrian roller (Bomag BW90)	hr	Rate Only		Rate Only
	(ii) Vibratory plate	hr	Rate Only		Rate Only
	(iii) Rammers	hr	Rate Only		Rate Only
B18.09	Water truck (min 10000l)	hr	Rate Only		Rate Only
B18.10	Dozer (D7 or similar)	hr	Rate Only		Rate Only
1800	<b>TOTAL CARRIED FORWARD TO SUMMARY</b>				

**CONTRACT No. 67 of 2021****REHABILITATION OF JOE SLOVO STREET AT VLEIFONTEIN****SCHEDULE A: ROAD CONSTRUCTION****SECTION 2100**

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
<b>2100</b>	<b><u>DRAINS</u></b>				
21.01	Excavation for open drains:				
	(a) Excavating soft material situated within the following depth ranges below the surface level:				
	(i) 0 m up to 1,5 m	m³	383		
	(b) Extra over subitem 21.01 (a) for excavation in hard material, irrespective of depth	m³	Rate only		Rate only
21.02	Cleaning and shaping of existing open drains	m³	100		
21.18	Excavation for the clearing of existing drainage systems:				
	(c) Concrete side drains (0,3 to 1,5m wide)	m	1.00		
PSA	Subsurface Drainage				
i)	Supply and install A4 Bidim	m2	500.00		
ii)	Supply and lay 19mm (no fines) stones	m3	100.00		
iii)	Supply and lay 160mm perforated pipe including flo drain	m	150.00		
<b>2100</b>	<b>TOTAL CARRIED FORWARD TO SUMMARY</b>				

**CONTRACT No. 67 of 2021**  
**REHABILITATION OF JOE SLOVO STREET AT VLEIFONTEIN**

**SCHEDULE A: ROAD CONSTRUCTION**

**SECTION 2200**

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
<b>2200</b>	<b><u>PREFABRICATED CULVERTS</u></b>				
22.01	Excavation:				
	(a) Excavating soft material situated within the following depth ranges below the surface level:				
	(i) 0 m up to 1,5 m	m³	2,850		
	(ii) Exceeding 1.5m and up to 3m	m³	497		
	(b) Extra over subitem 22.01 (a) for excavation in hard material, irrespective of depth	m³	143		
22.02	Backfilling:				
	(a) Using the excavated material	m³	2,347		
	(b) Using imported selected material	m³	352		
	(c) Extra over subitems 22.02(a) and (b) for soil cement backfilling containing 2% cement.	m³	100		
22.03	Concrete pipe culverts				
	b) On Class B Bedding ( 75D Dia. 600mm)				
	i) Class 75D 600mm Diameter Pipe	m	1,240		
	ii) Class 100D 900mm Diameter pipe	m	240		
22.07	Cast in situ concrete and formwork				
	(c) In inlet and outlet structures, skewed ends, catchpits, catchpits, manholes, thrust and anchor blocks, excluding formwork, but including class U2 surface finish: class 25/19MPa concrete	m³	18		
	(d) Formwork of concrete under subitem 22.07 ( c ) above,				
	(i) Class F1 surface finish	m²	15		
	(ii) Class F2 surface finish above,	m²	15		
<b>2200</b>	<b>TOTAL CARRIED FORWARD</b>				

**CONTRACT No. 67 of 2021**  
**REHABILITATION OF JOE SLOVO STREET AT VLEIFONTEIN**

**SECTION 2200**

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
<b>Brought Forward</b>					
22.10	Steel reinforcement:				
	(a) Mild steel bars	t	0.50		
	(b) High-tensile steel bars	t	Rate only		Rate only
	(c) Welded steel fabric	kg	280		
B22.12	Removing existing concrete				
	(a) Plain concrete	m³	72		
	(b) Reinforced concrete	m³	22		
22.14	Removing and stacking existing pipes (Class100D diameter 600mm)	m	240.0		
B22.17	Manholes, catchpits, precast inlet and outlet				
	(a) Manholes (Field inlet as per drawing number <b>S39.2-SD/007</b> )	No	18		
	i) Field inlet as per drawing number <b>S39.2-SD/007</b>	No	18		
	ii) Junction Box as per drawing number <b>S39.2-SD/003</b>	No	6		
	b) Catchpits (3000mm long as per drawing number <b>S39.2-SD/002</b> )	No	11		
<b>2200</b>	<b>TOTAL CARRIED FORWARD TO SUMMARY</b>				

**CONTRACT No. 67 of 2021**  
**REHABILITATION OF JOE SLOVO STREET AT VLEIFONTEIN**

**SCHEDULE A: ROAD CONSTRUCTION**

**SECTION 2300**

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
<b>2300</b>	<b><u>CONCRETE KERBING, CONCRETE CHANNELLING, CHUTES AND DOWNPIPES, AND CONCRETE LINING FOR OPEN DRAINS</u></b>				
23.01	Concrete kerbing:				
	(a) Prefabricated mountable kerb, SABS 927 fig 8B (Class 25/19 concrete):	m	1563		
	(b) Prefabricated non mountable kerb, SABS 927 fig 3 (Class 25/19 concrete):	m	1563		
	(b) Cast insitu concrete beam				
	(i) Edgebeam 200 x 300 deep	m	66		
23.02	Concrete kerbing-channeling combination:				
	(b) Prefabricated concrete kerb SABS 927 fig. 8B with in-situ apron 25/19 as follows:				
	(i) Apron 300 wide sloping and 150mm thick	m	1695		
23.03	Concrete chutes:				
	(a) Prefabricated concrete chutes	m	5		
23.05	Inlet, outlet, transition and similar structures				
	(a) Open chutes (Class 25/19 concrete):				
	(i) Chute inlets	No.	2		
	(ii) Chute outlets	No.	1		
23.07	Trimming of excavations for concrete-lined open drains:				
	(a) In soft material	m <sup>c</sup>	895		
	(b) In hard material	m <sup>2</sup>	90		
PSA	Demolish and Remove broken Kerbs as indicated by the Engineer (Unreinforced) inclusive of disposal	m	2,345		
<b>2300</b>	<b>TOTAL CARRIED FORWARD TO SUMMARY</b>				

**CONTRACT No. 67 of 2021**  
**REHABILITATION OF JOE SLOVO STREET AT VLEIFONTEIN**

**SCHEDULE A: ROAD CONSTRUCTION**

**SECTION 3100**

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
<b>3100</b>	<b><u>BORROW MATERIALS</u></b>				
B31.01	Excess overburden				
	(a) Depth up to and including 0,5m	m3	800		
	(b) Depth exceeding 0,5m and up to 1,5m	m3	200		
31.03	Finishing-off borrow areas in:				
	(a) Hard material	ha	0.20		
	(b) Intermediate material	ha	0.10		
	(c) Soft material	ha	0.70		
<b>3100</b>	<b>TOTAL CARRIED FORWARD TO SUMMARY</b>				

**CONTRACT No. 67 of 2021**  
**REHABILITATION OF JOE SLOVO STREET AT VLEIFONTEIN**

**SCHEDULE A: ROAD CONSTRUCTION**

**SECTION 3300**

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
<b>3300</b>	<b><u>MASS EARTHWORKS</u></b>				
<b>33.01</b>	<b>Cut to stockpile, including free-haul up to 1.0 km. Material obtained from:</b>				
	(a) Soft excavation	m³	1408		
<b>33.04</b>	<b>Cut to spoil, including free-haul up to 0,5 km. Material obtained from:</b>				
	(a) Soft excavation	m³	4028		
	(b) Intermediate excavation	m³	50		
	(c) Hard excavation	m³	200		
<b>33.10</b>	<b>Roadbed preparation and the compaction of material:</b>				
	(a) Compaction to 90% of modified AASHTO density	m³	Rate only		Rate only
	(b) Compaction to 93% of modified AASHTO density	m³	1,687		
<b>33.13</b>	<b>Finishing-off cut and fill slopes, medians,</b>				
	a) Cut slopes	m³	1,500		
<b>3100</b>	<b>TOTAL CARRIED FORWARD TO SUMMARY</b>				

**CONTRACT No. 67 of 2021**  
**REHABILITATION OF JOE SLOVO STREET AT VLEIFONTEIN**

**SCHEDULE A: ROAD CONSTRUCTION**

**SECTION 3400**

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
<b>3400</b>	<b><u>PAVEMENT LAYERS OF GRAVEL MATERIAL</u></b>				
34.01	taken from cut or borrow including a freehaul up to 1.0km				
	(a) Gravel selected layer compacted to (i) 95% of Modified AASHIO layer thickness of 150mm (G6 - Obtained from	m³	1,687		
	(c) Gravel Subbase compacted to (unstabilised ii) 97% of Modified AASHTO density layer thickness of 150mm (G6) -Obtained from borrow pit	m³	1,687		
	(f) Gravel base compacted to (Chemically stabilised material - C4): ii) 98% of Modified AASHTO density layer thickness of 150mm (G6) - obtained from borrow pit	m³	1,687		
	(g) Gravel shoulders compacted to: ii) 95% of Modified AASHTO density layer thickness of 150mm - obtained from cut	m³	586		
<b>1600</b>	<b><u>OVERHAUL</u></b>				
34/16.02	Overhaul on material hauled in excess of 1,0 km (ordinary overhaul)	m²-km	80,977		
34.18	Material bladed to windrow	m²	586		
34.19	Stockpiling of materials	m²	586		
<b>3400</b>	<b>TOTAL CARRIED FORWARD TO SUMMARY</b>				

**CONTRACT No. 67 of 2021**  
**REHABILITATION OF JOE SLOVO STREET AT VLEIFONTEIN**

**SCHEDULE A: ROAD CONSTRUCTION**

**SECTION 3500**

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
<b>3500</b>	<b><u>STABILIZATION</u></b>				
35.01	Chemical stabilization extra over unstabilized compacted layers:				
	(a) Base (thickness 150mm)	m <sup>3</sup>	1,687		
	(b) Subbase: (thickness : 150mm)	m <sup>3</sup>	Rate only		Rate only
35.02	Chemical stabilizing agent:				
	(a) Ordinary portland cement	t	121		
35.04	Provision and application of water for curing	kl	3,500		
<b>3500</b>	<b>TOTAL CARRIED FORWARD TO SUMMARY</b>				

**CONTRACT No. 67 of 2021**  
**REHABILITATION OF JOE SLOVO STREET AT VLEIFONTEIN**

**SCHEDULE A: ROAD CONSTRUCTION**

**SECTION 4100**

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
<b>4100</b>	<b><u>PRIME COAT</u></b>				
41.01	Prime coat:				
	(c) MC-30 cut-back bitumen	l	7,578		
41.02	Aggregate for blinding	m <sup>2</sup>	758		
<b>4100</b>	<b>TOTAL CARRIED FORWARD TO SUMMARY</b>				

**CONTRACT No. 67 of 2021**  
**REHABILITATION OF JOE SLOVO STREET AT VLEIFONTEIN**

**SCHEDULE A: ROAD CONSTRUCTION**

**SECTION 4200**

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
<b>4200</b>	<b><u>ASPHALT BASE AND SURFACING</u></b>				
42.02	Asphalt surfacing (30mm thick, 60/70 penetration grade bitumen)				
	(a) - (i) 30mm Continously graded medium grade asph	m <sup>2</sup>	10,814		
42.04	Tack coat 30% stable grade emulsion	l	7,570		
42.05	Binder variations	t	2.1		
42.13	Placing and compacting asphalt in restricted areas:				
	(a) Extra over items 42.02	m <sup>2</sup>	100		
42.14	Extra over item 42.04 for applying tack coat in restricted areas:	l	70		
PSA	<b>Miscellaneous Action</b>				
	<b>Traffic Calming Solutions</b>				
	Asphalt speed humps complete as per drawing number <b>SC39.2-SD/009</b> (Including Marking)	no	8		
<b>4200</b>	<b>TOTAL CARRIED FORWARD TO SUMMARY</b>				

**CONTRACT No. 67 of 2021**  
**REHABILITATION OF JOE SLOVO STREET AT VLEIFONTEIN**

**SCHEDULE A: ROAD CONSTRUCTION**

**SECTION 5100**

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
<b>5100</b>	<b><u>PITCHING, STONEMWORK AND PROTECTION AGAINST EROSION</u></b>				
51.01	Stone pitching:				
	(a) Plain Pitching				
	(i) Method 1	m <sup>2</sup>	Rate Only		Rate Only
	(ii) Method 2	m <sup>2</sup>	Rate Only		Rate Only
	(b) Grouted stone pitching	m <sup>2</sup>	895		
<b>5100</b>	<b>TOTAL CARRIED FORWARD TO SUMMARY</b>				

## SECTION 5200

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
<b>5200</b>	<b><u>GABIONS</u></b>				
52.01	Foundation trench excavation and backfilling:				
	(b) In all other classes of material	m³	Rate Only		Rate Only
52.02	Surface preparation for bedding the gabions	m²	Rate Only		Rate Only
52.03	Gabions:				
	(a) Galvanized gabion boxes, with 80mm x 100mm by 2,5mm dia galvanised wire mesh:				
	(i) 2.0 x 1.0 x 1.0m	m³	Rate Only		Rate Only
	(ii) 1.0 x 1.0 x 1.0m	m³	Rate Only		Rate Only
	(iii) 0.3 x 1.0 x 1.0m	m³	Rate Only		Rate Only
	(c) Galvanized gabion mattresses, with 80mm x 100mm by 2,5mm dia. galvanised wire mesh with 1.0m between diaphragms				
	(i) 0.3 x 1.0 x 3.0m	m³	Rate Only		Rate Only
52.04	Filter fabric				
	(a) Bidim/Kaymat F34 or similar	m²	Rate Only		Rate Only
<b>5200</b>	<b>TOTAL CARRIED FORWARD TO SUMMARY</b>				

**CONTRACT No. 67 of 2021**  
**REHABILITATION OF JOE SLOVO STREET AT VLEIFONTEIN**

**SCHEDULE A: ROAD CONSTRUCTION**

**SECTION 5600**

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
<b>5400</b>	<b><u>GUARD RAILS</u></b>				
54.01	<b>Guard rails on timber</b>				
	a) Galvinised	m	120.00		
54.03	Extra over items 54.01, 54.02 and 54.11 for horizontally, curved guard-rails factory bent to a radius of less than 45m	no	4.00		
54.06	<b>Reflective Plates</b>	no	60.00		
<b>5600</b>	<b>TOTAL CARRIED FORWARD TO SUMMARY</b>				

**CONTRACT No. 67 of 2021**  
**REHABILITATION OF JOE SLOVO STREET AT VLEIFONTEIN**

**SCHEDULE A: ROAD CONSTRUCTION**

**SECTION 5600**

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
<b>5600</b>	<b><u>ROAD SIGNS</u></b>				
B56.01	Road sign boards with painted or coloured semi-matt background. Symbols, lettering and borders in semi-matt black or Class I retro-reflective material, where the sign board is constructed from:				
	(c) Prepainted galvanized steel plate (chromadek 1,6mm thick or approved equivalent):				
	(i) Area not exceeding 2 m <sup>2</sup>	m <sup>2</sup>	15		
56.02	Extra over B56.01 for using:				
	(a) Background of retro-reflective material:				
	(iii) Class I	m <sup>2</sup>	15		
	(b) Lettering, symbols, numbers, arrows, emblems and borders of retro-reflective material:				
	(ii) Class III	m <sup>2</sup>	40		
56.03	Road sign supports (overhead road sign structures excluded)				
	(a) Steel tubing (wall thickness 3mm)				
	(i) 75mm	t	0.2		
	(b) Timber 150mm	m	40		
56.05	Excavation and backfilling for road sign supports (not applicable to kilometre posts)	m <sup>3</sup>	Rate Only		Rate Only
56.06	Extra over item 56.05 for cement-treated soil backfill	m <sup>3</sup>	30		
56.07	Extra over item 56.05 for rock excavation	m <sup>3</sup>	8		
56.08	Dismantling, storing and re-erecting road sign with a surface area of:				
	(a) Up to 2m <sup>2</sup>	No	15		
B56.10	Hazard plates (150mm x 600mm)				
	(a) Type A at stormwater culverts	No	12		
<b>5600</b>	<b>TOTAL CARRIED FORWARD TO SUMMARY</b>				

**CONTRACT No. 67 of 2021**  
**REHABILITATION OF JOE SLOVO STREET AT VLEIFONTEIN**

**SCHEDULE A: ROAD CONSTRUCTION**

**SECTION 5700**

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
<b>5700</b>	<b><u>ROAD MARKINGS</u></b>				
57.01	Road marking paint:				
	(g) Kerb marking (any colour)	m <sup>2</sup>	1.00		Rate only
57.02	Retro-reflective road-marking paint:				
	(a) White lines (broken or unbroken):				
	(l) 100 mm wide	km	1.6		
	(d) White lettering and symbols	m <sup>2</sup>	180		
	(f) Transverse lines, painted islands and arrestor bed marking (any colour)	m <sup>2</sup>	10		
	<b>Painting specification will be required prior painting</b>				
57.04	Variations in rate of application:				
	(a) White paint	litre	1		Rate Only
	(b) Yellow paint	litre	1		Rate Only
	(d) Retro-reflective beads	kg	1		Rate Only
57.06	Setting out and premarking the lines (excluding traffic-island markings, lettering and symbols)	km	1.6		
57.10	Referencing of road marking				
	(a) Lane marking	km	1.6		
5700	<b>TOTAL CARRIED FORWARD TO SUMMARY</b>				

**CONTRACT No. 67 of 2021****REHABILITATION OF JOE SLOVO STREET AT VLEIFONTEIN****SCHEDULE A: ROAD CONSTRUCTION****SECTION 5900**

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
<b>5900</b>	<b><u>FINISHING THE ROAD AND ROAD RESERVE AND TREATING OLD ROADS</u></b>				
59.01	Finishing the road and road reserve:  (b) Single-carriageway road	km	1.60		
<b>5900</b>	<b>TOTAL CARRIED FORWARD TO SUMMARY</b>				

**CONTRACT No. 67 of 2021****REHABILITATION OF JOE SLOVO STREET AT VLEIFONTEIN****SCHEDULE A: ROAD CONSTRUCTION****SECTION 7300**

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
<b>7300</b>	<b><u>CONCRETE BLOCK PAVING FOR ROADS</u></b>				
73.01	including riversand bedding of 25mm (Grey 60mm SA-type interlocking paving block)	m <sup>2</sup>	1916		
73.02	Cast in situ concrete edge and intermediate beam (300mm x 400mm 25mpa)	m <sup>3</sup>	12		
<b>7300</b>	<b>TOTAL CARRIED FORWARD TO SUMMARY</b>				

**CONTRACT No. 67 of 2021**  
**REHABILITATION OF JOE SLOVO STREET AT VLEIFONTEIN**

**SCHEDULE A: ROAD CONSTRUCTION**

**SECTION 8100**

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
<b>8100</b>	<b><u>TESTING MATERIALS AND WORKMANSHIP</u></b>				
B81.04	Additional tests required by the Engineer				
	a) Prime Cost sum for additional tests required by the Engineer	PC Sum	1.00	50000.00	R 50,000.00
	(b) Contractor's handling costs, profit and all the other charges in respect of sub-item B81.02 (a)	%	50000.00		
<b>8100</b>	<b>TOTAL CARRIED FORWARD TO SUMMARY</b>				

**CONTRACT No. 67 of 2021****REHABILITATION OF JOE SLOVO STREET AT VLEIFONTEIN****SCHEDULE D: PROVISION OF STRUCTURED TRAINING**

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
<b>D</b>	<b><u>PROVISION OF STRUCTURED TRAINING</u></b>				
D12.05	Provision of Accredited Training				
	(a) Generic skills including PSC and CLU	Prov Sum	1	100,000.00	100,000.00
	(b) Entrepreneurial skills	Prov Sum	1	35,000.00	35,000.00
	( c ) Handling costs and profit in respect of sub-item E12.05(a) and (b) above	%	135000		
	(d) Training venue (only if required)	P/Sum	1	5,250.00	5,250.00
<b>SCHED D</b>	<b>TOTAL CARRIED FORWARD TO SUMMARY</b>				

**JOE SLOVO STREET AT VLEIFONTEIN**  
**CONTRACT No. 67 of 2021**

**FOR**

**REHABILITATION OF JOE SLOVO STREET AT VLEIFONTEIN**

ITEM	DESCRIPTION	AMOUNT
1200	GENERAL REQUIREMENTS AND PROVISIONS	
1300	CONTRACTOR'S ESTABLISHMENT ON SITE AND GENERAL OBLIGATIONS	
1400	HOUSING, OFFICES AND LABORATORY FOR THE ENGINEER'S SITE PERSONNEL	
1500	ACCOMMODATION OF TRAFFIC	
1600	OVERHAUL	
1700	CLEARING AND GRUBBING	
1800	DAYWORKS	
2100	DRAINS	
2200	PREFABRICATED CULVERTS	
2300	CONCRETE KERBING, CONCRETE, CHANNELING, OPEN CHUTES AND CONCRETE LININGS FOR OPEN DRAINES	
3100	BORROW MATERIALS	
3300	MASS EARTHWORKS	
3400	PAVEMENT LAYERS OF GRAVEL MATERIAL	
3500	STABILIZATION	
4100	PRIME COAT	
4200	ASPHALT BASE AND SURFACING	
5100	PITCHING, STONWORK AND PROTECTION AGAINST EROSION	
5200	GABIONS	
5400	GUARDRAILS	
5600	ROAD SIGNS	
5700	ROAD MARKINGS	
5900	FINISHING THE ROAD AND ROAD RESERVE AND TREATMENT OF OLD ROADS	
7300	CONCRETE BLOCK PAVING FOR ROADS	
8100	TESTING MATERIALS AND WORKMANSHIP	
<b>SUMMARY OF SCHEDULE A: ROAD CONSTRUCTION</b>		
	PROVISION OF STRUCTURED TRAINING	
<b>SUMMARY OF SCHEDULE B: STRUCTURED TRAINING</b>		

CONTRACT No. 67 of 2021

FOR

**REHABILITATION OF JOE SLOVO STREET AT VLEIFONTEIN**

DESCRIPTION	AMOUNT
SCHEDULE A: ROAD CONSTRUCTION	
SCHEDULE B: PROVISION OF STRUCTURED TRAINING	
<b>SUB-TOTAL 1:</b>	
PLUS CONTINGENCIES @ 5% Employer add 5% of the total of schedules A,B (Sub-total 1) of quantities for contingency)	
<b>SUB-TOTAL 2:</b>	
Contract Price Adjustment @2%	
<b>SUB-TOTAL 3:</b>	
SUM TOTAL SUB-TOTALS 1,2 AND 3	
<b>SUB-TOTAL 4:</b>	
VALUE ADDED TAX (VAT) @ 15% (Add 15% to sub-total 4	
<b>SUB-TOTAL 4:</b>	
<b>TENDER SUM CARRIED TO FORM OF TENDER</b> (The sum of sub-total 3 and 4)	

## MAKHADO LOCAL MUNICIPALITY



CONTRACT NO: 67 OF 2021

### REHABILITATION OF JOE SLOVO STREET AT VLIEFONTEIN

## **C3 SCOPE OF WORK**

All definitions, interpretations and general provisions for the General Conditions of Contract for Construction Work (2015) (3<sup>rd</sup> edition) are applicable.

#### **C 3.1 DESCRIPTIONS OF WORKS**

##### **C3.1.1 Client's Objective**

The employer's objectives are to deliver public infrastructure using labour intensive methods in accordance with EPWP Guidelines

##### **Labour-intensive works**

Labour-intensive works shall be constructed/maintained using local workers who are temporarily employed in terms of this Scope of Work.

##### **Labour-intensive competencies of supervisory and management staff**

Contractors shall engage supervisory and management staff in labour-intensive works that have completed the skills programme including Foremen/Supervisors at NQF "National Certificate: Supervision of Civil Engineering Construction Processes" and Site Agent/Manager at NQF level 5 "Manage labour-intensive Construction Processes" or equivalent QCTO qualifications.

##### **C3.1.2 Overview of the Works**

The work will be carried using Labour- Intensive approach as much as possible. Labour-intensive works comprise the activities described in SANS 1921-5,

##### **C3.1.3 Extend of the Works**

**Extent of the works** to be undertaken in the current scope of the works can be summarized as follows:

The table below shows the general information

**Table – Scope of works**

<b>Description</b>	<b>Estimated Quantities/length</b>
Road length including bell mouth	1695m
Road Width	6m
Surfacing	30mm
Sidewalk (Paved -60mm paving blocks)	1563m
Stormwater	
1. 900mm Diameter pipes (100D)	1240m
2. 600mm Diameter pipes (75D)	240m
3. Stone Pitched Trapezodial Channel	405m
Kerb Inlet (KI)	18
Junction box (JB)	6
Field Inlet	18
Kerbs Fig 8B	1563m
Concrete kerbing channel combination	1695m

**General works**

- Setting-out
- Identify the existing services
- Traffic Accommodation

**Existing Road including concrete-V-drain**

- Remove and spot the existing Asphalt surfacing(30mm)
- Cut and stockpile the base materials for re-use on shoulders(150mm)
- Cut to spoil from 150-300
- Rip and Compact the roadbed

**Reconstruction of layer works with materials obtained from borrow pit**

- Spread, process and compact 150mm selected layer (66) work with materials obtained borrow pit.
- Spread, process and compact 150mm Subbase materials (66) obtained from the borrow pit
- Spread, process and compact 150mm base materials (66) in preparation for stabilization as per the pavement design with materials obtained from the borrow pit
- Supply, place, open the cement bags and spread the cement content over the compacted base including processing and curing for seven(7) days

**Kerbing**

- Supply, place, concrete launch precast concrete kerbs i.e. Fig 8B
- Supply cast in-site/ready-mix concrete of 25 Mpa for edge beam where applicable.

**Surfacing**

- Broom the prepared base for priming(manual)
- Supply and prime coat MC 30 cut-back bitumen primer
- Supply and prime coat tack coat 30% Stable grade emulsion
- Supply and lay 30mm continuously graded medium asphalt

**Storm water – (Closed drain)**

- Excavate pipe trenches to suitable depth as per the design for precast concrete pipe culverts including completed bedding and main backfill
- Supply and lay precast concrete pipe culverts and including covering joints with primed bedim (75D and 100D) along and crossing the road respectively.
- Excavate, compact, place concrete and build with bricks junction box, add field inlet including cover
- Construction of concrete headwalls where applicable

**Storm water-(open drain)**

- Excavate the trapezoidal shape open drain
- Compact the surface after levelling to suitable slope
- Place the rocks including grouting for stone pitching surface

**Road marking and signage**

- Road marking delineation was done in accordance with the “South African Development Community, Road Traffic Signs Manual”, 3rd edition. A solid white line no overtaking will be painted along the entire road length. No yellow markings will be painted on the edge of the road. Formal stop markings will be provided to the surfaced major intersection.
- Setting out
- Road marking as per the design
- Installation of warning signage and street names

**Safety on inlets (Field inlet and pipes inlet)**

- Installation of galvinised grid inlet

**Safety along the open**

- Installation of guardrails

**Safety on the road**

- Cut the surfacing for interlocking joint between the speed hump and surfaced section

**Sidewalks**

- Setting out
- Cut the spoil to suitable depth
- Compact the surface bed
- Use the material cut from existing base to cater for paving base.
- Place to the edge kerbs (supply and install)
- Supply and spread clean river sand
- Supply and place 60mm paving blocks (interlocking) including cut and compacting.

**Housekeeping**

- Clean the site
- Obtain “happy” signature for resident along the upgraded street upon completion with assistance of the community liaison officer

### **C3.1.3 Location of the Works**

The project is located at Vleifontein (Joe Slovo street) which falls under Makhado municipality within the jurisdiction of Vhembe District Municipality.

### **C3.1.4 Construction program**

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

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

The Contractor shall be deemed to have allowed fully in his tendered rates and prices as well as in his programme for all possible delays due to normal adverse weather conditions and special non-working days as specified in the Special Conditions of Contract, in the Project Specifications and in the Contract Data.

The following constraints shall be taken into account in preparing the preliminary construction programme which must be submitted with the Tender. These same constraints shall apply to the final construction programme.

- a) The Contract time is 06 months. Plant and personnel requirements to complete the project in 06 months must be incorporated in the Tender.
- b) A high standard of traffic accommodation
- c) Ancillary works by Emerging Contractors

### **Programme in terms of Clause 5.6 of the General Conditions of Contract**

It is essential that the construction programme, which shall conform in all respects to Clause 5.6 of the General Conditions of Contract, be furnished within the time stated in the Contract Data. The preliminary programme to be submitted with the tender shall be used as basis for this programme. The Contractor's attention is also drawn to clause 5.6.4 and 5.6.5 of the General Conditions of Contract 2015.

### **C3.1.5 Change in works**

The Engineer may, from time to time by order in writing without in any way vitiating the Contract or giving to the Contractor any claim for additional payment, require the Contractor to proceed with the execution of the works in such order as in his opinion may be necessary, and may alter the order of or suspend any part of the Works at such time and times as he may deem desirable and the Contractor shall not, after receiving such written order, proceed with work ordered to be suspended until he shall receive a written order to do so from the Engineer. Where the work must of necessity be carried out in conjunction with work of other

Contractors, or with that of the Employer, it shall be co-ordinated and arranged in such a manner as to interfere as little as possible with the progress of such other work so as to offer every reasonable facility to other Contractors or to employees of the Employer.

### **C3.2 Project Specifications Relating to the Standard Specifications and Other Additional Specifications**

1200	General Requirements and Provisions
1300	Establishment and General Obligations
1400	Housing, Offices & Laboratories
1500	Accommodation of Traffic
1700	Clearing and Grubbing
1800	Day works
2100	Drains
2200	Prefabricated Culvert Structure
2300	Concrete Kerbing, Concrete Channelling, Open Chutes
3100	Borrow materials
3300	Mass Earthworks
3400	Pavement layers of gravel
3500	Stabilisation
3800	Breaking up existing pavement layers
5200	Gabions
5400	Guardrails
5600	Road Signs
5700	Road Markings
5900	Finishing the Road and Road Reserve and treating old roads
7300	Concrete block paving
5900	Finishing the Road and Road Reserve and treating old roads
8100	Testing materials and workmanship

The standard specifications on which this contract is based are the **COLTO Standard Specifications for Road and Bridge Works for State Road Authorities 1998 edition**.

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 10396: 2003: : Implementing Preferential Construction Procurement Policies

SANS 1914-1 to 6 (2002) : Targeted Construction Procurement

SANS 1921 – 1 (2004) :Construction and Management Requirements for Works

Contracts Part 1: General Engineering and Construction Works and where accommodation of traffic is involved:

SANS 1921-2 (2004): Construction and Management Requirements for Works Contracts; and  
Part 2: Accommodation of Traffic on Public Roads Occupied by the contractor

## **ENGINEERING**

### **C3.2.1 Design services and activity matrix**

<b>Description</b>	<b>Responsibility</b>
Design of Works	Engineer
Concept, feasibility and overall process	Client
Basic Engineering and detail layouts to tender stage	Engineer
Final Design of Works	Engineer
Final Design to approved for construction stage	Client
Preparation of tender documentation & adverts	Engineer
Appointment of soil test / topographical surveyors	Client
Appointment of sub-contractors	Contractor
Supervision	Engineer
Preparation of as-built drawings	Contractor / Engineer
Completion certificate	Engineer / Client / Contractor

### **C3.2.2 Drawings**

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

The contractor shall be supplied with three complete paper copies of the construction drawings free of charge. The Contractor shall at his own expense produce there from all further paper prints required for the construction of the work.

At the completion of the Contract, the Contractor shall return to the Engineer all drawings, provided or made, during the contract period. Any information which the Contractor has control over and which is required by the Resident Engineer to complete the as built drawings shall be made available to the Resident Engineer before the completion certificate is issued.

Only written dimensions may be used. Dimensions are not to be scaled from drawings unless ordered by the Engineer. The Engineer will supply all figures / dimensions which are not shown on the drawings. The levels or dimensions given on the drawings are subject to confirmation on site. The Contractor shall submit all levels and dimensions to the Engineer for confirmation before he commences with any structural construction work. The Contractor shall also check all clearances which are given on the drawings and inform the Engineer of any conflicting dimensions.

Any destination names on road signs which may be indicated on the drawings are subject to confirmation by the Engineer before these signs are manufactured.

### **C3.3 PROCUREMENT**

The Tenderers notice is drawn to the fact that the awarding of this tender will be in terms of the Supply Chain Management Policy of the MAKHADO LOCAL MUNICIPALITY and The Standard Conditions of Tender as contained in Annexure F of the September 2005 edition of the CIDB Standard for Uniformity in Construction Procurement

### **C3.4 SUB-CONTRACTING**

No work may be sub-contracted to another party unless approval is given by the Engineer in writing. The Contractor is to submit to the Engineer in writing a request for appointment of a particular sub-contractor. Accompanying this request is to be the full detail of the sub-contractor, including:

- Previous experience
- Work which will be sub-contracted to him/her
- Approximate value of the work to be sub-contracted

Before the Engineer issues any certificate that includes any payment in respect of work done or goods supplied by any sub-contractor appointed in accordance with the provisions of Clause 6.10 of the General Conditions of Contract for Construction works (2015.3<sup>rd</sup> Edition), he shall be entitled to call upon the Contractor to furnish reasonable proof that all payments (less retention moneys) included in previous certificates in respect of the work or goods of such sub-contractors have been made or discharged by the Contractor, in default of which, unless the Contractor:

- ✓ Informs the Engineer in writing that he has reasonable cause for withholding or refusing such payment; and
- ✓ Submits to the Engineer reasonable proof that he has so informed such sub-contractor in writing.

### **C3.5 CONSTRUCTION**

#### **C3.5.2 Materials**

All materials shall comply with the requirements of the South African Bureau of Standards, and shall bear the official standardization mark. Where SABS standard does not exist for a certain material, or a material does not bear the official standardization mark, the Engineers approval of such material must be gained before use thereof.

### **C3.5.3 Construction Plant and Equipment**

All plant and equipment on site shall be in a good working order, and is to be in such a condition that it can achieve production rates which are typical of the industry standards.

Should any equipment, in the opinion of the Engineer, be substandard or breaks down frequently to such an extent that it affects the progress on the project, the Engineer may instruct the Contractor to replace such plant or equipment.

### **C 3.5.4 Existing Services**

The Contractor shall make himself acquainted with the position of all existing services before any excavation or other work likely to affect the existing services is commenced.

The Contractor will be held responsible for any damage to known existing services caused by or arising out of his operations and any damage shall be made good at his own expense. Damage to unknown services shall be repaired as soon as possible and liability shall be determined on site when such damage should occur.

Prior to commencing construction activities in a particular area, the Contractor shall also diligently enquire of local landowners as to whether there are any other known services which have not been shown on the drawings but which may be affected by the construction activities in that area, and any such services shall be brought to the attention of the Engineer immediately.

### **C3.5.5 Site Establishment**

- Source of Water Supply

The Contractor is to arrange with the Local Authority for water and be responsible for the costs of water for construction purposes.

- Sources of power supply

The Contractor is to arrange with the Local Authority for a connection. The Contractor will be responsible for the costs of electricity consumed as well as the connection costs.

- Contractor's camp site and depot

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

The chosen site shall be subject to the approval of the Engineer, the Makhado Municipality and the Project Liaison Committee (PLC). Possible locations for a campsite shall be pointed out at the Site inspection. The Contractor shall conform to all local authority, environmental and industrial regulations.

The Contractor shall make his own arrangements concerning the supply of electrical power and all other services. No direct payment shall be made for the provision of electrical and other services. The cost thereof shall be deemed to be included in the rates and amounts tendered for the various items of work for which these services are required.

The Contractor shall provide security watchmen for the contract as he deems fit at no extra cost for the Employer. The Contractor must ensure that all his employees as well as the employees of his subcontractors are able to identify themselves as members of the construction team.

#### Accommodation of Employees

No employees except for security guards will be allowed to sleep or be accommodated on the site in urban areas.

No housing is available for the Contractor's employees and the Contractor shall make his own arrangements to house his employees and to transport them to site.

No informal housing or squatting will be allowed.

The Contractor shall provide the necessary ablution facilities at his camp site and the site of the works for the use of his employees. Chemical toilets only will be allowed where temporary facilities have to be provided.

The Contractor shall make arrangement of the Contractors camp to the Contractor during the site inspection.

- Sanitary facilities

The Contractor is to provide the necessary sanitary facilities at his camp, all of which will be governed by the requirements of the Local Authority. The contractor shall pay all sanitary fees and charges due.

- Temporary offices

The Contractor is required to provide a specific office space for the Engineers, for the Engineer to perform administrative functions on an ad hoc basis.

Neither housing nor shelters will be provided for the contractor's employees, and the Contractor shall make his own arrangements to house his employees and transport them to the Site.

- Laboratory facilities

The use of commercial laboratories will be allowed, but the laboratory to be used is subject to the approval of the Engineer.

- Name Boards

One name board shall be provided in positions as ordered by the Engineer. The Engineer will provide the lettering required once the tender is awarded.

- Survey assistant and equipment

The Contractor will however make 2 survey assistants available to the Engineer as and when required, as well as the odolite and/or level plus accessories.

### **C3.5.6 Site Usage**

- Ground and access to the works

The Contractor shall where necessary on or adjacent to roads which carry traffic, provide all the necessary barricades and signs in accordance with the stipulations of the South African Road Traffic Signs Manual, and in strict accordance with the requirements of the Protective Services of the MAKHADO LOCAL MUNICIPALITY.

The Contractor shall further ensure that all public roads that are used for access to the site are kept free of debris at all times. The Contractor shall also take adequate measures to ensure that dust is kept to an acceptable level. The term acceptable is to be deemed as acceptable to the Engineer.

- Care, damage and protection

The Contractor shall at his own cost make full provision for all watching and lighting necessary for the protection of all persons, animals, vehicles, etc., from injury by reason of the Works. He shall provide ample warning signs, guard rails, etc., around open excavations, stacks of materials, excavated material, debris or the like, and he shall be held liable for all claims made upon himself or upon the Employer by reason of his neglect of all such precautions and provisions.

During the periods of construction of the Works and the repair of defects, the Contractor shall, at his own cost, to the satisfaction of the Engineer and the relevant Authority, take sufficient and adequate measures to avoid interrupting the use of all roads, footpaths, water courses, drains, pipes, telephones, electric wires and cables, premises, places and works, public or private, which may in any way be interfered with by the operations; and shall also afterwards permanently restore all structures and everything which may have been temporarily displaced or otherwise interfered with, all to the satisfaction of the Engineer and the relevant Authority, without extra charge beyond the Contract price.

▪ Survey beacons

The Contractor shall take care to safeguard any permanent survey beacons such as erf boundary pegs and reference beacons. Should the Contractor disturb any such pegs and beacons, he shall have them replaced at his own cost by a registered Land Surveyor. The Contractor is to provide the Engineer with written confirmation from the Land Surveyor that he has replaced the relevant beacons.

The Contractor's attention is drawn to article 35(i) of the Land Surveying Act No. 9 of 1927 (as amended) in this regard.

▪ Blasting

As the construction takes place within a built-up area, extreme care is to be taken during any blasting operations. No blasting shall be permitted without prior written consent from the Engineer. Written as well as verbal notice will be given to all house owners in the affected area 24 hours prior to the blast being set off, and the contractor is to do a survey of all the houses (internal and external) in the area prior to blasting.

A full daily report of all blasting operations (in duplicate) is to be completed by the Contractor.

This report shall inter alia contain the following information:

- Date and time of each blast
- Number of holes
- Charge per hole
- Use of relays, etc.

This report is to be submitted to the Engineer on a weekly basis, and is to be countersigned by the Engineer.

The contractor is to be noted that he is not to use or permit any person to use an explosive powered tool, unless—

- (a) it is provided with a protective guard around the muzzle end, which effectively confines any flying fragments or particles; and
- (b) the firing mechanism is so designed that the explosive powered tool will not function unless—
  - (i) it is held against the surface with a force of at least twice its weight; and
  - (ii) the angle of inclination of the barrel to the work surface is not more than 15 degrees from a right angle:

- Protection of existing vegetation

Before any tree is cut down and removed from the site, the Contractor shall confirm the necessity of such action with the Engineer or his Representative.

- Access to individual erven

Access to all public and private property must be maintained at all times. Where excavations cross the access point to any property, the Contractor is to make sure that access be properly done for vehicles to pass.

The Engineer must approve the method of providing access before any excavation commences.

- Use of construction vehicles and equipment

The contractor shall ensure that all construction vehicles and mobile plants—

- (a) are of an acceptable design and construction;
- (b) are maintained in a good working order;
- (c) are used in accordance with their design and the intention for which they were designed, having due regard to safety and health;
- (d) are operated by workers who-
  - (i) have received appropriate training and been certified competent to operate such machinery; and
  - (ii) are physically and psychologically fit to operate such construction vehicles and mobile plant by being in possession of a medical certificate of fitness;
- (e) arrangements to guard against the dangers relating to the movement of vehicles and plant, in order to ensure their continued safe operation;
- (f) are prevented from falling into excavations, water or any other area lower than the working surface by installing adequate edge protection, which may include guardrails and crash barriers;
- (g) where appropriate, are fitted with structures designed to protect the operator from falling material or from being crushed should the vehicle or mobile plant overturn;
- (h) are equipped with an electrically operated acoustic signalling device and a reversing alarm; and
- (i) are on a daily basis inspected prior to use, by a competent person who has been appointed in writing and the findings of such inspection is recorded in a register.
- (j) no person rides or be required or permitted to ride on any construction vehicle or mobile plant otherwise than in a safe place provided thereon for that purpose;

- (k) every construction site is organised in such a way that, as far as is reasonably practicable, pedestrians and vehicles can move safely and without risks to health;
- (l) the traffic routes are suitable for the persons using them, sufficient in number, in suitable positions and of sufficient size;
- (m) every traffic route is, where necessary indicated by suitable signs for reasons of health or safety;
- (n) bulldozers, scrapers, loaders, and other similar mobile plant are, when being repaired or when not in use, fully lowered or blocked with controls in a neutral position, motors stopped and brakes set;
- (o) whenever visibility conditions warrant additional lighting, all mobile plant are equipped with at least two headlights and two taillights when in operation;
- (p) when workers are working on or adjacent to public roads, reflective indicators are provided and worn by the workers.

### **3.6 MANAGEMENT**

#### **C3.6.1 Management of the Works**

- Planning and programme

The Contractor shall deliver to the Engineer within **14** days, calculated from the commencement date, a realistic programme showing the order of procedure, the duration of activities making up the programme and method which he proposes to use in carrying out the Works in order to meet the due completion date for this project.

The tenderer is to note that the penalty for failing to complete the works is **R 10 000.00** per day.

- Setting out of the works

Generally, the positions of the works have been fixed on the plans according to the existing stand boundaries. The Engineer is to approve all setting out prior to commencement of excavation.

- Excavation of works & safety

The contractor shall ensure that all excavation work is carried out under the supervision of a competent person who is been appointed in writing. The Contractor will evaluate, as far as is reasonably practicable, the stability of the ground before excavation works begin and he/she shall not permit any person to work in an excavation which has not been adequately shored or braced.

The Contractor will cause convenient and safe means of access to every excavation area in which person are required to work and such access hall not be further than 6m from the point where any worker within the excavation is working.

The Contractor must ascertain as far as is reasonably practicable the location and nature of electricity, water, gas or other similar services which may in any way be affected by the work to be performed, and shall before the commencement of excavation work that may affect any such service, take the steps that may be necessary to render the circumstances safe for all persons involved;

The Principal Contractor shall cause every excavation which is accessible to the public or which is adjacent to public roads or thoroughfares, or whereby the safety of persons may be endangered, to be:

- (i) adequately protected by a barrier or fence of at least one metre in height and as close to the excavation as is practicable; and
- (ii) provided with warning illuminants or any other clearly visible boundary indicators at night or when visibility is poor;

The Principal Contractor shall cause warning signs to be positioned next to an excavation within which persons are working or carrying out inspections or tests.

- Inspection by engineer

**No stage of construction shall be proceeded with until the Engineer or his representative has examined and approved the previous stage.** If any work is covered or hidden from view before the Engineer has inspected same, the Contractor shall at his own cost open the covered work for inspection. The Contractor shall also be responsible for making good any work damaged by such uncovering.

- Employment of local labour

It is a specific criterion of this project that should as far as possible adhere to EPWP principles, and to meet these principles the following procedures will be followed:

All labour is to be sourced from the MAKHADO Local Municipal area of jurisdiction and the Contractor may only bring in key personnel from outside this area. The fixed rate for the appointment of local labour will be R 180 per day. This will be payable by the Contractor on monthly basis.

Key personnel would typically include the Contracts Manager, Site Agent, and Supervisor for each discipline, and operators of plant where the operator must be seated.

A Monthly labour report on all local labour i.e. payments and labour days should be submitted to the Engineer at the end of each month in order for the Engineer to submit a report to the Employer.

None of the Works shall be executed except between sunrise and sunset on Monday to Saturday, inclusive, of any week, and none of the Works shall be executed on any special non-working days stated in the Contract Data, unless:

- ✓ The Engineer's permission in writing is obtained, subject to such conditions as may be laid down by the Engineer; or
- ✓ Provision is specifically made for it in the Contract; or
- ✓ Work is unavoidable or necessary for the saving of life or property or for the safety of the Works.

▪ Site Meetings

Regular meetings will be held between all relevant parties to establish the progress and / or delays and problems that might occur on site. Any problems of delays will be addresses accordingly and the Contractor will receive proper instructions with reference to this matter.

▪ Communication

The Engineer's representative on this project will be: **Mr RR Ravele**

Contact No: **015 291 1020**

The contact person for the Employer is: **Ms L Thulare**

Contact No: **015 519 3109**

▪ Daily Records

Daily records of resources (equipment and people employed) must be kept and must be available on site at all times. These records will include i.e. site instruction book, site diary, site visit register, contractual documentation and minutes of all project meetings. Labour information should be kept updated at all times.

▪ Compliance with applicable laws

The Contractor shall, in performance of the Contract, comply with all applicable laws, regulations and statutory provisions and agreements, and shall in particular, on the request of the Engineer, provide proof that he has complied therewith with regard to amongst others:

- ✓ Wages and conditions of work; and
- ✓ Safety

▪ Payment Certificates

As consideration for the construction, completion and defects correction of the Works, the Employer shall pay the Contractor in terms of the provisions of the Contract.

▪ Clearance of site

On completion of the Works, the Contractor shall clear away and remove from the site all Construction Equipment, surplus materials, rubbish and temporary works of every kind and leave the whole of the site and the works clean and in a safe condition. All streams and watercourses (where applicable) shall be cleaned and restored to the condition as at the commencement of the Works. If the Contractor does not, within a reasonable time, comply with this requirement, the Employer may have the site cleared and recover the cost thereof from the Contractor.

▪ Termination of Contract

If application is made for the sequestration of the Contractor's estate, or if the Contractor publishes a notice of surrender of his estate or presents a petition for the acceptance of the surrender of his estate as insolvent, or makes a compromise with his creditors, or assigns in favour of his creditors, or agrees to carry out the Contract under the supervision of a committee representing his creditors, or (being a company) goes into liquidation, whether provisionally or finally (other than a voluntary liquidation for the purposes of amalgamation or reconstruction), or if the contractor assigns the contract without having first obtained the Employer's consent in writing, or if execution is levied on his goods or if the Engineer certifies reference to this Clause, that in his opinion the Contractor:

- ✓ Has abandoned the contract; or
- ✓ Without reasonable excuse has failed to commence the Works, or has suspended the progress of the Works for fourteen (14) days after receiving from the Engineer written notice to proceed or
- ✓ Has failed to proceed with the Works with due diligence; or
- ✓ Has failed to remove materials from the site or to pull down and replace work within fourteen (14) days after receiving from the Engineer written notice that the said materials or work have been condemned and rejected by the Engineer in terms of these conditions; or
- ✓ Is not executing the Works in accordance with the Contract, or is neglecting to carry out his obligations under the Contract; or
- ✓ Has, to the detriment of good workmanship or in defiance of the Engineer's instruction to the contrary, sublet any part of the Contract; or
- ✓ Has assigned the Contract or any part thereof without the Employer's consent in writing; or
- ✓ The contractor or anyone on his behalf or in his employ would pay, offer or offer as payment to any person in the employ of the Employer a gratuity or reward or commission; or

- ✓ The contractor furnished inaccurate information in the Schedules forming part of this Contract.

Then the Employer may, after giving fourteen (14) days' notice in writing to the Contractor, terminate the Contract and order the Contractor to vacate the Site and to hand it over to the Employer, and the Employer may then enter upon the site and the Works and expel the Contractor there from without thereby affecting the rights and powers conferred on the Employer of the Engineer by the Contract, and the Employer may himself complete the Works or may employ another contractor to complete the Works, and the Employer or such other contractor may use for such completion so much of the construction equipment, temporary works and materials bought onto the site by the Contractor as the Employer may think proper, and the Employer may at any time sell any of the said construction equipment, temporary works and unused materials and apply the proceeds of sale toward payment of any sums that may be due or become due to the Employer by the Contractor under the Contract. In such circumstances the Contractor shall forthwith vacate the site and shall not be entitled to remain on the site on the grounds that he is entitled to do so on a right of retention until amounts due to him have been paid, neither will the contractor be entitled to any further payments of this Contract.

### **C3.7 HEALTH AND SAFETY**

- **Health & Safety Issues**

All work is to be carried out in accordance with the Occupational Health and Safety Act and Regulations (Act 85 of 1993) (a copy of which must be kept on site) and its regulations which shall include, but shall not be limited to the following:

**Construction Regulations, 2014,  
General Safety Regulations,  
General Administrative Regulations, 1996,  
Driven Machinery Regulations, 1988,  
Electrical Installation Regulations, 1992,  
Electrical Machinery Regulations, 1988,  
Environmental Regulations for Workplaces, 1987, and Facilities Regulations, 1990.  
Any New Regulation amended due to Covid19.**

., The construction regulation will be applied vigorously on the project.

The Contractor to be appointed must have made provision for the cost of health and safety measures during the construction process. The contractor must have the necessary skills, competencies and resources to carry out the work safely. A proper Safety Plan is to be submitted by the Contractor and a copy thereof is to be made available to all applicable appointed labourers and permanent workers on this project.

The Contractor is to ensure that the legal compliance for the Health and Safety issues are in place. Audits will be carried out to ensure that the Contractor is registered and in good standing

with the Workmen's Compensation fund and that the Contractor has affected insurance indemnifying the Employer against penalties levied upon the Employer due to the acts of omissions of the Contractor in failing to comply with the provisions of the OHS regulations 2014. A compliance audit will also be carried out to ensure that the Contractor has appointed a full-time competent person in writing to deal with the issues of the OHS and that a risk assessment has been conducted and a copy of the Safety plan is on site before any work commences.

Operational audits will be carried out on the following important issues:

- ✓ That the Safety Plan is on site at all times
- ✓ That the Contractor's Safety file is on site at all times
- ✓ That the Safety Officer is on site at all times
- ✓ That Safety meetings are conducted as per the Safety Plan
- ✓ That employees are working under safe conditions
- ✓ That the public is not placed in danger
- ✓ That there is no harm to the environment

▪ Accommodation of traffic

It is expected of the Contractor to ensure that the free flow of traffic is possible throughout the construction period.

The Contractor is to provide all necessary barricades, signs and lighting in accordance with the stipulations of the South African Road Signs Traffic Manual, and the Protective Services of the MAKHADO LOCAL MUNICIPALITY. All work is to be to the satisfaction of the Engineer.

▪ Reporting of accidents

In addition to any statutory regulations, the Contractor shall, as soon as practicable, report to the Engineer every occurrence on the Works or the site causing damage to property of injury or death of persons. If required by the Engineer, the Contractor will submit a report in writing to the Engineer within 48 hours of such requirement setting out full details of the occurrence. The Engineer shall have the right to make any enquiries either on the site or elsewhere as to the cause and results any such occurrence and the Contractor shall make available to the Engineer the necessary facilities for carrying out such enquiries.

## **PROJECT SPECIFICATIONS**

### **PART B: MATTERS RELATING TO THE STANDARD SPECIFICATIONS**

#### **B1 PROJECT SPECIFICATIONS REFERRING TO THE STANDARD SPECIFICATIONS AND ADDITIONAL SPECIFICATIONS**

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

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

**PROVISIONAL SUMS**

Provisional Sums are allowed in the Schedule of Quantities for execution on instruction by the Engineer only, and include:

**B12.01 CLO**

The sum shall make provision for the monthly salary of R 6000 per month of the community liaison officer as elected/appointed by the Municipality for the full duration of the Contract

**B12.02. Student training**

The sum shall include a monthly allowance of R6,500 per month for subsistence, travel and other cost for a student elected by the Municipality to undergo experiential training, for the full duration of the Contract

**B12.03. Community Participation**

The sum shall make provisions for project steering committee members, for their attendance at meetings, in compensation per person per meeting.

**B12.04. Excavations**

This item includes all excavations that will be done when exposing realigning and replacing existing services

**B12.05. Backfilling**

All backfilling that will be done on item B12.04 excavations

**B12.06. Protection, removal, realignment and replacement of services as ordered by the engineer**

This includes all services that will be encountered on site.

**MEASUREMENT AND PAYMENT**

Item	Unit
------	------

B12.01 Provision for a Community Liaison Officer

(a)	Community Liaison Officer	Prov Sum
(b)	Contractor's handling costs, profits and all other charges in respect of subitem B12.01 (a)	%

B12.02. Remuneration of Student Training:

(a)	Student Training	Prov Sum
(b)	Contractor's handling costs, profits and all other charges in respect of subitem B12.02 (a)	%

B12.03. Community Participation

(a)	Costs of community participation and PLC	Prov Sum
(b)	Contractor's handling costs, profits and all other charges in respect of subitem B12.03 (a)	%

B12.04. Excavation

Excavating material within the following depth ranges below ground level for exposing of/or searching for services

(a)	0-2m	
	(i) Soft material	m <sup>3</sup>
	(ii) Hard material	m <sup>3</sup>

B12.05. Backfilling

(a)	Using the excavated material	m <sup>3</sup>
(b)	Using imported selected fill	m <sup>3</sup>

B12.06 Protection, removal, realignment and replacement of services as ordered by the engineer

(a)	Utility services	
	(i) The removal, protection and replacement of services.	Prov Sum
	(ii) Handling cost and profit in respect of item B12.07(I)	%

B12.07 Land Acquisition for stormwater crossings

Prov Sum

It is to be noted that all items above will be done as per the engineers instruction

**SECTION 1300: CONTRACTOR'S ESTABLISHMENT ON SITE AND GENERAL OBLIGATIONS**

**B13.01. Contractor's general obligations**

The combined total tendered for subitems (a), (b) and (c ) should not exceed 15% of the tender sum (excluding the contingent sum, CPA and VAT). Refer to form H ' CONTRACTOR'S ESTABLISHMENT ON SITE)

**MEASUREMENT AND PAYMENT**

Item	Unit
------	------

### **B13.01. Contractor's general obligations**

(a) Fixed obligations	L/Sum
(b) Value-related obligations	L/Sum
(c) Time-related obligations	Months

## **SECTION 1400: HOUSING, OFFICES AND LABORATORIES FOR THE ENGINEER'S SITE PERSONNEL**

### **B14.03. Provision of cellular phone**

Contractor to provide 1 cellular phone for the duration of the project. Cost will include airtime and data bundles.

### **MEASUREMENT AND PAYMENT**

Item	Unit
B14.03. 1. Provision of cellular phones	No
2. Provision sum for the costs of cellular calls and other charges	Prov sum
3. Handling costs and profit in respect of sub-item B14.03 (b) (ix) 2	%

Contractor to provide monthly cellular costs as per the amount allocated on the bill

## **SECTION 1500: ACCOMMODATION OF TRAFFIC**

### **B 15.03. Temporary traffic control facilities**

*ADD THE FOLLOWING AFTER THE FIRST PARAGRAPH:*

"All temporary road signs, devices, sequences, layouts and spacings shall comply with the requirements of the Road Traffic Act, 1996 (Act 93 of 1996), the National Road Traffic Regulations, 2000, the South African Road Traffic Signs Manual, the requirements of the relevant road authority and the drawings. All temporary traffic control facilities shall also comply with the guidelines set in SA Road Traffic Signs Manual, Volume 2, Chapter 13: Roadworks Signing, (SARTSM, June 1999, obtainable from the Government Printer, Pretoria)".

(c) Channelization devices and barricades

*ADD THE FOLLOWING:*

"Drums shall not be used as channelization devices.

TW 401 and TW 402 delineators shall comply with the following requirements:

(i) It shall be manufactured from a flexible material and shall comply with SABS 1555. The blade portion of the delineator shall be positively affixed to a base unit which in turn shall be stable on its own or be stabilized by means of sandbags when used on the road.

(ii) The blade shall be retro-reflectorized, with class I yellow sheeting on the side facing oncoming traffic.

(iii) It shall be nominally 1 000 mm high x 250 mm wide and the bottom edge of the delineator shall not be more than 200 mm above the road surface.

(iv) It shall be subject to the approval of the Engineer.

The maximum spacing between centres of delineators shall be as shown on the Drawings or as directed by the Engineer."

*ADD THE FOLLOWING CLAUSE:*

#### **"B 1518 RETRO-REFLECTIVE MATERIAL**

Retro-reflective material for temporary signs shall comply with the requirements of SABS 1519-1 for weathered material. Tests shall be carried out with a field retro-reflectometer and the testing procedure and classification are described in Clause B 8118. The values of the Coefficient of Retro-Reflection shall be at least 60% of the values indicated in Table B8118/1."

Contractor to submit traffic accommodation layout with all signs required prior procurement of road signs.

#### **B15.04. Relocation of traffic-control facility**

Relocation of traffic-control facility will have to be requested from the RE which will be approved based on its necessity.

#### **MEASUREMENT AND PAYMENT**

All payment for item B15.03 & 15.04 will be paid upon approval of traffic accommodation.

#### **SECTION 1800: DAYWORK SCHEDULE**

Note: This is a new section added to the Standard Specifications.

*ADD THE FOLLOWING:*

#### **B1801 SCOPE**

This section covers the listing of daywork items for use in determining payment for work which cannot be quantified in specific pay item "units" in the bill of quantities or work ordered by the engineer during the construction period which was not foreseen at tender stage for which no applicable rate exists in the schedule or for work of a special or different character warranting special payment as decided by the engineer.

#### **B1802 ORDERING OF DAYWORK**

No daywork shall be undertaken unless specific written authorisation is obtained from the engineer.

#### **B1803 MEASUREMENT AND PAYMENT**

The engineer may order the following daywork items:

ITEM	DESCRIPTION	UNIT
B18.01	Labourers:	
	(i) Unskilled	Hour (h)
	(ii) Semi-skilled	Hour (h)
	(iii) Skilled	Hour (h)
B18.02	Foreman	Hour (h)
B18.03	Tipper trucks:	
	(i) 3 – 5 ton	Hour (h)
	(ii) 5,1 – 10 ton	Hour (h)
B18.04	Loader (0,5m <sup>3</sup> )	Hour (h)
B18.05	Grader (CAT 140G	Hour (h)
B18.06	or similar)	Hour (h)
B18.07	LDV	
	Compaction Rollers:	Hour(h)
	(i) Vibrator roller	Hour (h)
	(ii) Tamping roller	Hour(h)
	(iii) Grid roller	Hour(h)
B18.08	(iv) Pneumatic	
	roller	Hour(h)
	Hand Controlled	Hour(h)
	Compactors	Hour(h)
	(i) Pedestrian	Hour(h)
B18.09	roller (Bomag BW90)	Hour(h)
	(ii) Vibratory plate	
	(iii) Rammers	
	Water truck (min	
	10000 l)	
B18.09	Dozer (D7 or similar)	Hour(h)

The unit of measurement shall be the actual number of hours worked by labourers or foremen or an item of plant.

The tendered rates shall include full compensation for all cost items including overheads, head-office expenses and profits as described in subclause 40(3) of the general conditions of contract and shall be subject to contract price adjustment as provided for in the contract.

The mark-ups on daywork items in accordance with the Appendix to the Tender shall not be applicable on daywork items listed in the bill of quantities in terms of the above specifications. In the event of new daywork rates being requested for items not appearing in the bill of quantities, then the provisions of the general conditions of contract and the Appendix to the Tender shall apply.

Prior to the commencement of any work by the labourers described under item B18.01, the contractor must obtain written consent from the engineer regarding the classification and composition of all labourers in terms of “unskilled” and “skilled” labourers required for the work as ordered by the engineer.”

## **PROJECT SPECIFICATIONS**

### **PART C      PROVISION OF THE TEMPORARY WORKFORCE**

#### **CONTENTS**

C 01	SCOPE
C 02	INTERPRETATIONS
C 03	PERMITTED SOURCES OF TEMPORARY WORKERS
C 04	EMPLOYMENT RECORDS TO BE PROVIDED
C 05	VARIATIONS IN WORKER PRODUCTION RATES
C 06	TRAINING OF THE TEMPORARY WORKFORCE
C 07	RECRUITMENT AND SELECTION PROCEDURES
C 08	TERMS AND CONDITIONS PERTAINING TO THE EMPLOYMENT OF THE TEMPORARY WORKFORCE
C 09	LABOUR RELATIONS AND WORKER GRIEVANCE PROCEDURES
C 10	THE SUBCONTRACTORS' WORKFORCES
C 11	MEASUREMENT AND PAYMENT

#### **C 01 SCOPE**

This Specification covers the provisions and requirements relating to the provision of the temporary workforce.

#### **C 02 INTERPRETATIONS**

##### **C 02.01 Supporting documents**

The Tender Rules, Conditions of Contract, Standard and Project Specifications, Drawings and statutory minimum requirements relating to the employment and remuneration of labour shall *inter alia* be read in conjunction with this Specification.

## **C 02.02 Definitions and abbreviations**

For the purposes of this specification, the definitions given in the Conditions of Contract, the Standard Specifications and the Project Specifications, together with the following additional definitions shall, unless the context dictates otherwise, apply:

(a) "Key Personnel" means all contracts managers, site agents, materials and survey technicians, trainers, supervisors, foremen, skilled plant operators, artisans and the like, and all other personnel in the permanent employ of the Contractor or Subcontractor who possess special skills and/or who play key roles in the Contractor's or Subcontractor's operation

(b) "Project Committee" means a committee consisting of the Employer, the Engineer, the Contractor, (or their nominated representatives) as well as representatives of the temporary workforce, which is convened from time to time at the discretion of the Engineer, for the purposes of acting as an avenue for effective communication and liaison between all the parties referred to, in all matters pertaining to the Contract

(c) "Subcontractor" means any person or group of persons in association, or firm, or body corporate (whether formally constituted or otherwise) not being the Contractor, to whom specific portions or aspects of the Works are sublet or subcontracted by the Contractor in accordance with the provisions of the Contract

(d) "Worker" for the purposes of this Specification means any person, not being one of the Contractor's key personnel, nor any key personnel of any Subcontractor, who is engaged by the Contractor, a Subcontractor or the Employer to participate in the execution of any part of the Contract Works and shall include unskilled labour, semi-skilled and skilled labour, clerical workers and the like

(e) "Workforce" means the aggregate body comprising all workers and shall, unless the context dictates otherwise, include the workforces of the Contractor and all Subcontractors

(f) "Liaison Officer" means a representative from the temporary workforce, duly elected by them, to act on their behalf and through whom all matters pertaining to the temporary workforce can be channelized.

## **C 02.03 Status**

Where any provisions or requirements of this Specification are in conflict with anything elsewhere set out in the Contract, the provisions and requirements of this Specification shall take precedence and prevail.

## **C 03 PERMITTED SOURCES OF TEMPORARY WORKERS**

The Contractor shall as far as possible make optimum use of the human resources outside his own workforce and the workforces of all subcontractors. The temporary workforce which is to be used in the execution of the Works in terms of Part A may consist of the workers of various communities, and shall not be bound to one particular community.

## **C 04 EMPLOYMENT RECORDS TO BE PROVIDED**

(a) The Contractor shall maintain accurate and comprehensive records of all workers engaged on the Contract and shall provide the Engineer at monthly intervals from the commencement of the Contract, with interim records substantiating the actual numbers of employment opportunities which have been generated to date and the amounts actually paid in respect thereof. Such interim records shall be in a format approved by the Engineer.

(b) The Contractor shall, on completion of the Contract, and as a pre-requisite event to the release of any retention money in terms of the Conditions of Contract, provide the Engineer with copies of the Terms of Employment as well as independently audited documentary evidence of the total number of temporary and permanent employment opportunities actually generated during the Contract.

#### **C 05 VARIATIONS IN WORKER PRODUCTION RATES**

Notwithstanding anything to the contrary as may be stated in or inferred from any other provision of this Contract, the Contractor shall not be entitled to any additional payment or compensation whatever, in respect of any differences as may result between the production rates actually achieved by workers in the course of the execution of the Contract Works and those production rates on which he has based his tender.

#### **C 06 TRAINING OF THE TEMPORARY WORKFORCE**

- (a) Selected members of the workforce are to be provided with structured training in accordance with the provisions of Part D.
- (b) The Contractor shall make all necessary allowances in his programme of work to accommodate and facilitate the delivery of such structured training and shall comply fully with the requirements of Part D.
- (c) The provision of structured training as described in Part D shall not relieve the Contractor of any of his obligations in terms of the Conditions of Contract and the Contractor shall remain fully liable for the provision, at his own cost, of all training of the workforce, additional to that as provided for in Part D, as may be necessary to achieve the execution and completion of the works strictly in accordance with the provisions of the Contract.

#### **C 08 TERMS AND CONDITIONS PERTAINING TO THE EMPLOYMENT OF THE TEMPORARY WORKFORCE**

**C 08.01** All temporary workers engaged in accordance with the provisions of Part A of the Project Specifications, shall be employed on the terms and conditions of employment as are consistent with those as set out in this Contract. The Contractor shall implement and adhere strictly to such terms and conditions relating to the employment of the temporary workforce, and subject only to the provisions of this Contract, shall not employ any temporary worker on terms and conditions which are less favourable to the worker or inconsistent with the standards and norms generally applicable to temporary workers in the Civil Engineering Industry and applicable to the particular area.

#### **C 09 LABOUR RELATIONS AND WORKER GRIEVANCE PROCEDURES**

**C 09.01** The Contractor, as the Employer of the workforce, shall be fully responsible for the establishment and maintenance at his own cost, of satisfactory labour relations on site and the resolution of all grievances of temporary workers as may occur.

**C 09.02** The Contractor shall at all times adhere to the accepted norms and standards of labour relations prevailing generally in the Civil Engineering Construction Industry and shall conduct himself in a fair and reasonable manner, within the constraints as may be imposed upon him by the terms of the Contract.

**C 09.03** In the event of any temporary worker engaged by the Contractor in terms of the Contract, being aggrieved with regard to his Terms of Employment, working conditions and training, he shall have the right, at his discretion, to be supported in any inquiry or disciplinary hearing or investigation instituted by the Contractor in terms of Subclause C 09.02 above, by one member of the temporary workforce and one member of the Project Committee, which persons shall be nominated by the worker.

**C 09.04** In the event of any grievance not being satisfactorily resolved through the application of normal dispute resolution procedures in accordance with Subclauses C 09.02 and C 09.03, then either the Contractor or the worker concerned may require that the matter be referred to the Project Committee for further consideration, with a view to facilitate the resolution thereof.

#### **C 10 THE SUBCONTRACTORS' WORKFORCES**

**C 10.01** The provisions of this Part C shall apply *mutatis mutandis* to the workforces employed by all subcontractors engaged by the Contractor and the Contractor shall be fully responsible for ensuring, at his own cost, that the terms of every subcontract agreement entered into are such as to facilitate the application of these provisions in respect of the workforces of all subcontractors.

**C 10.02** The Contractor shall at his own cost and to the extent necessary, assist and monitor all subcontractors in the application of the provisions of this Specification, and shall, in terms of the Conditions of Contract, remain fully liable in respect of the acts, omissions and neglects of all subcontractors, in respect of the application of the provisions of this Specification.

#### **C 11 MEASUREMENT AND PAYMENT**

The Contractor will not be separately reimbursed or compensated in respect of the provision of the workforce and creation of temporary employment opportunities and all the Contractor's costs associated with compliance with the provisions of this part of the Project Specifications shall, except to the extent provided for in Part D as relevant, be deemed to be included in the rates tendered for the various items of work listed in the Schedule of Quantities.

### **C3.4: OHS 1993 SAFETY SPECIFICATION**

#### **C3.4 REFERENCES TO THE SCOPE OF WORKS IN TERMS OF THE OCCUPATIONAL HEALTH AND SAFETY ACT AND REGULATIONS: HEALTH AND SAFETY SPECIFICATION**

##### **1. SCOPE**

## **1.1 Scope of Specification**

This specification covers the principles, duties, responsibilities, liabilities, and requirements applicable in respect of health and safety in the work place on construction work.

This document constitutes the Employers' Health and Safety Specification as defined in the Construction Regulations, 2014 of the Occupational Health and Safety Act (Act 85 of 1993).

This specification applies to tunnelling although the minimum requirements for tunnelling are contained in the Mines Health and Safety Act. This specification however does not apply to underground construction at this point in time as covered by the Mines Health and Safety Act, 1996 (Act 29 of 1996) as amended.

## **1.2 Philosophy**

Some of the terms and requirements of the Occupational Health and Safety Act and its Regulations may be novel to Contractors. This specification has therefore been prepared as an instructive guideline without being prescriptive, constraining the competitive advantage or interfering with the legal obligations of the responding parties.

The Health and Safety Plan required in terms of this specification may also be novel to Contractors. This specification has therefore been prepared in such a way to allow Contractors to employ the services of specialist consultants for the preparation and implementation of the same during the construction of the Works.

Health and safety can only be assured on construction works if all stakeholders buy into the Health and Safety plan and when the health and safety of all is an integrated line accountability of all management staff and workers on site. The management systems that are provided for in this specification is to enable the performance statistics of health and safety to be regularly captured, the intention of these systems is not to achieve health and safety by policing the conduct of the Contractor's employees.

In addition to ensuring health and safety, the intention of the management system is rather to commercially exploit the benefit of doing things right the first time that goes hand in hand with top health and safety performance. Accidents and injuries never pay. The loss of production and the cost of injuries, however, relatively infrequent they may be, far outweigh the effort required to maintain top health and safety on construction.

The specification accordingly provides for:

- a) Independent periodic audits to ensure an unbiased pursuit of health and safety,
- b) Follow-up audits to ensure the implementation of prescribed remedial actions,
- c) The review of the efficiency and effectiveness of the Contractor's Health and Safety Plan,
- d) The preparation of regular reports of inspections and accidents to enable the tracking of changes in health and safety performance,
- e) The monitoring of conditions on a continuously pro-active basis to ensure that hazards are without delay identified, assessed and remedied should it threaten the health and safety of persons and property,
- f) Ad hoc inspections to ensure that health and safety is pursued with dedication and not out of intimidation or coercion, and
- g) Development of all aspects of the Contractor's Health and Safety Plan.

The fundamental intention of this specification is that the preservation of health and safety will become a core value of all involved during the construction of the Works.

This Specification does not require the preparation of an unduly extensive or complex risk assessment. The Contractor should rather prepare a risk assessment which takes the

size of the project, the size of the Contractor's organization, the conditions of the workplace and the nature, complexity and significance of the hazards likely to be encountered during the execution of the Works into account.

## **2. INTERPRETATIONS**

### **2.1 Supporting specifications**

Where this specification is required for a project, the following specifications (as amended) shall, inter alia, form part of the contract document:

- a) Occupational Health and Safety Act, 1993, and its regulations which shall include, but shall not be limited to the following:

**Construction Regulations, 2014,  
General Safety Regulations,  
General Administrative Regulations, 1996,  
Driven Machinery Regulations, 1988,  
Electrical Installation Regulations, 1992,  
Electrical Machinery Regulations, 1988,  
Environmental Regulations for Workplaces, 1987, and Facilities Regulations, 1990.  
Any New Regulation amended due to Covid19.**

- b) Clauses 4.5.2, 4.6, 4.7 and 4.8 of the Contract Data

### **2.2 Application**

This specification contains clauses that are applicable to the occupational health and safety requirements of the Occupational Health and Safety Act, 1993 and its Regulations, in particular the Construction Regulations, 2014 promulgated on 7 February 2014 in terms of Section 43 of the Act.

### **2.3 Definitions**

In the Contract (as defined in clause 1. (1)(e) Of the Conditions of Contract) the following words and expressions shall have the meanings hereby assigned to them except where the context otherwise requires:

- (a) "Assistant Construction Manager" means a competent person appointed in accordance with regulation 8.(2) of the Construction Regulations, 2014, in writing by the Contractor, with written notification to the Engineer.
- (b) "Risk Assesor" means a competent person appointed in accordance with regulation 9.(1) Of the Construction Regulations, 2014, in writing by the Contractor, with written notification to the Engineer.
- (c) "Construction Health and Safety Officer" means a competent person appointed in accordance with regulation 8.(6) of the Construction Regulations, 2014, in writing by the Contractor, with written notification to the Engineer.
- (d) "Construction Manager" means a competent person appointed on a full-time basis in accordance with regulation 8.(1) of the Construction Regulations, 2014, in writing by the Contractor, with written notification to the Engineer.
- (e) "Contractor" means the natural or juristic person or partnership whose tender has been accepted by or on behalf of the Employer and, who is defined as the Principal Contractor in the Construction Regulations, 2014.
- (f) "Fall Protection" means a competent person appointed in accordance with regulation 10.(1) of the Construction Regulations, 2014, in writing by the Contractor with written notification to the Engineer.
- (g) "Employer's Designer" means the natural or juristic person or partnership named in

- the Appendix to Tender or any other natural or juristic person or partnership appointed from time to time by the Employer for the design of the portion of the Permanent Works which the Employer is responsible to design in terms of this Contract.
- (h) "Contractor's Designer" means the natural or juristic person or partnership appointed from time to time by the Contractor and notified in writing to the Engineer and Employer for the design of the portion of the Permanent Works which the Contractor is responsible to design in terms of this Contract, and for the design of the Temporary Works.
  - (i) "Electrical Temporary Installation Inspector" means a competent person appointed in accordance with regulation 22.(d) of the Construction Regulations, 2014, in writing by the Contractor, with written notification to the Engineer.
  - (j) "Employer" means the natural or juristic person or partnership for whom the Works are to be executed, who is named as the Employer in the Conditions of Contract and who is known as the "Client", in the Occupational Health and Safety Act, 1993 and its regulations.
  - (k) "Engineer" means the natural or juristic person or partnership named as the Engineer in the Conditions of Contract and appointed by the Employer to act as the Engineer in terms of this Contract.
  - (l) "Engineer's Representative" means the person appointed by the Engineer in terms of Clause 2 of the Conditions of Contract.
  - (m) "Fall Protection Developer" means a competent person appointed in accordance with regulation 10.(1)(a) of the Construction Regulations, 2014, in writing by the Contractor, with written notification to the Engineer.
  - (n) "Hazard" means any object, action or condition that can potentially harm the health and safety of persons or property.
  - (o) "Hazard Identification" means the identification and documenting of existing or expected hazards.
  - (p) "Health and Safety Consultant" means the natural or juristic person or partnership appointed by the Contractor to assist in any matters related to health and safety on the construction site.
  - (q) "Health and Safety Plan" means a documented plan, prepared by the Contractor, of work procedures to mitigate, reduce or control hazards identified.
  - (r) "Health and Safety Specification" means a documented specification of all health and safety requirements and criteria to mitigate, reduce or control hazards identified.
  - (s) "Health and Safety Representative" means the person/s designated in accordance with section 17 of the Occupational Health and Safety Act.
  - (t) "Ladder Inspector" means a competent person appointed in accordance with regulation 13 of the General Safety Regulations, in writing by the Contractor, with written notification to the Engineer.
  - (u) "Method Statement" means a document detailing the key activities to mitigate, reduce or control hazards identified.
  - (v) "Professional Engineer" means any person employed from time to time by either the Employer or Contractor who holds registration as either a Professional Engineer or Professional Certificated Engineer under the Engineering Profession Act, 2000 (Act No. 46 of 2000).
  - (w) "Professional Technologist" means any person employed from time to time by either the Employer or Contractor who holds registration as a Professional Technologist under the Engineering Profession Act, 2000 (Act No. 46 of 2000).
  - (x) "Risk" means the likely occurrence and impact of a hazard.
  - (y) "Risk Assessment" means a programme carried out to identify and evaluate the likely occurrence and impact of all hazards.
  - (z) "Safety Agent" means a competent natural or juristic person or partnership named in the Appendix to Tender or any other person appointed from time to time by the Employer and notified in writing to the Contractor to act on behalf of the Employer for the purposes of this specification.
  - (aa) "Scaffolding Supervisor" means a competent person appointed in accordance with regulation of the Construction Regulations, 2014, in writing by the Contractor, with written notification to the Engineer.

- (ii) “Stacking Supervisor” means a competent person appointed in accordance with regulation of the Construction Regulations, 2014, in writing by the Contractor, with written notification to the Engineer.
- (jj) “Subcontractor” means the natural or juristic person or partnership who is appointed by the Contractor with prior consent of the Engineer to execute certain tasks associated with the Works and who is also an employer as defined in section 1 of the Occupational Health and Safety Act.
- (kk) “Suspended Platforms Supervisor” means a competent person appointed in accordance with regulation of the Construction Regulations, 2014 in writing by the Contractor, with written notification to the Engineer.

## **2.4 Duties, responsibilities and liabilities**

### **2.4.1 Principal Parties**

This section covers the duties, responsibilities and liabilities of the following principal parties:

Employer  
Employer’s Safety Agent  
Contractor  
Subcontractor  
Employer’s Designer  
Contractor’s Designer

The duties and responsibilities of the various principal parties are briefly summarized below (the numbers indicated correspond to the applicable regulation number in the Construction Regulations, 2014). The intention of the summary is not to replace the Regulations, but is included for indicative purposes. The liabilities of each party are also shown.

#### **a) Employer**

In addition to the duties, responsibilities and liabilities specified in the Conditions of Contract, the Employer shall have the following duties and responsibilities to ensure compliance with the Construction Regulations, 2014:

- 4.(1)(a) Prepare health and safety specifications for the Works.
- 4.(1)(a) Provide copies of the specifications to Tenderers or to the appointed Contractor.
- 4.(1)(b) Provide any information to the Contractor that may affect the health and safety of his employees.
- 4.(1)(c) Appoint the Contractor in writing for the Works.
- 4.(1)(d) Take reasonable steps to ensure that the Contractor’s Health and Safety Plan is implemented and maintained on the Works (which shall include monthly audits).
- 4.(1)(e) Stop the Contractor from executing work, not in accordance with, his Health and Safety Plan or which poses a threat to the health and safety of persons.
- 4.(1)(f) Ensure that sufficient health and safety information and appropriate resources are made available to the Contractor when changes are brought about to the design.
- 4.(1)(g) Ensure that the Contractor is registered and in good standing with the compensation fund or with a licensed compensation insurer prior to the commencement of the Works.
- 4.(1)(h) Ensure that Tenderers have made provision in their tenders for the cost of health and safety measures during the construction of the Works.

- 4.(2) Discuss and negotiate the contents of the Contractor's Health and Safety Plan.
- 4.(2) Approve the Contractor's Health and Safety Plan for implementation.
- 4.(3) On request, make available copies of the Contractor's Health and Safety Plan to his employees, his Subcontractors and inspectors.
- 4.(4) Satisfy himself on the competencies and resources of the Contractor he intends appointing.
- 4.(6) Satisfy himself on the competencies and resources of his Safety Agent should he decide to appoint one.

In terms of Clause 4.6 of the Contract Data, the Contractor accepts sole liability as mandatory for due compliance with the Occupational Health and Safety Act, 1993 and all its regulations including the Construction Regulations, 2014. The Employer will only be responsible for the duties imposed on the Employer in terms of the Construction Regulations, 2014 as listed above.

b) Employer's Safety Agent

Where the Employer decides to appoint an agent in accordance with regulation 4.(5) of the Construction Regulations, 2014, the duties and responsibilities as imposed by these regulations upon the Employer shall as far as reasonably practicable apply to his Safety Agent.

c) Contractor

In addition to the duties, responsibilities and liabilities specified in the Conditions of Contract, the Contractor shall have the following duties and responsibilities to ensure compliance with the Construction Regulations, 2014:

- 3.(1) & 4.(1)(a) Notify the provincial director in writing of the commencement of the construction works and/or apply for the permit as per regulation.
- 3.(3) Ensure that a copy of the notification/permit letter is kept on site for inspection on request as well as proof of its receipt by the Department of Labour.
- 5.(1) Demonstrate a Health and Safety Plan, based on the Employer's health and safety specifications.
- 5.(1) Apply the Health and Safety Plan from the Commencement Date until completion of the Works.
- 5.(2) Ensure co-operation between all contractors to enable each to comply with the provisions of Construction Regulations.
- 5.(3)(a) Provide any Tenderer or Subcontractor with copies of the Employer's health and safety specifications.
- 5.(3)(b) Appoint Subcontractors in writing.
- 5.(3)(c) Ensure that each Subcontractor's Health and Safety Management Plan is implemented and maintained on their portion of the Works.
- 5.(3)(d) Stop any Subcontractor from executing Works, not in accordance with, the Contractor's Health and Safety Plan or which poses a threat to the health and safety of persons.
- 5.(3)(e) Ensure that sufficient health and safety information and appropriate resources are made available where applicable, to the Subcontractor when changes are brought about to the design of the Works.
- 5.(3)(f) Ensure that his Subcontractor is registered and in good standing with the compensation fund or with a licensed compensation insurer prior to the commencement of the Works.
- 5.(3)(g) Ensure that his Tenderers have made provision in their tenders for the cost of health and safety measures during the construction of the Works in line with the requirements of the Employers Health and Safety Specification and his Health and Safety Management Plan.

- 5.(5) Discuss and negotiate the contents of his Subcontractor's Health and Safety Plan, to ensure compliance with the Employer's Health and Safety Specification and consistent with the Contractors Health and Safety Management Plan.
- 5.(5) Approve his Subcontractor's Health and Safety Plan for implementation and to keep records of all such approvals on site for auditing purposes.
- 5.(6) On request, make available a copy of his and his Subcontractor's Health and Safety Plan to an employee, inspector, contractor, the Employer or the Employer's Safety Agent.
- 5.(7) Open and maintain a record management system regarding health and safety for the Contractors own and Subcontractors' Health and Safety Documentation on the construction site.
- 5.(7) Upon request, make available his health and safety record management system to an inspector, Employer, the Employer's Safety Agent or the Contractor.
- 5.(8) Deliver the health and safety record management system to the Employer upon completion of the Works.
- 5.(9) Ensure that a comprehensive and updated list of all his Subcontractors (including their respective subcontracting agreements) are included in the health and safety record management system.
- 5. (10) Satisfy himself on the competencies and resources of the Subcontractor he intends appointing.
- 6. (1) Appoint a construction supervisor.
- 6. (3) Appoint assistant construction supervisors if required by an inspector.
- 6. (5) Appoint individual construction supervisors for individual construction sites.
- 6.(6) The Contractor shall after due consideration of the complexity, size and potential hazards and associated risks as well as controls towards the mitigation of risks, appoint a safety officer in writing. The contractor shall submit a detailed CV of the envisaged Safety Officer appointment for final acceptance thereof by the Employer or his Safety Agent.
- 6.(7) Provide opportunities to the construction safety officer to provide inputs into the Health and Safety Plan.
- 6.(8) Satisfy himself with the competencies and resources of the construction safety officer he intends appointing.
- 7. (1) Perform a risk assessment prior to the commencement of any construction work.
- 7. (2) On request, make available copies of the his/her risk assessment.
- 7. (3) Consult with the health and safety committee on the development, monitoring and review of the risk assessment.
- 7. (4) Ensure that all employees are informed, instructed and trained regarding any hazard and the related work procedures before any work commences. The contractor shall ensure that proof of such is available on site for auditing purposes.
- 7. (5) Ensure that all Subcontractors are informed regarding any hazard as stipulated in the risk assessment. Further that Subcontractors conduct their own risk assessments as and when required
- 7. (6) Analyse ergonomic related hazards and address the same in the risk assessment.
- 7. (7) Ensure that all employees undergo health and safety induction prior to permitting each employee access to the Works. The Contractor shall ensure that proof of such is available on site for auditing purposes.
- 7. (8) Ensure that all visitors undergo health and safety induction and are provided with the necessary personal protective equipment. The Contractor shall ensure that proof of such is available on site for auditing purposes.
- 7. (9) Ensure that every employee is in possession and carries at all times his proof of health and safety induction training.
- 9. (1) (a) Prevent the uncontrolled collapse of any structure which may become unstable due to the carrying out of construction work.

- 9. (1) (b) Ensure that no structure is loaded in an unsafe manner.
- 9. (3) Ensure that all construction drawings are on site and available on request by an inspector, contractors, Employer, the Employer's Safety Agent or employee.

In terms of Clause 4.6 of the Contract Data, it shall be deemed that the parties to this Contract have agreed in writing in terms of Section 37(2) of the Occupational Health and Safety Act, 1993 that the Contractor accepts sole liability for due compliance with the relevant duties, obligations, prohibitions, arrangements and procedures imposed by the Occupational Health and Safety Act, 1993 and all its regulations, including the Constructions Regulations, 2014, for which he is liable as mandatory.

d) Subcontractor

To ensure compliance with the Construction Regulations, the Subcontractor shall:

- 5.(4) Demonstrate a Health and Safety Plan, based on the Employer's health and safety specification.
- 5.(4) Apply his Health and Safety Plan from the Commencement Date and until completion of the Works.
- 5.(12) Satisfy himself on the competencies and resources of any Subcontractor he intends appointing.
- 5.(14) Provide the Contractor with any information which might affect the health and safety of any person or which might justify a review of the Health and Safety Plan.

In addition to the above items, the Subcontractor shall, to ensure compliance with the Construction Regulations, comply with regulations summarized in Section 2.4.1(c) above.

e) Designer (Employer's Designer or Contractor's Designer)

To ensure compliance with the Construction Regulations, 2014, the Designer (as defined in the Construction Regulations, 2014) shall:

## Duties of designer

6. (1) The designer of a structure must—
  - (a) ensure that the applicable safety standards incorporated into these Regulations under section 44 of the Act are complied with in the design;
  - (b) take into consideration the health and safety specification submitted by the client;
  - (c) before the contract is put out to tender, make available in a report to the client—
    - (i) all relevant health and safety information about the design of the relevant structure that may affect the pricing of the construction work;
    - (ii) the geotechnical-science aspects, where appropriate; and
    - (iii) the loading that the structure is designed to withstand;
  - (d) inform the client in writing of any known or anticipated dangers or hazards relating to the construction work, and make available all relevant information required for the safe execution of the work upon being designed or when the design is subsequently altered;
  - (e) refrain from including anything in the design of the structure necessitating the use of dangerous procedures or materials hazardous to the health and safety of persons, which can be avoided by modifying the design or by substituting materials;
  - (f) take into account the hazards relating to any subsequent maintenance of the relevant structure and must make provision in the design for that work to be performed to minimize the risk;

- (g) when mandated by the client to do so, carry out the necessary inspections at appropriate stages to verify that the construction of the relevant structure is carried out in accordance with his design; Provided that if the designer is not so mandated, the client's appointed agent in this regard is responsible to carry out such inspections;
  - (h) when mandated as contemplated in paragraph (g), stop any contractor from executing any construction work which is not in accordance with the relevant design's health and safety aspects; Provided that if the designer is not so mandated, the client's appointed agent in that regard must stop that contractor from executing that construction work;
  - (i) when mandated as contemplated in paragraph (g), in his or her final inspection of the completed structure in accordance with the National Building Regulations, include the health and safety aspects of the structure as far as reasonably practicable, declare the structure safe for use, and issue a completion certificate to the client and a copy thereof to the contractor; and
  - (j) during the design stage, take cognisance of ergonomic design principles in order to minimize ergonomic related hazards in all phases of the life cycle of a structure.
- (2) The designer of temporary works must ensure that—
- (a) all temporary works are adequately designed so that it will be capable of supporting all anticipated vertical and lateral loads that may be applied;
  - (b) the designs of temporary works are done with close reference to the structural design drawings issued by the contractor, and in the event of any uncertainty consult the contractor;
  - (c) all drawings and calculations pertaining to the design of temporary works are kept at the office of the temporary works designer and are made available on request by an inspector; and
  - (d) the loads caused by the temporary works and any imposed loads are clearly indicated in the design.

The Employer's Designer shall only accept responsibility to comply with the Construction Regulations, 2014 for that portion of the Permanent Works which the Employer is responsible to design in terms of the Contract.

The Contractor's Designer shall accept sole responsibility and liability to comply with the Construction Regulations, 2014 for that portion of the Permanent Works for which the Contractor is responsible to design in terms of the Contract as well as the design of the Temporary Works.

#### 2.4.2 Secondary Parties

This section covers the duties, responsibilities and liabilities of the following secondary parties:

Construction Health and Safety Officer

Contractor's Employees Fall Protection Developer  
Health and Safety Consultant  
Health and Safety Representative  
Risk Assessor

a) Construction Health and Safety Officer

The Construction Health and Safety Officer will act as Health and Safety advisor to the site management staff, ensuring the integrity of the Safety management System and Plan and its implementation. The Construction Health and Safety Officer can therefore never take over the line management responsibilities for safe work practices.

The Contractor is responsible for the development of the position outcomes descriptors for the Construction Health and Safety Officer. This documentation shall be available on site for auditing purposes.

The Construction Health and Safety Officer shall if given an opportunity, provide an input into the Contractor's Health and Safety Plan.

b) Contractor's Employees

All employees will be responsible for safety on the construction site and the work place as prescribed in section 14 of the Occupational Health and Safety Act, 1993 and briefly summarized as follows:

Take reasonable care for the health and safety of himself and of other persons who may be affected by his acts,  
Co-operate with his employer with regards to health and safety to ensure that his employer complies with requirements imposed on him,  
Obey the health and safety rules and procedures laid down by his employer,  
Report any unsafe or unhealthy situation to his employer or to the health and safety representative for his workplace,  
Immediately report any incident in which he was involved which has caused an injury to himself or others, and  
Assist in inquiries and incident investigations.

No employee shall intentionally or recklessly interfere with, damage or misuse anything which is in the interest of health and safety

c) Fall Protection Developer

The Fall Protection Developer will be responsible for the preparation and maintenance of a fall protection plan to be implemented by the Contractor, in such a manner to ensure compliance with regulation 10 of the Construction Regulations, 2014.

d) Health and Safety Consultant

The Health and Safety Consultant shall assist the Contractor in any health and safety matters on the Works for which he is appointed.

e) Health and Safety Representative

The Health and Safety Representative shall fulfil the duties as set out in section 18 of the Occupational Health and Safety Act, (Act 85 of 1993). A health and safety representative

shall not incur any civil liability by reason of the fact only that he failed to do anything which he may do or is required to do in terms of the Act.

f) Risk Assessor

The Risk Assessor shall facilitate the risk assessment process of the Contractor or Subcontractor. The Risk Assessor shall be responsible for the compilation and implementation of a management plan towards the continuous mitigation of identified risks to as low as is reasonable practicable.

#### 2.4.3 Supervisors, Inspectors and Issuers

This section covers the duties, responsibilities and liabilities of the following Supervisors, Inspectors and Issuers likely to be found on the Works:

a) Batch Plant Supervisor

The Batch Plant Supervisor shall be required to ensure compliance with regulation of the Construction Regulations, 2014. In addition, he shall fulfil the following duties and responsibilities:

- Manage the day to day operation of a batch plant,
- Be responsible for the maintenance of the batch plant,
- Be able to identify developing defects and hazardous situations,
- Act as the Occupational Health and Safety Representative at the batch plant, and
- Take responsibility for the safety of the personnel at the batch Plant.

The Batch Plant Supervisor will have the authority to stop operation of the plant should any hazardous situation require it.

b) Construction Supervisor

The Construction Supervisor shall be responsible for supervising the construction work inclusive of the implementation and maintenance of safe work practices.

c) Construction Vehicle & Mobile Plant Inspector

The Construction Vehicle and Mobile Plant Inspector will ensure the safety of all construction vehicles and plant in such a manner to ensure compliance with regulation of the Construction Regulations, 2014. The inspector will also be responsible for the regular inspection of all vehicles and plant and the recording of his findings. The Contractor shall ensure that proof of such is available on site for auditing purposes.

d) Demolition Work Supervisor

The Demolition Work Supervisor will supervise and control all demolition work on the Works in such a manner to ensure compliance with regulation of the Construction Regulations, 2014. The supervisor will be responsible for all administration related to the demolition works. The Contractor shall ensure that proof of such is available on site for auditing purposes.

e) Electrical Temporary Installation Inspector

The Electrical Temporary Installation Inspector will control all temporary electrical

installations on the Works to ensure compliance with regulation of the Construction Regulations, 2014, the Electrical Installations Regulations, 1992 and SANS 0142. The Contractor shall ensure that proof of such is available on site for auditing purposes.

f) Excavation Work Supervisor

The Excavation Work Supervisor will supervise all excavation work on the Works in such a manner to ensure compliance with regulation of the Construction Regulations, 2014 and shall in particular ensure that every excavation is inspected:

On a daily basis before each shift,  
After every blasting operation,  
After an unexpected fall of ground,  
After substantial damage to supports, and  
After rains.

The Contractor shall ensure that proof of such is available on site for auditing purposes.

g) Explosive Power Tools Issuer

The Explosives Power Tools issuer will control the issuing and collection of explosive tools, cartridges and nails or studs to ensure compliance with regulation of the Construction Regulations, 2014. The Contractor shall ensure that proof of such is available on site for auditing purposes.

h) Fire Extinguisher Inspector

The Fire Extinguisher Inspector will be responsible for the operation and inspection of all firefighting equipment on the Works to ensure compliance with regulation of the Construction Regulations, 2014. The Contractor shall ensure that proof of such is available on site for auditing purposes.

i) Formwork and Support Work Supervisor

The Formwork and Support Work Supervisor will supervise all formwork and support work operations and will see to it that formwork and support work erectors, operators and inspectors are competent to carry out their work on the Works to ensure compliance with regulation of the Construction Regulations, 2014. The Contractor shall ensure that proof of such is available on site for auditing purposes.

j) Ladder Inspector

The Ladder Inspector will be responsible for the regular inspection and recording of his/her findings of all ladders on the Works and to ensure compliance with regulation 13 of the General Safety Regulations. The Contractor shall ensure that proof of such is available on site for auditing purposes.

k) Material Hoist Inspector

The Material Hoist Inspector will be responsible for the daily inspection of material hoists or similar machinery and to ensure the Works to ensure compliance with regulation of the Construction Regulations, 2014. The inspector must have experience pertaining to the erection and maintenance of all hoists on the Works. The inspector must be able to determine the serviceability of the entire material hoist including guides, ropes and their connections, drums, sheaves or pulleys and all safety devices. The Contractor shall ensure that proof of such is available on site for auditing purposes.

l) Scaffolding Supervisor

The Scaffold Supervisor will be required to supervise all scaffolding work operations carried out on the Works and to ensure compliance with regulation of the Construction Regulations, 2014 as well as ensure compliance with applicable SABS 085 specifications. The Contractor shall ensure that proof of such is available on site for auditing purposes.

m) Stacking Supervisor

The Stacking Supervisor shall supervise the stacking and storage of all articles on site and shall be responsible to ensure compliance with regulation of the Construction Regulations, 2014.

n) Suspended Platform Supervisor

The Suspended Platform Supervisor will supervise all suspended platform work operations carried out on the Works and to ensure compliance with regulation of the Construction Regulations, 2014. The supervisor will also see to it that all suspended platform erectors, operators and inspectors are competent to carry out their work. The Contractor shall ensure that proof of such is available on site for auditing purposes.

### **3. GENERAL REQUIREMENTS OF HEALTH AND SAFETY PLAN**

#### **3.1 General**

It will be expected from the Contractor to include in his safety plan method statements on how to accomplish the requirements relating to the Construction Regulations, 2014 and related incorporated standards and regulations.

Contractors should describe how their safety management systems will work and what control procedures they plan on using to ensure safety on the construction site

The following generic aspects should be covered in their safety plan

What administrative procedures the Contractor envisages to use in the implementation and maintenance of the safety plan with reference to the construction site  
How continuous assessment of the safety plan will be assessed and implemented with respect to construction site  
What control systems the Contractor envisages to implement on site to support his safety program  
How the Contractor will ensure that he adheres to the construction regulations in respect of competent persons for appointments  
What external resources the Contractor envisages on using to ensure successful implementation and sustainability of the safety plan  
What training to employees the Contractor envisages and how he would go about to execute it  
The Contractor should indicate which competent persons he plans on employing

During the tendering phase it will be expected from the tenderer to briefly explain how the abovementioned will be accomplished.

Once a successful tenderer has been appointed, the Contractor shall supply a detailed Health and Safety Plan for review by the Employer, prior to site mobilization, to ensure compliance with the Construction Regulations, 2014. Mobilization shall be dependent upon the acceptance of the Contractor's Health and Safety Management Plan by the Employer. The Contractor's Health and Safety Plan should include, but not be limited to, those sections indicated in Section

3.2 of this specification.

### **3.2 Outline of Health and Safety Plan**

The Contractor's Health and Safety Plan prepared in accordance with this specification shall consist of at least the following sections and sub-sections:

1. Aim and Scope of Plan,
2. Risk Assessment,
  - a. Alternative Forms of Risk Assessment,
  - b. Methodology of Risk Assessment,
  - c. Elements of Risk Assessment,
    - i. Scope of assessment,
    - ii. Risks Identified,
    - iii. Risk Analysis,
    - iv. Risk Evaluation,
    - v. Risk Treatment,
    - vi. Monitoring and reviewing,
3. Resources,
  - a. Health and Safety Staffing Organogram,
  - b. Supervisors, Inspectors and Issuers,
  - c. Employees,
  - d. Subcontractors inclusive of their scope of work and their core resources,
  - e. Training,
  - f. Plant,
  - g. Vehicles,
  - h. Equipment
4. Materials,
  - a. Temporary Materials
  - b. Permanent Materials
5. Categories of Work
6. Implementation of Health and Safety Plan,
  - a. Administrative systems,
  - b. Training,
  - c. Reporting,
  - d. Monitoring,
  - e. Inspections,
7. Auditing,
  - a. Internal audits,
  - b. Follow-up audits,
8. Financial Aspects,
9. Emergency procedures and response

## **4. RISK ASSESSMENT**

### **4.1 General**

This section of the specification provides guidelines for the Contractor in preparation of risk assessments in order to ensure compliance with Regulation 9 of the Construction Regulations, 2014. This section highlights the principles related to the preparation of suitable and sufficient risk assessments. Contractor Staff intending to prepare risk assessments should be trained and suitably experienced in the application envisaged.

A suitable and sufficient risk assessment is an assessment which:

Accounts for risks that are likely to arise during the construction of the Works,  
Enables the development and implementation of systems to manage the risks,  
Remains valid for a reasonable period of time,  
Provides a basis for training of employees, and  
Improves working procedures and introduce long term controls.

The requirements of the Construction Regulations will not be satisfied by a single risk assessment exercise that holds good for all time. The risk assessment process on the Works is an ongoing process.

The objectives of risk assessments are to:

Identify the risks that are mostly in need of reduction,  
Identify the various options for achieving such reduction,  
Identify the risks that require careful ongoing management, and  
Identify the nature of the required ongoing attention.

## **4.2 Forms of Risk Assessment**

In order to ensure compliance with the Construction Regulations, the Contractor will be required to carry out the following three forms of risk assessment:

### **4.2.1 *Baseline or datum risk assessments***

The Contractor will be required carry out a risk assessment before the commencement of construction activities on the Works. This “baseline” or “datum” risk assessment will form part of the Contractor’s Health and Safety Plan. The risks and hazards to which persons, plant, vehicles and facilities may be exposed during the construction of the Works should be identified and evaluated. Measures to reduce or control these risks or hazards should be defined during this assessment. The effectiveness of the measures defined and the baseline risk assessment prepared shall be monitored and reviewed from time to time to ensure that it remains relevant and accurate.

### **4.2.2 *Issue based risk assessments***

The Contractor will be required to carry out separate risk assessments during construction of the Works when methods and procedures are varied, for example when:

Designs are amended,  
New machines are introduced,  
Plant is periodically cleaned and maintained,  
Plant is started-up or shut-down,  
Systems of work change or operations alter,  
Incidents or near-misses occur, or  
Technological developments invalidate prior risk assessments.

### **4.2.3 *Continuous risk assessments***

The Occupational Health and Safety Act specifically requires that employers shall provide and maintain working environments that are safe and without risk to health. The general awareness of hazards needs to be raised as work ethic to maintain a safe and risk free environment on an ongoing basis. This is achieved by continuous risk assessments, the most important form of risk assessment that takes place as an integral part of day-to-day management. Examples of continuous risk assessments include:

Regular audits,  
 Maintaining general hazard awareness,  
 Pre-work risk assessment

#### 4.3 Methodology for the Preparation of Risk Assessments

The Contractor shall in the preparation of his risk assessments, follow the following general principles:

Employ a team of suitably qualified individuals with appropriately varied and relevant experience in risk assessment,  
 The appointed risk assessor shall lead the risk assessment,  
 Provide the team with background data, scope of work, potential hazards and underlying causes, and  
 Where necessary employ experts for complex risk assessments and aspects of risk assessments that require experiential judgment,  
 Institute an ongoing system of identifying aspects of the work that require risk assessment, and  
 Conduct risk assessments in workshops of the team or by individual members of the team under guidance of the leader as appropriate to the situation.

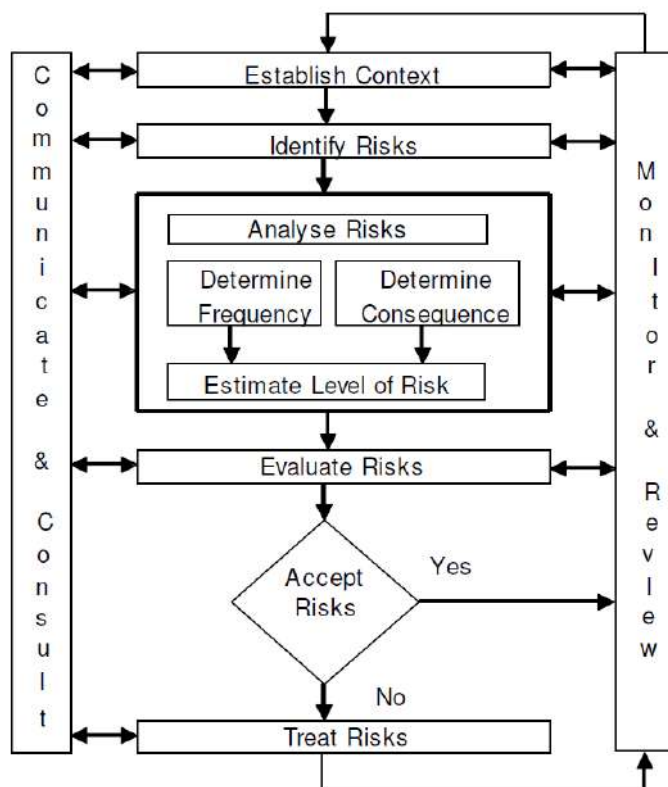
#### 4.4 Elements of a Risk Assessment

##### 4.4.1 General

The process of carrying out a risk assessment consists of a number of well-defined steps. These steps improve decision-making by providing a greater understanding of the risks and their impacts. The main steps or elements of the risk assessment process are as follows:

- 1) Consider scope and nature of risks involved, determine purpose and physical and legal bounds of assessment and define risk evaluating criteria,
- 2) Systematically identify risks,
- 3) Analyze risks with regard to causes, likelihood of occurrence and possible consequences against the background of existing controls and its effectiveness,
- 4) Evaluate risks in terms of pre-established criteria to determine need and priority for attention,
- 5) Treat risks through a process of risk elimination, substitution, controlling risk at source, risk mitigation such as training and as far as risk remains, provide personal protective equip
- 6) Monit
- 7) Comr

The followir  
 These items



ement system, and

bove.  
 ated in Figure 1, below.

Figure 1: Risk Management Process

The Contractor shall ensure that the risk assessment compiled as part of his Health and Safety Plan contains at least these items.

#### 4.4.2 Risk Identification

The Contractor should regard this step of the risk assessment as the most important. Subsequent analysis and evaluation of risks and the development of risk control measures are wasted if the risks or hazards on the Works are not carefully identified.

The Contractor should bear the following principles in mind when identifying the risks:

- i) Systematically address all risks or hazards on the Works,
- ii) Review all aspects of the work, but consider only those that have a potential to cause harm,
- iii) Rank the risks identified in order of importance and then use appropriately advanced techniques to deal with major risks,
- iv) Deal mainly with major risks and don't obscure these with unimportant information, especially minor risks,
- v) Address what actually happens in the workplace during the work activity
- vi) Consider all persons that may be affected,
- vii) Highlight those groups and individuals who may particularly be at risk, and
- viii) Review the adequacy and effectiveness of existing safety controls and measures

#### 4.4.3 Risk Analysis

In this step, the Contractor will be required to analyze the risks identified by determining each risks frequency and magnitude or severity of the consequence of the risk or hazard.

The frequency of occurrence of a hazard may be expressed as the number of times that it may occur in a year, decade, lifetime, century, or longer period, according to comparative human experience. The magnitude of the likely consequence of a hazard may be expressed in terms of the degree of incapacitation, number of people or costs involved. The frequency of occurrence of a hazard and the magnitude of its consequence may be compounded as the risk that it poses as shown in the "risk matrix" in Figure 2 below.

Frequency of Occurrence of Hazard	Severity of Consequences of Potential Hazard					
	1 Medically treatable injury	1 Compensable injury	10 Compensable injuries	1 Permanently disabling injury	1 Fatality	10 Fatalities
Frequent; 1 or more occurrences per year	Medium	High	Very high	Severe	Severe	Severe
Several times during a career; 0.1 occurrences per year	Medium-low	Medium	High	Very high	Severe	Severe
Unlikely, but possible during a career; 0.01 occurrences per year	Low	Medium-low	Medium	High	Very high	Severe
Very unlikely during a career; 0.001 occurrences per year	Low	Low	Medium-low	Medium	High	Very high
Barely credible; 0.0001 occurrences per year	Low	Low	Low	Medium-low	Medium	High

**Figure 2: Compounded Risk Matrix**

The columns in the table represent the likely consequence of the hazard and the rows, the frequency of occurrence. The scales for both quantities represent consistent progressions, albe they qualitative. The risks evidently range from low to severe. Note that diagonals in the matrix represent the risks of the identified hazards, taking the effectiveness of controls into consideration.

The table represents a typical risk matrix that need not necessarily be adopted by the Contractor. The Contractor may use an alternative risk matrix provided that it is approved as part of OHS plan

#### 4.4.4 Risk Evaluation

In this step the Contractor will be required to compare the assessed risk with similar risks previously experienced for the purpose of deciding how to treat the risk. A useful systematic approach for this purpose is as follows:

If the assessed risk exceeds similar risks that have occurred in the past and that are considered to be unacceptable, the assessed risk would require treatment depending upon its magnitude as discussed in Section 4.4.5, or

If the assessed risk exceeds similar historical risks that are acceptable, treatment of the assessed risk will depend on the extent by which it exceeds the historical risks, or

If the assessed risk is less than historical risks that are unacceptable, treatment of the assessed risk will depend on the extent by which it is less than the historical risks, or

If the assessed risk is less than historical risks that are acceptable, the assessed risk would also be acceptable and would not require any treatment.

#### 4.4.5 Risk Treatment

In this step, the Contractor will select and implement appropriate measures for dealing with risk. Typically measures comprise the following:

Elimination by changing designs, procedures, management methods, etc, applicable to high frequency–high consequence risks, or

Reduction by changing designs, procedures, management methods, etc, applicable to high frequency–high consequence risks, or

Minimization by changing designs, procedures, management methods, etc, applicable to high frequency–low consequence risks, or

Transfer or share whole or part of the risk to another party by insurance, contractual arrangements or organizational structures, applicable to low frequency–high consequence risks, or

Control to ensure that risks do not increase, applicable to low frequency–high consequence risks, or

Retention together with provision of monitoring and personal protective equipment, applicable to low frequency–low consequence residual risks after reduction, or

Acceptance without particular action other than provision of personal protective equipment, applicable to low frequency–low consequence risks.

The following principles enable the optimum treatment to be determined:

Avoid risks altogether if possible by using different approaches, substances or methods of work,  
Combat risks at source rather than by adopting secondary measures,  
Adapt work to the individual rather than the individual to the work, that is, in the design consider the people and their attributes that will operate the system  
Take advantage of technological and technical progress,  
Risk prevention measures must be part of a coherent policy and approach to safety management that involves performance measurement, goal setting, feedback and analysis, Give preference to measures that protect the whole work force,  
Ensure that those for whom protection is provided understand what they need to do to make sure that the protection works, and  
Ensure that measures to control risks are an accepted part of an active health and safety culture supported by all levels of the organization; single risk reduction initiatives invariably fail.

#### *4.4.6 Reporting and Recording*

The Contractor shall ensure that the risk assessment process is recorded in the form of a report and included in his Health and Safety Plan. The report should be easily accessible to the Contractor's employees, their representatives, to inspectors, the Employer or his Safety Agent and the Engineer. The essential contents of the report should be as follows:

Objectives and expected outcomes, Description of the Works under assessment, Summary of context of study, Composition of risk assessment team, (including qualifications and relevant experience), Approach used to systematically identify risks, Identified risks (ranked in order of priority), Method adopted for assessing frequencies and consequences of risks, Consequences (ranked in order of magnitude), Identification of individuals and groups who may be affected by major hazards and risk and who may especially be at risk, Basis for defining safety standards to be achieved, Contractor's resources devoted to risk assessment, Actions proposed to reduce unacceptably high risks, Review effectiveness of existing safety measures to control risks, and Implementation programme of selected treatments (including controls to manage unacceptably high risks).

#### *4.4.7 Monitoring and Review*

It is necessary to monitor risks, the effectiveness of the risk treatment plan and the strategies and management system set up to control implementation. Control of the risk management program entails the setting of standards, monitoring actual performance, comparing the performance with the standards and correcting any deviations from the standard. Risks and the effectiveness of the control measures need to be monitored to ensure changing circumstances do not alter risk priorities. Few risks remain static.

Ongoing review is essential to ensure that the management plan remains relevant. Factors that affect the likelihood and consequences of an outcome may change, as may factors that affect the suitability or cost of the various treatment options. If an accident occurs, or if more is learnt about the hazards in the workplace, the risk assessment may need to be reviewed or modified. Hazards may be observed that have not been anticipated or previously identified and which may require appropriate measures to be taken. After an accident has occurred, it is important to determine whether it was predicted, whether preventive measures were identified, and if so, why they did not work, whether the risk assessment is still suitable and sufficient if it failed to predict the accident, whether to the decision to accept a predicted risk as tolerable is still valid,

why the accident occurred and what should be done to prevent similar accidents occurring again. It is therefore necessary to regularly repeat the risk management cycle, the time between reviews being dependent on the nature of the risks and the degree of change likely to take place in the work activity. Review is an integral part of the risk management treatment plan.

#### **4.4.8 Communication and Consultation**

The Contractor will be required to communicate and consult with internal and external stakeholders during each step of the risk assessment process. Stakeholders will include the Employer and his Safety Agent, the Engineer and the Contractor's employees and consultants.

Effective communication will ensure that those responsible for implementing the risk management process and those with a vested interest, understand the basis on which decisions are made and why particular actions are taken. It will also ensure that the perceptions of all those involved are noted and accommodated during the process.

### **5. RESOURCES**

#### **5.1 General**

In this section of his Health and Safety Plan, the Contractor will be required to state how he intends to comply with the requirements of the Occupational Health And Safety Act, 1993 and all its Regulations and related incorporated standards with regards to the resources and facilities intended for use on the temporary and permanent Works.

#### **5.2 Employees**

##### **5.2.1 Inspectors, supervisors and Issuers**

The Contractor shall provide in his Health and Safety Plan his intended Staffing Organogram for the Works. The organogram should include those inspectors, supervisors and issuers as envisaged in the Construction Regulations, 2014 required for the Works and any additional supervisory staff members as the Contractor (having taken the scope of the Works into account) considers necessary.

Copies of the supervisory staffs' curriculum vitae or portfolio of evidence and their appointment letters should be appended to the Contractor's Health and Safety Plan.

The Contractor's Health and Safety Plan should in addition cover at least the following aspects:

The number of unskilled, semi-skilled and skilled (including Foreman, Charge hands, Artisans, Operators, Drivers, Clerks, Storeman and Team Leaders) employees he intends employing on the Works,  
The health and safety training to be provided to the Contractor's employees, The programme of the health and safety training,  
Systems for the review of the effectiveness of the training provided, and  
Systems to determine further training requirements throughout the construction period.

In preparing his Health and Safety Plan, the Contractor shall ensure compliance with Clause PS 22 in Section 4.2 of the Project Specifications.

Pro-forma letters of appointment for the various inspectors, supervisors and issuers as contemplated in the Construction Regulations, 2014 are included in Annexure 1 to this specification for use by the Contractor. The Contractor shall ensure that he includes in his Health and Safety Plan the appointment letters for all his inspectors, supervisors and issuers appointed for the Works.

#### **5.2.2 Subcontractors**

The Contractor shall with reference to the use of subcontractors on the Works and without limiting his obligations, cover at least the following matters in his Health and Safety Plan:

- The steps intended to ensure that his Subcontractors prepare, implement and maintain Health and Safety Plans,
- How health and safety information will be made available to his Subcontractors when changes are brought about to the design,
- How he intends determining that his Subcontractors are registered and in good standing with the compensation fund or with a licensed compensation insurer prior to the commencement of the Works,
- How he intends determining if his Subcontractors have made provision in their tenders for the cost of health and safety measures during the construction of the Works,
- How he intends satisfying himself on the competencies and resources of Subcontractors he intends appointing, and
- How he intends ensuring that his Subcontractors perform risk assessments prior to commencing their respective portions of the Works.

#### **5.2.3 Competencies**

The Contractor shall establish if a person is competent to perform a certain duty or be appointed in a certain capacity by requesting all candidates to supply the required certificates of competency. Where certificates of competencies cannot be delivered, the Contractor shall request a portfolio of evidence from the respective candidates.

Contractors should do enquiries at the South African Qualifications Authority (SAQUA) relating to the qualifications required for appointment of competent persons.

#### **5.2.4 Physical and Psychological Fitness**

Were required by the Occupational Health & Safety Act and its regulations the contractor shall ensure that his employees are in possession of a valid medical certificate of fitness to work in such an environment in terms of the Construction Regulations 2014.

In terms of the Construction Regulations 2014 medical certificates of fitness are required for persons working at elevated positions, persons working on suspended platforms tower crane operator and construction vehicle and mobile plant operators.

### **5.3 Plant, Vehicles and Equipment**

#### **5.3.1 Suspended platform**

The Contractor shall with reference to Regulation 17: Suspended platforms of the Construction Regulations, 2014, and without limiting his obligations, cover at least the following matters in his Health and Safety Plan:

- How he intends complying with SABS 1808 and SABS 1903,

What systems he intends using to ensure the safety of all suspended platforms,  
What tests will be performed to establish the safety of suspended platforms,  
How he intends maintaining suspended platforms being used, and  
How he will document the design, testing, maintenance and inspections of the suspended platforms.

#### 5.3.2 *Material hoists*

The Contractor shall with reference to Regulation 19: Materials Hoist, of the Construction Regulations, 2014, and without limiting his obligations, cover at least the following matters in his Health and Safety Plan:

How he intends confirming the construction stability of the material hoists,  
What systems he intends using to ensure the safety of all material hoists,  
What tests will be performed to establish the safety of all material hoists,  
How he intends maintaining the material hoists being used, and  
How he will document the design, testing, maintenance and inspections of all material hoists, and  
What safety procedures and precautions are envisaged to ensure safe operation of the materials hoists.

#### 5.3.3 *Bulk Mixing Plants*

The Contractor shall with reference to Regulation 20: Bulk mixing plant plants of the Construction Regulations, 2014, and without limiting his obligations, cover at least the following matters in his Health and Safety Plan:

What systems he intends using to ensure the safety of all batch plants,  
How he intends maintaining the batch plants in use, and  
How he will document the design, testing, maintenance and inspections of batch plants in use.

#### 5.3.4 *Explosive actuated fastening device*

The Contractor shall with reference to Regulation 21: Explosive powered tools, of the Construction Regulations, 2014, and without limiting his obligations, cover at least the following matters in his Health and Safety Plan:

How he intends controlling the issuing of explosive powered tools,  
How he intends implementing safety procedures prior to use of explosive powered tools, and  
What safety measures will be required during the use of explosive powered tools.

#### 5.3.5 *Cranes*

This section of the specification shall be read in conjunction with the provisions of the Driven Machinery Regulations, 1988.

The Contractor shall with reference to Regulation 22: Cranes, of the Construction Regulations, 2014 and without limiting his obligations, cover at least the following matters in his Health and Safety Plan:

How will environmental factors be taken into account in respect to the use of cranes,  
What systems he intends using to ensure the safety of all cranes in use,  
How he intends maintaining cranes in use,

What tests will be performed to establish the safety of all cranes in use,  
What safety procedures and precautions are envisaged to ensure the safe operation of all cranes in use,  
How he will document the design, testing, maintenance and inspections of all cranes in use, and  
The contractor shall proof compliance of the Driven Machinery Regulation, 1988, with reference to the lifting machinery and tackle being used.

#### *5.3.6 Construction vehicles and mobile plant*

The Contractor shall with reference to Regulation 23: Construction vehicles and mobile plant of the Construction Regulations, 2014, and without limiting his obligations, cover at least the following matters in his Health and Safety Plan:

How he intends ensuring that construction vehicles and mobile plant are:

- o Of acceptable design and construction,
- o Maintained and in good working order,
- o Used according to design specifications, and
- o Are protected from falling into excavations, water or areas lower than the working surfaces,

How he intends ensuring that workers are trained, authorised and physically fit to operate construction vehicles and mobile plant,  
What traffic arrangements and safety precautions will be implemented to ensure safe operation of construction vehicles and mobile plant on the Works, and  
How he intends safeguarding employees against construction vehicles and mobile plant moving on the construction site.

#### *5.3.7 Electrical Installation and Machinery on construction sites*

This section of the specification shall be read in conjunction with the provisions contained in the Electrical Installation Regulations, 2009.

The Contractor shall with reference to Regulation 24: Electrical Installation and machinery on construction sites of the Construction Regulations, 2014, and without limiting his obligations, cover at least the following matters in his Health and Safety Plan:

How he intends safeguarding employees against electrical cables or apparatus under, over or on site, and  
How he will ensure that electrical installations are of adequate strength to withstand working conditions on a construction site.

#### *5.3.8 Ladders*

The Contractor shall with reference to Regulation 12 of the General Safety Regulations and without limiting his obligations, cover at least the following matters in his Health and Safety Plan:

How he intends ensuring that ladders used are safe and constructed of materials approved for its intended use, and  
What precaution will be made to ensure the stability of ladders in use.

## **6. MATERIALS**

### **6.1 General**

In this section of his Health and Safety Plan, the Contractor will be required to state how he intends to comply with the requirements of the Occupational Health and

Safety Act, 1993 and all its regulations and related incorporated standards with regards to the design, supply, storage and erection of materials used for the temporary and permanent Works.

## **6.2 Fall Protection Equipment**

The Contractor shall with reference to Regulation 10: Fall Protection Equipment of the Construction Regulations, 2014, and without limiting his obligations, cover at least the following matters in his Health and Safety Plan:

- Compilation of a fall protection plan,
- How the fall protection plan will be implemented and maintained,
- How employees will be screened and declared medically fit to work in areas where fall protection equipment is needed,
- How the safeguarding of persons, plant, vehicles, equipment and facilities on the construction site is contemplated,
- Training of staff working at heights and in the use of fall protection equipment, How a continuous assessment of the situation will be executed,
- How fall protection equipment will be inspected for safety, and
- How corrective actions will be implemented
- Emergency plans and procedures for treatment of incidents relating to falls from height.

## **6.3 Scaffolding**

The Contractor shall with reference to Construction Regulation 16: Scaffolding of the Construction Regulations, 2014, and without limiting his obligations, cover at least the following matters in his Health and

Safety Plan:

- How compliance with SABS 085 will be ensured,
- How scaffolding in use will be maintained,
- What systems are intended to ensure the safety of scaffolding used, and
- What tests will be performed to establish the safety of scaffolding used Training plan for scaffold erectors and inspectors.

## **6.4 Use and temporary storage of flammable liquids on construction sites**

This section of the specification shall be read in conjunction with the provisions for the use and storage of flammable goods as determined in the General Safety Regulations.

The Contractor shall with reference to Construction Regulation 25: Use and temporary storage of flammable liquids on construction sites of the Construction Regulations, 2014, and without limiting his obligations, cover at least the following matters in his Health and Safety Plan:

- How flammable liquids will be stored to minimize the risk of fire or explosions,
- How the contractor will identify a flammable store
- What safety precautions will be employed if ventilation of the flammable store is not possible.
- How access to flammable stores will be controlled,
- How empty vessels used for the storage of flammable liquids will be disposed of,
- What quantity of flammable liquids will be stored on the construction site,
- What systems are intended to ensure the safe storage of flammable liquids, and
- What retaining methods will be used to prevent the spreading of any spillage.

## **6.5 Stacking and storage**

This section of the specification shall be read in conjunction with the provisions for the stacking of articles contained in the General Safety Regulations.

The Contractor shall with reference to Construction Regulation 28: Stacking and storage on construction sites of the Construction Regulations, 2014, and without limiting his obligations, cover at least the following matters in his Health and Safety Plan:

Who will supervise the stacking and storage of materials on site, and  
What systems are intended to ensure the safe stacking and storage of materials on the site

## **6.6 Personnel Safety Equipment and Facilities**

The Contractor shall comply with Section 2 of the General Safety Regulations, and shall in particular provide all necessary personnel protective equipment for his for the duration of the construction period. To this end the Contractor shall without limiting his obligations indicate in his Health and Safety Plan:

Identify training requirements in the Contractors Training plan in the use and maintenance of personal protective equipment,  
The type of personnel safety equipment he will provide, How he intends issuing it to his employees, and  
How he will maintain the personnel safety equipment issued.

## **6.7 First Aid, Emergency Equipment and Procedures**

The Contractor shall comply with Section 3 of the General Safety Regulations regarding first aid, emergency equipment and procedures.

## **7. CATEGORIES OF WORK**

In this section of his Health and Safety Plan, the Contractor will be required to state how he intends to comply with the requirements of the Occupational Health and Safety Act, 1993 and all its regulations and related incorporated standards with regards to the execution of the following categories of work.

### **7.1 General**

The Contractor shall, without limiting his obligations, cover at least the following matters in his Health and Safety Plan under this category of work:

#### **7.1.1 Construction welfare facilities**

Contractors will be required to adhere to Construction Regulation 30: Construction welfare facilities of the Construction Regulations, 2014.

This regulation must be read in conjunction with the provisions of the Facilities Regulations, 1990 (as amended) and SANS 0400.

The Contractor must discuss the following in detail in his safety plan:

How will the Contractor establish the amount of facilities required for employees to shower, change, eat and attend to sanitary needs  
What measures will the employer take to house employees on site who lives far

form their residences or for the provision of transport

#### *7.1.2 Environmental regulations for workplaces*

The Contractor shall comply with the Environmental Regulations for Workplaces, 1987, and shall address the following aspects as described in the regulations in his Health and Safety plan:

Thermal requirements, Lighting, Windows, Ventilation, Housekeeping, Noise and hearing conservation, Precautions against flooding, and Fire precautions and means of egress.

#### *7.1.3 Housekeeping on construction sites*

Contractors will be required to adhere to Construction Regulation 26: Housekeeping on construction sites, of the Construction Regulations, 2014.

This regulation must be read in conjunction with the provisions of the Environmental Regulations for Workplaces, 1987 (as amended).

The Contractor must discuss the following in detail in his safety plan:

How will contractors ensure the neatness of construction sites  
What measures does the Contractor envisage to

- o Store and/or stack materials,
- o Remove debris from site,
- o Prevent unauthorized entrance to the site
- o Protect employees or passers-by from falling objects

#### *7.1.4 Fire precaution on construction sites*

Contractors will be required to adhere to Construction Regulation 29: Fire precautions on construction sites, of the Construction Regulations, 2014.

This regulation must be read in conjunction with the provisions of the Environmental Regulations for Workplaces, 1987 (as amended).

The Contractor must discuss the following in detail in his safety plan:

How the Contractor will minimize the risk of fire on the site  
How the Contractor will identify potential fire hazards  
What prohibitions the Contractor will implement to manage risk areas  
How many employees the Contractor will train in fire fighting  
What organization the Contractor envisage to combat fires on sites  
What precautions and procedures will be followed to evacuate employees in the case of a fire

#### *7.1.5 Water Environments*

The Contractor will be required to adhere to Construction Regulation 26: Water Environments, of the Construction Regulations, 2014.

The Contractor must discuss the following in detail in his safety plan:

What precautions will the Contractor take to identify dangers where employees may fall into water,  
What safety procedures and equipment will the Contractor implement to safeguard employees working at water environments.

#### *7.1.6 Structures*

The Contractor will be required to adhere to Construction Regulation 11: Structures, of the Construction Regulations, 2014.

The Contractor must discuss the following in detail in his safety plan:

- Explain what controls, test or precautions will be made to prevent structures from collapsing during construction,
- The Contractor shall indicate what steps will be taken and implemented to ensure that structures or parts thereof will not be loaded in such a manner that it may collapse, and
- What procedures does the Contractor envisage to implement in order to obtain all relevant data on structures before commencement of construction work.

#### *7.1.7 Watching, barricading and lighting*

The Contractor will be required to adhere to regulations 10 Of the Construction Regulations, 2014.

The Contractor must discuss the following in detail in his safety plan in respect of any excavation or other dangerous activity adjacent to public roads and thoroughfares:

- Type of barrier or fencing to be used,
- Type and spacing of warning lights and warning signs, and
- Control systems and personnel he intends employing to ensure that the above items are maintained.

#### *7.1.8 Hazardous Chemical Substances*

The Contractor will be required to adhere to the Regulations for Hazardous Chemical Substances 1995 as amended in the handling and storage cement of and other hazardous chemical substances.

The Contractor must discuss the following in detail in his safety plan in respect of each hazardous chemical substance that will be used in the works:

- Storage of substance
- Handling of substance
- Protective clothing and other devices to be used while handling the substance
- Medical surveillance.

## **7.2 Site Clearance**

The Contractor shall, without limiting his obligations, cover at least the following matters in his Health and Safety Plan under this category of work:

#### *7.2.1 Demolition work*

Contractors will be required to adhere to Construction Regulation 14: Demolition work, of the Construction Regulations, 2014.

The Contractor shall discuss the following in detail in his safety plan:

- Briefly explain how he will safeguard people and property during and after demolition works
- Briefly explain how he will protect staff from dangerous situations
- Discuss the methods proposed to safeguard the public and property against harm during demolition works
- Discuss what type of equipment he envisage to use during demolition work
- How will the Contractor ensure the safety of equipment used during demolition

work  
What steps will the Contractor deem necessary to take where  
hazardous materials is encountered  
Dust control measures  
Noise control measures

### **7.3 Earthworks**

The Contractor shall, without limiting his obligations, cover at least the following matters in his Health and Safety Plan under this category of work:

#### **7.3.1 Excavation work**

Contractors will be required to adhere to Construction Regulation 13: Excavation work, of the Construction Regulations, 2014.

The Contractor must discuss the following in detail in his safety plan:

How will the Contractor establish the stability of ground prior to excavations,  
What steps will the Contractor follow to ensure that bolstering, shoring and bracing is sufficient to ensure the safety of the excavation, and  
What steps will the Contractor follow to ensure the equipment used to safeguard an excavation is sufficient and safe.

### **7.4 Concrete**

The Contractor shall, without limiting his obligations, cover at least the following matters in his Health and Safety Plan under this category of work:

#### **7.4.1 Formwork and support work**

The Contractor shall with reference to Construction Regulation 12: Formwork and support work, of the Construction Regulations, 2014, and without limiting his obligations, cover at least the following matters in his Health and Safety Plan:

How the design of formwork and support work will be carried out,  
How the erection of formwork and support work will be managed,  
How the continuous assessment of the safety of formwork will be done,  
How the loading of formwork and support work will be managed or limited,  
and  
How he intends keeping records of the above.

### **7.5 Pipes**

The Contractor shall comply with Section 9 of the General Safety Regulations, with regards to the welding, flame cutting, grinding, soldering or similar operations associated with pipework.

## **8 IMPLEMENTATION OF CONTRACTOR'S HEALTH AND SAFETY PLAN**

### **8.1 General**

The Contractor shall describe in his Health and Safety Plan how he intends implementing his plan. The Contractor shall indicate the methods he intends using to ensure accurate record keeping of all critical elements identified in his risk assessment and covered in his Health and Safety Plan.

The Contractor shall indicate how internal audits will be carried out, how

shortcomings will be addressed, how he intends to review the safety plans, how he would train staff and how he would implement the findings and recommendations of internal audits or inputs of employees.

## **8.2 Administrative Systems**

The Contractor shall comply with Section 9 of the General Administrative Regulations, 1996. The Contractor's administrative system shall without limiting his obligations, cover the following:

- Up keep of a safety file on site,
- Maintenance of his Health and Safety plan,
- Procedures to follow for the appointment of competent persons,
- Application for permits,
- Procedures to follow for notifications, Injury on duty [IOD] administration,
- Recording of minutes of safety meetings, Recording of checklists,
- Safe keeping of checklists, and
- Internal audits.

The Contractor shall in particular ensure that at least one copy of the Occupational Health and Safety Act, 1993 and its Regulations is available on the for every 20 employees employed.

## **8.3 Reporting Systems**

The Contractor shall comply with Section 9 of the General Administrative Regulations, 1996 and shall in particular (in accordance with section 12) furnish an inspector with information relating to health and safety on the construction site, when requested to do so.

The Contractor shall notify the Employer of any investigations, complaint or criminal charge which may arise as a consequence of the provision of the Occupational Health and Safety Act, 1993 and its Regulations, pursuant to work performed in terms of this Contract.

## **8.4 Training**

The Contractor shall train all his employees in accordance with the requirements of section 13 of the Occupational Health and Safety Act, 1993. The Contractor shall ensure that every employee is informed of the following:

- The hazards of any work he has to perform or plant machinery or equipment he is permitted to use, and
- The precautionary measures which should be taken regarding the above.

The Contractor shall, without limiting his obligations, indicate in his Health and Safety Plan how he intends:

- Identifying the training needs of the personnel he intends employing, and
- Implementing the training identified
- What proof of induction training will be carried by his employees (e.g. Laminated type identification card).

## **8.5 Safety Meetings**

The Contractor shall conduct at least one formal safety meeting per month with his employees to ensure safety awareness and shall maintain appropriate records of attendance and meeting content. Such records shall be made available to the

Employers Safety Agent. Such meetings shall address at least the following:

- Accident / safety incidents
- Hazardous conditions
- Hazardous materials / substances
- Job or work projections
- Work procedures
- Protective clothing / equipment
- Housekeeping
- General safety topics

## **8.6 Inspections and Monitoring**

The Contractor shall be required to inspect each workplace prior to works commencing to ensure that all protective equipment is in place and that by entering the workplace no person will be exposed to any hazard which could affect his health or safety. The Contractor shall without limiting his obligations, indicate the following in his Health and Safety Plan:

- The inspection and monitoring procedures he intends employing to determine the safety of workplaces, and
- Who will be responsible for the checking of each workplace at the commencement of each shift.

The Contractor shall include in his Health and safety Plan all the checklists he intends using during the inspection and monitoring of the implementation of his Health and Safety Plan.

The Contractor can expect inspections of the works by any of the following parties:

- The Employer or his Safety Agent,
- The Employer's Occupational Safety Officer, or
- The designated officer serving in the Department of Manpower and appointed by the Minister as Chief Inspector or his representative.

In addition to site inspections performed by the Employer or his safety agent they shall also do audits and assess the safety situation at the works and investigate incidents. Follow-up inspections will be performed to ensure compliance to recommendations done.

The Employer, his Safety Agent or his Occupational Safety Officer may stop the work at any time under the following conditions:

- If the Contractor is not compliant with his Health and Safety Plan Imminent threat to the health and safety of any person on site
- Continuous non-conformance to corrective action requests.

Inspections by the Chief Inspector or his representative will be by appointment and the purpose would be to investigate complaints received by the Inspector or to investigate serious incidents.

The Chief Inspector or his representative may issue prohibition notices to stop the activities at the works until the situation investigated has been resolved or he may issue an improvement notice whereby the Contractor will have a period to rectify any hazard identified by the inspector.

## **9. AUDITING**

## **9.1 Internal Audits**

The audits contemplated in regulation of the Construction Regulations, 2014 will be carried out by the Employer or his appointed Safety Agent.

The intervals for the audits shall be agreed between the Contractor and the Employer or his Safety Agent during the preparation of the Contractor's Health and Safety Plan, but shall be carried out at least once every month or at such shorter interval that an inspector may require. The Employer or his Safety Agent shall provide at least 7 calendar days notice prior to the conducting of an audit.

The findings of each audit will be made known to the Contractor and the Employer in a report prepared by the Employer or his Safety Agent and will be submitted to all parties within seven working days of the respective audit being completed. Any shortfalls identified will be documented in the audit report together with the Contractor's proposals to rectify the same. All audit reports will be filed in the Health and Safety File.

A date for a follow up audit will be negotiated with the Contractor to verify the implementation of all actions to rectify shortfalls as identified in the audit report .

The Contractor will ensure that the same arrangement detailed above be implemented with his Contractors to ensure his compliance with the Construction Regulations and contemplated in regulation

The audits described above only constitutes part compliance by the Employer or the Safety Agent with regulation of the Construction Regulations, 2014.

## **9.2 Audits by Employer or Safety Agent**

The Employer or Safety Agent will be entitled to carry out additional audits or follow-up audits, as the case may be, at any time during the construction period provided that:

- i) The audit or follow-up audit are carried out during ordinary working hours, and
- ii) The Employer or Safety Agent gives the Contractor at least 24 hours notice of his intention to carry out such audits.

The Contractor's employees indicated in Section 9.1 will be present during any audit carried out by the Employer or his Safety Agent.

## **10. MEASUREMENT AND PAYMENT**

### **10.1 Measurement and Payment**

10.1.1 The scheduled items for health and safety will be as specified in clause 31 of section 001 of the Standard Specifications.

10.1.2 The Contractor shall price all items scheduled in this section of the schedule of quantities to enable the Employer to comply with the Construction Regulations, 2014. Failure by the Contractor to price these items will force the Employer to reject the Contractor's tender of the Construction Regulations, 20

## **ANNEXURE 1**

### **APPOINTMENT LETTERS PRO-FORMA'S**

## COMPANY LETTER HEAD

Attention: **(Assistant Construction Supervisor's Name)**

### APPOINTMENT OF THE ASSISTANT CONSTRUCTION MANAGER IN TERMS OF CONSTRUCTION REGULATION 8(1)

I, **(contractor's name)** hereby appoint **(assistant construction supervisor's name)** as the assistant supervisor responsible for **(site address)** to carry out the construction work of **(description of construction work and area of responsibility)**.

In terms of this appointment you are required to ensure that all construction work performed under your supervision is carried out as follows:

1. By persons suitably trained and competent to do such work;
2. That all persons are aware and understand the hazards attached to the work being carried out;
3. That the required risk assessments are carried out;
4. That precautionary measures are identified and implemented;
5. That discipline is enforced at the construction site at all times;
6. That all identified statutory requirements are met; and
7. That any other interest in terms of health and safety with respect to the responsible area is met.
8. You will accept the duties of the Construction Supervisor in his absence.

You are required to report any deviations of the above-mentioned instruction to **(construction supervisor's name)** and in his absence to the contractor's representative.

This appointment is valid from **(date)** to the completion of the stipulated construction work.

You shall submit a written weekly report any non-compliance with the construction Regulations, 2014.

\_\_\_\_\_  
Contractor's Representative full name

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

.....  
Kindly confirm your acceptance of this appointment by completing the following:

I, **(assistant construction supervisor)** understand the implications of the appointment as detailed above and confirm my acceptance.

\_\_\_\_\_  
Assistant construction supervisor's

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

## COMPANY LETTER HEAD

Attention: **(Safety Officer's Name)**

### APPOINTMENT OF THE CONSTRUCTION HEALTH AND SAFETY OFFICER IN TERMS OF CONSTRUCTION REGULATION 8(5&6)

I, **(contractor's name)** hereby appoint **(safety officer's name)** as the Construction Health and Safety Officer responsible for **(site address)** to manage all the health and safety issues as required in terms of the Act by establishing a health and safety program with elected health and safety Representatives.

You shall ensure that all the requirements in terms of the Act and in particular in terms of the Construction Regulations, 2014 are met. You shall also ensure that all appointed sub-contractors comply with the requirements as stipulated in the Construction Regulations, 2014.

You shall further ensure that all records, registers and required lists are maintained and shall stop construction work upon identifying any non-compliance by any contractor; this includes stopping any work should the competency of the person carrying out such work be questionable.

This appointment is valid from **(date)** to the completion of the stipulated construction work.

_____	_____	_____
Contractor's Representative full name	Signature	Date

.....  
Kindly confirm your acceptance of this appointment by completing the following:

I, **(construction health and safety officer's name)** understand the implications of the appointment as detailed above and confirm my acceptance.

_____	_____	_____
Construction Health & Safety Officer's full name	Signature	Date

## COMPANY LETTER HEAD

Attention: (**Construction Vehicle and Mobile Plant Inspector**)

### APPOINTMENT OF THE CONSTRUCTION VEHICLE AND MOBILE PLANT INSPECTOR IN TERMS OF CONSTRUCTION REGULATION

I, (**contractor's name**) hereby appoint (**construction vehicles and mobile plant inspector's name**) as the construction vehicles and mobile plant inspector responsible for (**site address**) to inspect on a daily basis all construction vehicles and mobile plant, as per the provided checklist.

You shall ensure that when becoming aware of any health and safety hazards in respect to construction vehicles and mobile plant that these hazards are reported in writing to the Construction Health and Safety Officer and Construction supervisor and the necessary precautionary measures are taken and enforced.

You shall further ensure that the requirements of the Construction Regulations, 2014 are at all times met.

This appointment is valid from (**date**) to the completion of the stipulated construction work.

_____	_____	_____
Contractor's Representative full name	Signature	Date

.....  
Kindly confirm your acceptance of this appointment by completing the following:

I, (**construction vehicles and mobile plant inspector's full name**) understand the implications of the appointment as detailed above and confirm my acceptance.

_____	_____	_____
Construction vehicles and mobile plant inspector's full name	Signature	Date

## COMPANY LETTER HEAD

Attention: **(Sub-Contractor's Name)**

### APPOINTMENT OF SUB-CONTRACTOR IN TERMS OF THE CONSTRUCTION REGULATION 7(3)

I, **(contractor's name)** hereby appoint **(sub-contractor's name)** as the sub-contractor responsible for **(site address)** to carry out the construction work of **(description of construction work)**.

You shall ensure that you meet all the requirements in terms of the Act and in particular in terms of the section 37(2) agreement and the Construction Regulations, 2014. You shall also ensure that all contractors appointed by yourself and reporting to you comply with the requirements as stipulated in the Construction Regulations, 2014.

You shall also ensure that all the information and specifications to ensure that the construction work is carried out in a safe manner are carried over to all contractors appointed and reporting to you.

You shall further ensure that all records, registers and required lists are maintained and that all persons appointed to carry out tasks as stipulated by these regulations are competent and have the necessary resources to complete their tasks effectively in such a manner that health and safety is not in any manner compromised.

This appointment is valid from **(date)** to the completion of the stipulated construction work.

You shall submit a written weekly report on all shortfalls that have not been met in terms of these regulations.

\_\_\_\_\_  
Contractor's Representative full name

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

.....  
Kindly confirm your acceptance of this appointment by completing the following:

I, **(sub-contractor's name)** understand the implications of the appointment as detailed above and confirm my acceptance.

\_\_\_\_\_  
Sub-Contractor's Representative full name

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

## COMPANY LETTER HEAD

Attention: **(Construction Supervisor's Name)**

### APPOINTMENT OF THE CONSTRUCTION SUPERVISOR IN TERMS OF CONSTRUCTION REGULATION 8(7)

I, **(contractor's name)** hereby appoint **(construction supervisor's name)** as the Supervisor responsible for **(site address)** to carry out the construction work of **(description of construction work and area of responsibility)**.

In terms of this appointment you are required to ensure that all construction work performed under your supervision is carried out as follows:

1. By persons suitably trained and competent to do such work;
2. That all statutory appointments have been completed;
3. That, where required, health and safety committees are established and that meetings are accordingly held;
4. That all persons are aware and understand the hazards attached to the work being carried out;
5. That the required risk assessments are carried out;
6. That precautionary measures are identified and implemented;
7. That discipline is enforced at the construction site at all times;
8. That all identified statutory requirements are met; and
9. That any other interests in terms of health and safety with respect to the responsible area is met.
10. You will in writing delegate your duties to the Assistant Construction Supervisor while absent from site.

You are required to report any deviations of the above-mentioned instructions to **(contractor's name)**. This appointment is valid from **(date)** to the completion of the stipulated construction work. You shall submit a written weekly report on all shortfalls that have not been met in terms of these regulations.

\_\_\_\_\_  
Contractor's Representative full name

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

.....  
Kindly confirm your acceptance of this appointment by completing the following:

I, **(construction supervisor)** understand the implications of the appointment as detailed above and confirm my acceptance.

\_\_\_\_\_  
Construction Supervisor's full name

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

## COMPANY LETTER HEAD

Attention: **(Excavation Work Supervisor's Name)**

### APPOINTMENT OF THE EXCAVATION WORK SUPERVISOR IN TERMS OF CONSTRUCTION REGULATION

I, **(contractor's name)** hereby appoint **(excavation work supervisor's name)** as the excavation work supervisor responsible for **(site address)** to supervise and carry out all the necessary inspections in terms of all excavation work as per the provided checklist.

You shall ensure that when becoming aware of any health and safety hazards in respect to excavation work that that these hazards are reported in writing to the Construction Health and Safety Officer and Construction supervisor and the necessary precautionary measures are taken and enforced.

You shall further ensure that the requirements of the Construction Regulations are at all times met. This appointment is valid from **(date)** to the completion of the stipulated construction work.

_____	_____	_____
Contractor's representative full name	Signature	Date

.....  
Kindly confirm your acceptance of this appointment by completing the following:

I, **(excavation work supervisor's full name)** understand the implications of the appointment as detailed above and confirm my acceptance.

_____	_____	_____
Excavation Work Supervisor full name	Signature	Date

## COMPANY LETTER HEAD

Attention: **(Form work and Support work supervisor's name)**

### APPOINTMENT OF THE FORMWORK AND SUPPORT WORK SUPERVISOR IN TERMS OF CONSTRUCTION REGULATION

I, **(contractor name)** hereby appoint **(form work and support work supervisor's name)** as the formwork and support work supervisor responsible for **(site address)** to supervise and carry out all the necessary inspections in terms of all formwork and support work as per the provided checklist.

You shall ensure that when becoming aware of any health and safety hazards in respect to formwork and support work that the necessary precautionary measures are taken and enforced. Hazards are reported in writing to the Construction, Health and Safety Officer and the Construction Supervisor.

You shall further ensure that the requirements of the Construction Regulations are at all times met. This appointment is valid from **(date)** to the completion of the stipulated construction work.

_____ Contractor's representative full name	_____ Signature	_____ Date
--	--------------------	---------------

Kindly confirm your acceptance of this appointment by completing the following:

I, **(formwork and support work supervisor's full name)** understand the implications of the appointment as detailed above and confirm my acceptance.

_____ Formwork and Support Work Supervisor's full name	_____ Signature	_____ Date
--	--------------------	---------------

## COMPANY LETTER HEAD

Attention: (*Ladder Inspector's Name*)

### APPOINTMENT OF THE LADDER INSPECTOR IN TERMS OF CONSTRUCTION REGULATION 13(A)

I, (*contractor's name*) hereby appoint (*ladder inspector's name*) as the ladder inspector responsible for (*site address*) to manage ladders on site. You should inspect the ladders as per the checklist at least once a week.

You shall ensure that when becoming aware of any health and safety hazards in respect to ladders that these hazards are reported in writing to the Construction Health and Safety Officer and Construction supervisor and the necessary precautionary measures are taken and enforced.

You shall further ensure that the requirements of the Construction Regulations, 2014 are at all times met.

This appointment is valid from (*date*) to the completion of the stipulated construction work.

_____	_____	_____
Contractor's representative full name	Signature	Date

Kindly confirm your acceptance of this appointment by completing the following:

I, (*ladder inspector's full name*) understand the implications of the appointment as detailed above and confirm my acceptance.

_____	_____	_____
Ladder inspector's full name	Signature	Date

## COMPANY LETTER HEAD

Attention: **(Risk Assessor's Name)**

### APPOINTMENT OF THE CONSTRUCTION SITE RISK ASSESSOR IN TERMS OF CONSTRUCTION REGULATION 9(1)

I, **(contractor's name)** hereby appoint **(risk assessor's name)** as the construction site risk assessor responsible for **(site address)** to carry out risk assessments prior to the commencement of construction work and any other risk assessment that may be required for the duration of the construction work.

You shall ensure that all risks are identified and analyzed and that safe working procedures are drafted and implemented to reduce, mitigate or controls the hazards that were identified.

You will at least use the risk evaluation program with the provided checklists.

This appointment is valid from **(date)** to the completion of the stipulated construction work.

_____	_____	_____
Contractor's representative full name	Signature	Date

Kindly confirm your acceptance of this appointment by completing the following:

I, **(construction site risk assessor's name)** understand the implications of the appointment as detailed above and confirm my acceptance.

_____	_____	_____
Construction site Risk Assessor's full name	Signature	Date

## COMPANY LETTER HEAD

Attention: **(Scaffolding Supervisor's Name)**

### APPOINTMENT OF THE SCAFFOLDING SUPERVISOR IN TERMS OF CONSTRUCTION REGULATION

I, **(contractor's name)** hereby appoint **(scaffolding supervisor's name)** as the scaffolding supervisor responsible for **(site address)** to supervise and carry out all the necessary inspections in terms of all scaffolding work. (Whether newly erected, altered or moved as per the provided checklist)

You shall ensure that when becoming aware of any health and safety hazards in respect to scaffolding work that these hazards are reported in writing to the Construction Health and Safety Officer and Construction supervisor and the necessary precautionary measures are taken and enforced.

You shall further ensure that the requirements of the Construction Regulations, 2014 are at all times met.

This appointment is valid from **(date)** to the completion of the stipulated construction work.

---

Contractor's Representative full name

---

Signature

---

Date

Kindly confirm your acceptance of this appointment by completing the following:

I, **(scaffolding supervisor's full name)** understand the implications of the appointment as detailed above and confirm my acceptance.

---

Scaffolding Supervisor's full name

---

Signature

---

Date

## COMPANY LETTER HEAD

Attention: *(Stacking and Storage Supervisor's Name)*

### APPOINTMENT OF THE STACKING AND STORAGE SUPERVISOR IN TERMS OF CONSTRUCTION REGULATION

I, *(contractor's name)* hereby appoint *(stacking and storage supervisor's name)* as the stacking and storage supervisor responsible for *(site address)* to manage all stacking and storage on site.

You shall inspect all new stacking and thereafter as often as needed according to the checklist.

You shall ensure that when becoming aware of any health and safety hazards in respect to stacking and storage that these hazards are reported in writing to the Construction Health and Safety Officer and Construction supervisor and the necessary precautionary measures are taken and enforced.

You shall further ensure that the requirements of the Construction Regulations are at all times met. On identifying any shortfalls or hazards convey such information in writing to the construction supervisor.

This appointment is valid from *(date)* to the completion of the stipulated construction work.

\_\_\_\_\_  
Contractor's Representative full name

\_\_\_\_\_  
Supervisor

\_\_\_\_\_  
Date

Kindly confirm your acceptance of this appointment by completing the following:

I, *(stacking and storage supervisor's full name)* understand the implications of the appointment as detailed above and confirm my acceptance.

\_\_\_\_\_  
Stacking and Storage Supervisor's  
Full name

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

## **ANNEXURE 2**

### **NOTIFICATION TEMPLATES**

## **COMPANY LETTER HEAD**

Attention: The Provincial Director  
The Department of Labour  
[Postal Address\*]

### **NOTIFICATION OF CONSTRUCTION WORK ON CONTRACT [NUMBER] [CONTRACT DESCRIPTION]**

In terms of regulation 4.(1) of the Construction Regulations , 2014 promulgated on 7 February 2014 in terms of the Occupational Health and Safety Act, 1993 (Act 85 of 1993), we hereby notify you of our intention to commence construction works on the abovementioned contract, which:

Includes the demolition of a structure exceeding a height of 3 meters,  
Includes the use of explosives to perform the construction work,  
Includes the dismantling of fixed plant at a height greater than 3 meters,  
Will exceed 30 days or will involve more than 300 person days of construction,  
Includes excavation work deeper than 1 meter, or  
Includes working at a height greater than 3 meters above ground or a landing.

#### **1. Parties involved on the Contract**

1.1 The Principal Contractor is: [Contractor's Name]  
[Contractor's postal address]  
[Contractor's postal address]  
Att: [Contractor's contact person and telephone number]

1.2 The Client (Employer) is: [Employer's Name]  
[Employer's postal address]  
Att: [Employer's contact person and telephone number]

1.3 The Client's Safety Agent is: [Safety Agent's Name]  
[Safety Agent's postal address]  
Att: [Safety Agent's contact person and telephone number]

1.4 The Contractor's Construction Supervisor (8 (1)) is: [Contractor's Construction Supervisor's name and telephone number]

## 2. Details of the construction works

2.1 The physical address of the works is: [Physical address of works]  
[Physical address of works]

2.2 The nature of the construction works is: [Provide a description of the works].

2.3 The expected commencement date of the Works is : [Insert expected commencement date]

2.4 The expected completion date of the works is : [Insert expected completion date]

2.5 The estimated maximum number of persons on the construction site:

2.6 A total of \_\_\_\_\_ contractors will be accountable to the Principal Contractor on the construction site during the execution of the Works. The names of the contractors already chosen are as follows: [Provide a list of the Contractor's subcontractors already appointed]

## 3. Other details

3.1 The Principal Contractor's compensation registration number is: \_\_\_\_\_

3.2 In terms of regulation 3.(3) a copy of this notification will be kept on site for inspection. We trust the above is in order.

Yours faithfully,

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

\* Postal Address of Provincial Director as indicated in regulation 1 of the General Administrative Regulations, 1996.

## **ANNEXURE 3**

### **IDENTIFIED HEALTH AND SAFETY HAZARDS**

### **ANNEXURE 3: IDENTIFIED HEALTH AND SAFETY HAZARDS**

In terms of Regulation 4(1)(b) of the Construction Regulations 2014 the following hazards anticipated with the scope of work have been identified.

**NOTE:** The list of potential hazards is by no means intended to be all inclusive and is not limited to this list, and it remains the responsibility of the Contractor to identify all possible hazards with regards to his scope of work and to put measures in place to mitigate, reduce or control these hazards.

#### **Potential Hazards**

1. Commissioning of new installations
2. Confined space entry
3. Demolition/breaking into existing structures
3. Excavation shoring / brazing
4. Excavations been flooded during rain season
5. Explosives
7. Hazardous material handling / storage / management
8. Heat stress
9. Loading and off loading vehicles
10. Manual handling of materials
11. Plant and equipment integrity
12. Public and traffic safety
13. Requirements for plant isolations
14. Roofing and Cladding operations
15. Safe usage and storage of Oxygen, Acetylene and LPG cylinders
16. Scaffolding
17. Stacking and storage of equipment / materials
18. Tie-ins into existing equipment
19. Usage of compressed air and equipment
20. Work involving radioactive sources
21. Working in operational areas
22. Working on live electrical installations / sub-stations / MCC rooms
23. Working on moving equipment.

## **SCHEDULE B : ENVIRONMENTAL MANAGEMENT SPECIFICATION**

### **C.1 General**

In order to ensure that the construction works is carried out in an environmentally sensitive matter, strict compliance to the Environmental Management Plan (EMP) guidelines is required. The purpose of the EMP is to:

- Encourage good management practices through planning and commitment to environmental issues,
- Provide rational and practical environmental guidelines to:
  - i. Minimise disturbance of the natural environment,
  - ii. Prevent pollution of land, air and water,
  - iii. Prevent soil erosion and facilitate re-vegetation.
- Adopt the best practicable means available to prevent or minimise adverse environmental impact,
- Develop waste management practices based on prevention, minimisation, recycling, treatment or disposal of wastes,
- Train employees and contractors with regard to environmental obligations.

### **C.2 Training and Induction of Employees**

The Contractor has a responsibility to ensure that all those people involved in the project are aware of and familiar with the environmental requirements for the project (this includes sub-contractors, casual labour, etc.). The CMP shall be part of the terms of reference for all contractors, sub-contractors and suppliers.

### **C.3 Complaints Register and Environmental Incident Book**

Any complaints received by the project team from the public will be recorded. The complaint should be brought to the attention of the site manager, who will respond.

The following information must be recorded:

- Time, date and nature of the complaint,
- Type of communication (telephone, letter etc),
- Name, contact address and telephone number of the complainant,
- Response and investigation undertaken and
- Actions taken and by whom.

All complaints received will be investigated and a response given to the complainant within 14 days.

All environmental incidents occurring on the site will be recorded. The following information will be provided:

- Time, date, location and nature of the incident,
- Actions taken and by whom.

### **C.4 Site Cleanliness and Neatness**

- Location of a construction camp is to be approved by the Engineer and is to be restored to its previous condition after completion of construction.
- The construction camp should preferably be fenced with a 1.8m bonnox fence or similar approved.
- All materials, equipment, plant and vehicles must be stored within the construction camp.
- A dedicated area must be made available for construction staff to change and store their personal belongings.

### **C.5 Access**

Access to existing roads, schools, buildings, shops and residential properties must not be impeded during construction.

Access roads utilised by the Contractor must be maintained in good condition.

## **C.6 Borrow Pits**

Mining authorisations (permits) for borrow pits must be obtained from the Department of Minerals and Energy (DME) in consultation with the Department of Water Affairs and Forestry (DWAF).

Spoil dumps resulting from borrow pits must not interfere with any natural surface drainage.

Borrow pits must be rehabilitated after use in accordance with the requirements of DME and DWAF.

## **C.7 Dust Control / Air Quality**

- Dust suppression measures must be implemented during construction by ensuring that all surfaces prone to dust generation are kept damp (e.g. use of water tanker).
- Ensure that vehicles and equipment are in good working conditions and that emissions are not excessive.
- Ensure that vehicles and equipment are in good working conditions and that emissions are not excessive.
- Special care must be taken in areas where the route passes close to schools and residential areas.
- The speed of construction vehicles must be reduced.

## **C.8 Fauna**

- Contractor staff may not chase, catch or kill animals encountered during construction.

## **C.9 Fire Prevention and Control**

- Smoking is prohibited in the vicinity of flammable substances.
- The contractor must ensure that fire-fighting equipment is available on site, particularly where flammable substances are being stored or used, and that construction staff are aware of where it is kept and how it is operated.
- Fires started for comfort (warmth) are prohibited, due to the risk of veld fires and risk to adjacent property owner's lands.

## **C.10 Grave Sites**

- Gravesites in close proximity to the road must not be disturbed during construction.

## **C.11 Materials Handling and Spills Management**

- Any hazardous materials to be used during construction (e.g. lime, fuel, paint, etc) are to be stored in a designated area at the campsite.  
The storage containers/facilities (including any diesel/petrol tanks) must be placed on an impermeable surface and surrounded by a bund wall, in order to ensure that.
- Accidental spillage does not pollute the environment.
- Workers must at all times be made aware of the health and safety risks associated with any hazardous substances used (e.g. smoking near fuel tanks), and must be provided with appropriate protective clothing/equipment in case of spillages or accidents.
- Ensure all staff and contractors undergo relevant training in the maintenance of equipment to prevent the accidental discharge or spill of fuel, oil, lubricants and other chemicals.
- Any spill of potentially hazardous materials must be cleaned up immediately (Potentially hazardous materials on site include paint, oil, grease, fuel, turpentine, etc).
- The area of contaminated soil or spill must be deposited into the hazardous waste container(s).
- The contractor should keep Peat Sorb or a similar absorbent on site to clean up any spills. The absorbent must be stored in a designated area and be available for inspection.
- All spills are to be recorded in the environmental incident book.

## **C.12 Noise**

- Noise generating activities must be restricted to between 07h00 and 17h00 Monday to Friday, unless otherwise approved by the appropriate competent person in consultation with adjacent landowners/affected persons.
- All equipment, vehicles and machinery must be in good working condition and be equipped

- with sound mufflers if necessary.
- Construction staff must be trained and made aware of not creating unnecessary noise such as hooting and shouting.

### **C.13                      Pollution Control**

- Soil and water pollution through usage of fuel, oil, paint, bitumen or other hazardous substances must be avoided.
- All construction vehicles are to be maintained in good working order so as to prevent soil or water pollution from oil, fuel or other leaks, and to reduce noise pollution.

### **C.14                      Rivers and Streams**

- During construction of bridge structures, there must be no obstruction of the water flow of rivers and streams.
- Excavated material must not be stockpiled on or near riverbanks, in order to prevent sedimentation occurring.
- Erosion control measures must be employed both during and after construction.
- No impediments to natural surface water flow, other than approved erosion control measures, must occur.

### **C.15                      Safety**

- Safety measures, such as detour signs, must be implemented during construction to ensure the safety of workers, pedestrians and drivers/passengers in vehicles in the vicinity of construction work.
- Special care must be taken in the vicinity of schools to ensure the safety of children wishing to cross the road under construction.
- The relevant signage (e.g. speed control signs) must be erected alongside the road during the operation phase in order to control traffic.
- Accommodation must be made for pedestrian pathways alongside the road during the construction and operation phases.

### **C.16                      Soil Management**

- Stormwater drainage pipes must be installed alongside the road in all areas susceptible to soil erosion.
- Erosion should be minimised by the construction of meadow drains and the planting of indigenous vegetation on the side slopes and drains to reduce flow velocity of stormwater.
- Spoil from cuts may be used in existing erosion galleys.
- Stone pitching and gabions should be constructed at pipe culvert outlets.
- Accidental spills of contaminants onto the ground e.g. oil, concrete, fuel and chemicals should be removed together with the contaminated soil.
- If necessary an absorbent such as Peat Sorb should be used the aid in cleaning up the spill. The contaminated soil should be disposed of in an appropriate container, depending on its classification.
- Servicing and re-fuelling of vehicles must only be carried out at construction camp.

### **C.17                      Worker Conduct**

Code of Conduct for Construction Personnel:

Do not leave the construction site untidy and strewn with rubbish which will attract animal pests.  
Do not set fires.  
Do not cause any unnecessary, disturbing noise at the construction camp/site or at any designated worker collection/drop off points.  
Do not drive a construction-related vehicle under the influence of alcohol.  
Do not exceed the national speed limits on public roads or exceed the recommended speed limits on the site.  
Do not drive a vehicle which is generating excessive noise or gaseous pollution (noisy vehicles must be reported and repaired as soon as possible).  
Do not litter along the roadsides, including both the public and private roads.  
Do not pollute any water bodies (whether flowing or not).  
No member of the construction team is allowed to enter the areas outside the construction site.

#### **C.18 Traffic Disturbances and Diversions**

- Any traffic diversions must be undertaken with the approval of all relevant authorities and in accordance with all relevant legislation.
- Wherever possible, traffic diversion must only take place on existing disturbed areas and remain within the existing road reserve.
- Traffic diversion routes must be rehabilitated after use.

#### **C.19 Vegetation**

- Only vegetation falling directly on the route must be removed where necessary.
- Alien vegetation within the road reserve must be eradicated, and management measures must be implemented for future control of these species.
- Vegetation that has been removed from large areas (e.g. on traffic diversion routes) during construction must be replaced with indigenous vegetation after construction has been completed.

#### **C.20 Waste Management**

- All general, non-hazardous waste must be placed in a skip container and disposed of at a registered waste disposal site.
- The contractor is to ensure that the portable toilet facilities at the campsite are properly maintained and in working order.
- No disposal, or leakage, of sewage must occur on or near the site.
- All hazardous waste (e.g. oil, paint, empty lime bags, contaminated wash water, etc) must be stored in leakproof containers and disposed of at a registered hazardous waste disposal site.
- The contents of waste storage containers must, under no circumstances, be emptied to the surrounding area. In general, littering, discarding or burying of any materials is not allowed on site or along the route.
- Adequate waste receptacles must be available at strategic points around the construction camp and site for all domestic refuse and to minimise the occurrence of littering.
- Concrete rubble must be collected and disposed of as directed by the Project Manager.
- Each working area must be cleared of litter and building waste (e.g. rubble, wood, concrete packets etc) on completion of the day's work.
- Any spill around the container(s) should be treated as per Section C11 and C16.

### **1800: DAYWORKS**

This part of the Project Specifications deals with the provision for Dayworks in the Schedule of Quantities. Rates for Dayworks shall be entered in Schedule D of the Schedule of Quantities in accordance with the following specifications.

#### **D. 1 SCOPE**

According to clause 6.5 of the general conditions of contract for construction works (GCC) 2015 3<sup>rd</sup> edition, certain work may be carried out using rates tendered in the daywork schedule. A schedule of personnel, plant and equipment which may be necessary to perform work on a daywork basis is included in the schedule of quantities. The quantities used in the schedule are for tender evaluation purposes only and the use or not of these items shall not constitute a variation in terms of Clause 6.5 of the General Conditions of Contract 2015 3<sup>rd</sup> edition.

No work will be paid for as Dayworks without the written instruction or approval of the Engineer.

## **D. 2 TYPE OF WORK**

The Engineer may order daywork in certain cases where it is necessary to vary or to extend the works due to new or unforeseen circumstances to such an extent that the tendered rates for specific items of work are no longer applicable, or where no suitable combination of tendered rates can be used to pay for such work.

As a general rule, applicable rates for additional work items will be agreed between the Contractor and the Engineer. Dayworks will only be used in exceptional circumstances.

## **D. 3 MATERIALS**

Materials for use in works carried out under Daywork shall be purchased by the Contractor who shall also arrange for delivery to site, and shall be responsible for any other requirements associated with specific materials. A Provisional Sum has been allowed in Section 1200A for Daywork materials. The Contractor shall enter a tendered percentage in the section to cover his handling costs and profit, as per other provisional and prime cost sums in this Contract.

Materials shall be paid for using the method described in the Pricing Data. No contract price adjustment will be applicable to materials.

The Contractor shall submit proof of ownership for any materials used in Dayworks with his dayworks claim to the Engineer. Further, if specific materials are required for Dayworks, quotations will be called for as per Clause 6.5.2 of the General Conditions of Contract 2015 3<sup>rd</sup> edition.

## **D. 4**

## **CONSTRUCTION PLANT HIRE**

**Where daywork is ordered, the tendered rates for plant hire in Section 1200A shall be used in calculating the payment due for any plant required to execute the daywork. If no rate is included in the schedule for a particular piece of equipment, and where no other rate or combination of rates would provide suitable compensation, then the daywork method of payment described in Clause 6.5.1 of the General Conditions of Contract 2015 3<sup>rd</sup> edition will be used.**

**The tendered rates for each item of constructional plant shall include for all operating costs associated with the said item of plant. Such costs are deemed to include fuel, re-fuelling costs, lubrication and routine servicing / maintenance, breakdowns and spares, all overhead costs, site management costs and administration costs. The tendered rates shall also include the plant operator and the general supervision of the plant while it is engaged in the dayworks.**

## **D. 5**

## **SALARIES AND WAGES OF WORKMEN**

**The salaries and wages of workmen executing daywork shall be paid for using the tendered rates in Section 1200A. The tendered rates shall include for all costs associated with the employment of personnel, including salaries, wages, allowances, workmen's compensation, medical aid and pension contributions, government levies and taxes, training costs and any costs associated with living on the site. The tendered rates shall also include for the transportation of the workmen to the site of the dayworks.**

**All overhead costs, administration costs, site management costs and the Contractor's profit are deemed to be covered by the Dayworks rates and no additions or mark ups will be made to the tendered rates.**

**The tendered rates shall also include any hand tools normally associated with the workmen's job description e.g. picks, shovels, hammers, saws, spirit levels, etc. The tendered rate for labourers shall also include for the casual supervision by a gang boss**

**or foreman. Only when specifically called for by the Engineer, will payment be made for the use of a gang boss or foreman supervising on a continuous basis.**

## **D. 6**

## **MEASUREMENT AND PAYMENT**

**The following principles shall also apply to the measurement and payment of Dayworks.**

**The unit of measurement for plant shall be the number of vibroclock hours worked and each item of plant shall be fitted with a vibroclock, the cost of which shall be included in the rates. Excessive non-productive time when the engine is idling will not be paid for. Where there is ambiguity between the flywheel horsepower and mass of the machine, the flywheel horsepower shall govern the measurement category. Where width and mass are specified, mass shall govern the measurement category.**

**The Contractor's attention is drawn to the requirements of Sub-clauses 6.5.3 and 6.5.4 of the General Condition of Contract 2015 3<sup>rd</sup> edition with regard to the submission of Dayworks claims.**

## **B12.05: OHSA 1993 HEALTH AND SAFETY SPECIFICATION**

### **E1. SCOPE**

This specification covers the health and safety requirements to be met by the Contractor to ensure a continued safe and healthy environment for all workers, employees and subcontractors under his control and for all other persons entering the site of works.

This specification shall be read with the Occupational Health and Safety Act (Act No 85 and amendment Act No 181) 1993, and the corresponding Construction Regulations 2014, and all other safety codes and specifications referred to in the said Construction Regulations.

In terms of the OHSA Agreement in Section C1.2.4 of the Contract document, the status of the Contractor as mandatory to the Employer (client) is that of an employer in his own right, responsible to comply with all provisions of OHSA 1993 and the Construction Regulations 2014.

This safety specification and the Contractor's own Safety Plan as well as the Construction Regulations 2014, shall be displayed on site or made available for inspection by all workers, employees, inspectors and any other persons entering the site of works.

The following are possible risks associated with this project:

- Working high above the ground on top and below the bridge, most of the time in a restricted environment with limited landings (working platforms)
- Working above a continuously flowing river and in a flood plain environment subject to flooding
- Lifting and lowering of materials and equipment from the ground to the bridge and vice versa, exposed to cross winds
- Steep and restricted access to the lower flood plain below the bridge
- Potentially dangerous existing services, i.e. gas lines, water and sewerage mains, electrical high voltage cables, on the bridge, buried and overhead
- Deep excavations in soils requiring shoring or reducing of slopes
- Blasting of hard rock or demolition of concrete
- High pressure during testing of the new rising main, which could result in potentially dangerous situations in the event of the pipeline or fittings failing
- Potentially harmful gasses when tying into the existing sewer mains
- Movement of construction vehicles on site, taking into consideration steep slopes, other traffic and existing services
- Exposure to possible injuries due to mishandling or failure of power and hand tools

- Falling debris, tools and materials from bridge
- Non-conformance to specifications with regards to fasteners and materials
- Risks related to general safety and security on site

Additional risks may arise from specific methods of construction selected by the Contractor which are not necessary covered in the above.

## E2. DEFINITIONS

For the purpose of this contract the following shall apply:

**Employer** where used in the contract documents and in this specification, means the Employer as defined in the General Conditions of Contract and it shall have the exact same meaning as **client** as defined in the Construction Regulations 2014. **Employer** and **client** is therefore interchangeable and shall be read in the context of the relevant document.

**Contractor** wherever used in the contract documents and in this specification, shall have the same meaning as **Contractor** as defined in the General Conditions of Contract.

In this specification the terms **principal contractor** and **contractor** are replaced with **Contractor** and **subcontractor** respectively.

For the purpose of this contract the **Contractor** will, in terms of OHSA 1993, be the mandatory, without derogating from his status as an employer in his own right.

**Engineer** where used in this specification, means the Engineer as defined in the General Conditions of Contract. In terms of the Construction Regulations the Engineer may act as agent on behalf of the Employer (the client as defined in the Construction Regulations).

## E3. TENDERS

The Contractor shall submit the following with his tender:

- (a) a documented Health and Safety Plan as stipulated in Regulation 5 of the Construction Regulations. The Safety Plan must be based on the Construction Regulations 2014 and will be subject to approval by the Employer;
- (a) 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;
- (b) a declaration to the effect that he made provision in his tender for the cost of the health and safety measures envisaged in the Construction Regulations.
- (c) Failure to submit the foregoing with his tender, will lead to the conclusion that the Contractor will not be able to carry out the work under the contract safely in accordance with the Construction Regulations.

## E4. NOTIFICATION OF COMMENCEMENT OF CONSTRUCTION WORK

After award of the contract, but before commencement of construction work, the Contractor shall, in terms of Regulation 3, notify the Provincial Director of the Department of Labour in writing if the following work is involved:

the demolition of structures and dismantling of fixed plant of height of 3,0m or more;  
the use of explosives;  
construction work that will exceed 30 days or 300 person-days;  
excavation work deeper than 1,0m; or  
working at a height greater than 3,0m above ground or landings.

The notification must be done in the form of the pro forma included under Section

T2.Returnable documents.

A copy of the notification form must be kept on site, available for inspection by inspectors, Employer, Engineer, employees and persons on site.

## **E5. RISK ASSESSMENT**

Before commencement of any construction work during the construction period, the Contractor shall have a risk assessment performed and recorded in writing by a competent person. (Refer Regulation 9 of the Construction Regulations 2014).

The risk assessment shall identify and evaluate the risks and hazards that may be expected during the execution of the work under the contract, and it shall include a documented plan of safe work procedures to mitigate, reduce or control the risks and hazards identified.

The risk assessment shall be available on site for inspection by inspectors, Employer, Engineer, subcontractors, employees, trade unions and health and safety committee members, and must be monitored and reviewed periodically by the Contractor.

## **E6. APPOINTMENT OF EMPLOYEES AND SUBCONTRACTORS**

### **6.1 Health and Safety plan**

The Contractor shall appoint his employees and any subcontractors to be employed on the contract, in writing, and he shall provide them with a copy of his documented Health and Safety Plan, or relevant sections thereof. The Contractor shall ensure that all subcontractors and employees are committed to the implementation of his Safety Plan.

### **6.2 Health and safety induction training**

The Contractor shall ensure that all employees under his control, including subcontractors and their employees, undergo a health and safety induction training course by a competent person before commencement of construction work. No visitor or other person shall be allowed or permitted to enter the site of the works unless such person has undergone health and safety training pertaining to hazards prevalent on site.

The Contractor shall ensure that every employee on site shall at all times be in possession of proof of the health and safety induction training issued by a competent person prior to commencement of construction work.

## **E7. APPOINTMENT OF SAFETY PERSONNEL**

### **7.1 Construction Supervisor**

The Contractor shall appoint a full-time **Construction Supervisor** with the duty of supervising the performance of the construction work.

He may also have to appoint one or more competent employees to assist the construction supervisor where justified by the scope and complexity of the works.

### **7.2 Construction safety officer**

Taking into consideration the size of the project and the hazards or dangers that can be expected, the Contractor shall appoint in writing a full-time or part-time **Construction Safety Officer** if so decided by the Inspector of the Department of Labour. The Safety Officer shall have the necessary competence and resources to perform his duties diligently.

Provision shall be made by the Contractor in his rates, to cover the cost of this dedicated construction safety officer appointed after award of the contract.

### **7.3 Health and safety representatives**

In terms of **Section 17 and 18 of the Act (OHSA 1993)** the Contractor, being the employer in terms of the Act for the execution of the contract, shall appoint a **health and safety representative** whenever he has more than 20 employees in his employment on the site of the works. The health and safety representative must be selected from employees who are employed in a full-time capacity at a specific workplace.

The number of health and safety representatives for a workplace shall be at least one for every 100 employees.

The function of health and safety representative(s) will be to review the effectiveness of health and safety measures, to identify potential hazards and major incidents, to examine causes of incidents (in collaboration with his employer, the Contractor), to investigate complaints by employees relating to health and safety at work, to make representations to the employer (Contractor) or inspector on general matters affecting the health and safety of employees, to inspect the workplace, plant, machinery etc. on a regular base, to participate in consultations with inspectors and to attend meetings of the health and safety committee.

#### **7.4 Health and safety committee**

In terms of Sections **17 and 18 of the Act (OHSA 1993)** the Contractor (as employer), shall establish one or more **health and safety committee(s)** where there are two or more health and safety representatives at a workplace. The persons selected by the Contractor to serve on the committee shall be designated in writing.

The function of the health and safety committee shall be to hold meetings at regular intervals, but at least once every three months, to review the health and safety measures on the contract, to discuss incidents related to health and safety with the Contractor and the inspector, and to make recommendations regarding health and safety to the Contractor and to keep record of recommendations and reports made by the committee.

#### **7.5 Competent persons**

In accordance with the Construction Regulations the Contractor has to appoint in writing **competent persons** responsible for supervising construction work on each of the following work situations that may be expected on the site of the works.

- (a) Risk assessment and induction training as described in Regulation 7 of the Construction Regulations;
- (b) Fall protection as described in Regulation 8;
- (c) Formwork and support work as described in Regulation 10;
- (d) Excavation work as described in Regulation 11;
- (e) Demolition work as described in Regulation 12;
- (f) Scaffolding work as described in Regulation 14;
- (g) Suspended platform operations as described in Regulation 15;
- (h) Material hoists as described in Regulation 17;
- (i) Batch plant operations as described in Regulation 18;
- (j) Explosive powered tools as described in Regulation 19;
- (k) Cranes as described in Regulation 20;
- (l) Construction vehicle and mobile plant inspections on a daily basis by a
- (m) competent person as described in Regulation 21(1);
- (n) Control of all temporary electrical installation on the construction site as described in Regulation 22;
- (o) Stacking and storage on construction sites as described in Regulation 26; and
- (p) Inspections of fire equipment as described in Regulation 27.

A competent person may be appointed for more than one part of the construction work with the understanding that the person must be suitably qualified and able to supervise at the same time the construction work on all the work situations for which he has been appointed.

The appointment of competent persons to supervise parts of the construction work does not relieve the Contractor from any of his responsibilities to comply with **all** requirements of the Construction Regulations.

**E8.****RECORDS AND REGISTERS**

In accordance with the Construction Regulations the Contractor is bound to keep records and registers related to health and safety on site for periodic inspection by inspectors, the Engineer, the Employer, trade union officials and subcontractors and employees. The following records and registers must be kept on site and shall be available for inspection at all times.

- (a) A copy of the OHSA 1993 Construction Regulations 2014;
- (b) A copy of this Health and Safety Specification;
- (c) A copy of the Contractor's Health and Safety Plan (Regulation 9);
- (d) A copy of the Notification of Construction Work (Regulation 4);
- (e) A health and safety file in terms of Regulation 6(1) with inputs by the Construction Safety Officer (Regulation 5);
- (f) A copy of the risk assessment described in Regulation 9;
- (g) A full protection plan and the corresponding records of evaluation and training of employees working from elevated positions as described in Regulation 10;
- (h) Drawings pertaining to the design of structures (Regulation 6(1)) and formwork and support work structures (Regulation 12(d)) must be kept on site;
- (i) Pronouncement of the safety of excavations must be recorded in a register to be kept on site (Regulation 13);
- (j) A copy of the certificate of the system design for suspended platforms (Regulation 17(1));
- (k) A notice must be affixed around the base towers of material hoists to indicate the maximum mass load, which may be carried at any one time by material hoists (Regulation 5);
- (l) Maintenance records of material hoists and inspection results must be kept in a record book to be kept on site (Regulation 8(c));
- (m) A record of any repairs to or maintenance of a batch plant must be kept on site (Regulations 20(8));
- (n) A warning notice must be displayed in a conspicuous manner when and wherever an explosive powered tool is used (Regulation 2(f));
- (o) A register for recording of findings by the competent person appointed to inspect construction vehicles and mobile plant (Regulation 2).

**E9.****CONTRACTORS RESPONSIBILITIES**

For this contract the Contractor will be the mandatory of the Employer (Client), as defined in the Act (OHSA 1993), which means that the Contractor has the status of employer in his own right in respect of the contract. The Contractor is therefore responsible for all the duties and obligations of an employer as set out in the Act (OHSA 1993) and the Construction Regulations 2014.

Before commencement of work under the contract, the Contractor shall enter into an agreement with the Employer (Client) to confirm his status as mandatory (employer) for the contract under consideration.

The Contractor's duties and responsibilities are clearly set out in the Construction Regulations 2014, and are not repeated in detail but some important aspects are highlighted hereafter, without relieving the Contractor of any of his duties and responsibilities in terms of the Construction Regulations.

- (a) Contractor's position in relation to the Employer (Client) (Regulation 4)

In accordance with Section 4 of the Regulations, the Contractor shall liaise closely with the Employer or the Engineer on behalf of the Employer, to ensure that all requirements of the Act and the Regulations are met and complied with.

- (b) The Principal Contractor and Contractor (Regulation 5)

The Contractor is in terms of the definition in Regulation 2(b) the equivalent of Principle Contractor as defined in the Construction Regulations, and he shall comply with all the provisions of Regulation 5.

Any subcontractors employed by the Contractor must be appointed in writing, setting out the terms of the appointment in respect of health and safety. An independent subcontractor shall however provide and demonstrate to the Contractor a suitable, acceptable and sufficiently documented health and safety plan before commencement of the subcontract. In the absence of such a health and safety plan the subcontractor shall undertake in writing that he will comply with the Contractor's safety plan, the health and safety specifications of the Employer and the Construction Regulations 2014.

(c) Supervision of construction work (Regulation 8)

The Contractor shall appoint the safety and other personnel and employees as required in terms of Regulation 6 and as set out in paragraph 7 above. Appointment of those personnel and employees does not relieve the Contractor from any of the obligations under Regulation 6.

(d) Risk assessment (Regulation 9)

The Contractor shall have the risk assessment made as set out in paragraph 7 above before commencement of the work and it must be available on site for inspection at all times. The Contractor shall consult with the health and safety committee or health and safety representative(s) etc. on a regular basis to ensure that all employees, including subcontractors under his control, are informed and trained by a competent person regarding health hazards and related work procedures.

No subcontractor, employee or visitor shall be allowed to enter the site of works without prior health and safety induction training, all as specified in Regulation 7.

(e) Fall protection (Regulation 10)

Fall protection, if applicable to this contract shall comply in all respects with Regulation 8 of the Construction Regulations.

(f) Structures (Regulation 11)

The Contractor will be liable for all claims arising from collapse or failure of structures if he failed to comply with all the specifications, project specifications and drawings related to the structures, unless it can be proved

that such collapse or failure can be attributed to faulty design or insufficient design standards on which the specifications and the drawings are based.

In addition the Contractor shall comply with all aspects of Regulation 9 of the Construction Regulations.

(g) Formwork and support work (Regulation 12)

The Contractor will be responsible for the adequate design of all formwork and support structures by a competent person.

All drawings pertaining to formwork shall be kept on site and all equipment and materials used in formwork, shall be carefully examined and checked for suitability by a competent person.

The provisions of Regulation 10 of the Construction Regulations shall be followed in every detail.

(h) Excavation work (Regulation 13)

It is essential that the Contractor shall follow the instructions and precautions in the Standard Specifications and Project Specifications as well as the provisions of the Construction Regulations to the letter as unsafe excavations can be a major hazard on any construction site. The Contractor shall therefore ensure that all excavation work is carried out under the supervision of a competent person, that inspections are

carried out by a Professional Engineer or Technologist, and that all work is done in such a manner that no hazards are created by unsafe excavations and working conditions.

Supervision by a competent person will not relieve the Contractor from any of his duties and responsibilities under Regulation 13 of the Construction Regulations.

(i) Demolition work (Regulation 14)

Whenever demolition work is included in a contract, the Contractor shall comply with all the requirements of Regulation 14 of the Construction Regulations. The fact that a competent person has to be appointed by the Contractor does not relieve the Contractor from any of his responsibilities in respect of safety of demolition work.

(j) Tunnelling (Regulation 14)

The Contractor shall comply with Regulation 14 wherever tunnelling of any kind is involved.

(a) Scaffolding (Regulation 16)

The Contractor shall ensure that all the provisions of Regulation 16 of the Construction Regulations are complied with. [Note: Reference in the Regulations to “Section 44 of the Act” should read “Section 43 of the Act”].

(b) Suspended platforms (Regulation 17)

Wherever suspended platforms will be necessary on any contract, the Contractor shall ensure that copies of the system design issued by a Professional Engineer are submitted to the Engineer for inspection and approval. The Contractor shall appoint competent persons as supervisors and competent scaffold erectors, operators and inspectors and ensure that all

work related to suspended platforms are done in accordance with Regulation 17 of the Construction Regulations.

(c) Boatswain’s chains (Regulation 16)

Where boatswain’s chains are required on the construction site, the Contractor shall comply with Regulation 16.

(d) Material Hoists (Regulation 19)

Wherever applicable, the Contractor shall comply with the provisions of Regulation 17 to the letter.

(e) Batch plants (Regulation 20)

Wherever applicable, the Contractor shall ensure that all lifting machines, lifting tackle, conveyors, etc. used in the operation of a batch plant shall comply with, and that all operators, supervisors and employees are strictly held to the provisions of Regulation 18. The Contractor shall ensure that the General Safety Regulations (Government Notice R1031 of 30 May 1986), the Driven Machinery Regulations (Government Notice R295 of 26/2/1988) and the Electrical Installation Regulations (Government Notice R2271 of 11/10/1995) are adhered to by all involved.

In terms of the Regulations, records of repairs and maintenance shall be kept on site.

(f) Explosive powered tools (Regulation 21)

The Contractor shall ensure that, wherever explosive-powered tools are required to be used, all safety provisions of Regulation 21 are complied with.

It is especially important that warning notices are displayed and that the issue and return of cartridges and spent cartridges be recorded in a register to be kept on site.

(g) Cranes (Regulation 22)

Wherever the use of tower cranes becomes necessary, the provisions of Regulation 22 shall be complied with.

(h) Construction vehicles And mobile plant (Regulation 23)

The Contractor shall ensure that all construction vehicles and plant are in good working condition and safe for use, and that they are used in accordance with their design and intended use. The vehicles and plant shall only be operated by workers or operators who have received appropriate training, all in accordance with all the requirements of Regulation 23.

All vehicles and plant must be inspected on a daily basis, prior to use, by a competent person and the findings must be recorded in a register to be kept on site.

(k) Electrical installation and machinery on construction sites (Regulation 24)

The Contractor shall comply with the Electrical Installation Regulations (Government Notice R2920 of 23 October 1992) and the Electrical Machinery Regulations (Government Notice R1953 of 12 August 1993). Before commencement of construction, the Contractor shall take adequate steps to ascertain the presence of, and guard against dangers and hazards due to electrical cables and apparatus under, over or on the site.

All temporary electrical installations on the site shall be under the control of a competent person, without relieving the Contractor of his responsibility for the health and safety of all workers and persons on site in terms of Regulation 24.

(l) Use of temporary storage of flammable liquids on construction sites (Regulation 25)

The Contractor shall comply with the provisions of the General Safety Regulations (Government Notice R1031 of 30 May 1986) and all the provisions of Regulation 25 of the Construction Regulations to ensure a safe and hazard-free environment to all workers and other persons on site.

(m) Water environments (Regulation 26)

Where construction work is done over or in close proximity to water, the provisions of Regulation 26 shall apply.

(n) Housekeeping on Construction sites (Regulation 27)

Housekeeping on all construction sites shall be in accordance with the provisions of the environment Regulations for workplaces (Government Notice R2281 of 16 October 1987) and all the provisions of Regulation 25 of the Construction Regulations.

(o) Stacking and storage on construction sites (Regulation 28)

The provisions for the stacking of articles contained in the General Safety Regulations (Government Notice R1031 of 30 May 1986) as well as all the provisions Regulation 28 of the Construction Regulations shall apply.

(p) Fire precautions on construction sites (Regulation 29)

The provisions of the Environmental Regulations for Workplaces (Government Notice R2281 of 16 October 1987) shall apply.

In addition the necessary precautions shall be taken to prevent the incidence of fires, to provide adequate and sufficient fire protection equipment, sirens, escape routes etc. all in accordance with Regulation 29 of the Construction Regulations.

(q) Construction welfare facilities (Regulation 30)

The Contractor shall comply with the construction site provisions as in the Facilities Regulations (Government Notice R1593 of 12 August 1988) and the provisions of Regulation 30 of the Construction Regulations.

(r) Non-compliance with the Construction Regulations 2014

The foregoing is a summary of parts of the Construction Regulations applicable to all construction projects.

The Contractor, as employer for the execution of the contract, shall ensure that all provisions of the Construction Regulations applicable to the contract under consideration are complied with to the letter.

Should the Contractor fail to comply with the provisions of the Regulations 3 to 28 as listed in Regulation 30, he will be guilty of an offence and will be liable, upon conviction, to the fines or imprisonment as set out in Regulation 30.

***The Contractor is advised in his own interest to make a careful study of the Act and the Construction Regulations as ignorance of the Act and the Regulations will not be accepted in any proceedings related to non-conformance to the Act and the Regulations.***

## **E10. MEASUREMENT AND PAYMENT**

### **10.1 Principles**

It is a condition of this contract that Contractors, who submit tenders for this contract, shall make provision in their tenders for the cost of all health and safety measures during the construction process. All associated activities and expenditure are deemed to be included in the Contractor's tendered rates and prices.

#### **(a) Safety personnel**

The Construction Supervisor, the Construction Safety Officer, Health and Safety Representatives, Health and Safety Committee and Competent Persons referred to in clauses 7.1 to 7.5 shall be members of the Contractor's personnel, and no additional payment will be made for the appointment of such safety personnel.

#### **(b) Records and Registers**

The keeping of health and safety-related records and registers as described in 8 is regarded as a normal duty of the Contractor for which no additional payment will be considered, and which is deemed to be included in the Contractor's tendered rates and prices.



**MAKHADO LOCAL MUNICIPALITY**



**CONTRACT NO: 67 OF 2021**

**REHABILITATION OF JOE SLOVO STREET AT VLIEFONTEIN**

<b>C4      SITE INFORMATION</b>
---------------------------------

**VOLUME 2**

**C4.1: LOCALITY PLAN**

**C4.2: BID DRAWING**

**MAKHADO LOCAL MUNICIPALITY**



**CONTRACT NO: 67 OF 2021**

**REHABILITATION OF JOE SLOVO STREET AT VLIEFONTEIN**

<b>C5      RELEVANT DOCUMENTATION</b>
---------------------------------------

The following documents are attached hereto and form part of the Contract:

- (i) Ministerial Determination 4: Extended Public Works Programmes



# Government Gazette Staatskoerant

REPUBLIC OF SOUTH AFRICA  
REPUBLIEK VAN SUID-AFRIKA

Regulation Gazette

No. 9745

Regulasiekoerant

Vol. 563

Pretoria, 4 May  
Mei 2012

No. 35310

N.B. The Government Printing Works will  
not be held responsible for the quality of  
"Hard Copies" or "Electronic Files"  
submitted for publication purposes



**AIDS HELPLINE: 0800-0123-22 Prevention is the cure**

**IMPORTANT NOTICE**

The Government Printing Works will not be held responsible for faxed documents not received due to errors on the fax machine or faxes received which are unclear or incomplete. Please be advised that an "OK" slip, received from a fax machine, will not be accepted as proof that documents were received by the GPW for printing. If documents are faxed to the GPW it will be the sender's responsibility to phone and confirm that the documents were received in good order.

Furthermore the Government Printing Works will also not be held responsible for cancellations and amendments which have not been done on original documents received from clients.

**CONTENTS • INHOUD**

No.

Page  
No. Gazette  
No.**GOVERNMENT NOTICE****Labour, Department of**

Government Notice

R. 347 Basic Conditions of Employment Act, 1997: Ministerial Determination 4: Expanded Public Works Programmes..... 3 35310

---

## GOVERNMENT NOTICE

### DEPARTMENT OF LABOUR

No. R. 347


4 May 2012

#### BASIC CONDITIONS OF EMPLOYMENT ACT, 1997

##### MINISTERIAL DETERMINATION 4: EXPANDED PUBLIC WORKS PROGRAMMES

I, Nelisiwe Mildred Oliphant, Minister of Labour, hereby in terms of section 50 of the Basic Conditions of Employment Act, 1997, make a Ministerial Determination establishing conditions of employment for employees in Expanded Public Works Programmes, South Africa, in the Schedule hereto and determine the second Monday after the date of publication of this notice as the date from which the provisions of the said Ministerial Determination shall become binding.

All the provisions of the Ministerial Determination: Expanded Public Works Programmes published under Government Notice R949 in Government Gazette 33665 of 22 October 2010 will be superseded by this ministerial determination with effect from the date of implementation.

  
**NM OLIPHANT, MP**  
Minister of Labour  
10/04/2012

#### SCHEDULE

##### MINISTERIAL DETERMINATION NO: 3 : EXPANDED PUBLIC WORKS PROGRAMMES

##### Index

- 
1. Definitions
  2. Application of this determination
  3. Sections not applicable to public works programmes
  4. Conditions
-

## 1. Definitions

### 1.1 In this determination -

"expanded public works programme" means a programme to provide public or community assets or services through a labour intensive programme initiated by government and funded from public resources .

### 1.2 Without limiting subsection (1), the following programmes constitute Expanded Public Works Programmes.:

- (a) Environment and Culture Sector Programmes including: Working for Water, Working on Fire, Working for wetlands, People and Parks, Working for Energy, Working for Woodlands, Working for the Coast, Landcare, Working on Waste/ Working for Tourism, Investing in Culture .Programmes
- (b) Infrastructure Sector Programmes and Projects declared part of EPWP which may include the construction, rehabilitation and maintenance of: rural and low-volume roads, storm-water drains, water reticulation, basic sanitation, footpaths, sidewalks, bicycle paths, schools and clinics.
- (c) Social Sector Programmes including Early Childhood Development, Home, Community Based Care, Community Safety and other community based programmes
- (d) All projects and programmes accessing the EPWP wage incentive including those Implemented by Non Governmental organisations (NGO) and Community Based Organisations (CBO) and the Community Works Programme.
- (e) Any other programme deemed to be part of the EPWP as determined by the Department of Public Works

## 2. Application

This Determination applies to all employers and employees engaged in expanded public works programmes.

## 3. The following provisions of the Basic Conditions of Employment Act do not apply to public works programmes -

### 3.1 Section 10(2) [Overtime rate]

- 3.2 Section 14(3) (Remuneration required for meal intervals of longer than 75 minutes]
- 3.3 Section 29(h) to (p) [Written particulars of employment]
- 3.4 Section 30 [Display of employee's rights]
- 3.5 Section 41 [Severance pay]
- 3.6 Section 37 [Notice of termination]
- 3.7 Sections 51 - 58 [Sectoral Determinations]

#### 4. **Conditions**

As set out in the ANNEXURE:

## ANNEXURE

## CONDITIONS OF EMPLOYMENT FOR EXPANDED PUBLIC WORKS PROGRAMMES

## 1. Introduction

1.1 This document contains the standard terms and conditions for workers employed in elementary occupations on an Expanded Public Works Programme (EPWP). These terms and conditions do NOT apply to persons employed in the supervision and management of a SPWP.

1.2 In this document -

- (a) "department" means any department of the State, implementing agent or contractor;
- (b) "employer" means any department, implementing agency or contractor that hires workers to work in elementary occupations on a EPWP;
- (c) "worker" means any person working in an elementary occupation on a EPWP;
- (d) "elementary occupation" means any occupation involving unskilled or semi-skilled work;
- (e) "management" means any person employed by a department or implementing agency to administer or execute an EPWP;
- (f) "task" means a fixed quantity of work;
- (g) "task-based work" means work in which a worker is paid a fixed rate for performing a task;
- (h) "task-rated worker" means a worker paid on the basis of the number of tasks completed;
- (i) "time-rated worker" means a worker paid on the basis of the length of time worked.

## 2. Terms of Work

2.1 Workers on an EPWP are employed on a temporary basis or contract basis.

### 3. Normal Hours of Work

- 3.1 An employer may not set tasks or hours of work that require a worker to work-
- (a) more than forty hours in any week;
  - (b) on more than five days in any week; and
  - (c) for more than eight hours on any day.
- 3.2 An employer and worker may agree that a worker will work four days per week. The worker may then work up to ten hours per day.
- 3.3 A task-rated worker may not work more than a total of 55 hours in any week to complete the tasks allocated (based on a 40-hour week) to that worker.

### 4. Meal Breaks

- 4.1 A worker may not work for more than five hours without taking a meal break of at least thirty minutes duration.
- 4.2 An employer and worker may agree on longer meal breaks.
- 4.3 A worker may not work during a meal break. However, an employer may require a worker to perform duties during a meal break if those duties cannot be left unattended and cannot be performed by another worker. An employer must take reasonable steps to ensure that a worker is relieved of his or her duties during the meal break.
- 4.4 A worker is not entitled to payment for the period of a meal break. However, a worker who is paid on the basis of time worked must be paid if the worker is required to work or to be available for work during the meal break.

### 5. Special Conditions for Security Guards

- 5.1 A security guard may work up to 55 hours per week and up to eleven hours per day.
- 5.2 A security guard who works more than ten hours per day must have a meal break of at least one hour or two breaks of at least 30 minutes *each*.

6. Daily Rest Period

Every worker is entitled to a daily rest period of at least twelve consecutive hours. The daily rest period is measured from the time the worker ends work on one day until the time the worker starts work on the next day.

7. Weekly Rest Period

Every worker must have two days off every week. A worker may only work on their day off to perform work which must be done without delay and cannot be performed by workers during their ordinary hours of work ("emergency work").

8. Sick Leave

8.1 Only workers who work more than 24 hours per month have the right to claim sick-pay in terms of this clause.

8.2 A worker who is unable to work on account of illness or injury is entitled to claim one day's paid sick leave for every full month that the worker has worked in terms of a contract.

8.3 A worker may accumulate a maximum of twelve days' sick leave in a year.

BA Accumulated sick-leave may not be transferred from one contract to another contract

8.5 An employer must pay a task-rated worker the worker's daily task rate for a day's sick leave.

8.6 An employer must pay a time-rated worker the worker's daily rate of pay for a day's sick leave.

8.7 An employer must pay a worker sick pay on the worker's usual payday.

aS Before paying sick-pay, an employer may require a worker to produce a certificate stating that the worker was unable to work on account of sickness or injury if the worker is-

(a) absent from work for more than two consecutive days; or

(b) absent from work on more than two occasions in any eight-week period.

8.9 A medical certificate must be issued and signed by a medical practitioner; a qualified nurse or a clinic staff member authorised to issue medical certificates indicating the duration and reason for incapacity.

B.to A worker is not entitled to paid sick leave for a work-related injury or occupational disease for which the worker can claim compensation under the Compensation for Occupational Injuries and Diseases Act.

## 9. Maternity Leave

9.1 A worker may take up to four consecutive months' unpaid maternity leave.

9.2 A worker is not entitled to any payment or employment-related benefits during maternity leave.

9.3 A worker must give her employer reasonable notice of when she will start maternity leave and when she will return to work.

9.4 A worker is not required to take the full period of maternity leave. However, a worker may not work for four weeks before the expected date of birth of her child or for six weeks after the birth of her child, unless a medical practitioner, midwife or qualified nurse certifies that she is fit to do so.

9.5 A worker may begin maternity leave -

(a) four weeks before the expected date of birth; or

(b) on an earlier date -

(i) if a medical practitioner, midwife or certified nurse certifies that it is necessary for the health of the worker or that of her unborn child; or

(ii) if agreed to between employer and worker; or

(c) on a later date, if a medical practitioner, midwife or certified nurse has certified that the worker is able to continue to work without endangering her health.

9.6 A worker who has a miscarriage during the third trimester of pregnancy or bears a stillborn child may take maternity leave for up to six weeks after the miscarriage or stillbirth.

10. Family responsibility leave

10.1 Workers, who work for at least four days per week, are entitled to three days paid family responsibility leave each year in the following circumstances-

- (a) when the employee's child is born;
- (b) when the employee's child is sick;
- (c) in the event of a death of -
  - (i) the employee's spouse or life partner;
  - (ii) the employee's parent, adoptive parent, grandparent, child, adopted child, grandchild or sibling.

11. Statement of Conditions

11.1 An employer must give a worker a statement containing the following details at the start of employment -

- (a) the employer's name and address and the name of the EPWP;
- (b) the tasks or job that the worker is to perform; and
- (c) the period for which the worker is hired or, if this is not certain, the expected duration of the contract;
- (d) the worker's rate of pay and how this is to be calculated;
- (e) the training that the worker will receive during the EPWP.

11.2 An employer must ensure that these terms are explained in a suitable language to any employee who is unable to read the statement.

11.a An employer must supply each worker with a copy of these conditions of employment.

12. Keeping Records

12.1 Every employer must keep a written record of at least the following -

- (a) the worker's name and position;

- (b) copy of an acceptable worker identification
- (c) in the case of a task-rated worker, the number of tasks completed by the worker;
- (d) in the case of a time-rated worker, the time worked by the worker;
- (e) payments made to each worker.

12.2 The employer must keep this record for a period of at least three years after the completion of the EPWP.

### 13. Payment

- 13.1 An employer must pay all wages at least monthly in cash or by cheque or into a bank account
- 13.2 A worker may not be paid less than the minimum EPWP wage rate of R63.18 per day or per task. This will be adjusted annually on the 1<sup>st</sup> of November in line with inflation (available CPI as provided by StatsSA six (6) weeks before implementation).
- 13.3 A task-rated worker will only be paid for tasks that have been completed.
- 13A An employer must pay a task-rated worker within five weeks of the work being completed and the work having been approved by the manager or the contractor having submitted an invoice to the employer.
- 13.5 A time-rated worker will be paid at the end of each month.
- 13.6 Payment must be made in cash, by cheque or by direct deposit into a bank account designated by the worker.
- 13.7 Payment in cash or by cheque must take place -
  - (a) at the workplace or at a place agreed to by the worker;
  - (b) during the worker's working hours or within fifteen minutes of the start or finish of work;
  - (c) in a sealed envelope which becomes the property of the worker.
- 13.8 An employer must give a worker the following information in writing -

- (a) the period for which payment is made;
- (b) the numbers of tasks completed or hours worked;
- (c) the worker's earnings;
- (d) any money deducted from the payment;
- (e) the actual amount paid to the worker.

13.9 If the worker is paid in cash or by cheque, this information must be recorded on the envelope and the worker must acknowledge receipt of payment by signing for it.

13.10 If a worker's employment is terminated, the employer must pay all monies owing to that worker within one month of the termination of employment.

#### 14. Deductions

14.1 An employer may not deduct money from a worker's payment unless the deduction is required in terms of a law.

14.2 An employer must deduct and pay to the SA Revenue Services any income tax that the worker is required to pay.

14.3 An employer who deducts money from a worker's pay for payment to another person must pay the money to that person within the time period and other requirements specified in the agreement law, court order or arbitration award concerned.

14.4 An employer may not require or allow a worker to -

- (a) repay any payment except an overpayment previously made by the employer by mistake;
- (b) state that the worker received a greater amount of money than the employer actually paid to the worker; or
- (c) pay the employer or any other person for having been employed.

#### 15. Health and Safety

15.1 Employers must take all reasonable steps to ensure that the working environment is healthy and safe.

## 15.2 A worker must -

- (a) work in a way that does not endanger his/her health and safety or that of any other person;
- (b) obey any health and safety instruction;
- (c) obey all health and safety rules of the EPWP;
- (d) use any personal protective equipment or clothing issued by the employer;
- (e) report any accident, near-miss incident or dangerous behaviour by another person to their employer or manager.

16. **Compensation for Injuries and Diseases**

- 16.1 It is the responsibility of the employers (other than a contractor) to arrange for all persons employed on a EPWP to be covered in terms of the Compensation for Occupational Injuries and Diseases Act, 130 of 1993.
- 16.2 A worker must report any work-related injury or occupational disease to their employer or manager.
- 16.3 The employer must report the accident or disease to the Compensation Commissioner.
- 16.4 An employer must pay a worker who is unable to work because of an injury caused by an accident at work 75% of their earnings for up to three months. The employer will be refunded this amount by the Compensation Commissioner. This does NOT apply to injuries caused by accidents outside the workplace such as road accident or accidents at home.

17. **Termination**

- 17.1 The employer may terminate the employment of a worker for good cause after following a fair procedure.
- 17.2 A worker will not receive severance pay on termination.
- 17.3 A worker is not required to give notice to terminate employment. However, a worker who wishes to resign should advise the employer in advance to allow the employer to find a replacement.

- 17A A worker who is absent for more than three consecutive days without informing the employer of an intention to return to work will have terminated the contract. However, the worker may be re-engaged if a position becomes available.
- 17.5 A worker who does not attend required training events, without good reason, will have terminated the contract. However, the worker may be re-engaged if a position becomes available.

### Certificate of Service

- 18.1 On termination of employment, a worker is entitled to a certificate stating -
- (a) the worker's full name;
  - (b) the name and address of the employer;
  - (c) the EPWP on which the worker worked;
  - (d) the work performed by the worker;
  - (e) any training received by the worker as part of the EPWP;
  - (f) the period for which the worker worked on the EPWP;
  - (g) any other information agreed on by the employer and worker.



Printed by and obtainable from the Government Printer, Bosman Street, Private Bag X85, Pretoria, 0001  
Publications: Tel: (012) 334-4508, 334-4509, 334-4510  
Advertisements: Tel: (012) 334-4673, 334-4674, 334-4504  
Subscriptions: Tel: (012) 334-4735, 334-4736, 334-4737  
Cape Town Branch: Tel: (021) 465-7531

Gedruk deur en verkrygbaar by die Staatsdrukker, Bosmanstraat, Privaatsak X85, Pretoria, 0001  
Publikasies: Tel: (012) 334-4508, 334-4509, 334-4510  
Advertensies: Tel: (012) 334-4673, 334-4674, 334-4504  
Subskripsies: Tel: (012) 334-4735, 334-4736, 334-4737  
Kaapstad-tak: Tel: (021) 465-7531

**MAKHADO LOCAL MUNICIPALITY**



**CONTRACT NO: 67 OF 2021**

**REHABILITATION OF JOE SLOVO STREET AT VLIEFONTEIN**

<p><b>C6 DRAWINGS</b></p>
---------------------------

**VOLUME 1**



## **MAKHADO LOCAL MUNICIPALITY**

**TENDER No. 67 OF 2021**

**FOR**

**REHABILITATION OF JOE SLOVO STREET AT VLEINFOTEIN.**

**VOLUME 1**

# **ISSUED FOR TENDER**

**SEPTEMBER 2021**

**ISSUED BY:**

MAKHADO MUNICIPALITY  
83 KROUGH STREET  
TRICHARDT, 0920



**PREPARED BY:**

SIZEYA CONSULTING ENGINEERS  
OFFICE NO. 14  
PRIVATE BAG X9676, POSTNET SUITE 141  
POLOKWANE, 0700  
TEL : (015) 291-1020  
EMAIL : [info@sizeya.co.za](mailto:info@sizeya.co.za)

## SECTION A. GENERAL DRAWINGS

1. DRAWING LIST.....	S38.10-G-DL-000
2. LOCALITY PLAN .....	S38.10-G-LP-001
3. GENERAL LAYOUT PLAN.....	S38.10-G-GL-001

						DESIGNED BY:	R.R. RAVELE		 <div>No. 6 Hans Van Rensburg Street Office No. 14 Private Bag X9676, Postnet Suite 141 Polokwane, 0700 Tel : (015) 291 1020 Email : info@sizeya.co.za</div>			CONTRACT No.: 67 OF 2021	ISSUED FOR TENDER (Full signature)			
						DRAWN BY:	F.I MARAGANI			CONSULTING ENGINEER	DATE	PROJECT NAME:		For : Client		SCALE
1	09/2021	ISSUED FOR TENDER											REHABILITATION OF JOE SLOVO STREET AT VLEIFONTEIN		For : Consulting Engineer	
0	08/2021	ISSUED FOR APPROVAL													CONSULTANTS DRAWING No.	CLIENT DRAWING No.
No	DATE	REVISION		CONSULT	DIR	CHECKED BY:	H.L. THARAGA			EMPLOYER'S PROJECT MANAGER	DATE	DRAWING TITLE:	SECTION A - GENERAL DRAWINGS			

DRAWING LIST

SECTION A. GENERAL DRAWINGS

- 1. DRAWING LIST..... S39.2-G-DL-000
- 2. LOCALITY PLAN ..... S39.2-G-LP-001
- 3. GENERAL LAYOUT PLAN..... S39.2-G-GL-001

SECTION B. ROADS AND STORMWATER

- 4. LAYOUT AND LONGITUDINAL SECTION.....S39.2-LAY/001
- 5. LAYOUT AND LONGITUDINAL.....S39.2-LAY/002
- 6. ROAD CROSS SECTION .....S39.2-XS/003
- 7. ROAD CROSS SECTION.....S39.2-XS/004
- 8. ROAD CROSS SECTION.....S39.2-XS/005
- 9. STORMWATER LAYOUT AND LONGITUDINAL SECTION.....S39.2-SW/001
- 10. STORMWATER LAYOUT AND LONGITUDINAL SECTION.....S39.2-SW/002
- 11. STORMWATER LAYOUT AND LONGITUDINAL SECTION .....S39.2-SW/003

SECTION C. STANDARDS DRAWINGS

- 12. TYPICAL SECTION AND PAVEMENT DESIGN ..... S39.2-SD/001
- 13. KERB INLET DETAILS .....S39.2-SD-002
- 14. JUNCTION BOX DETAILS..... S39.2-SD-003
- 15. ROADS SIGNS ,ATTACHMENT & FIXING DETAILS.....S39.2-SD-004
- 16. ROAD SIGNS, ATTACHMENT & FIXING DETAILS ..... S39.2-SD-005
- 17. ROAD MARKINGS DETAILS..... S39.2-SD/006
- 18. FIELD INLET DETAILS..... S39.2-SD/007
- 19. HEADWALL AND BEDDING DETAILS .....S39.2-SD/008
- 20. SPEED HUMP DETAILS ..... S39.2-SD/009

					DESIGNED BY:	R.R. RAVELE		 <p>No. 6 Hans Van Rensburg Street Office No. 14 Private Bag X9676, Postnet Suite 141 Polokwane, 0700 Tel : (015) 291 1020 Email : info@sizeya.co.za</p>		DATE	CONTRACT No.: 67 OF 2021		ISSUED FOR TENDER (Full signature)			
					DRAWN BY:	F.I MARAGENI			CONSULTING ENGINEER			REHABILITATION OF JOE SLOVO STREET AT VLEIFONTEIN		For : Client	SCALE N.T.S	
1	09/2021	ISSUED FOR TENDER														
0	08/2021	ISSUED FOR APPROVAL														
No	DATE	REVISION	CONSULT	DIR	CHECKED BY:	H.L. THARAGA			EMPLOYER'S PROJECT MANAGER	DATE	DRAWING TITLE:	DRAWING LIST		CONSULTANTS DRAWING No. S39.2 -G-DL-000	CLIENT DRAWING No.	





SECTION B. ROADS AND STORMWATER

4. LAYOUT AND LONGITUDINAL SECTION.....

S39.2-LAY/001

5. LAYOUT AND LONGITUDINAL.....

S39.2-LAY/002

6. ROAD CROSS SECTION .....

S39.2-XS/003

7. ROAD CROSS SECTION.....

S39.2-XS/004

8. ROAD CROSS SECTION.....

S39.2-XS/005

9. STORMWATER LAYOUT AND LONGITUDINAL SECTION.....

S39.2-SW/001

10. STORMWATER LAYOUT AND LONGITUDINAL SECTION.....

S39.2-SW/002

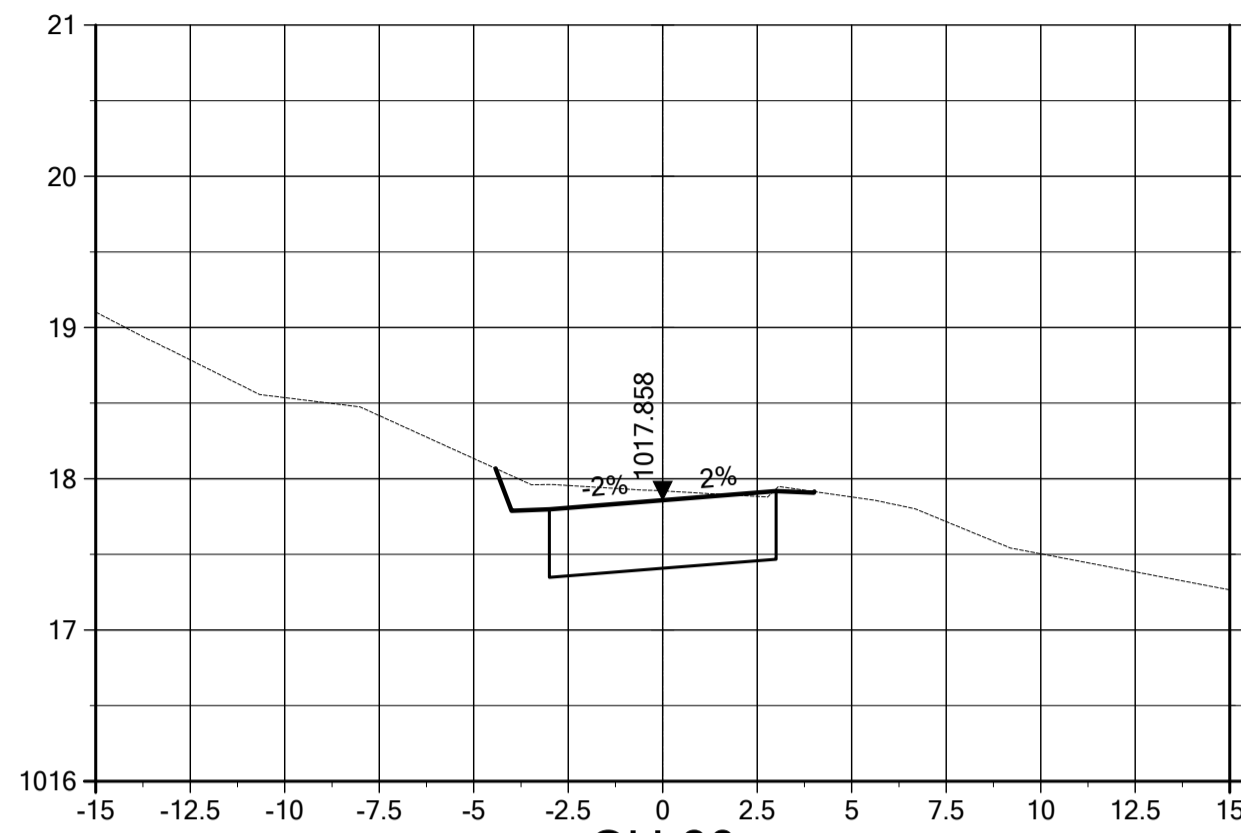
11. STORMWATER LAYOUT AND LONGITUDINAL SECTION .....

S39.2-SW/003

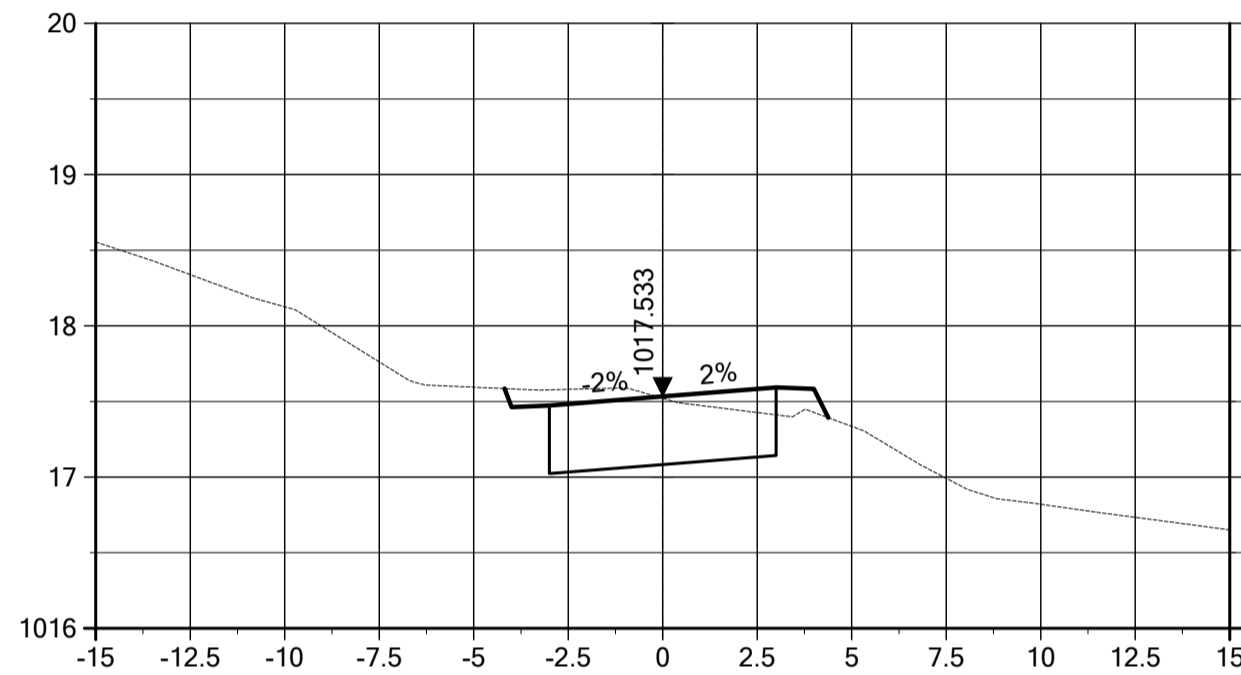
					DESIGNED BY:	R.R. RAVELE		 <div>No. 6 Hans Van Rensburg Street Office No. 14 Private Bag X9676, Postnet Suite 141 Polokwane, 0700 Tel : (015) 291 1020 Email : info@sizeya.co.za</div>		CONTRACT No.: 67 OF 2021		ISSUED FOR TENDER (Full signature)			
					DRAWN BY:	F.I. MARAGENI			CONSULTING ENGINEER	DATE	PROJECT NAME:	REHABILITATION OF JOE SLOVO STREET AT VLEIFONTEIN		For : Client	SCALE
1	09/2021	ISSUED FOR TENDER												For : Consulting Engineer	
0	08/2021	ISSUED FOR APPROVAL												CONSULTANTS DRAWING No.	CLIENT DRAWING No.
No	DATE	REVISION	CONSULT	DIR	CHECKED BY:	H.L. THARAGA			EMPLOYER'S PROJECT MANAGER	DATE	DRAWING TITLE:	SECTION B - ROADS AND STORMWATER			



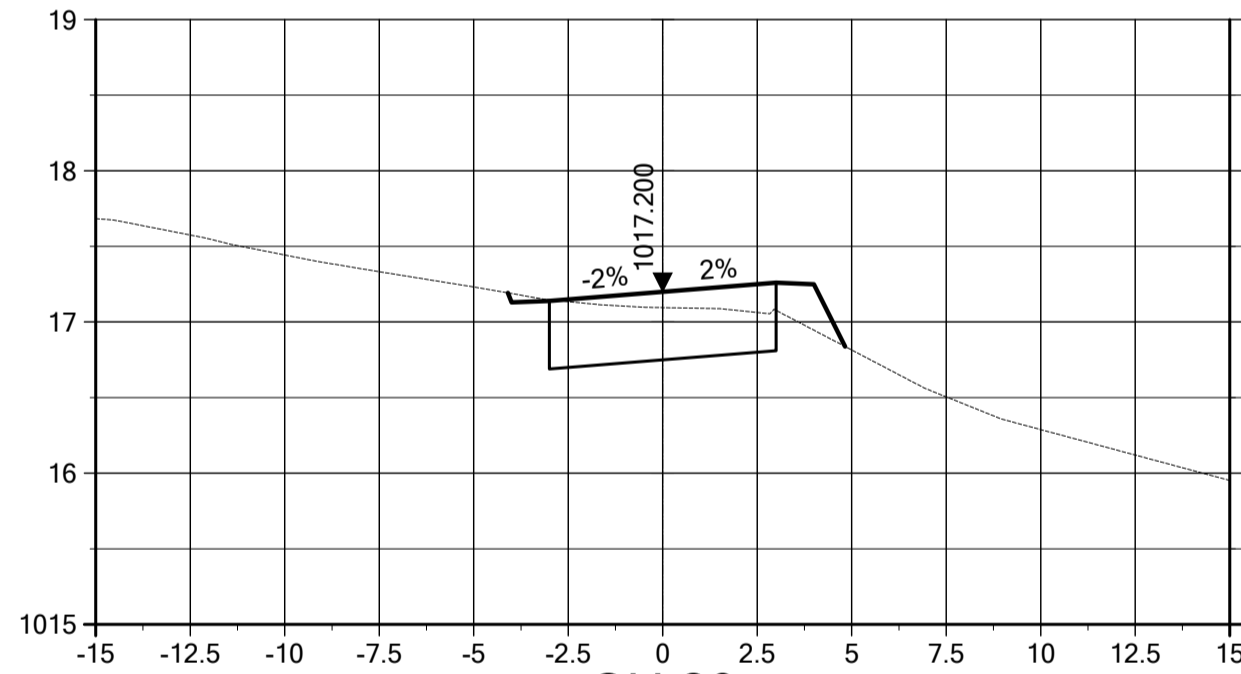




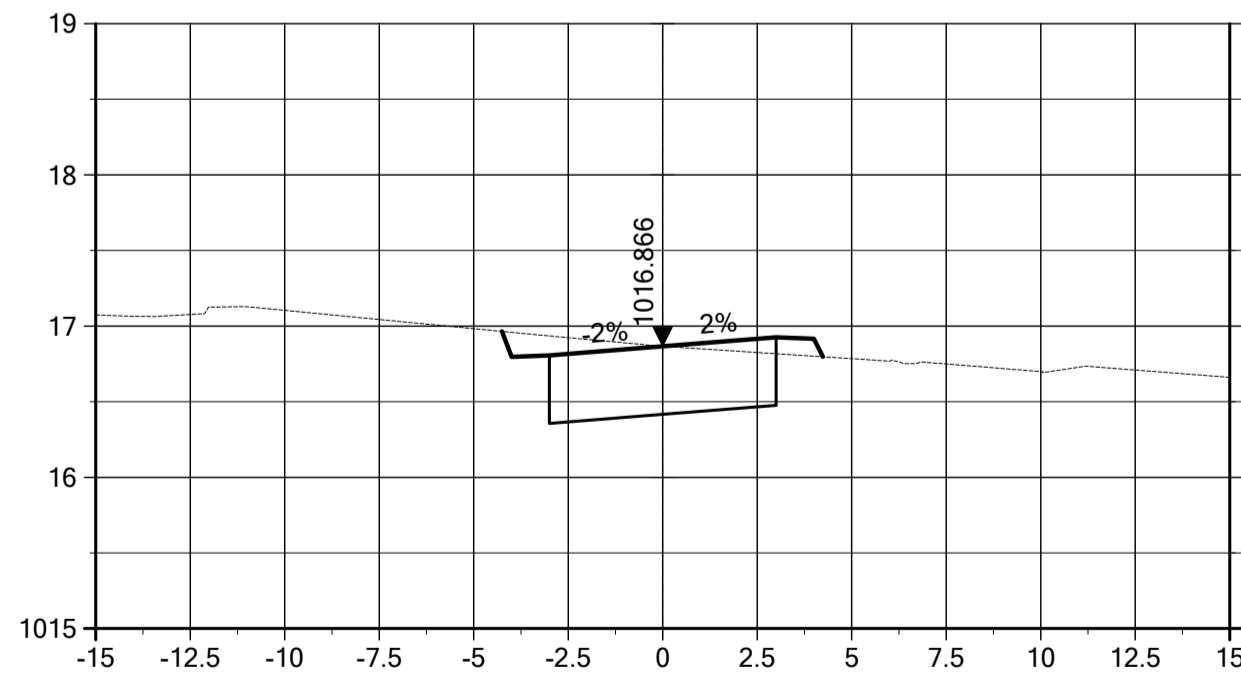
CH 60



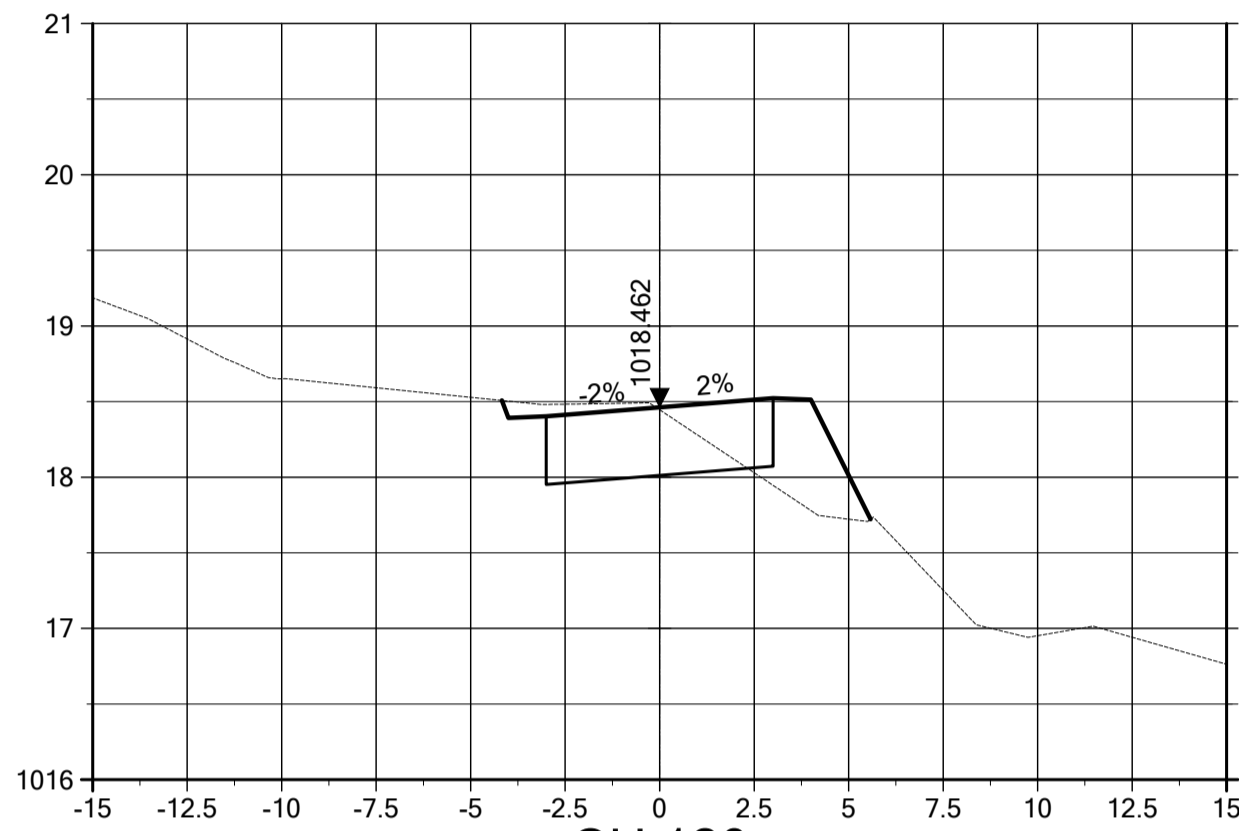
CH 40



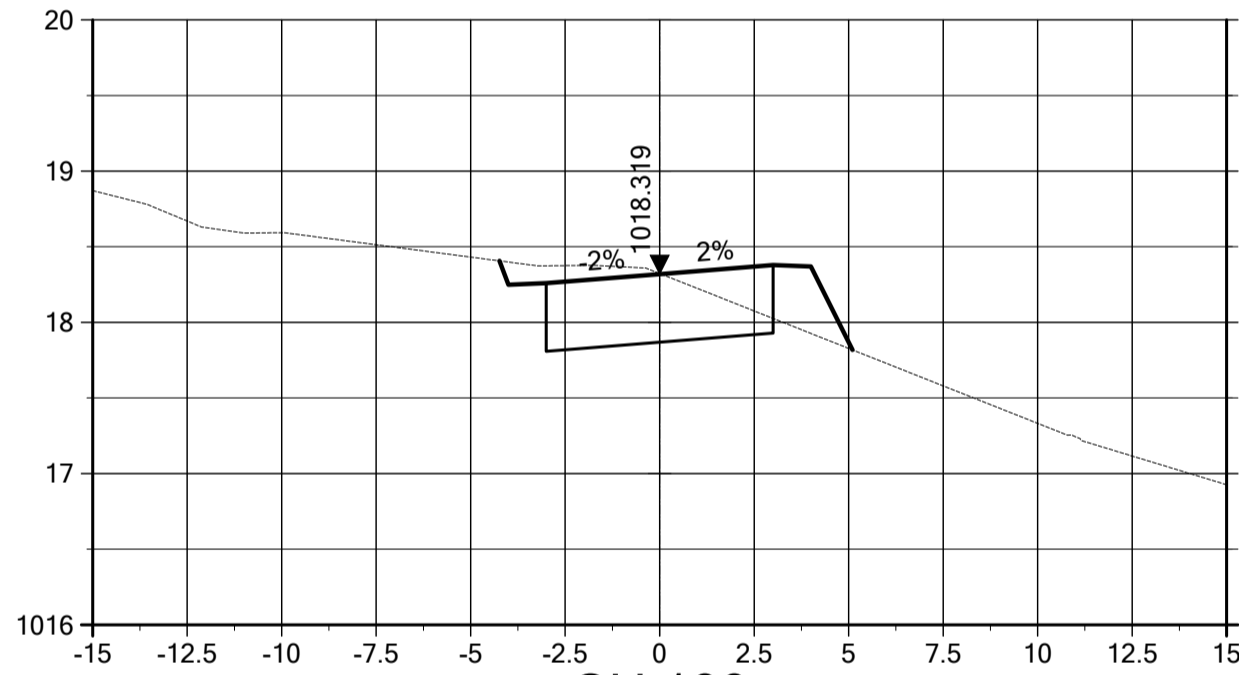
CH 20



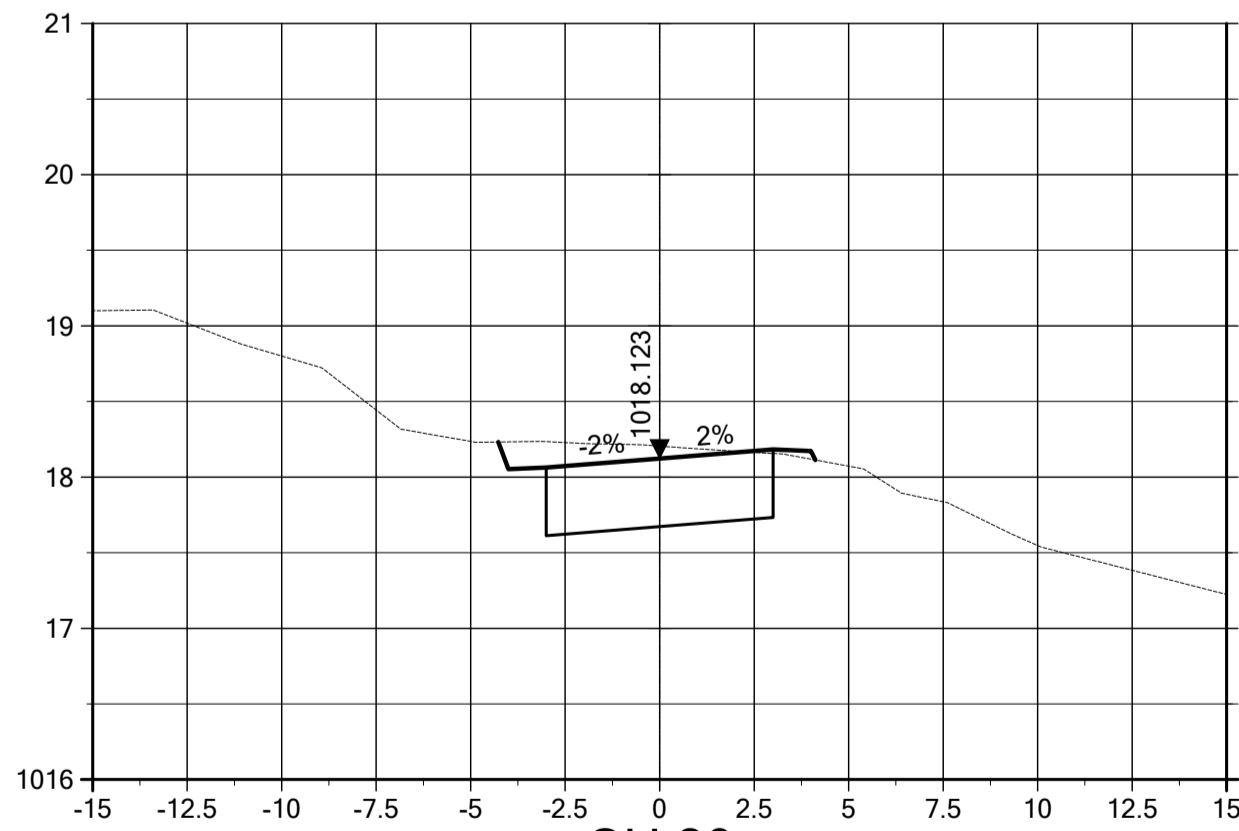
CH 0



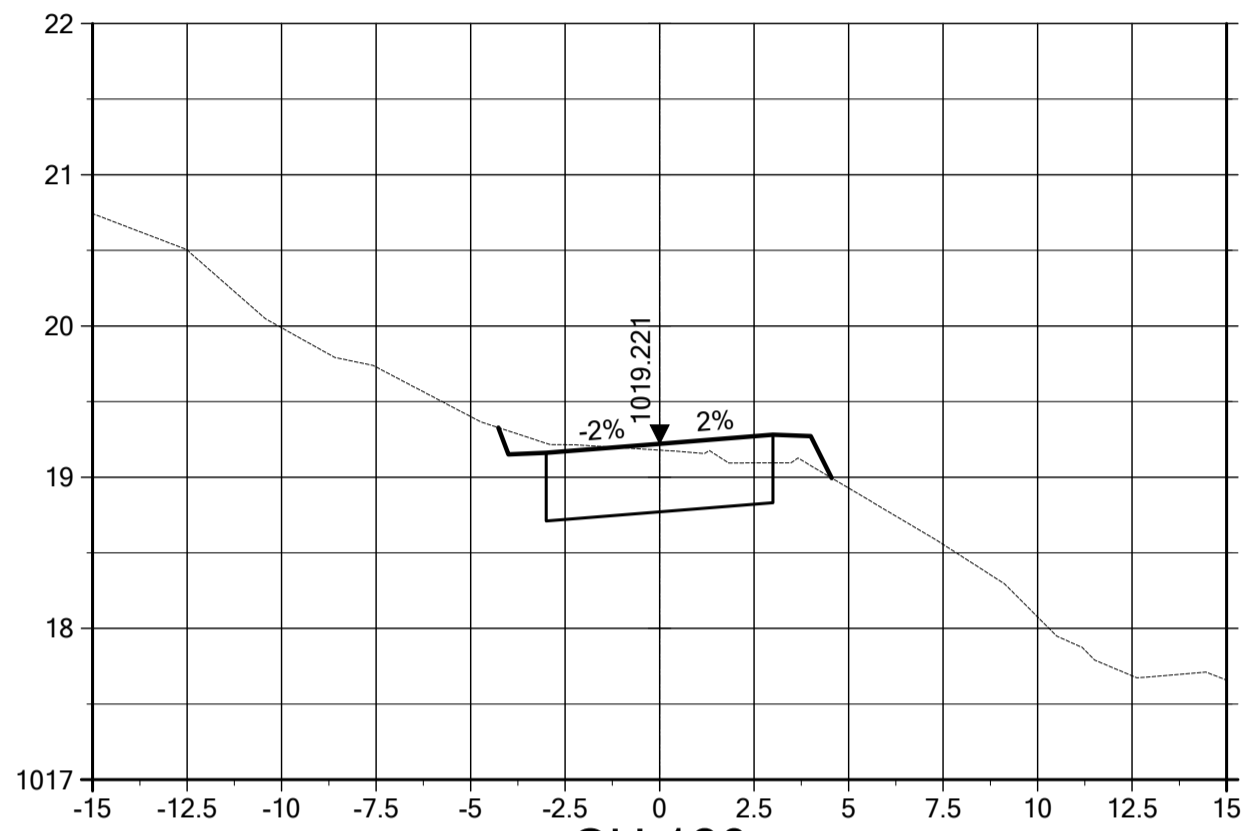
CH 120



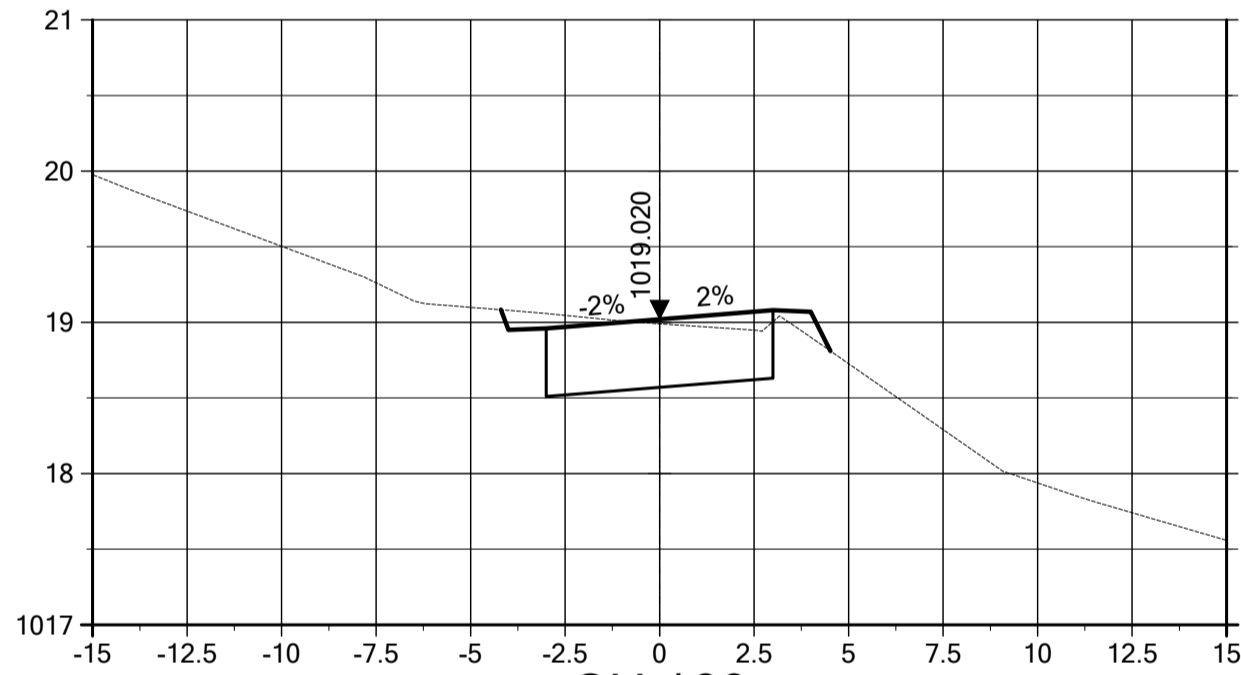
CH 100



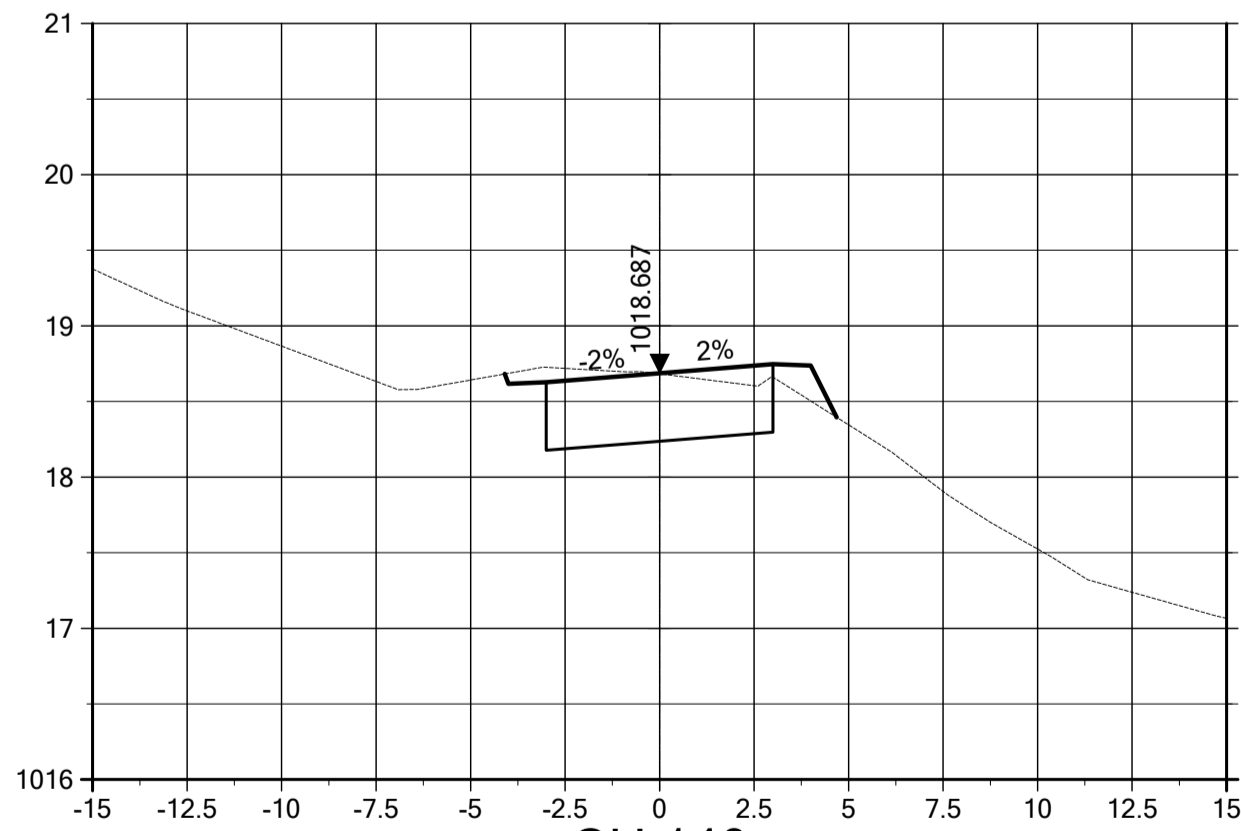
CH 80



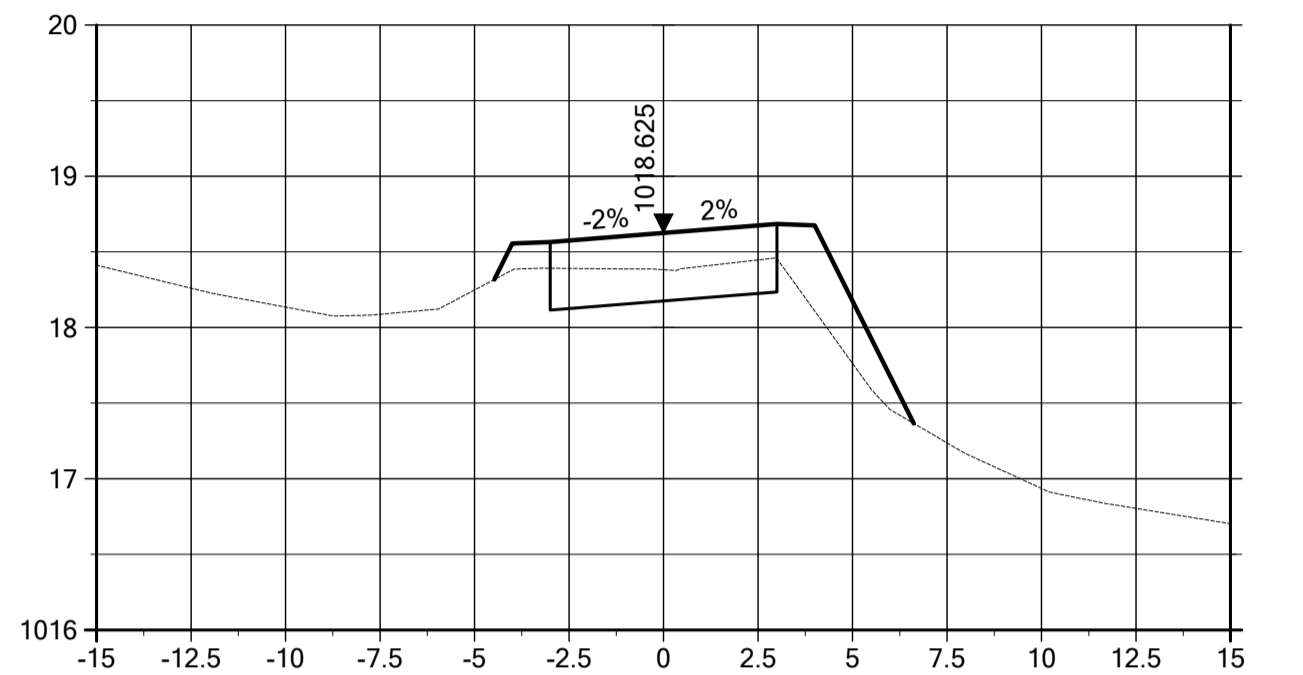
CH 180



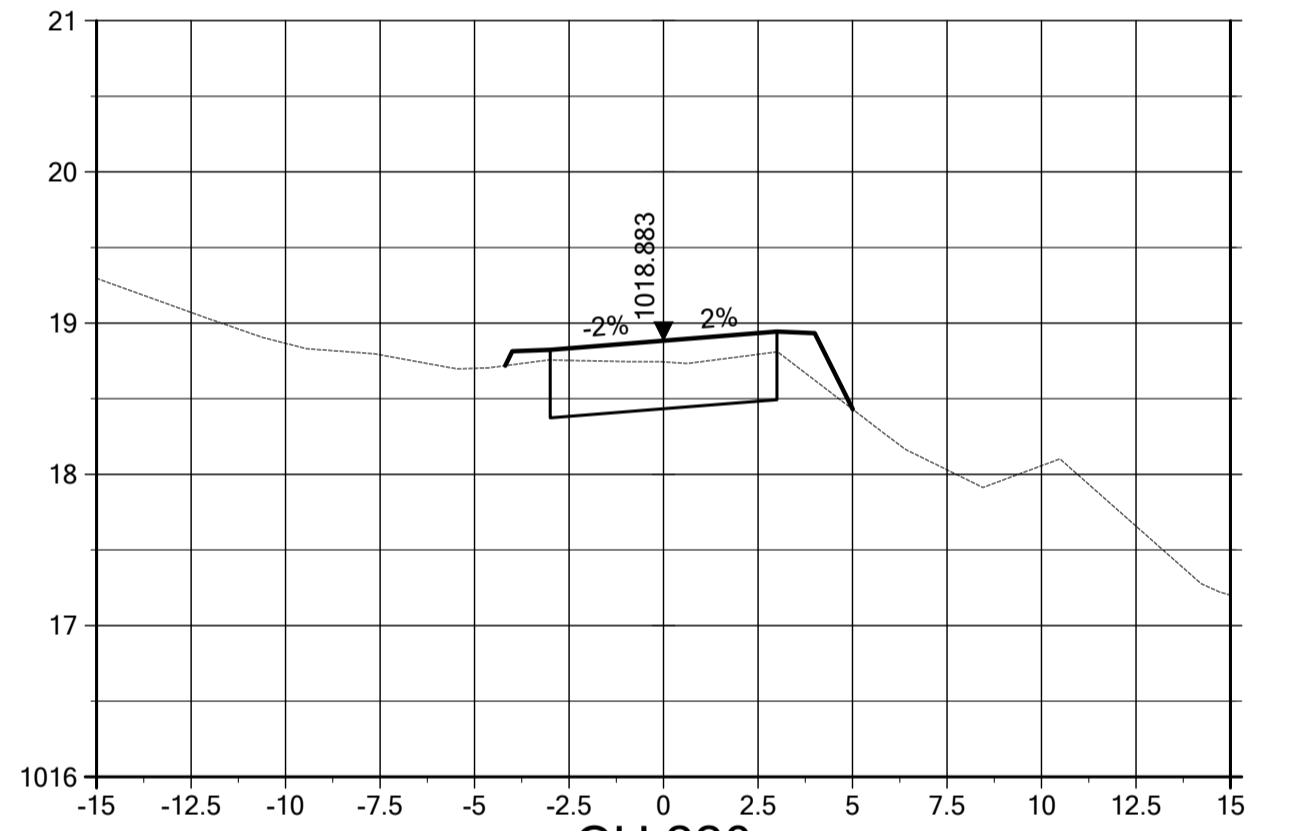
CH 160



CH 140



CH 240



CH 220



CH 200

1	09/2021	ISSUED FOR TENDER		
0	08/2021	ISSUED FOR APPROVAL		
No	DATE	REVISION	CONSULT	DIR

DESIGNED BY:	R.R. RAVELE
DRAWN BY:	F.I. MARAGENI
CHECKED BY:	H.L. THARAGA

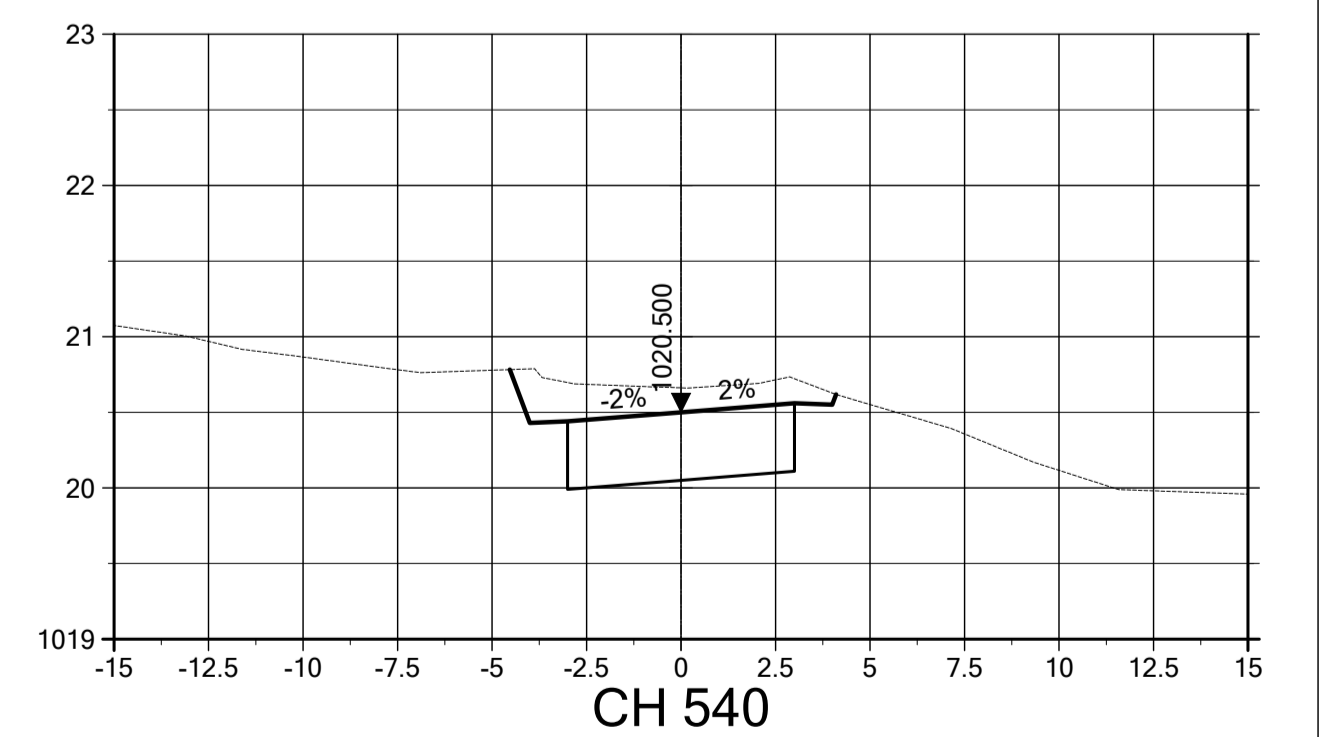
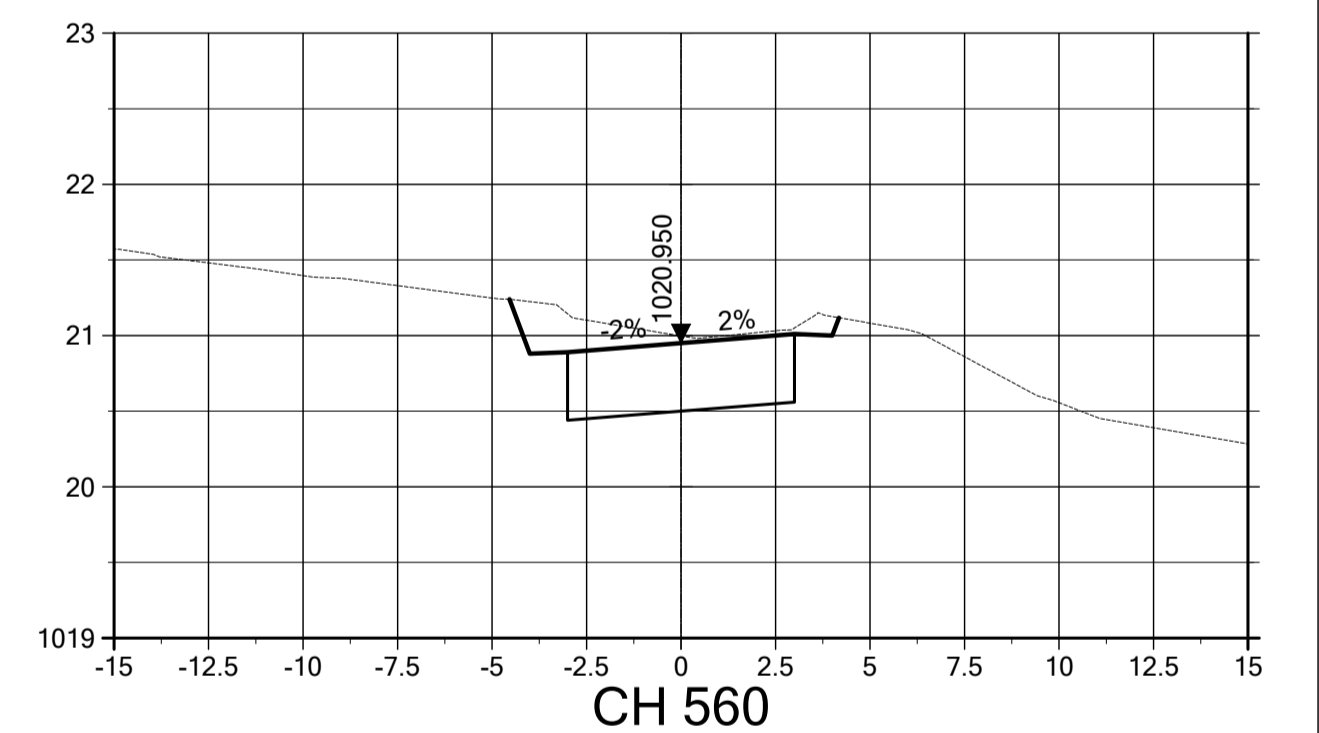
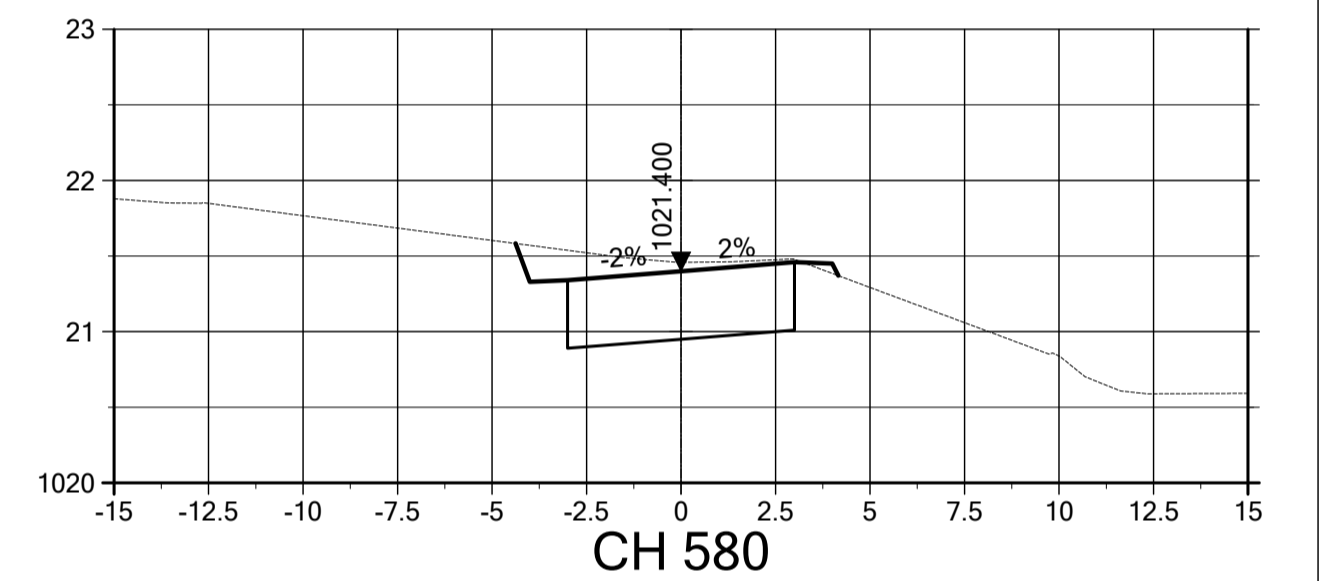
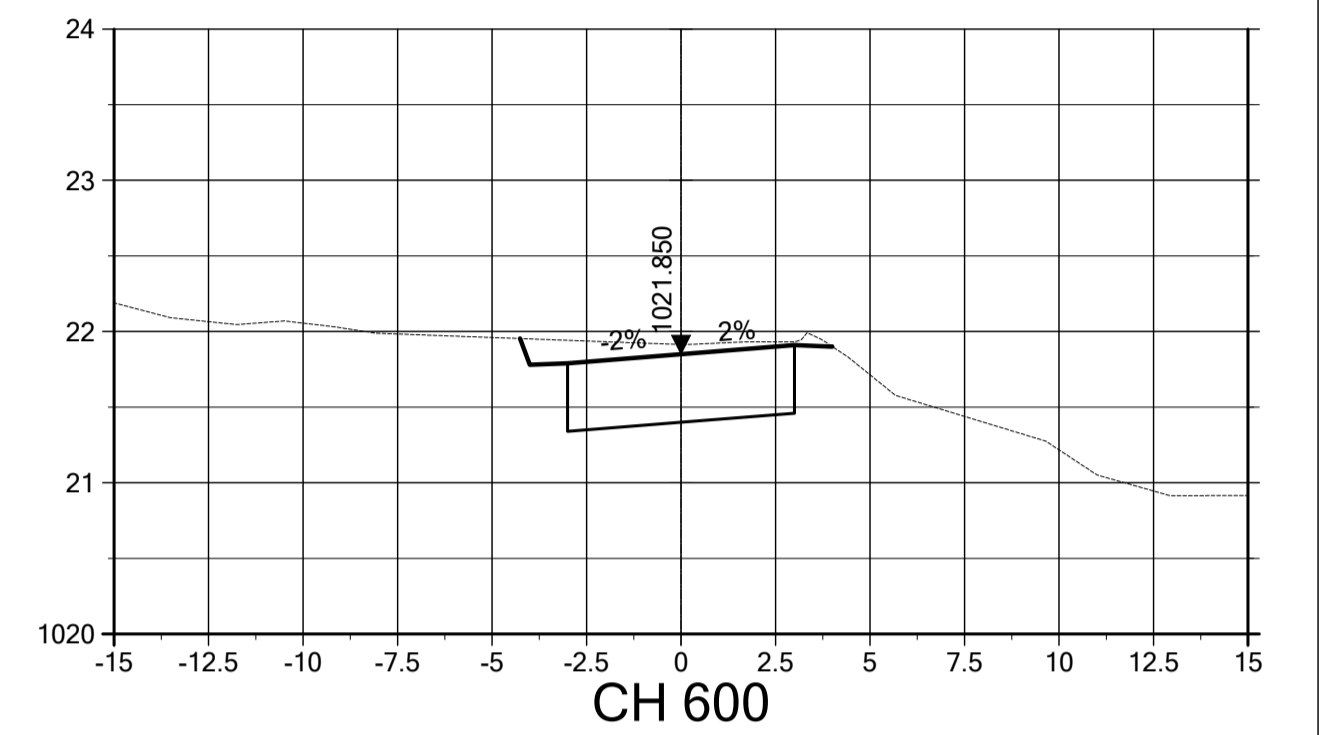
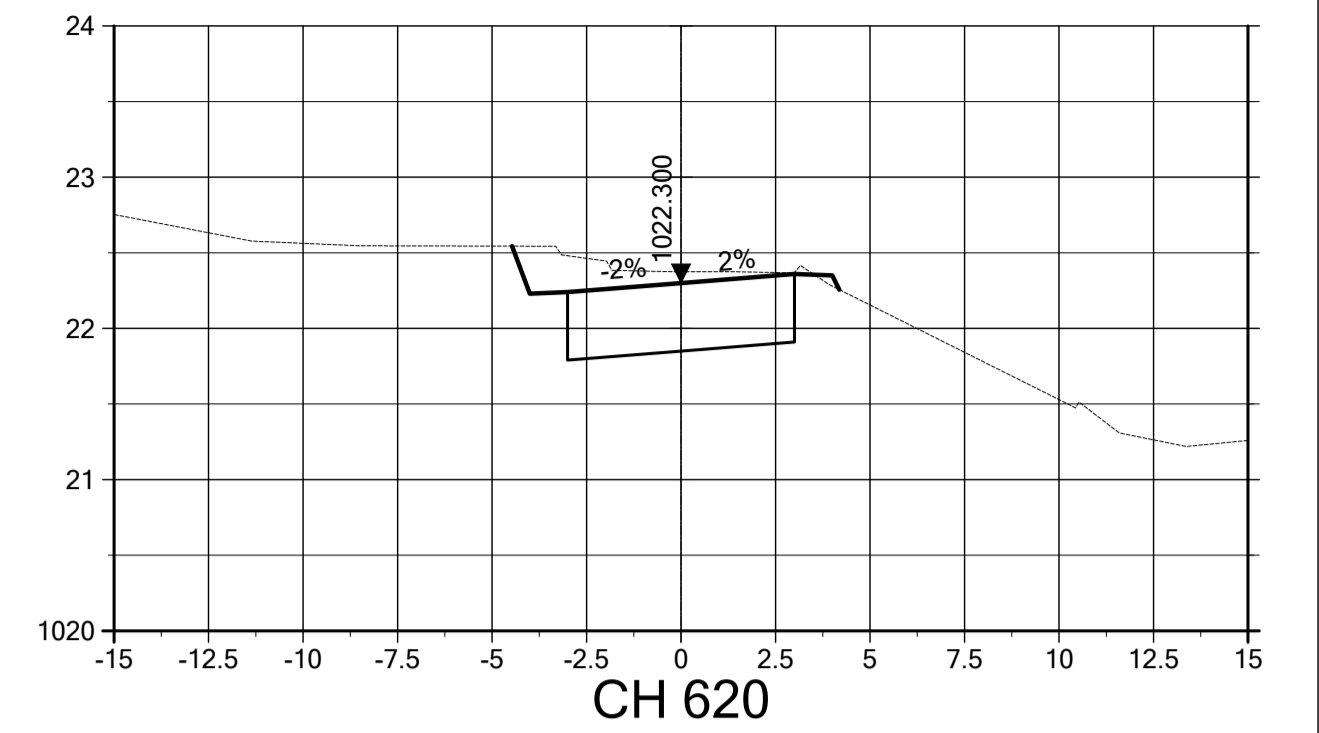
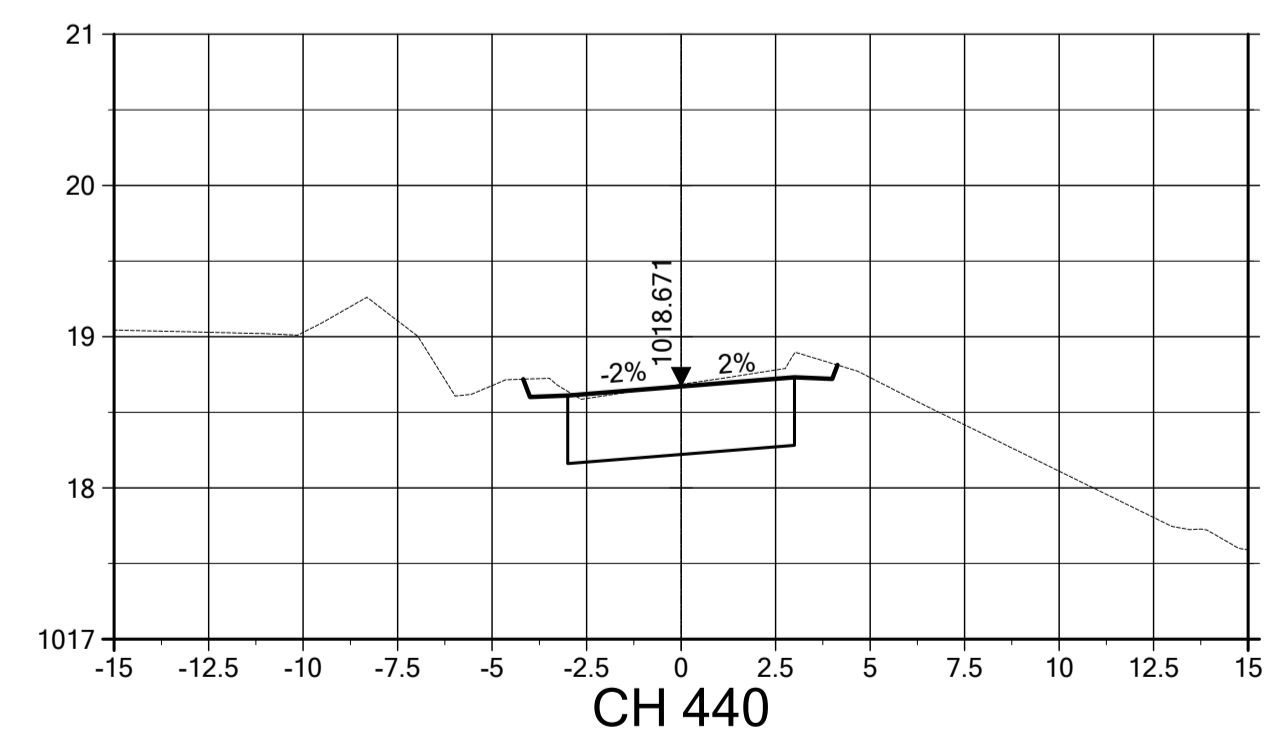
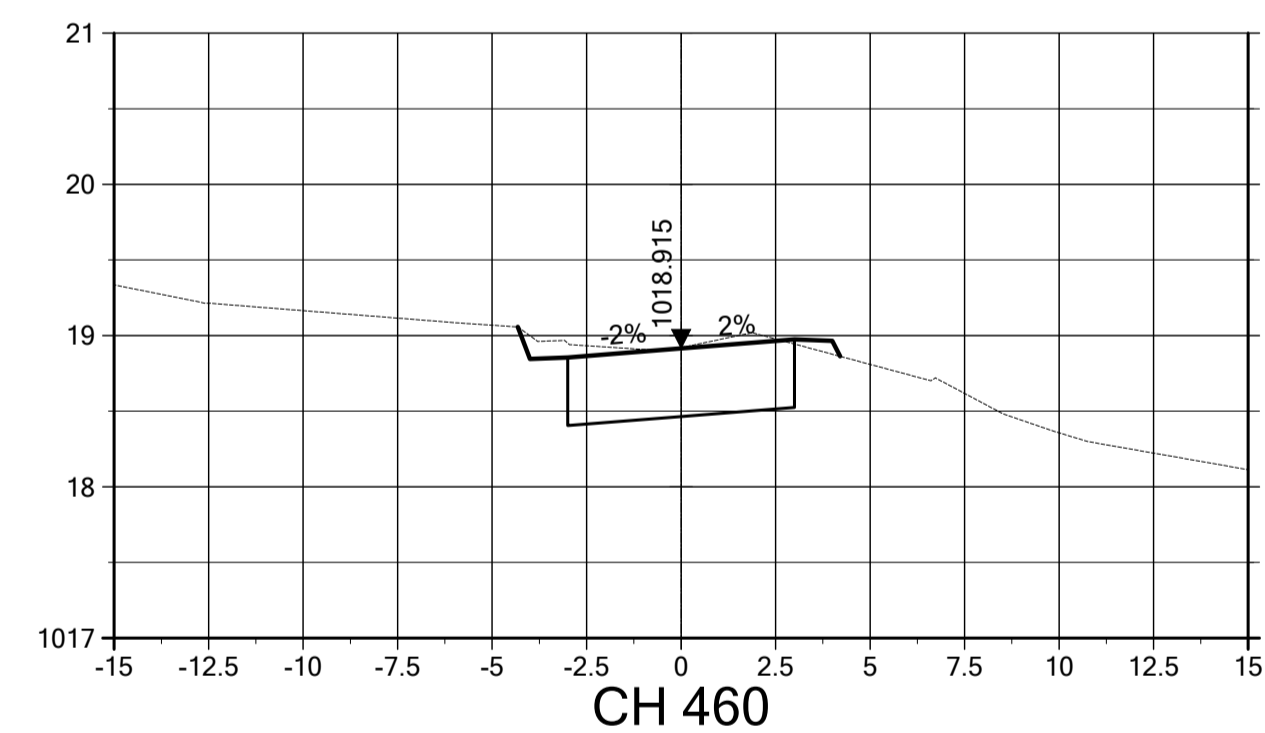
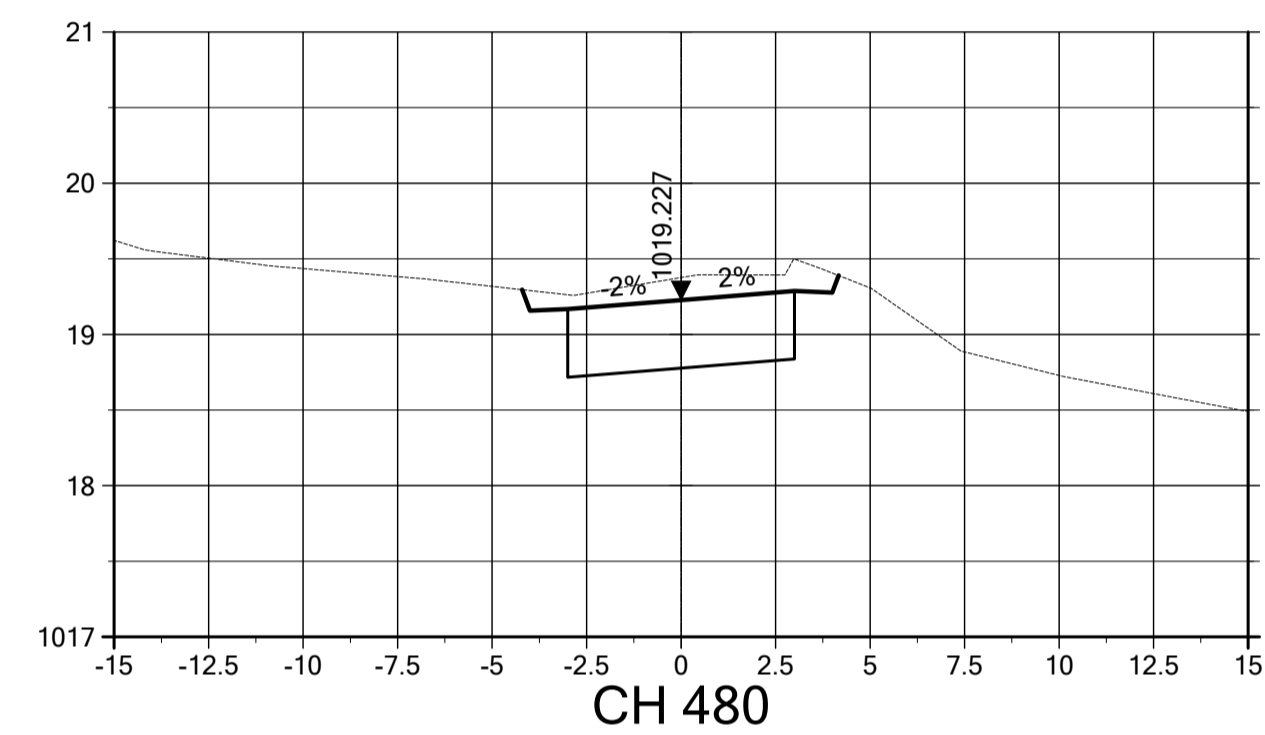
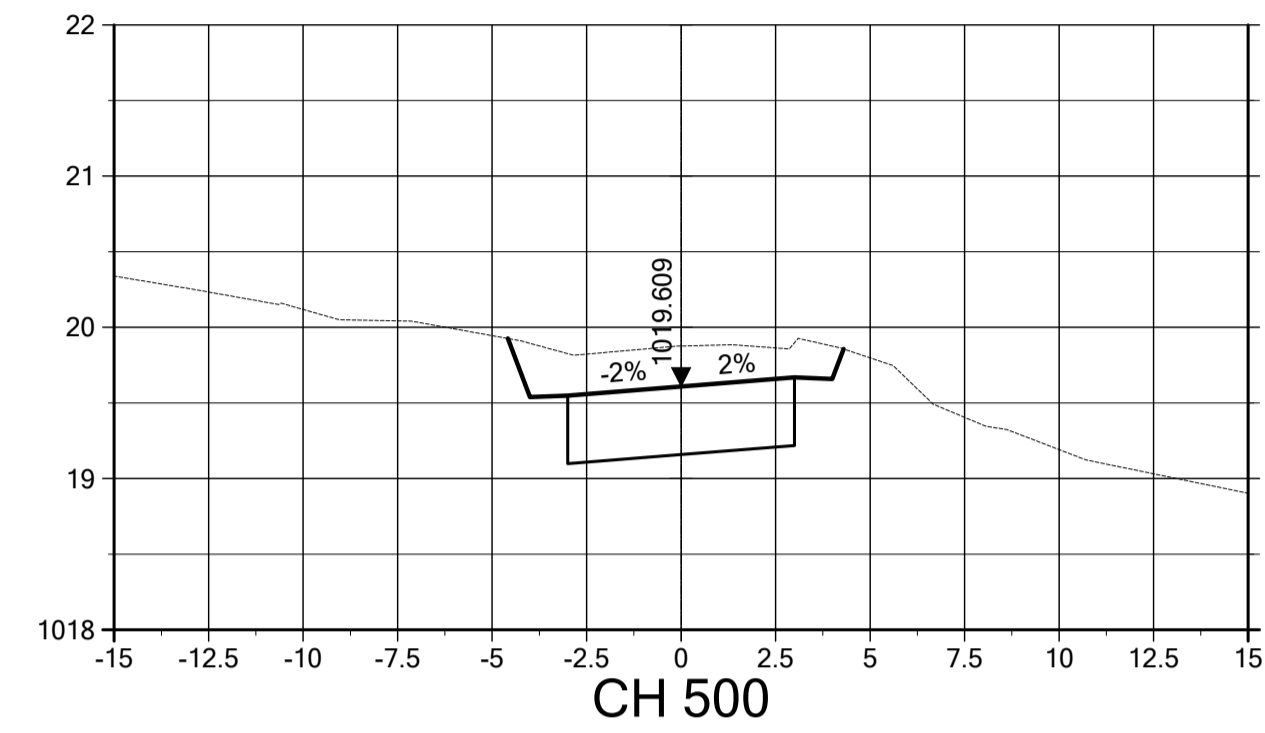
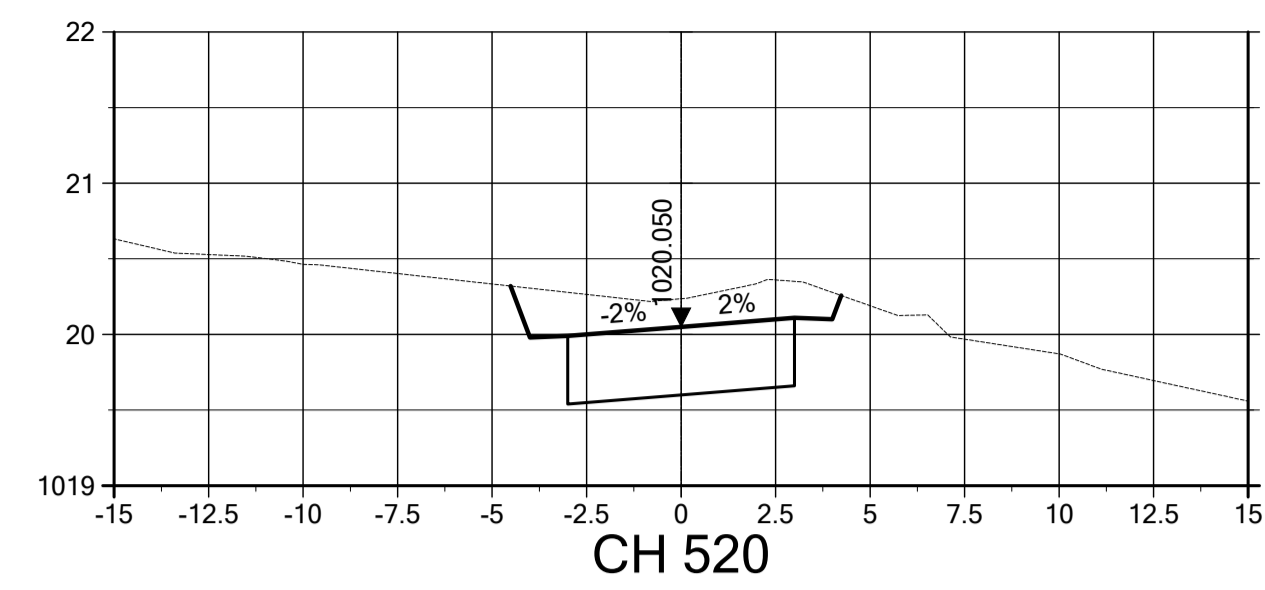
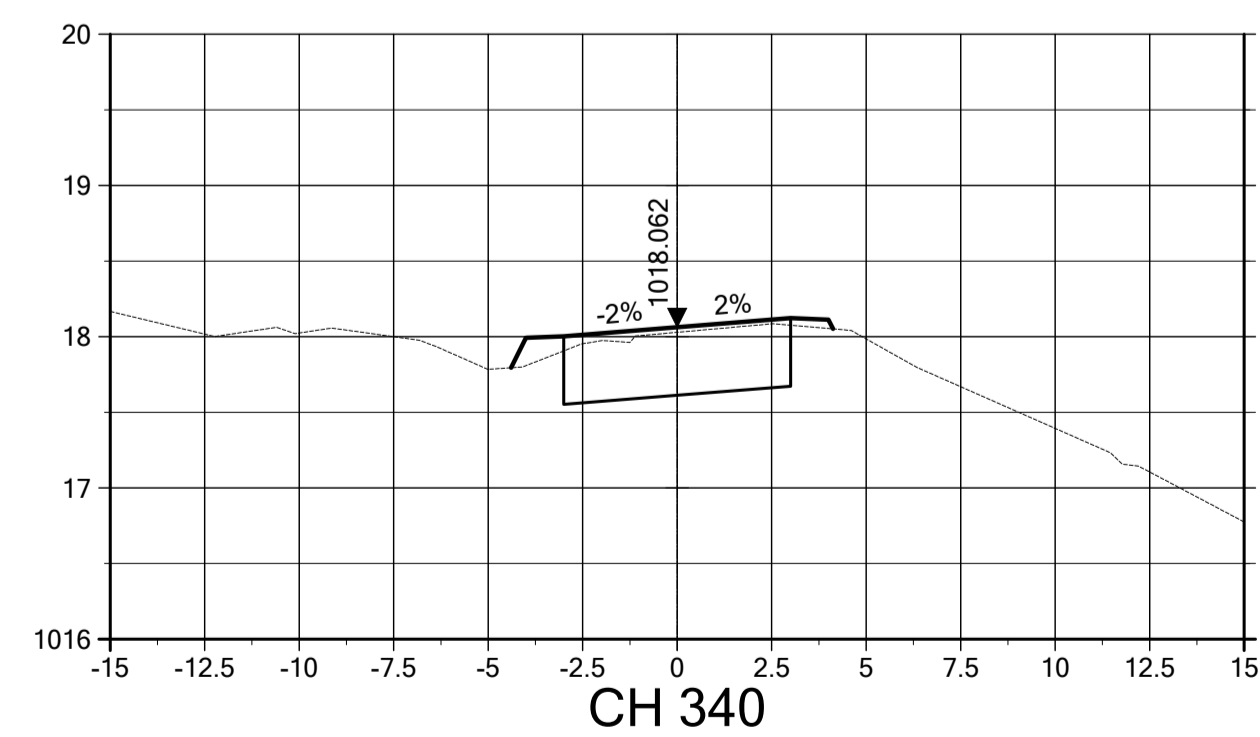
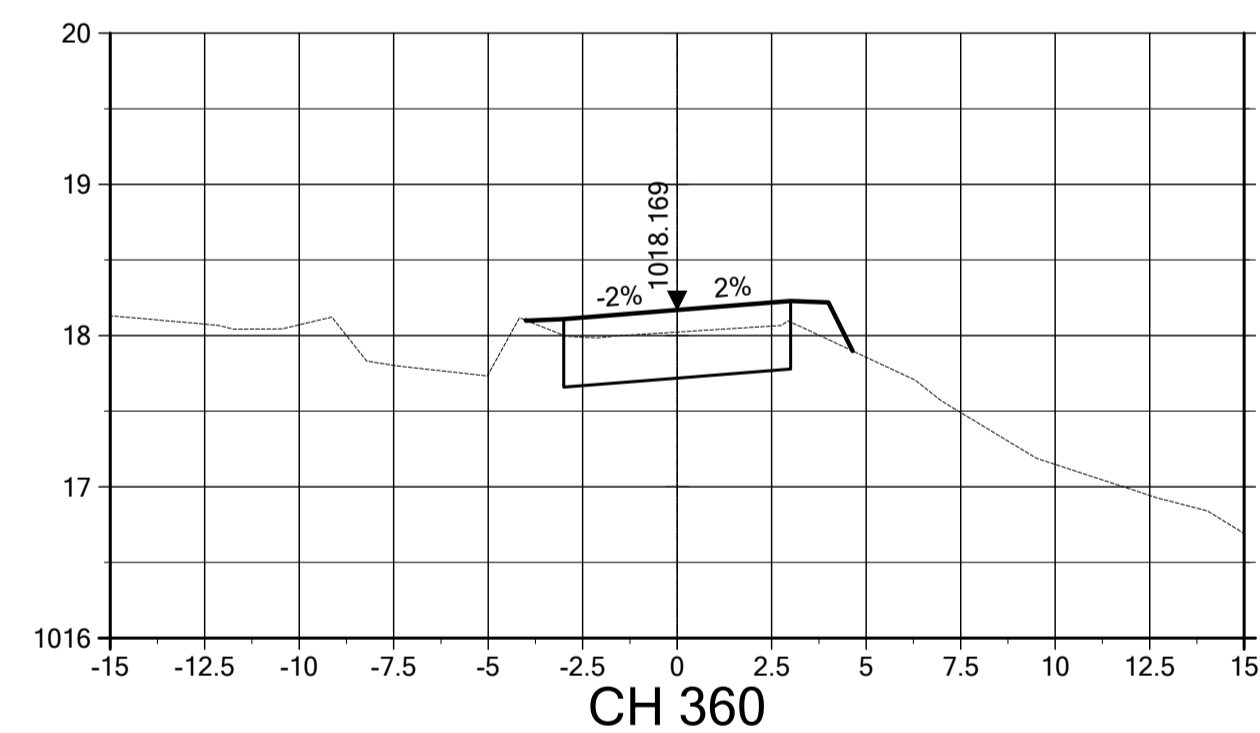
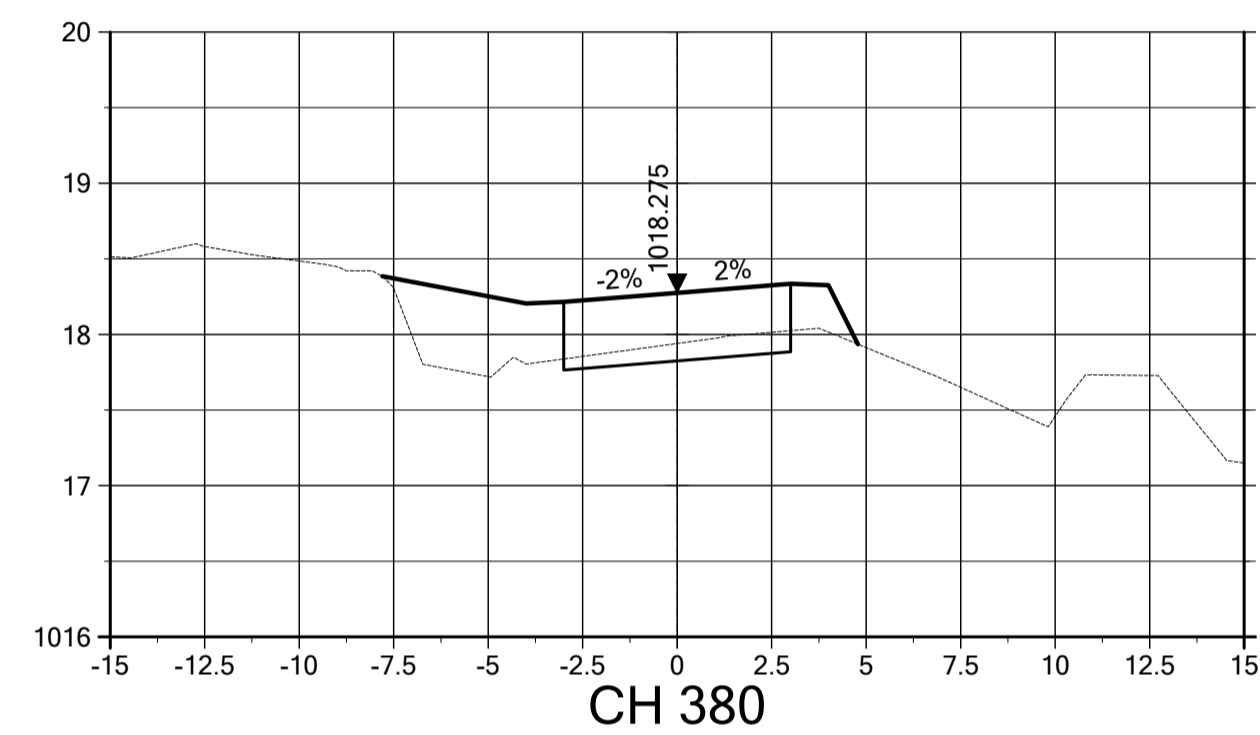
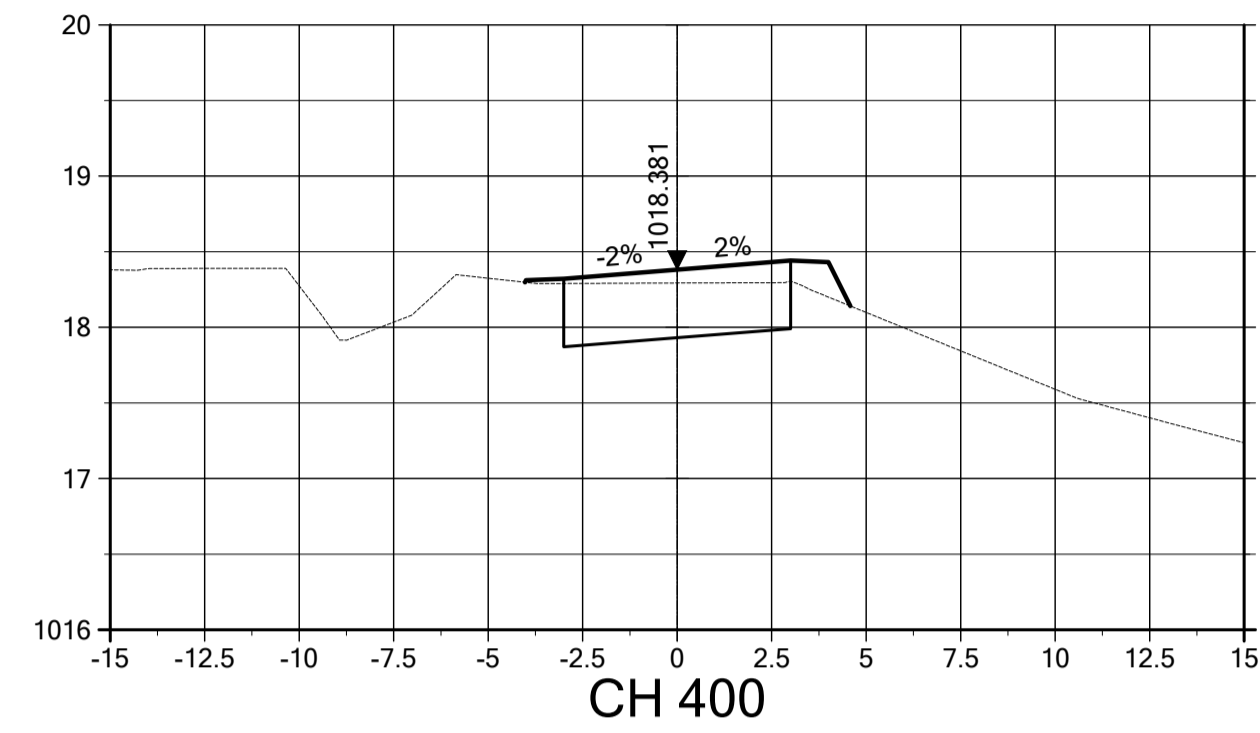
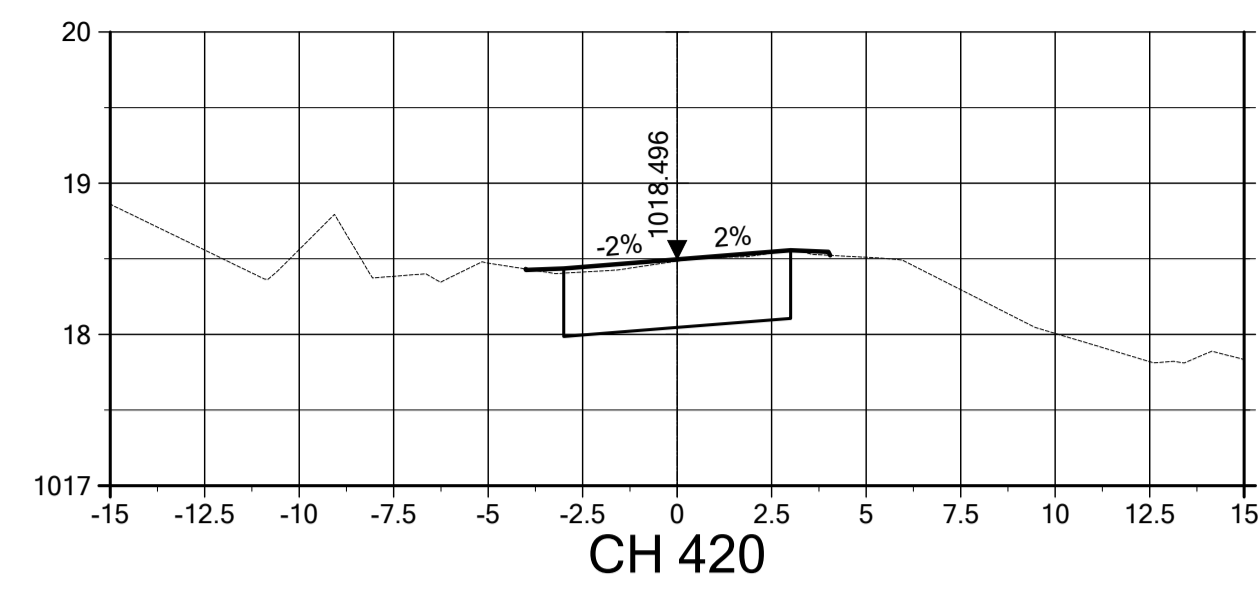
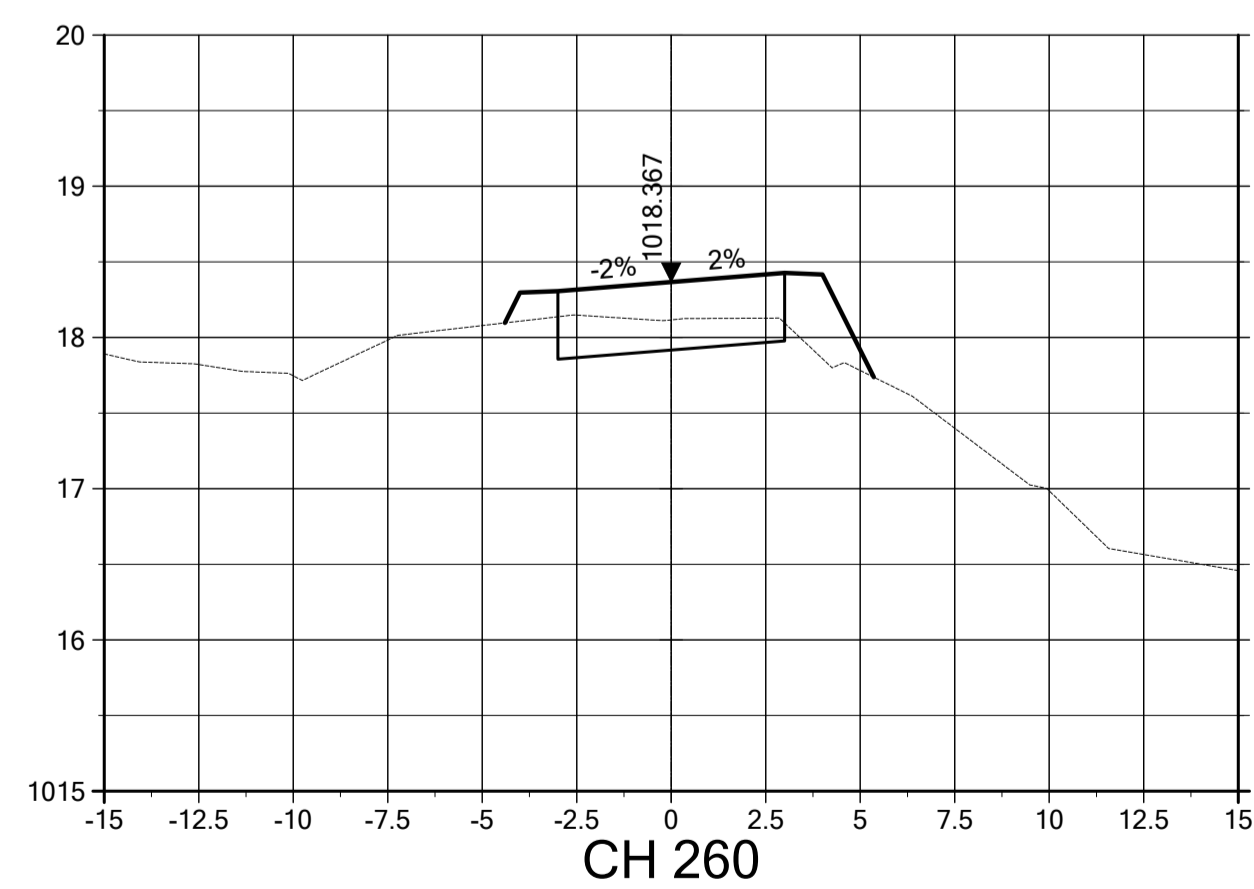
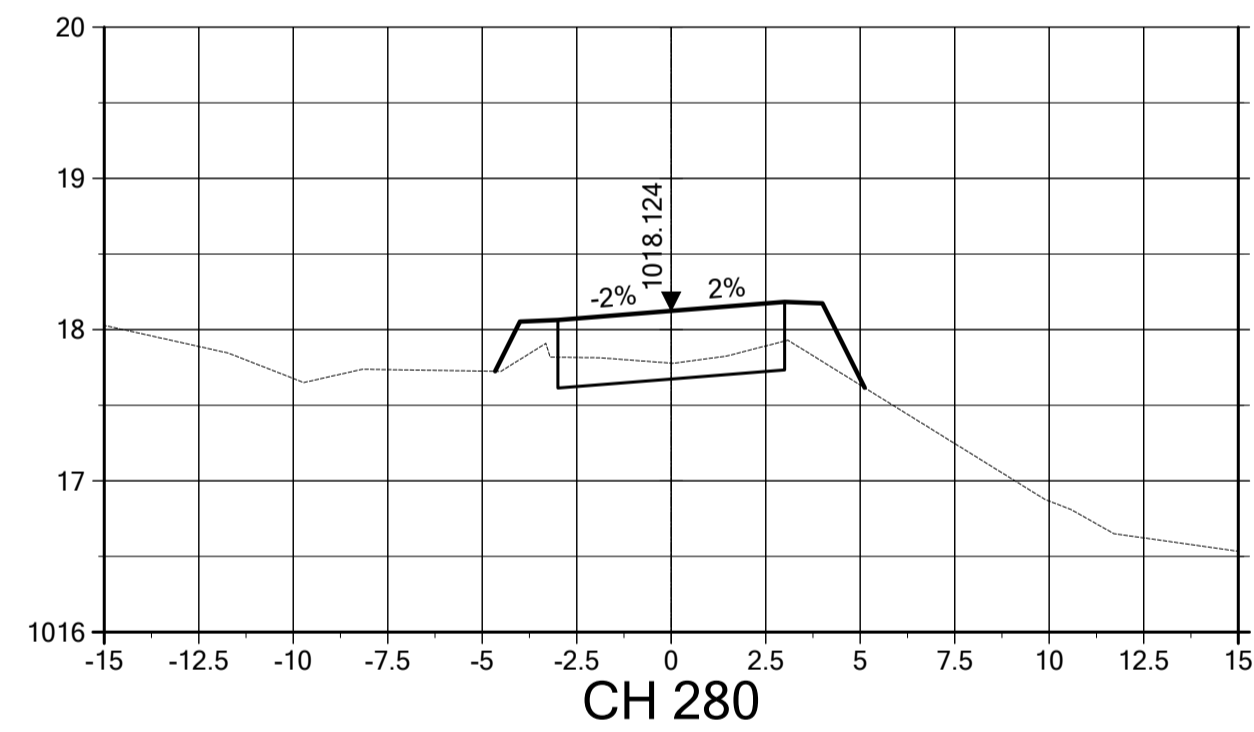
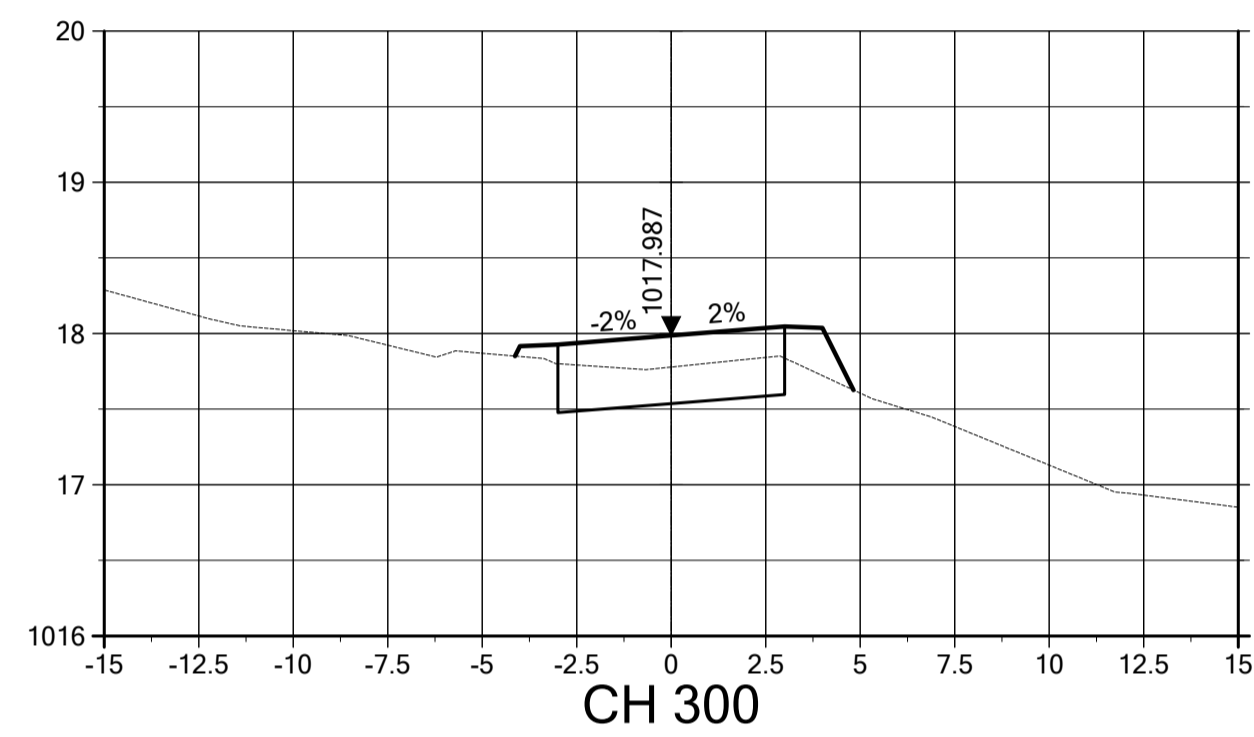
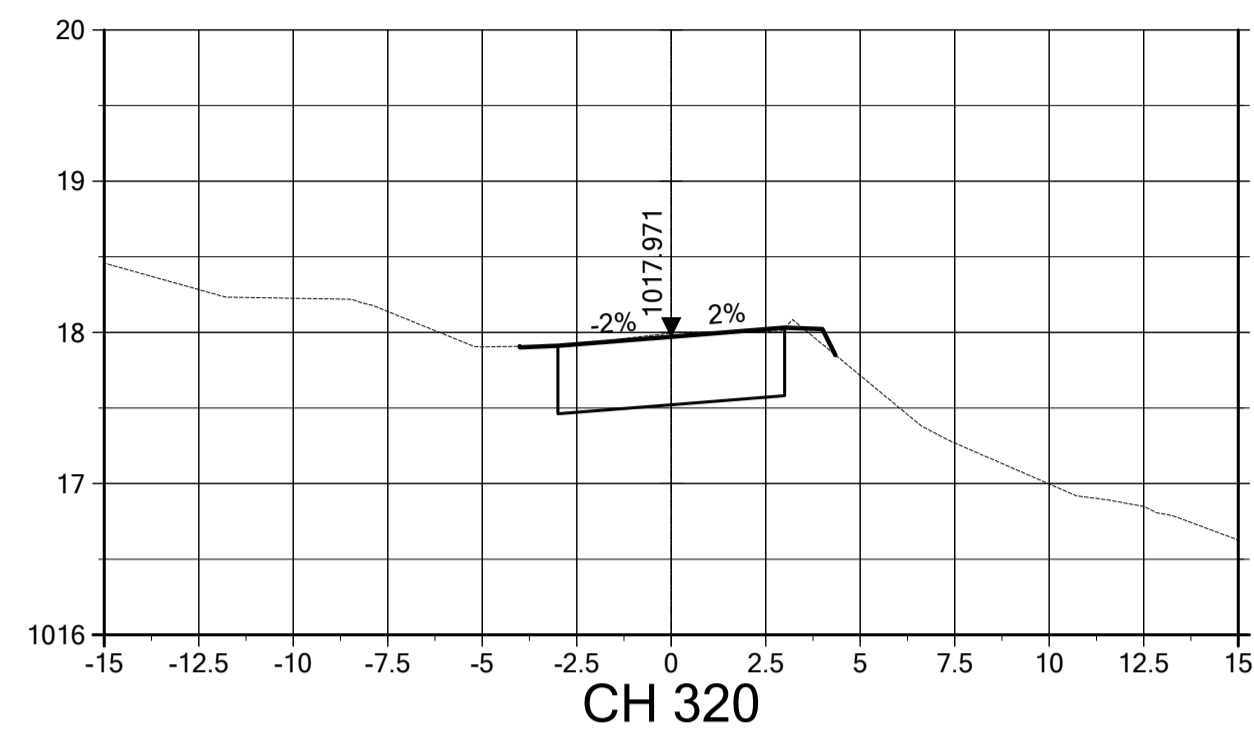


**SIZEYA**  
CONSULTING ENGINEERS  
No. 6 Hans Van Rensburg Street  
Office No. 14  
Private Bag X9676, Postnet Suite 141  
Polokwane, 0700  
Tel : (015) 291 1020  
Email : info@sizeya.co.za

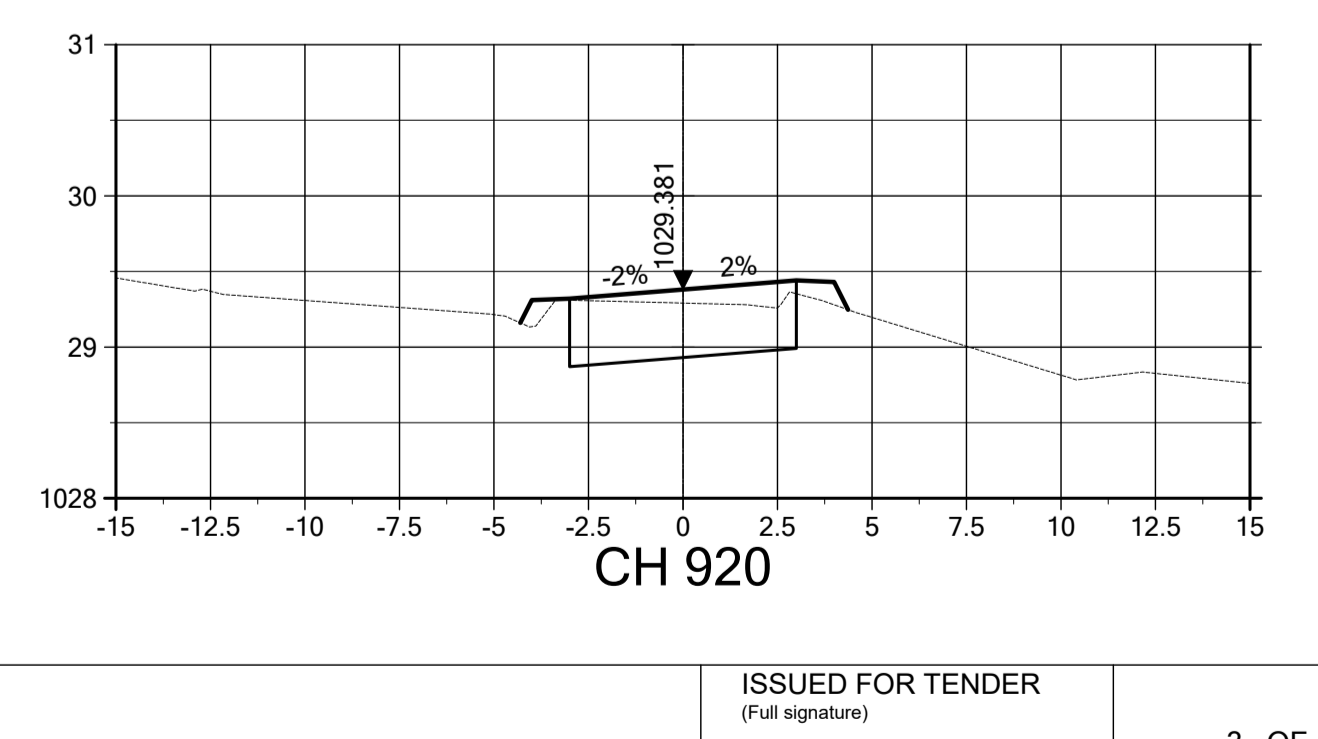
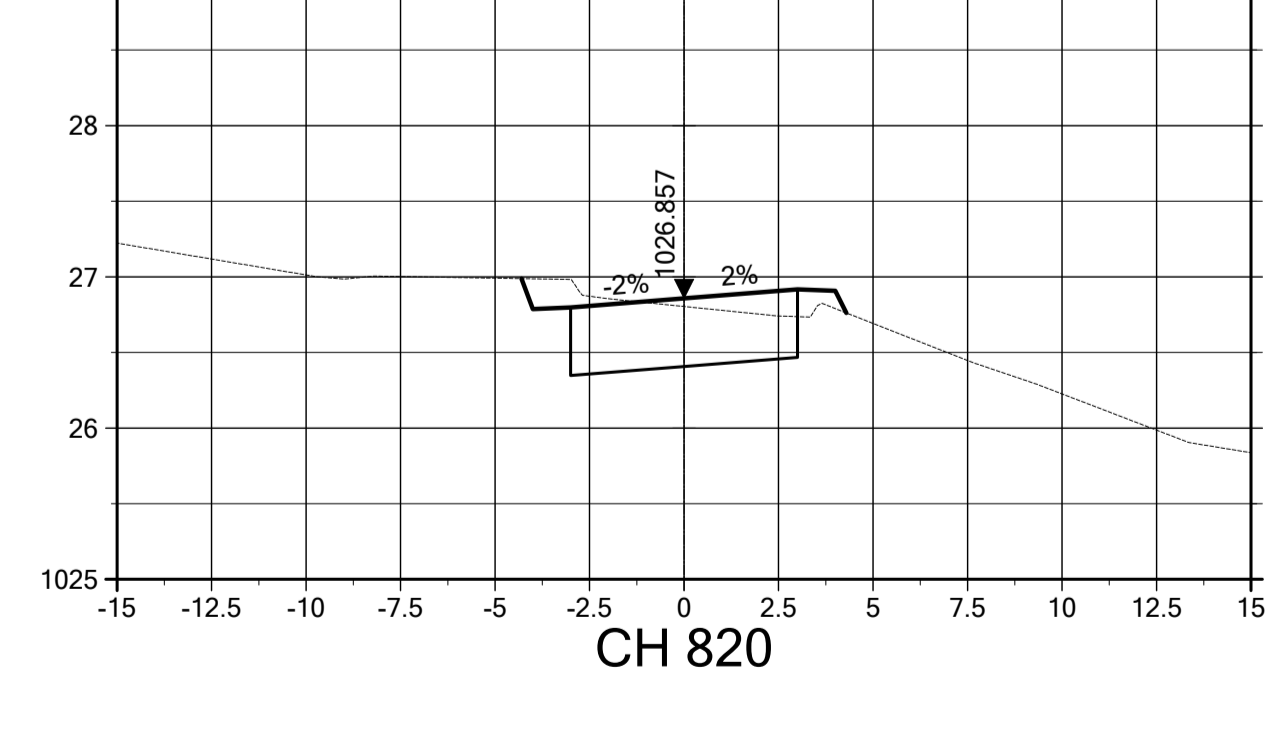
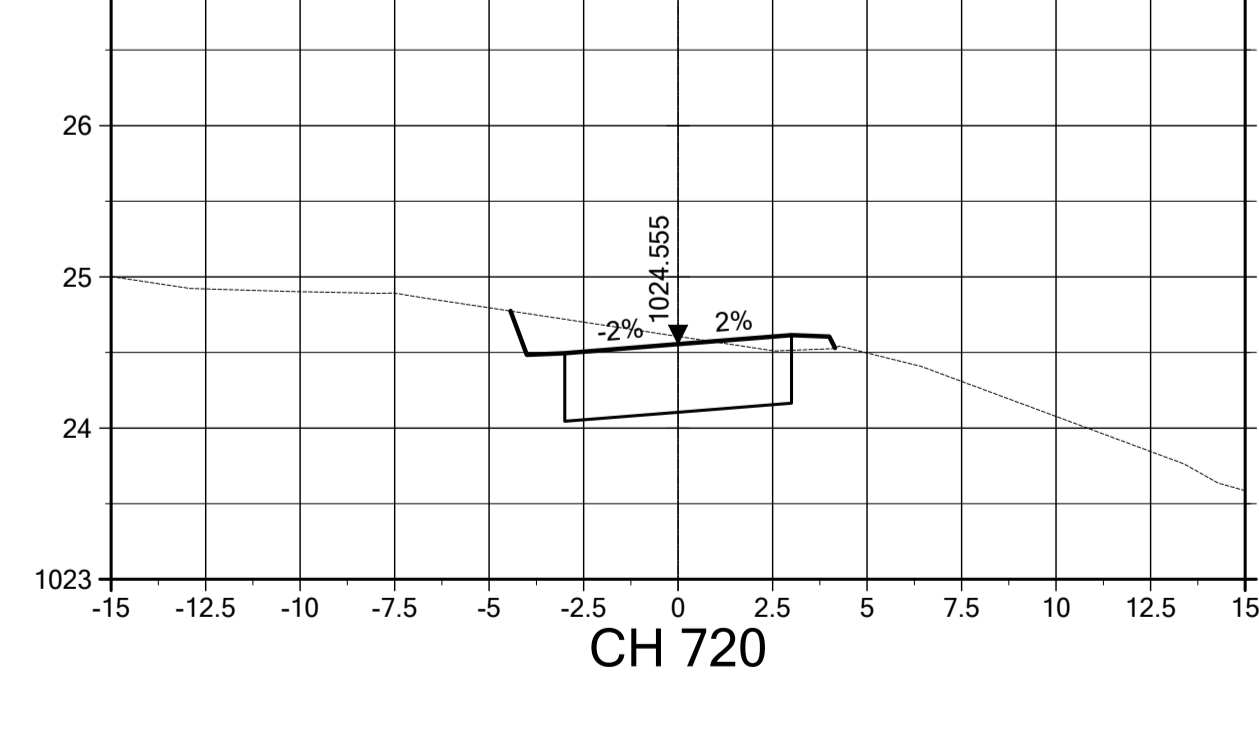
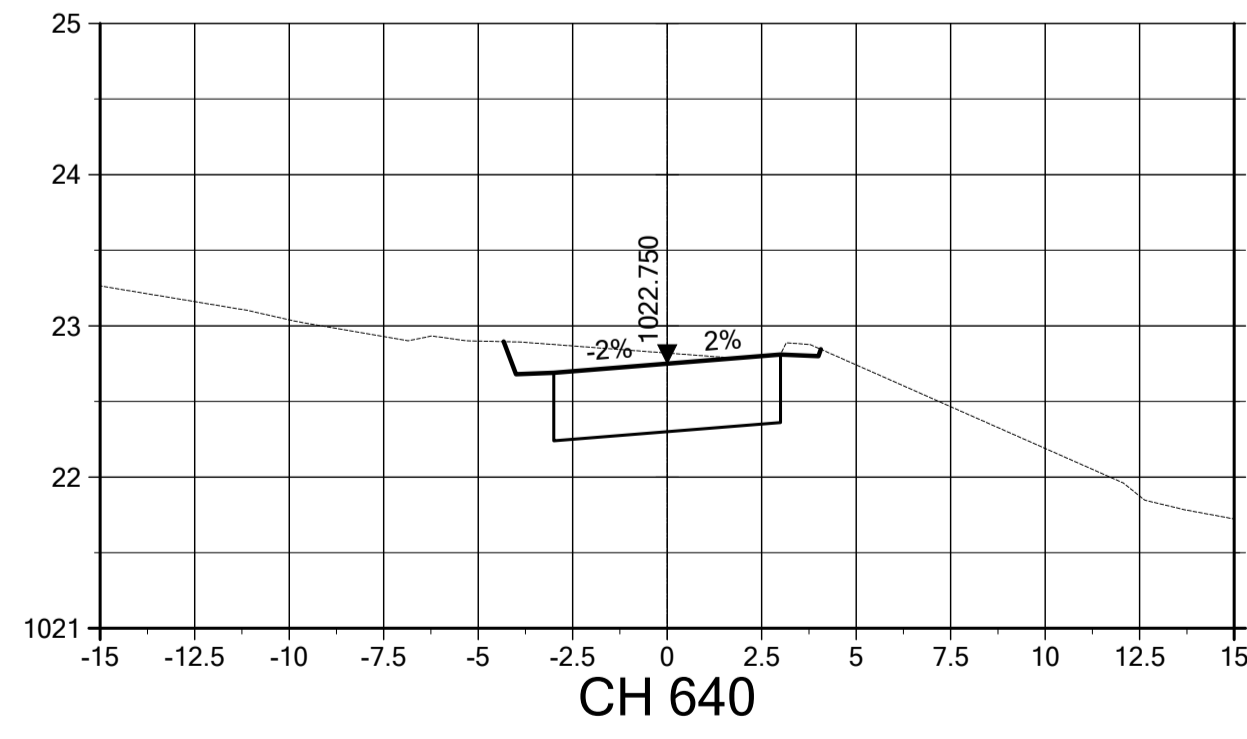
CONSULTING ENGINEER	DATE
EMPLOYER'S PROJECT MANAGER	DATE

CONTRACT No.: 67 OF 2021
PROJECT NAME:
REHABILITATION OF JOE SLOVO STREET AT VLEIFONTEIN
DRAWING TITLE:
ROAD CROSS SECTIONS

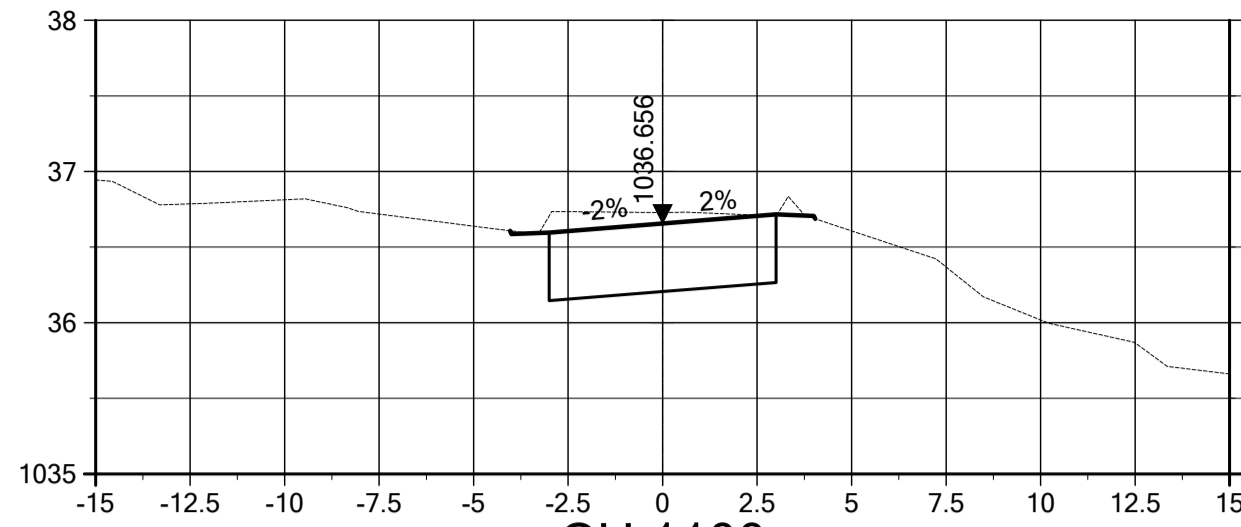
ISSUED FOR TENDER (Full signature)	1 OF 5
For : Client	SCALE H-SCALE 1: 200 V-SCALE 1: 50
For : Consulting Engineer	CLIENT DRAWING No.
CONSULTANTS DRAWING No. S39.2-XS/001	



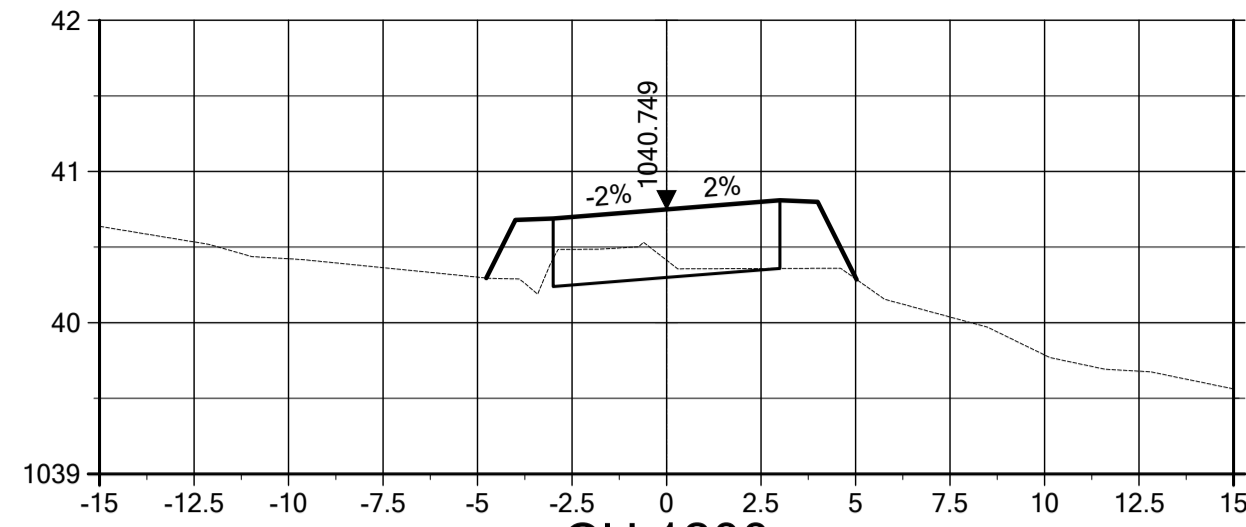
					DESIGNED BY:	R.R. RAVELE		 <div>No. 6 Hans Van Rensburg Street Office No. 14 Private Bag X9676, Postnet Suite 141 Polokwane, 0700 Tel : (015) 291 1020 Email : info@sizeya.co.za</div>	<div>CONSULTING ENGINEER</div> <div>DATE</div>	CONTRACT No.: 67 OF 2021	ISSUED FOR TENDER (Full signature)	2 OF 5
					DRAWN BY:	F.I. MARAGENI			<div>For : Client</div>	SCALE H-SCALE 1: 200 V-SCALE 1: 50		
1	09/2021	ISSUED FOR TENDER							<div>For : Consulting Engineer</div>			
0	08/2021	ISSUED FOR APPROVAL							CONSULTANTS DRAWING No.	CLIENT DRAWING No.		
No	DATE	REVISION	CONSULT	DIR	CHECKED BY:	H.L. THARAGA			<div>EMPLOYER'S PROJECT MANAGER</div> <div>DATE</div>	DRAWING TITLE:  ROAD CROSS SECTIONS	S39.2-XS/002	



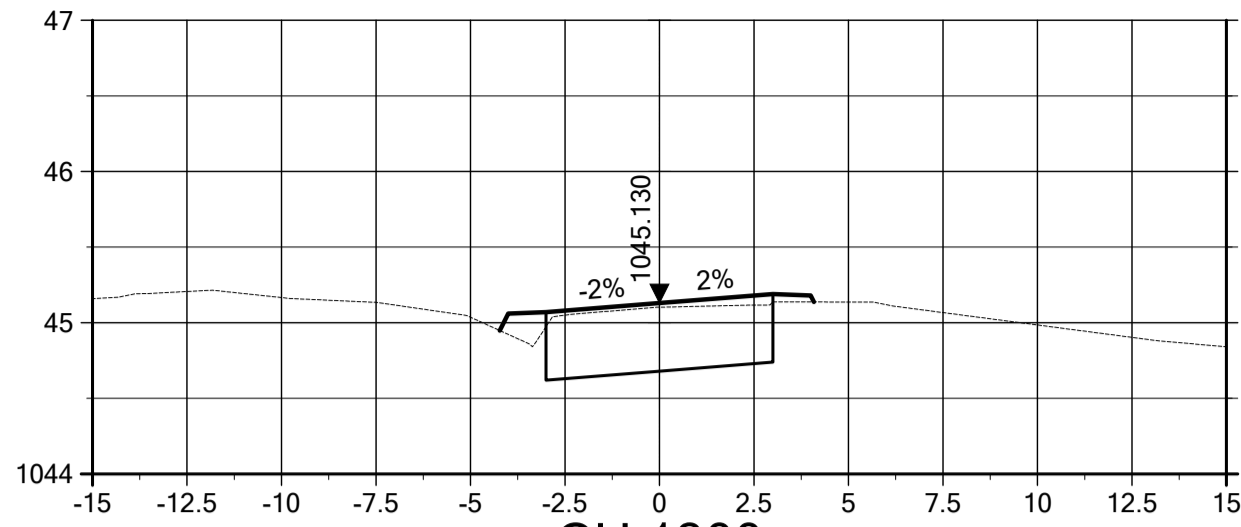
					DESIGNED BY:	R.R. RAVELE		 <p>No. 6 Hans Van Rensburg Street Office No. 14 Private Bag X9676, Postnet Suite 141 Polokwane, 0700 Tel : (015) 291 1020 Email : info@sizeya.co.za</p>	_____	_____	CONTRACT No.: 67 OF 2021	ISSUED FOR TENDER (Full signature)	3 OF 5	
					DRAWN BY:	F.I MARAGENI			CONSULTING ENGINEER	DATE	PROJECT NAME:	REHABILITATION OF JOE SLOVO STREET AT VLEIFONTEIN	For : Client	SCALE H-SCALE 1: 200 V-SCALE 1: 50
1	09/2021	ISSUED FOR TENDER											For : Consulting Engineer	
0	08/2021	ISSUED FOR APPROVAL												
No	DATE	REVISION	CONSULT	DIR	CHECKED BY:	H.L. THARAGA			EMPLOYER'S PROJECT MANAGER	DATE	DRAWING TITLE:	ROAD CROSS SECTIONS	CONSULTANTS DRAWING No. S39.2-XS/003	CLIENT DRAWING No.



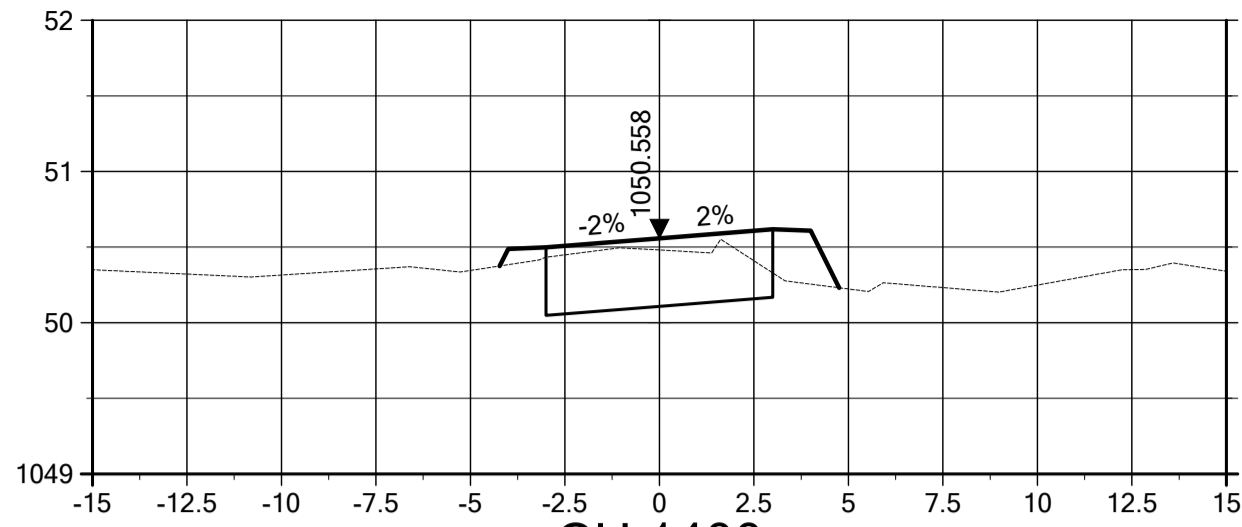
CH 1100



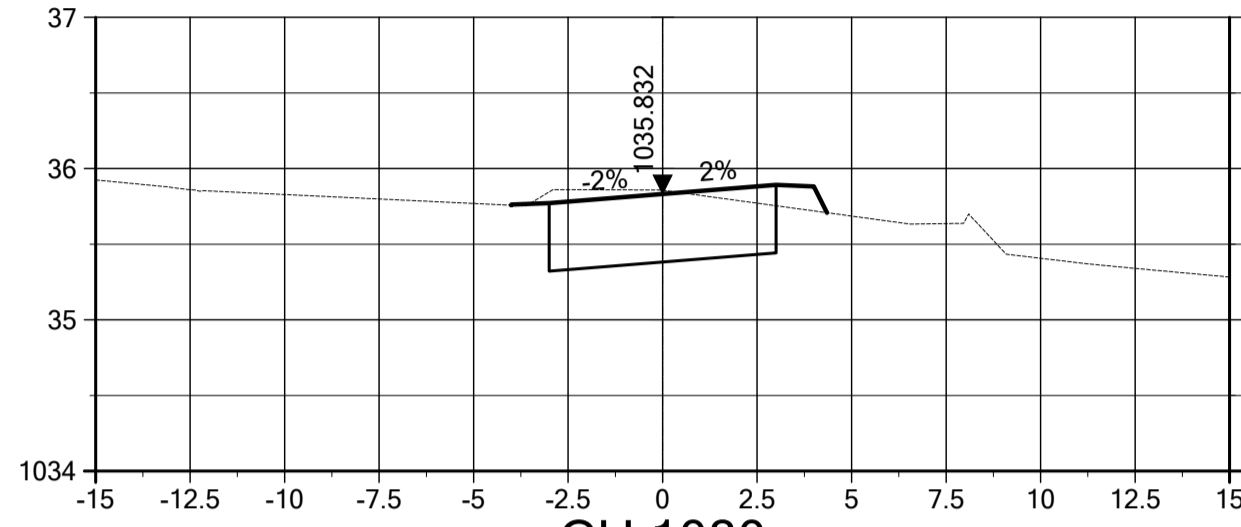
CH 1200



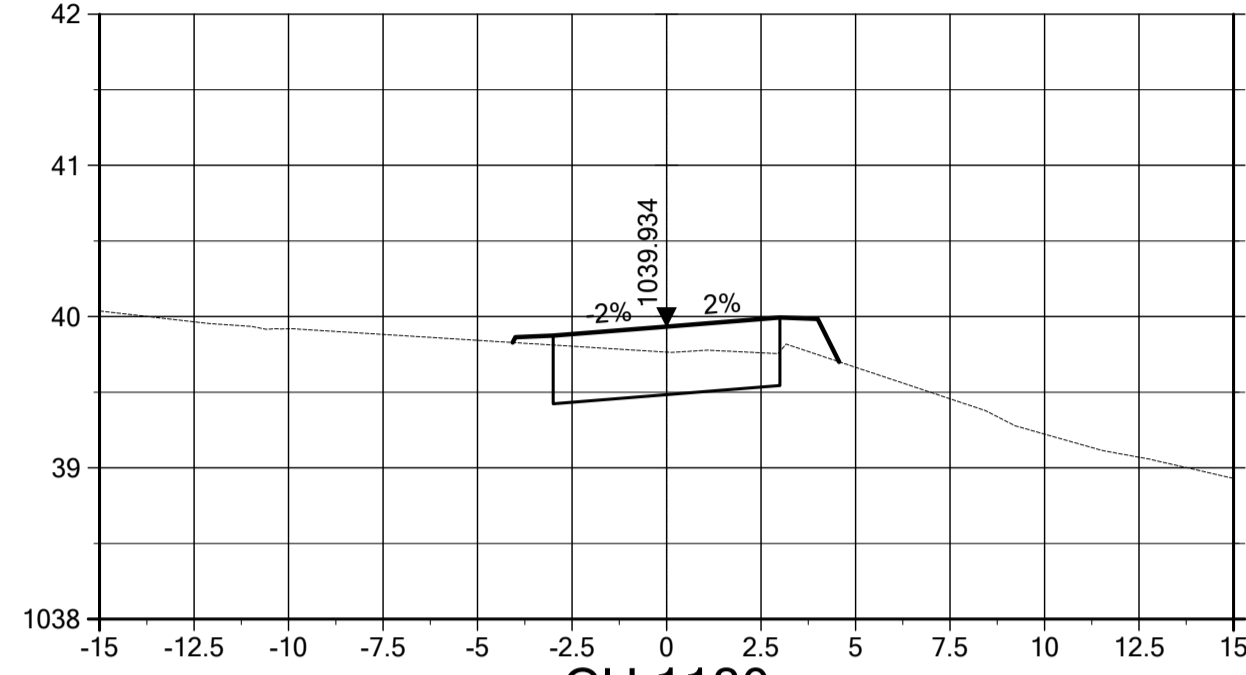
CH 1300



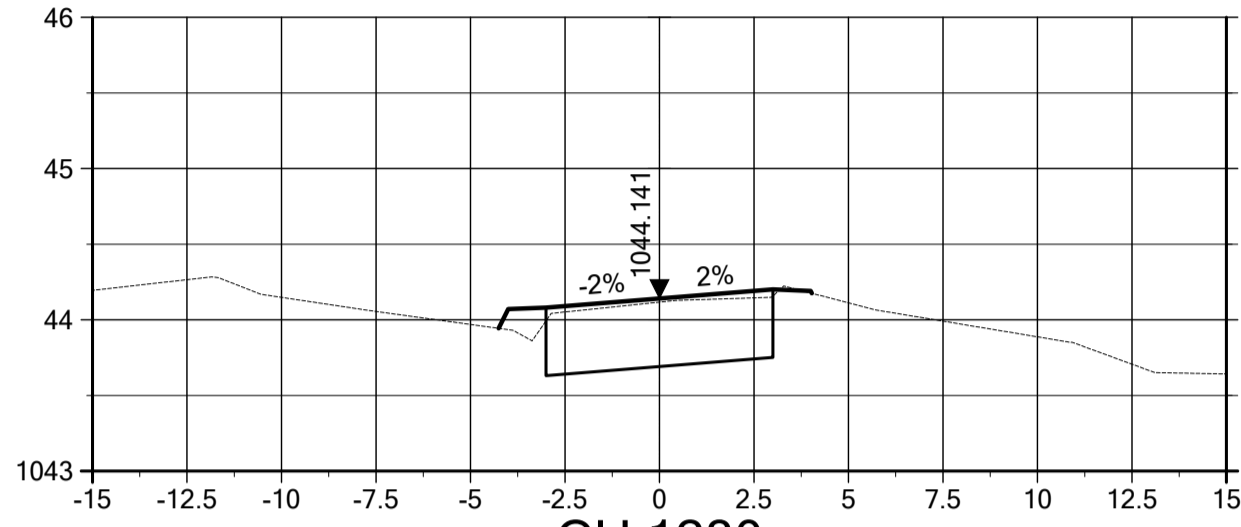
CH 1400



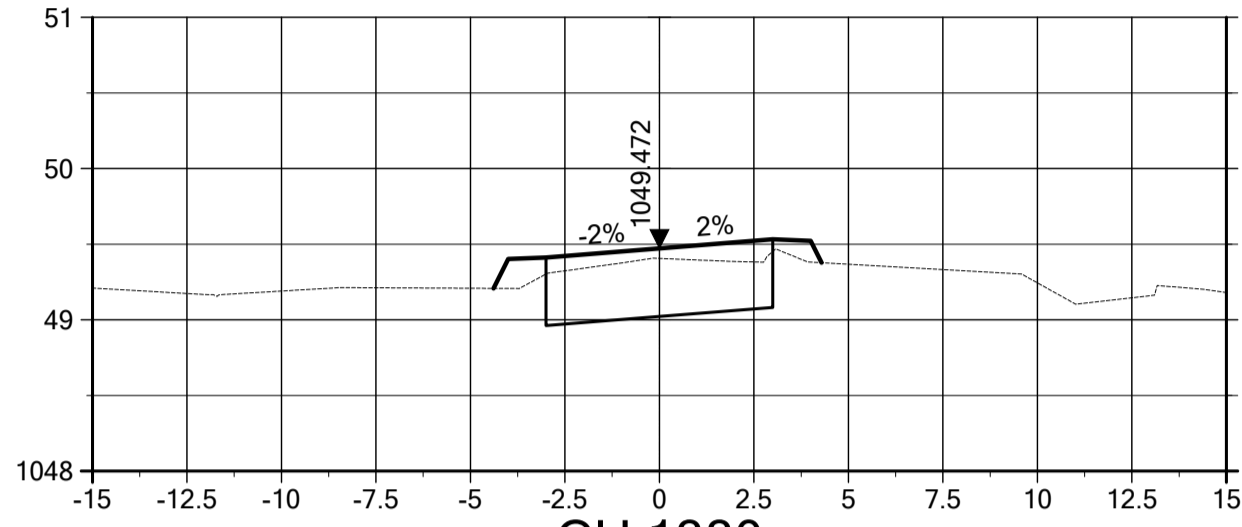
CH 1080



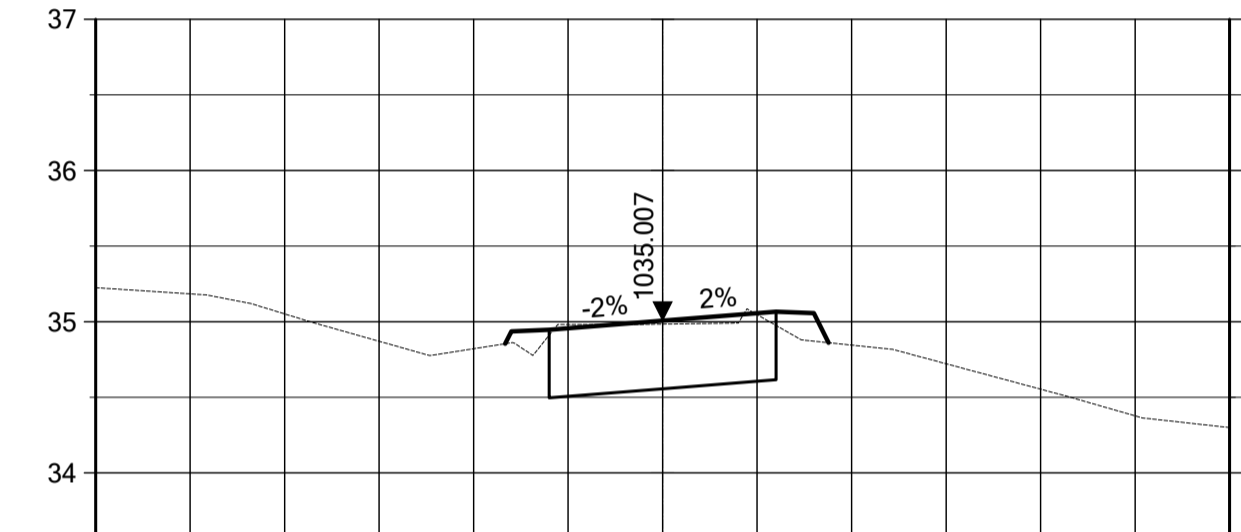
CH 1180



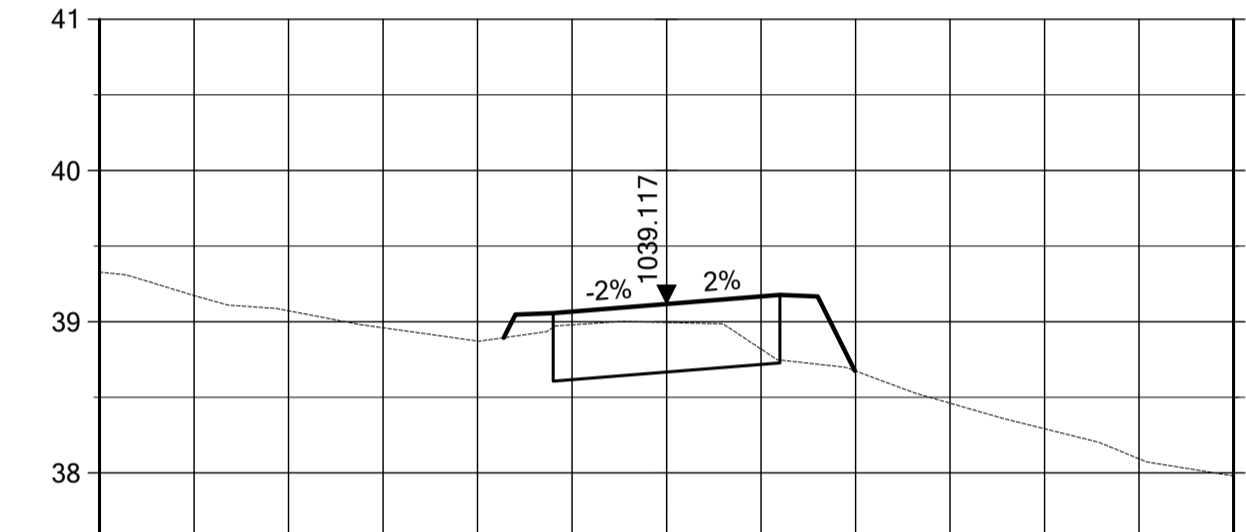
CH 1280



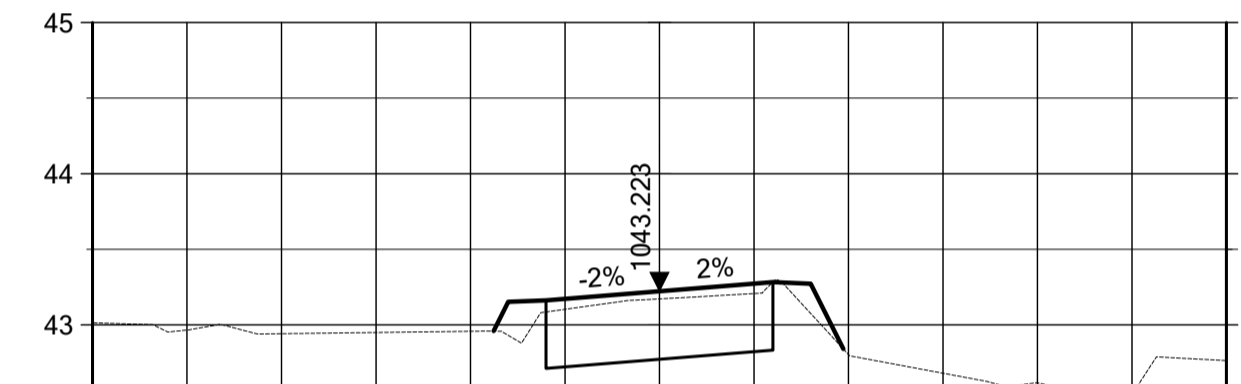
CH 1380



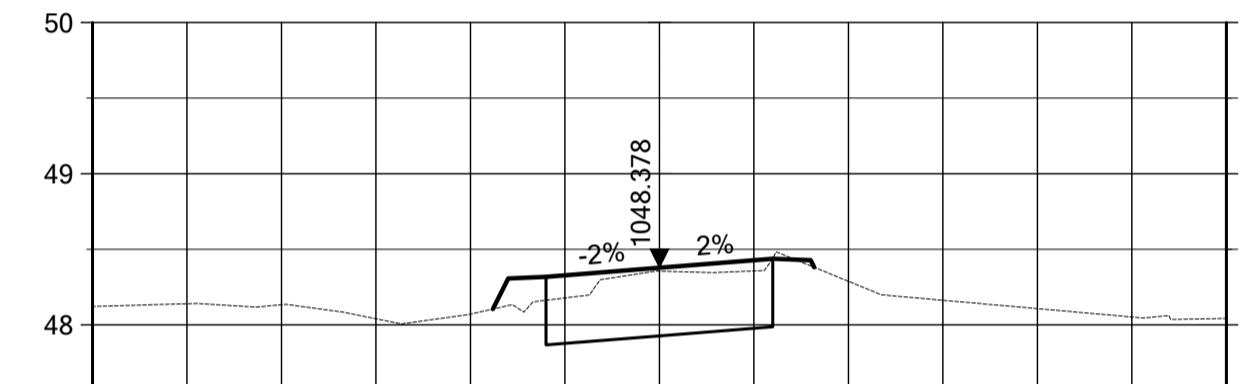
CH 1060



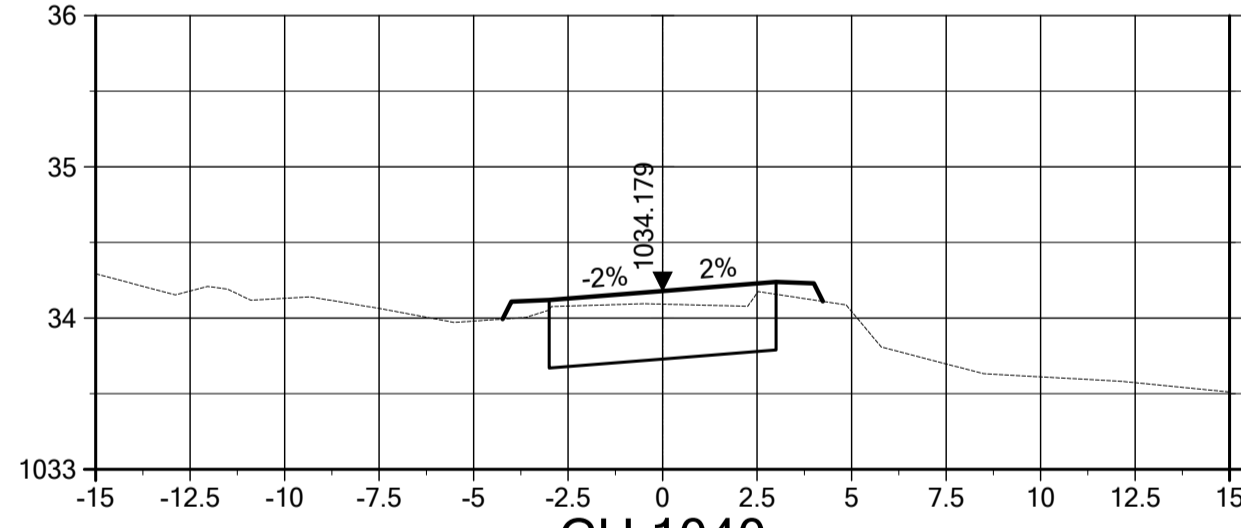
CH 1160



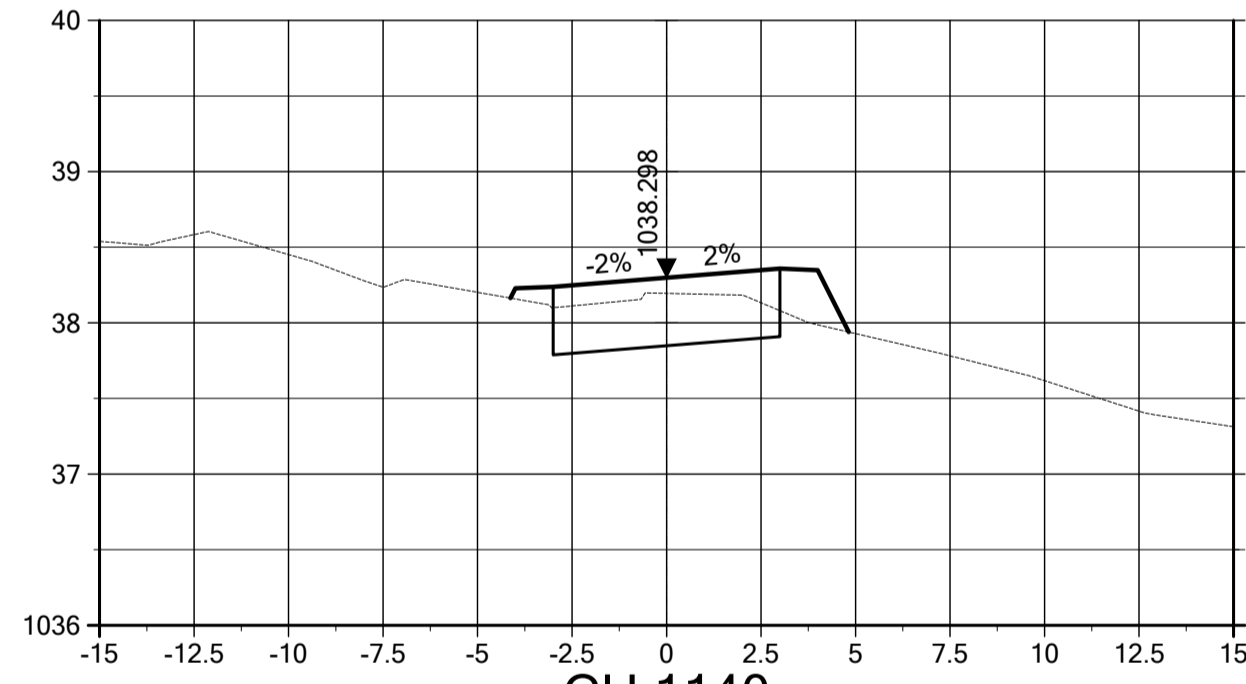
CH 1260



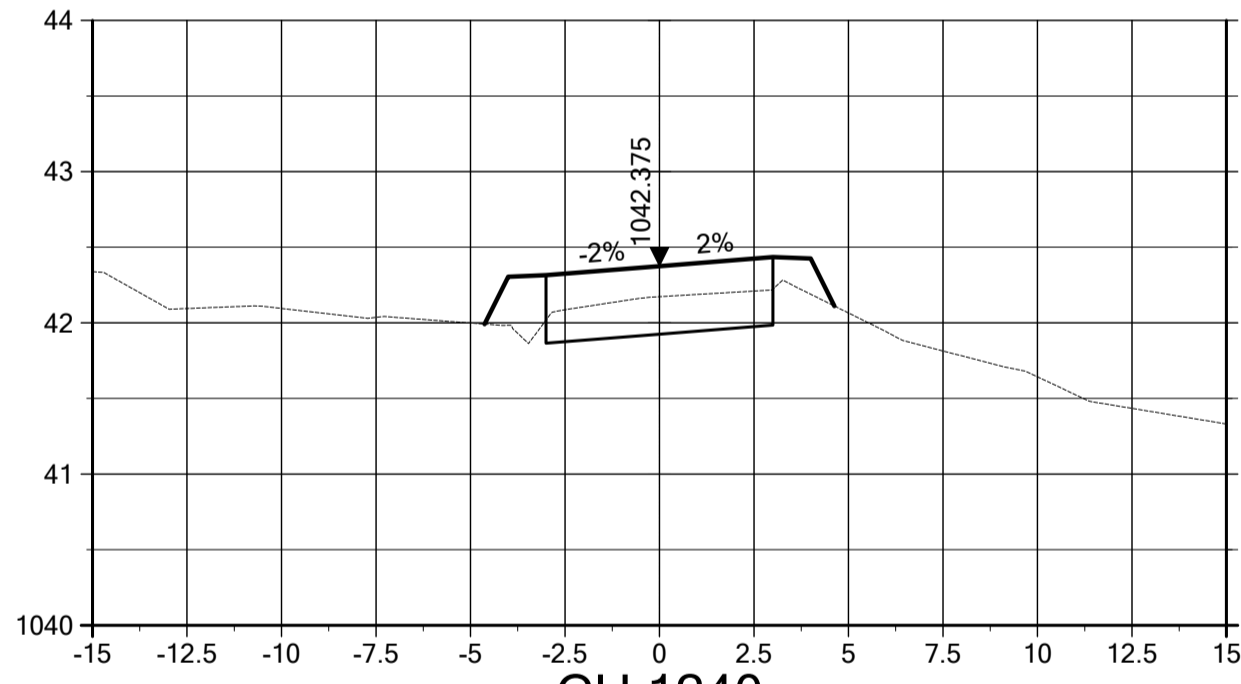
CH 1360



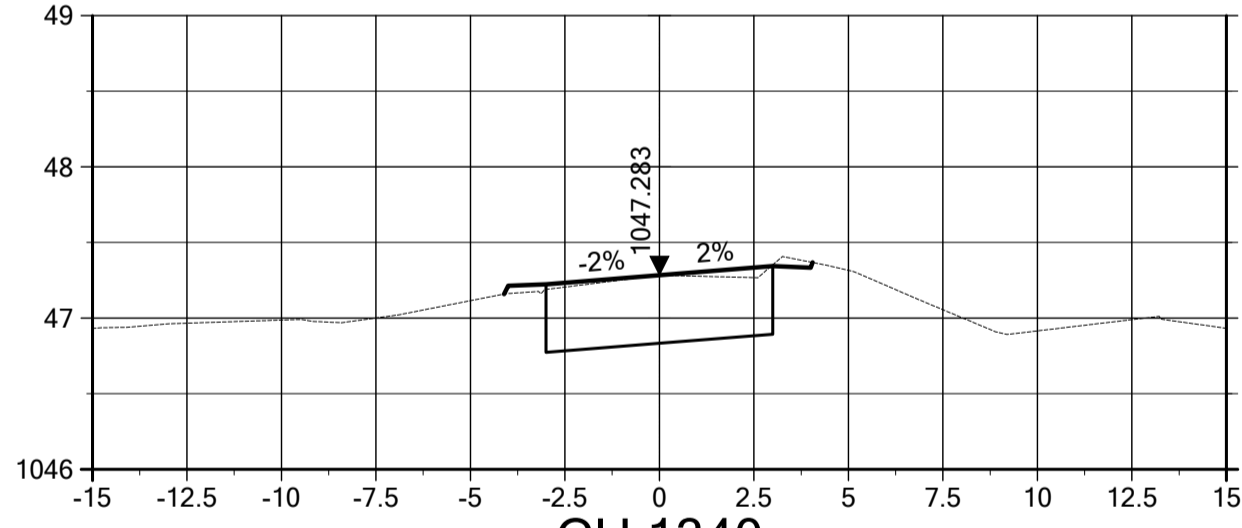
CH 1040



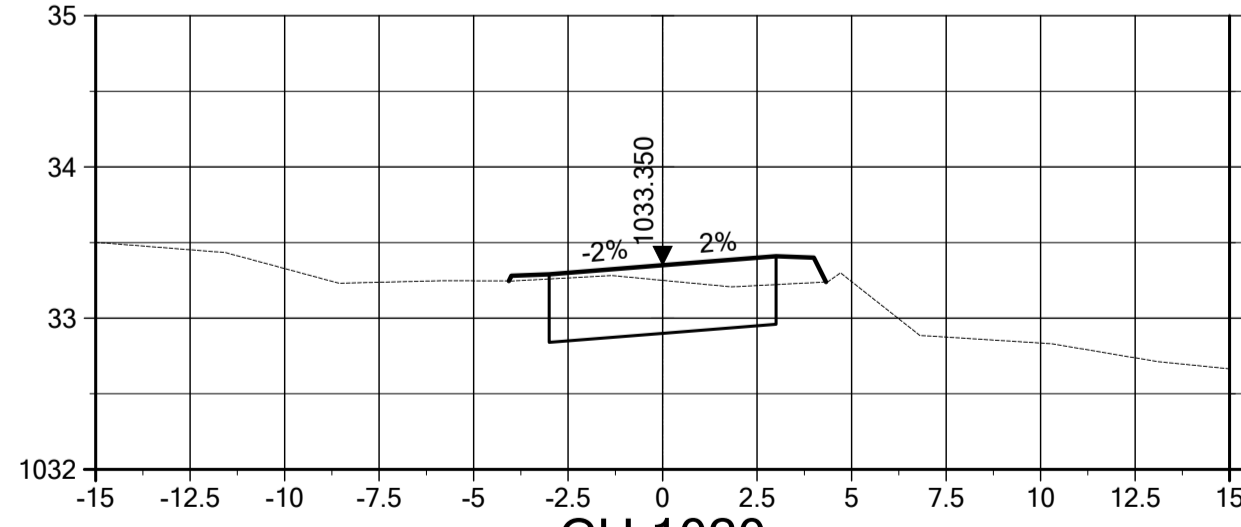
CH 1140



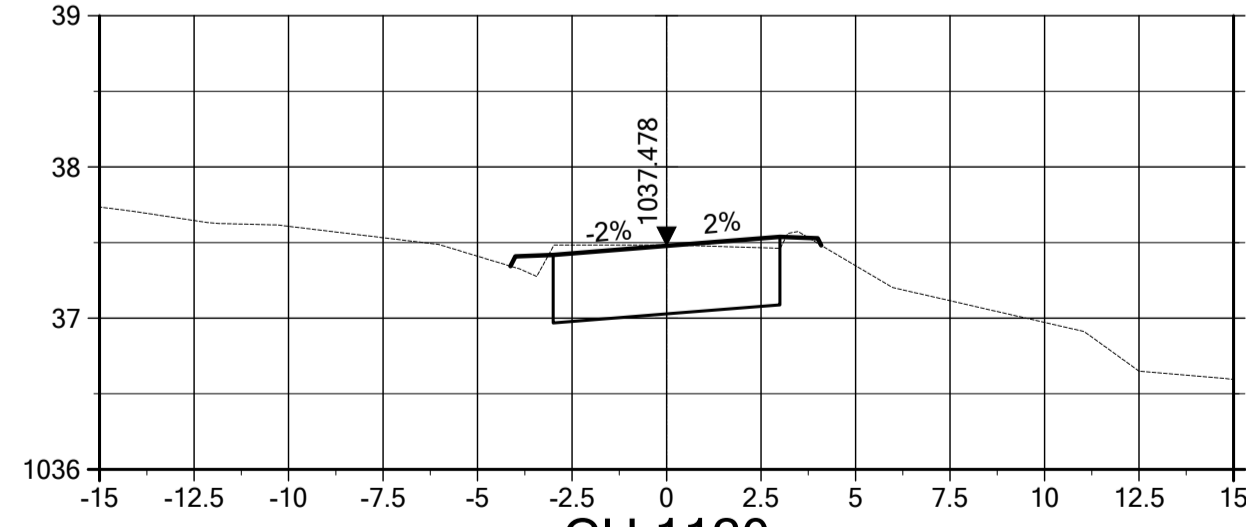
CH 1240



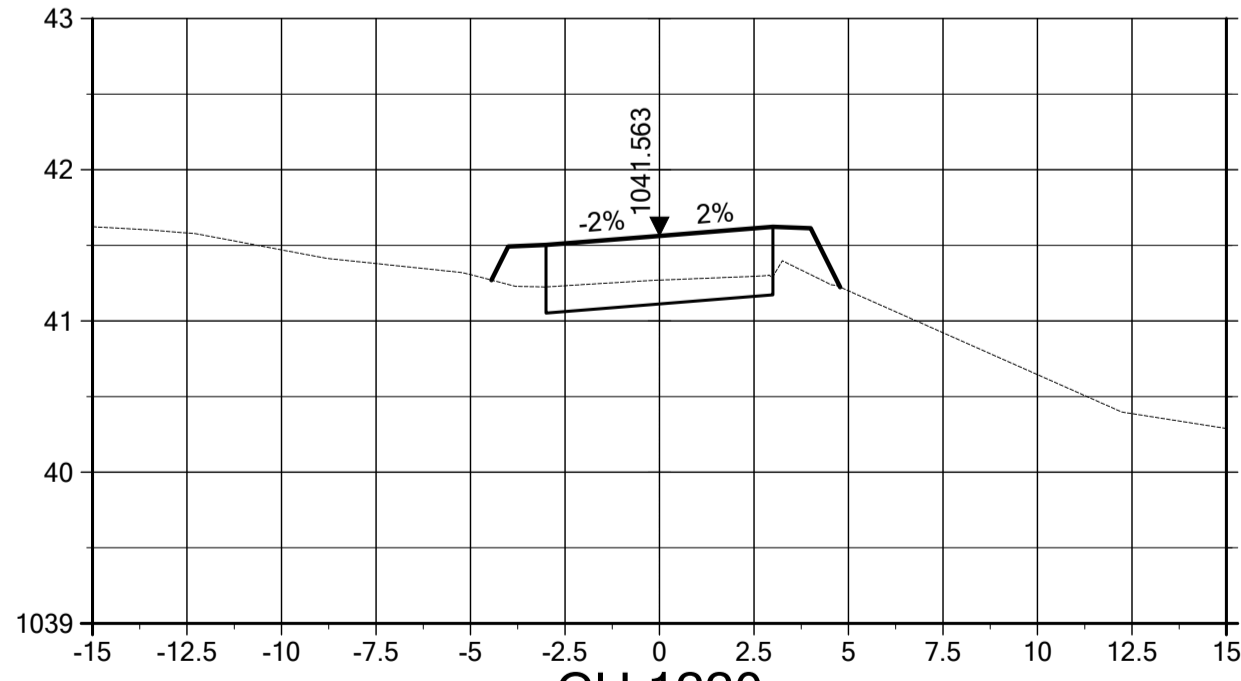
CH 1340



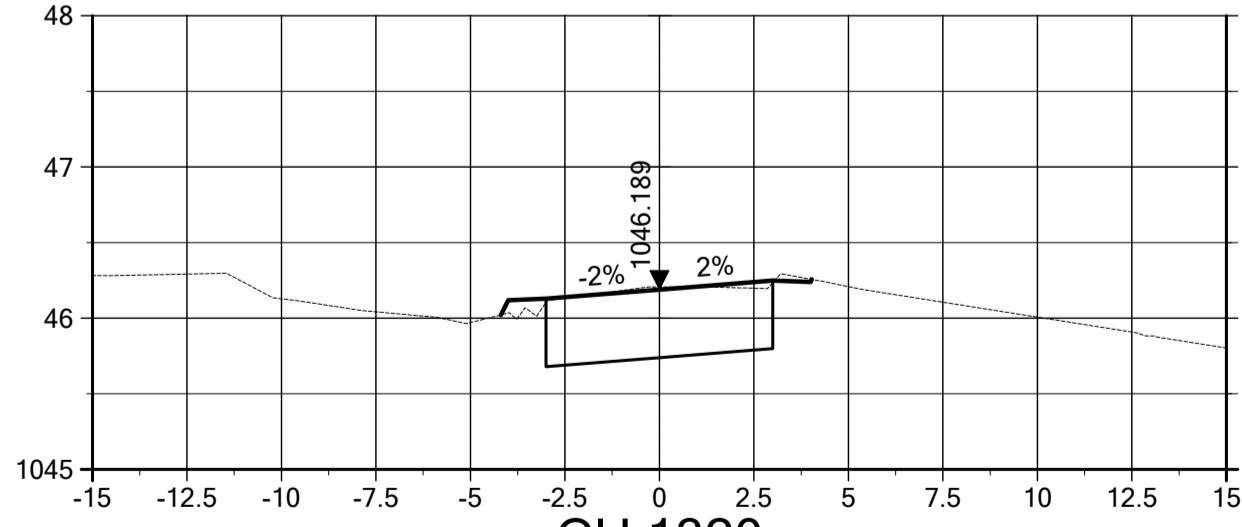
CH 1020



CH 1120

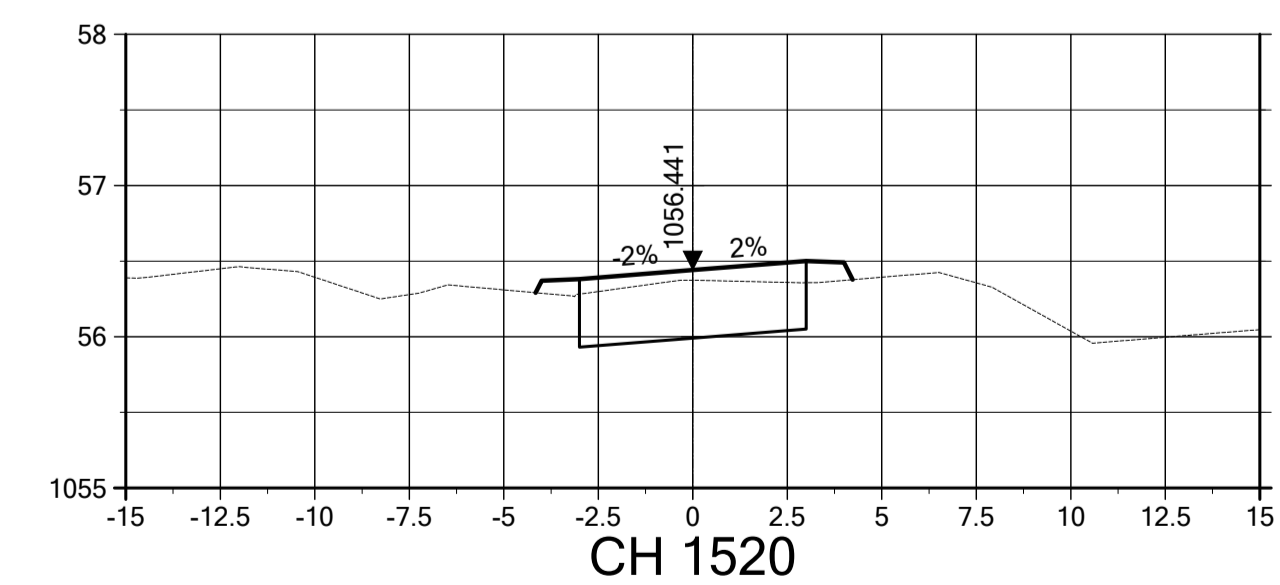
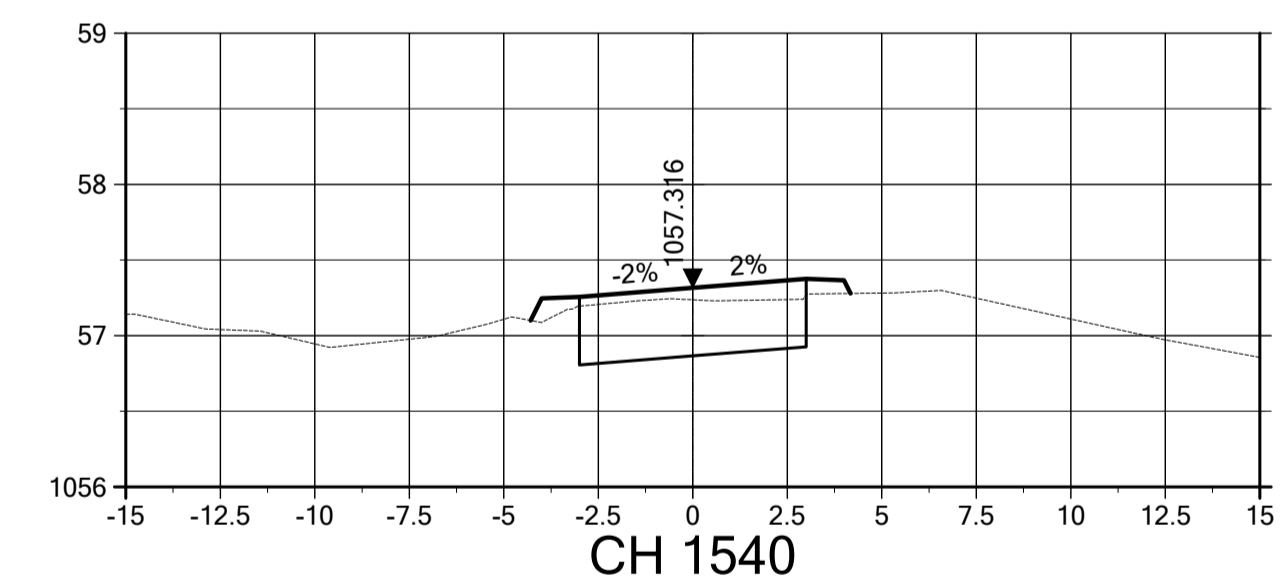
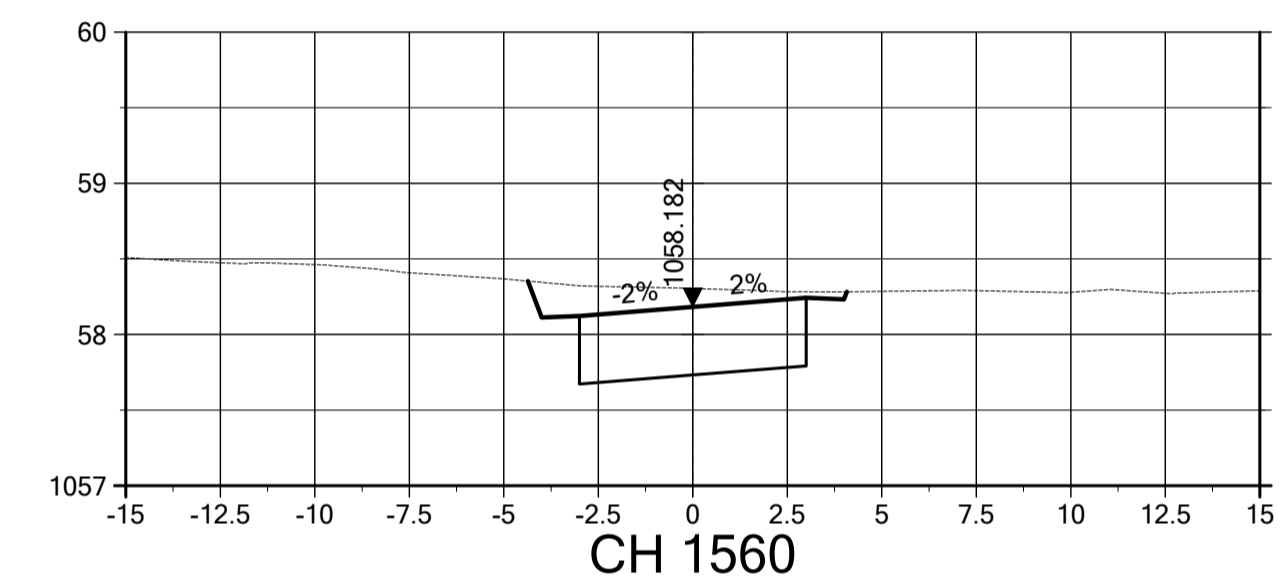
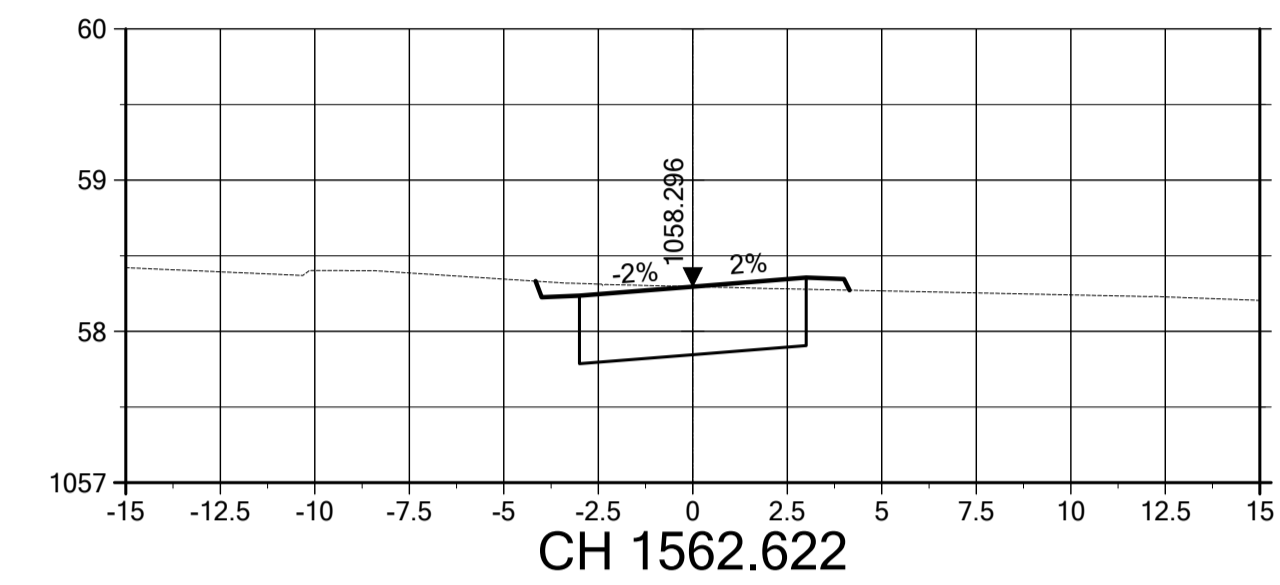
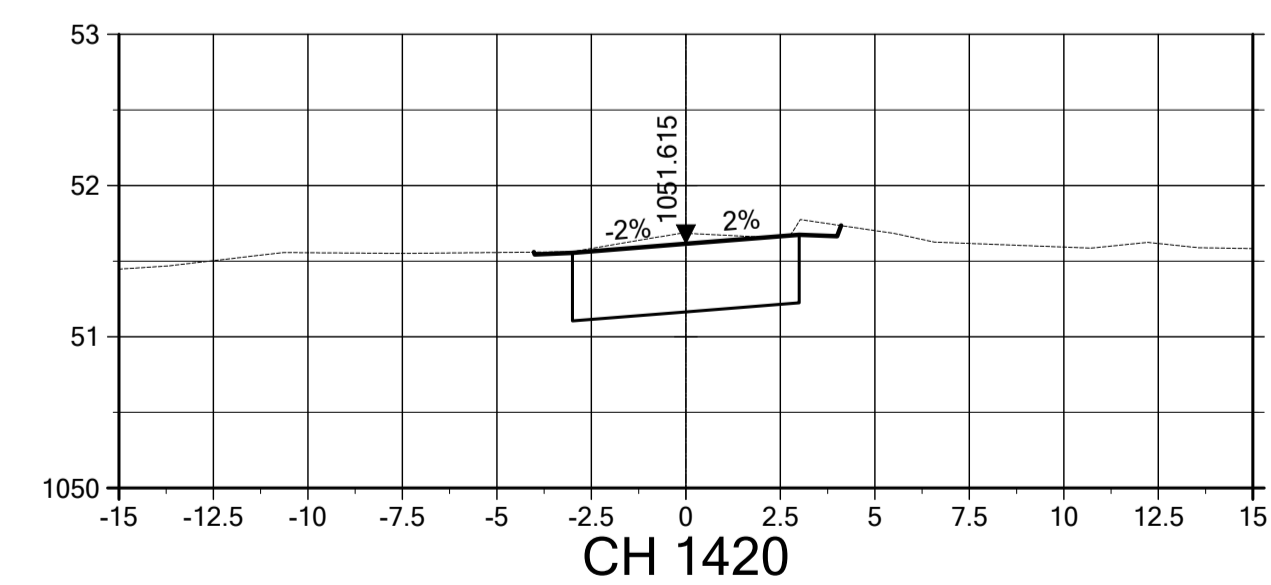
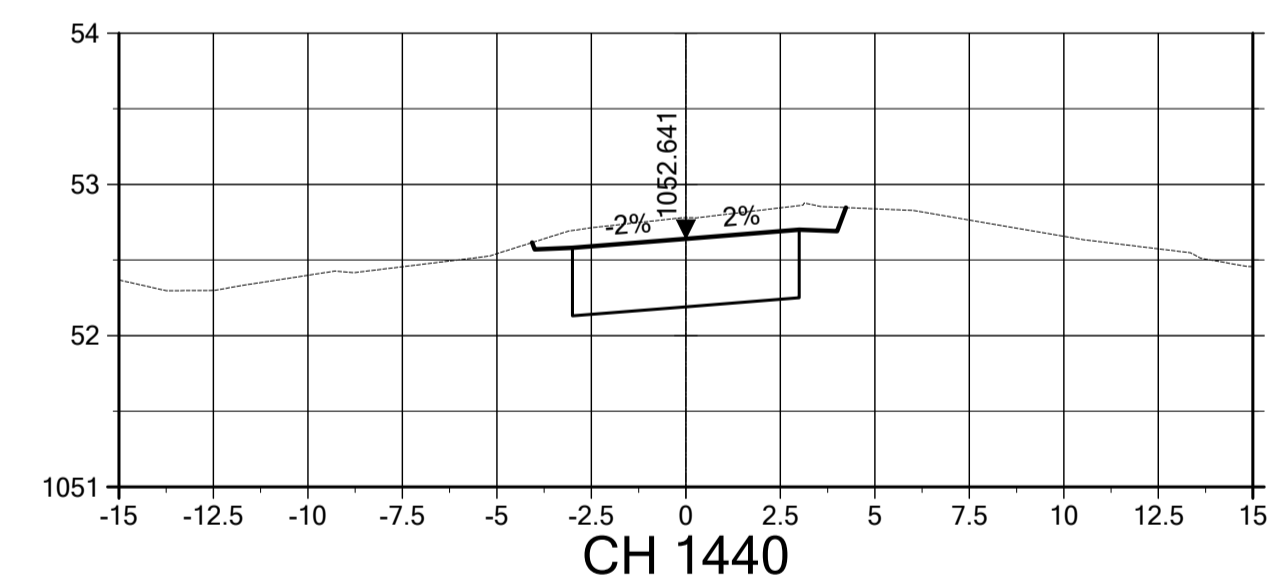
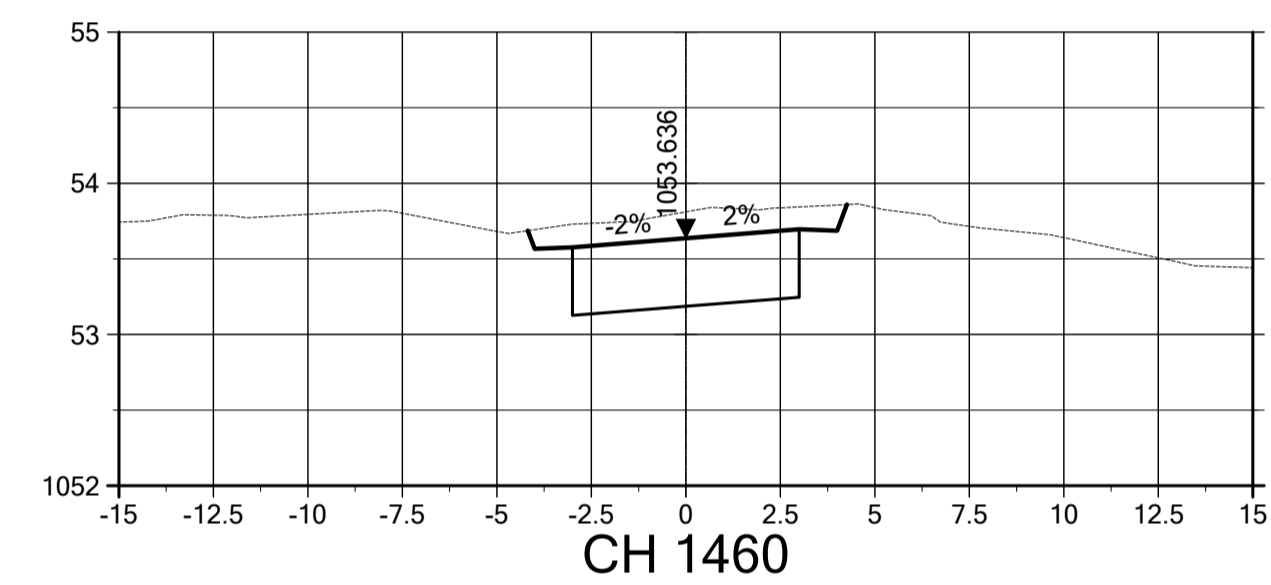
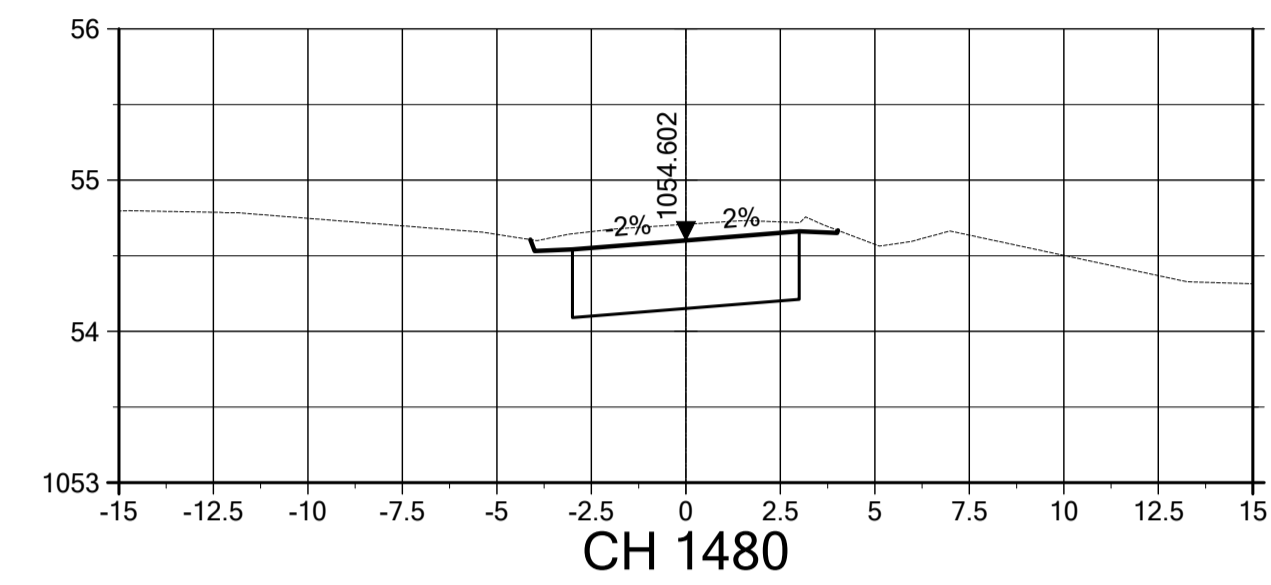
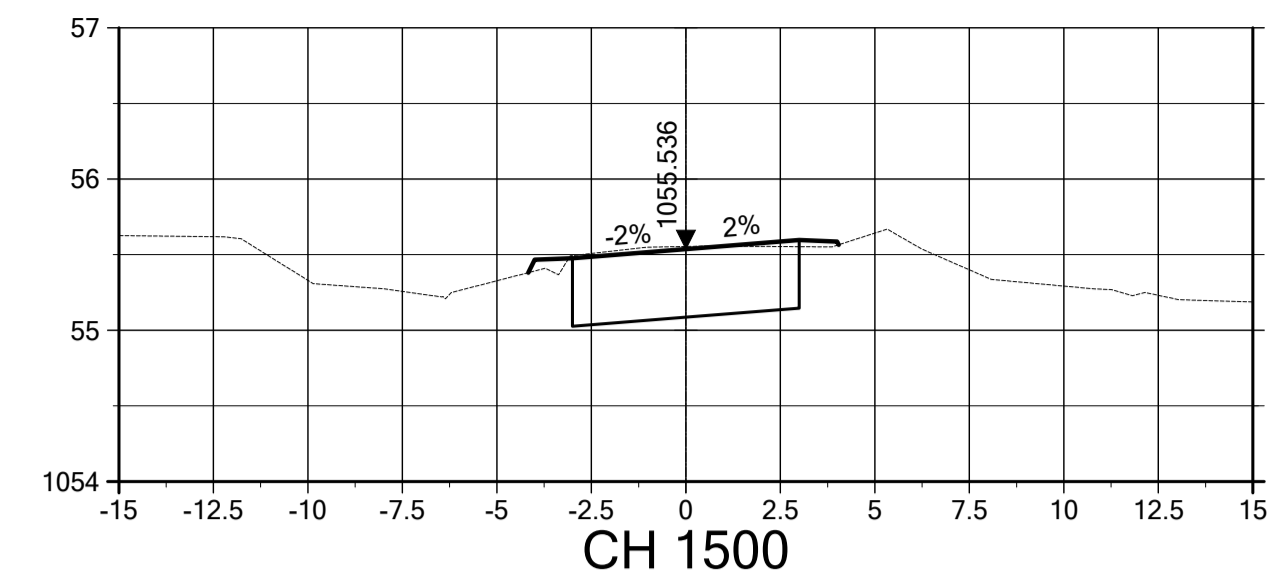


CH 1220



CH 1320

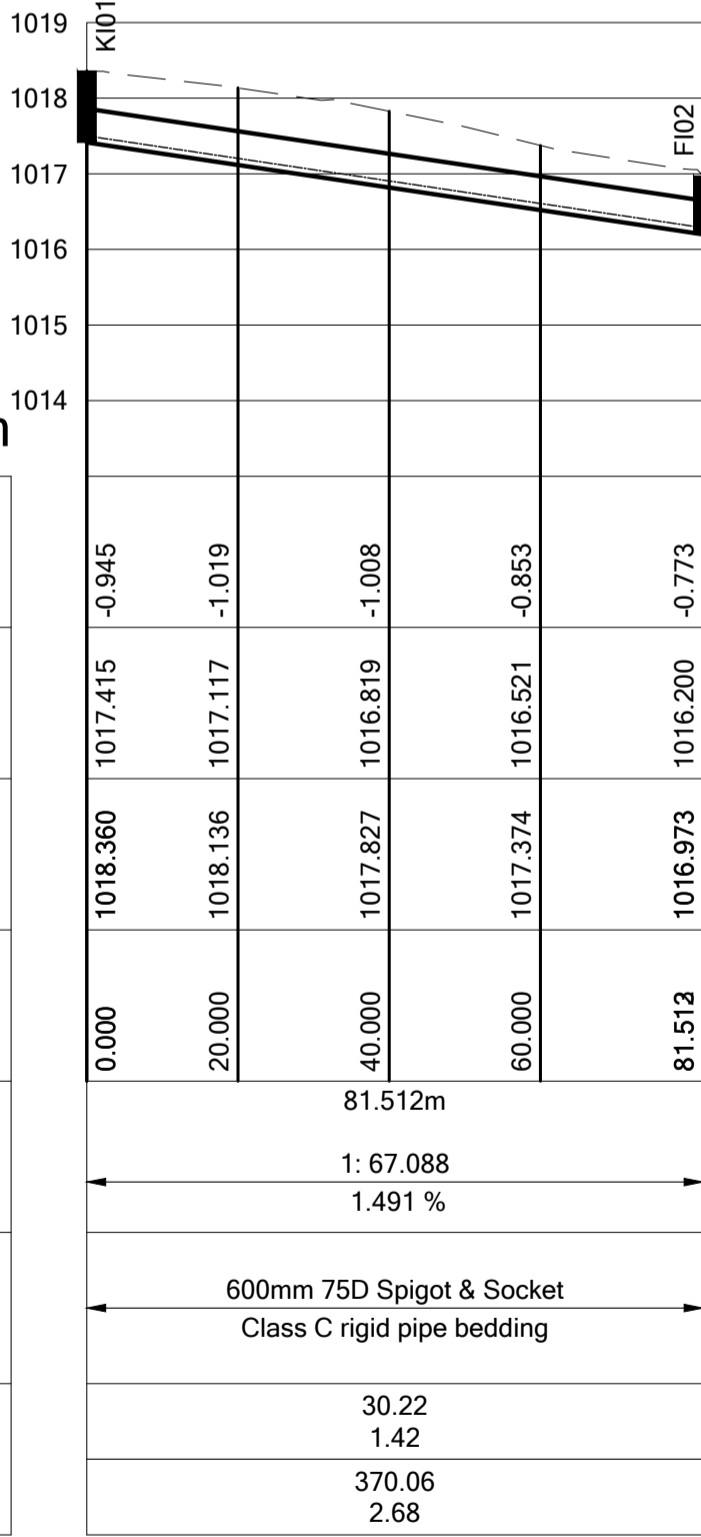
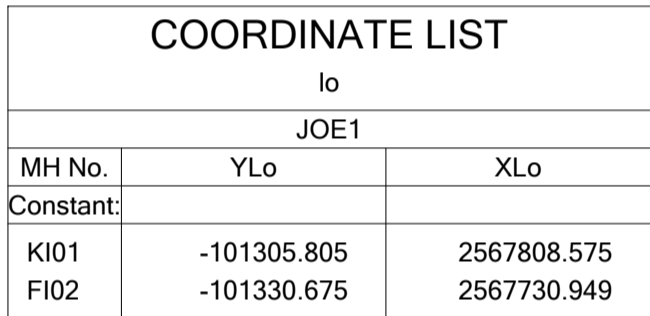
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--



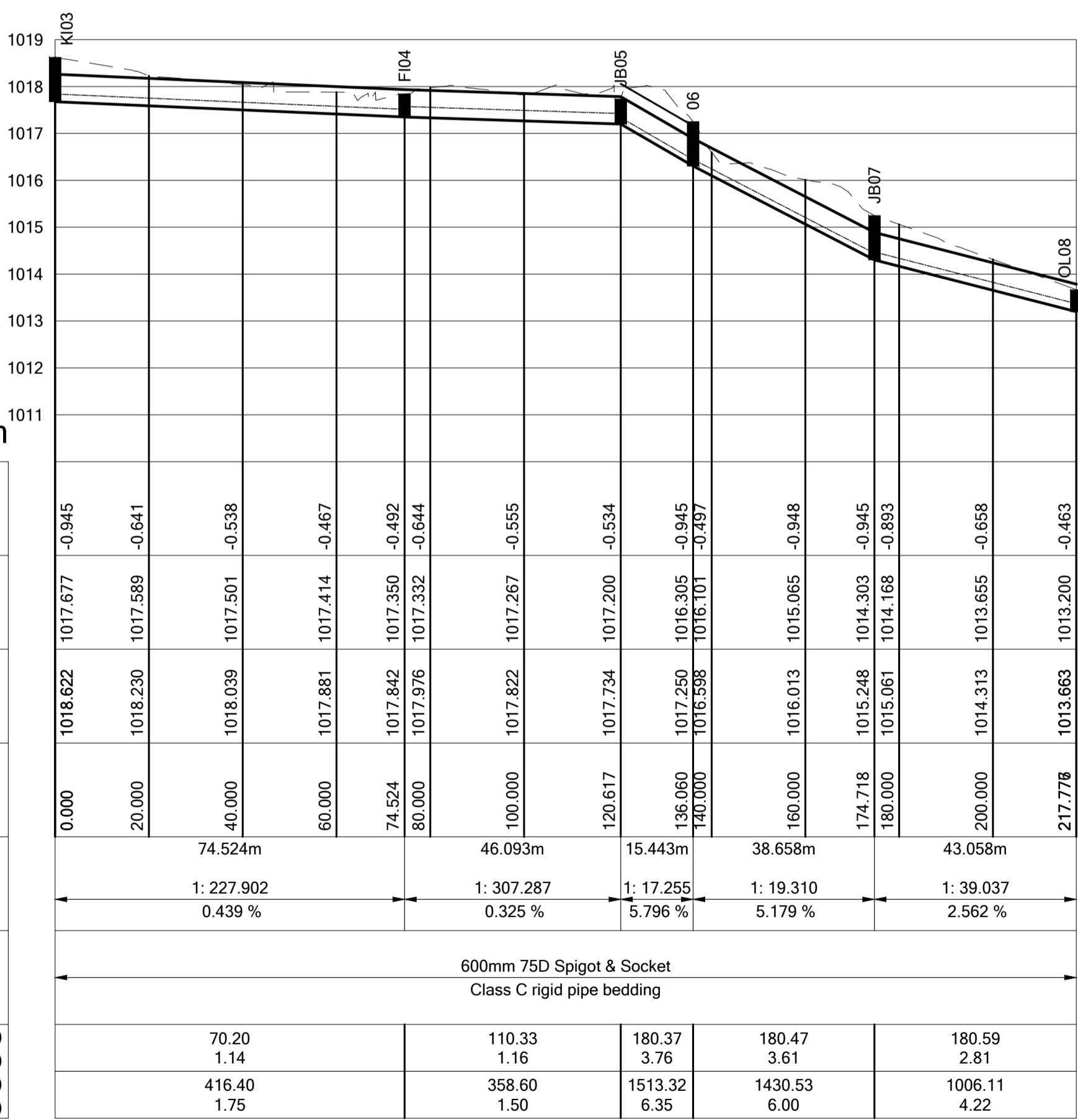
					DESIGNED BY:	R.R RAVELE		 <p>No. 6 Hans Van Rensburg Street Office No. 14 Private Bag X9676, Postnet Suite 141 Polokwane, 0700 Tel : (015) 291 1020 Email : info@sizeya.co.za</p>	_____	_____	CONTRACT No.: 67 OF 2021	ISSUED FOR TENDER <small>(Full signature)</small>	5 OF 5
					DRAWN BY:	F.I MARAGENI			CONSULTING ENGINEER	DATE	PROJECT NAME:  <b>REHABILITATION OF JOE SLOVO STREET AT VLEIFONTEIN</b>	For : Client	SCALE H-SCALE 1: 200 V-SCALE 1: 50
1	09/2021	ISSUED FOR TENDER			CHECKED BY:	H.L. THARAGA			EMPLOYER'S PROJECT MANAGER	DATE	DRAWING TITLE:  <b>ROAD CROSS SECTIONS</b>	For : Consulting Engineer	CLIENT DRAWING No.
0	08/2021	ISSUED FOR APPROVAL										CONSULTANTS DRAWING No. <b>S39.2-XS/005</b>	
No	DATE	REVISION	CONSULT	DIR									



COORDINATE LIST		
lo		
JOE2		
MH No.	YLo	XLo
Constant		
KI03	-101264.679	2567936.399
FI04	-101242.081	2568007.414
JB05	-101228.086	2568051.332
06	-101213.197	2568047.231
JB07	-101176.594	2568034.799
OL08	-101153.269	2567998.605

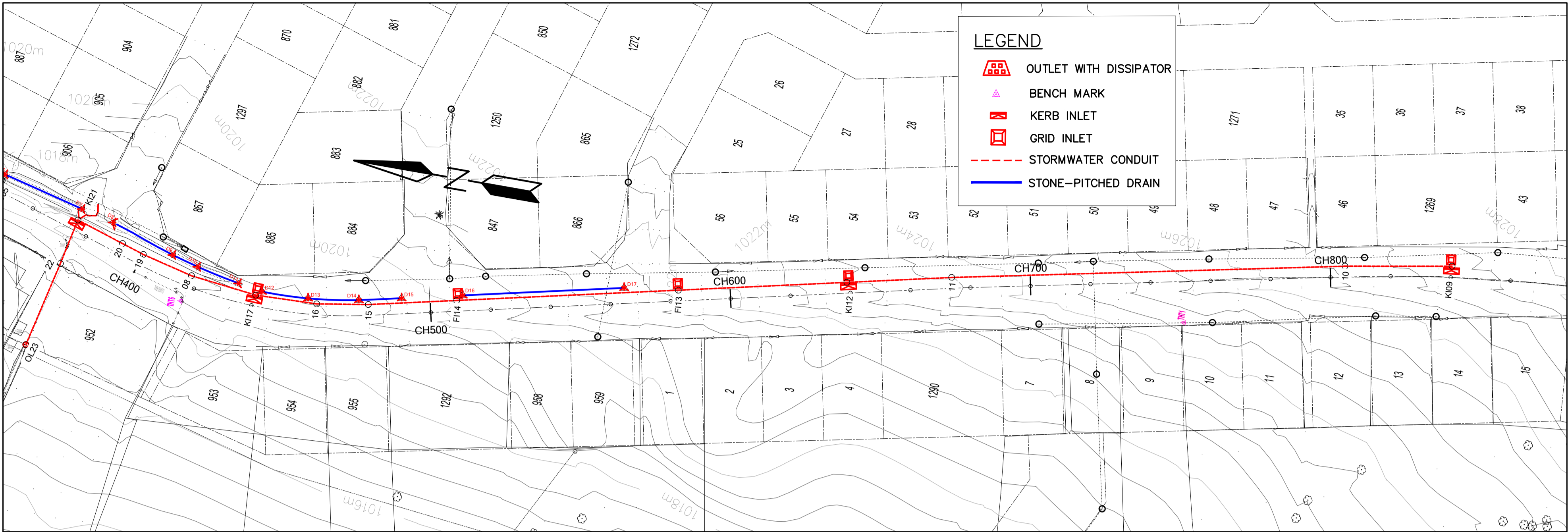


SCALES:  
Horizontal 1:1000  
Vertical 1:100  
Datum : 1010m



					DESIGNED BY:	R.R. RAVELE		 <div><b>SIZEYA</b> CONSULTING ENGINEERS <small>civil engineers   structural engineers   quantity surveyors   project managers</small></div> <div>No. 6 Hans Van Rensburg Street Office No. 14 Private Bag X9676, Postnet Suite 141 Polokwane, 0700 Tel : (015) 291 1020 Email : info@sizeya.co.za</div>	_____	_____	CONTRACT No.: 67 OF 2021	ISSUED FOR TENDER (Full signature)	
				DRAWN BY:	F.I MARAGENI	CONSULTING ENGINEER			DATE	PROJECT NAME:	For : Client	SCALE	
1	09/2021	ISSUED FOR TENDER				EMPLOYER'S PROJECT MANAGER			DATE	DRAWING TITLE:	For : Consulting Engineer		
0	08/2021	ISSUED FOR APPROVAL									CONSULTANTS DRAWING No.	CLIENT DRAWING No.	
No	DATE	REVISION	CONSULT	DIR	CHECKED BY:	H.L. THARAGA					S39.2-SW/001		

LINED DRAIN		
Lo		
SET-OUT		
POINT	Y-COORD	X-COORD
CONST:		
D6	-101230.181	2568051.905
D7	-101223.306	2568079.221
D8	-101220.671	2568090.177
D9	-101213.482	2568111.637
D10	-101211.031	2568120.493
D11	-101207.970	2568134.844
D12	-101206.599	2568142.950
D13	-101207.068	2568158.485
D14	-101209.449	2568175.243
D15	-101212.524	2568189.152
D16	-101216.989	2568209.037
D17	-101228.782	2568261.555



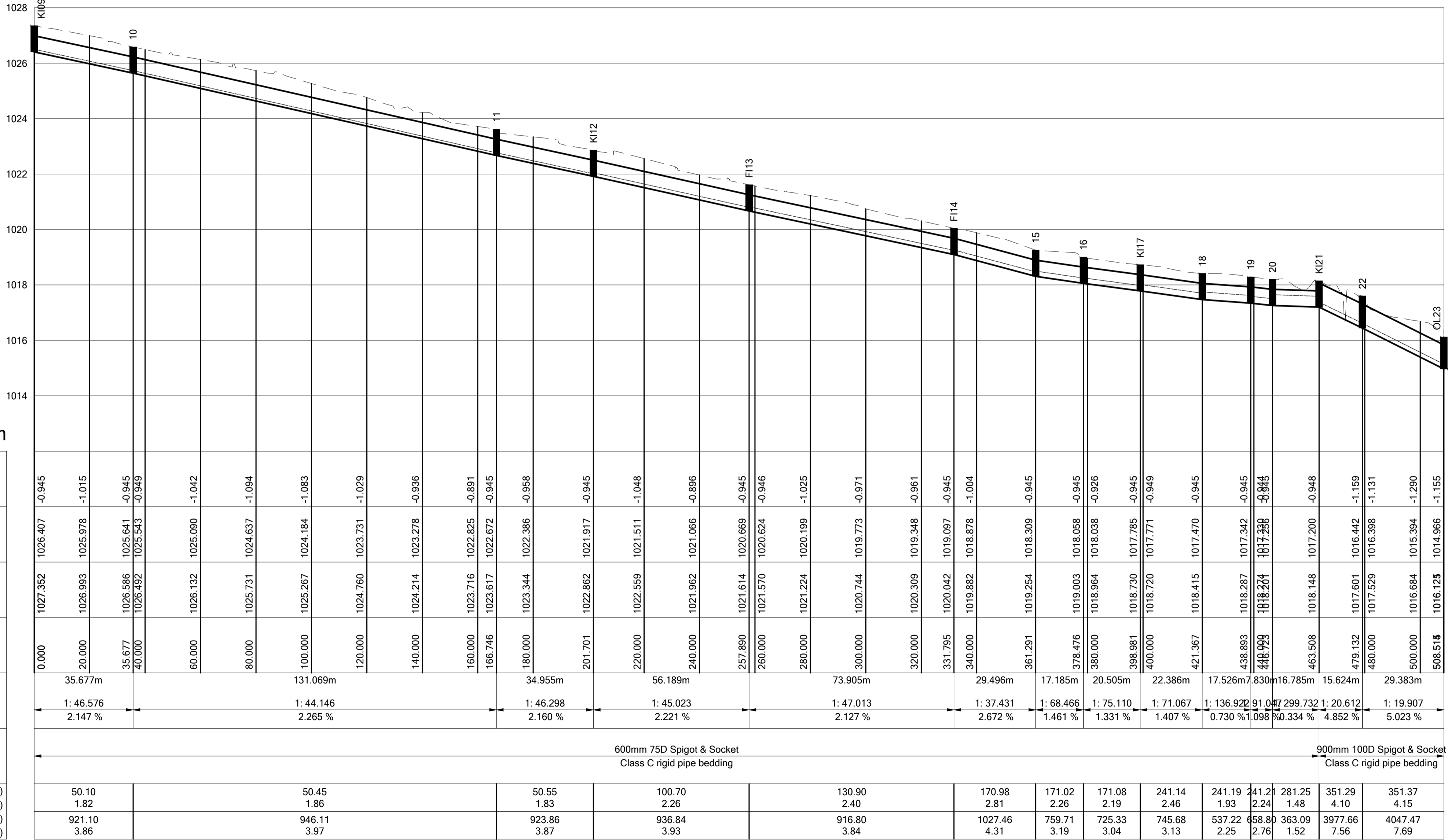
COORDINATE LIST		
lo		
JOE3		
MH No.	YLo	XLo
Constant:		
mh09	-101283.783	2568531.910
mh10	-101277.592	2568496.774
mh11	-101251.134	2568368.403
mh12	-101243.476	2568334.298
mh13	-101231.166	2568279.474
mh14	-101214.974	2568207.364
mh15	-101208.512	2568178.585
mh16	-101205.744	2568161.624
mh17	-101205.100	2568141.130
mh18	-101207.738	2568118.899
mh19	-101211.923	2568101.881
mh20	-101214.314	2568094.425
mh21	-101219.440	2568078.441
mh22	-101204.158	2568075.193
mh23	-101175.534	2568068.558

HGL  
PIPE  
NGL

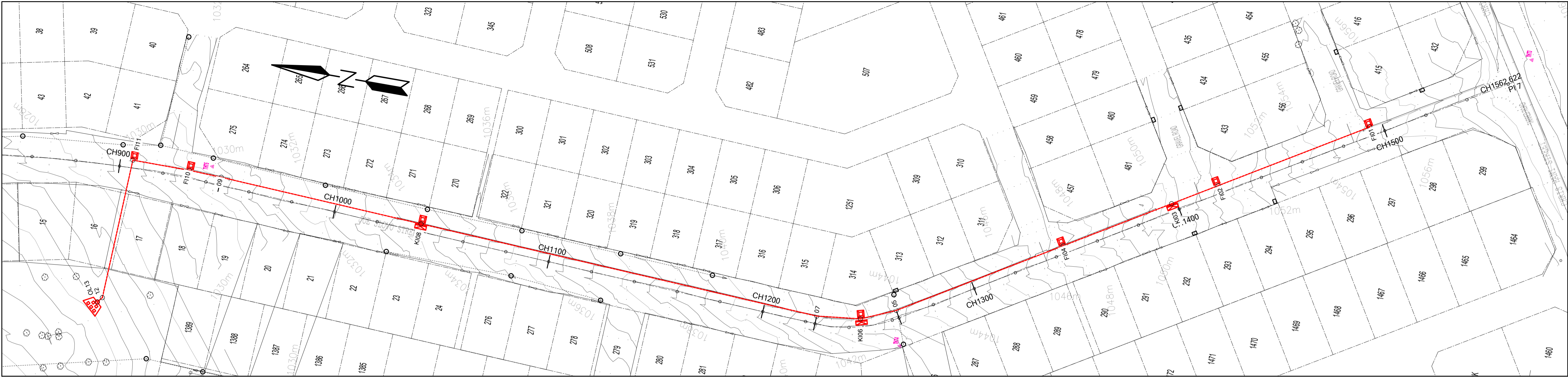
SCALES:  
Horizontal 1:1000  
Vertical 1:100

Datum : 1012m

DEPTH TO INVERTS
INVERT LEVEL
GROUND LEVEL
CHAINAGE (m)
PIPE GRADES
PIPE DETAILS
HYDRAULICS
DESIGN: Q (l/s) V (m/s)
MAX.(0.83D): Q (l/s) V (m/s)



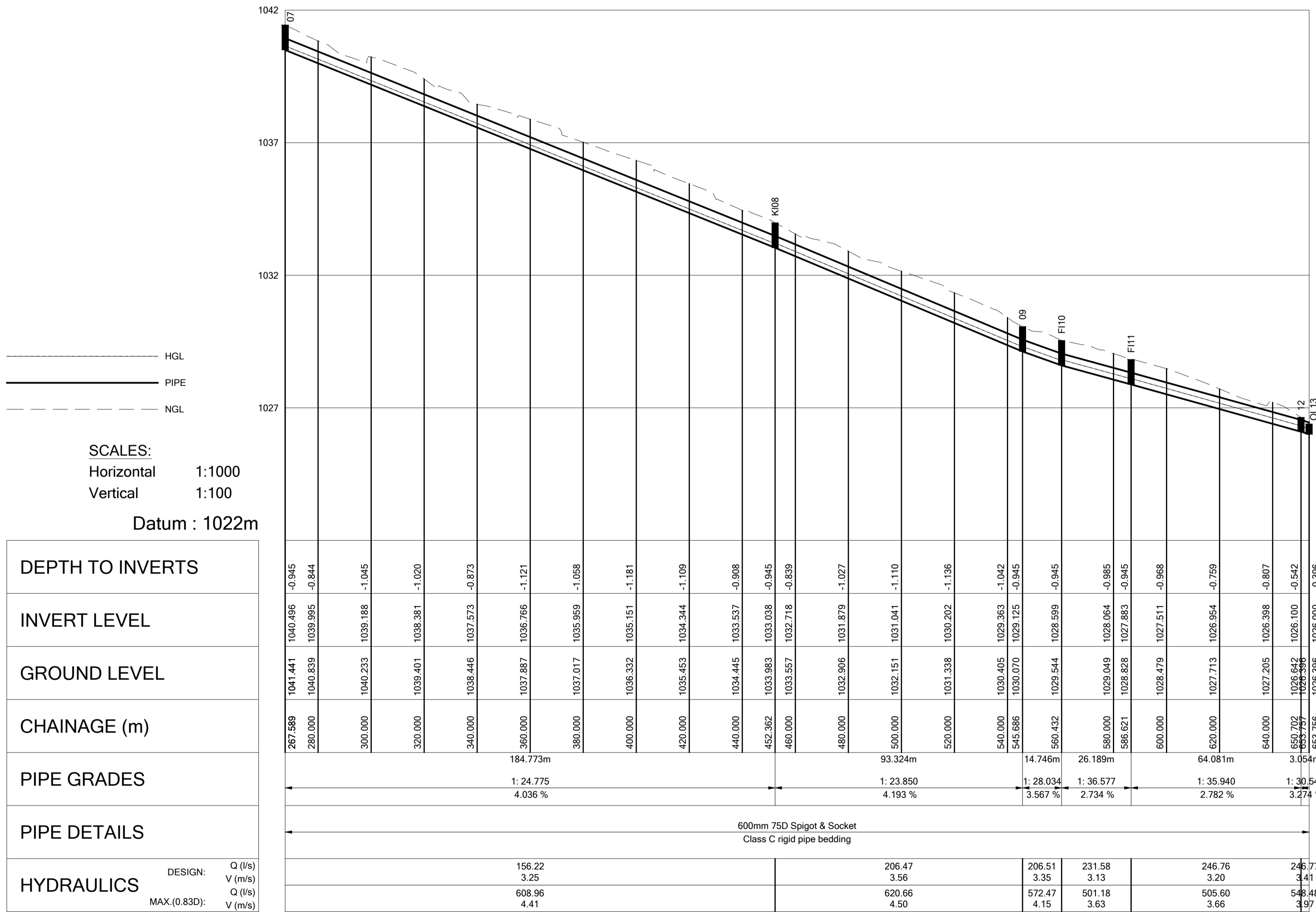
						DESIGNED BY:	R.R. RAVELE		 No. 6 Hans Van Rensburg Street Office No. 14 Private Bag X9676, Postnet Suite 141 Polokwane, 0700 Tel : (015) 291 1020 Email : info@sizeya.co.za	CONSULTING ENGINEER		DATE	CONTRACT No.: 67 OF 2021		ISSUED FOR TENDER (Full signature)				
						DRAWN BY:	F.I MARAGENI			EMPLOYER'S PROJECT MANAGER		DATE	REHABILITATION OF JOE SLOVO STREET AT VLEIFONTEIN		For : Client		SCALE		
1	09/2021	ISSUED FOR TENDER				CHECKED BY:	H.L. THARAGA					DRAWING TITLE:		STORMWATER LAYOUT AND LONGITUDINAL SECTION		CONSULTANTS DRAWING No. S39.2-SW/002		CLIENT DRAWING No.	
0	08/2021	ISSUED FOR APPROVAL																	
No	DATE	REVISION		CONSULT	DIR														



----- HGL  
 ----- PIPE  
 ----- NGL

SCALES:  
 Horizontal 1:1000  
 Vertical 1:100

Datum : 1037



						DESIGNED BY:	R.R. RAVELE		 <p><b>SIZEYA</b> CONSULTING ENGINEERS <small>civil engineers    quantity surveyors</small> <small>structural engineers    project managers</small></p> <p>No. 6 Hans Van Rensburg Street Office No. 14 Private Bag X9676, Postnet Suite 141 Polokwane, 0700 Tel : (015) 291 1020 Email : info@sizeya.co.za</p>	_____	DATE	PROJECT NAME:	CONTRACT No.: 67 OF 2021		ISSUED FOR TENDER (Full signature)	
						DRAWN BY:	F.I MARAGENI			CONSULTING ENGINEER				For : Client	SCALE	
1	09/2021	ISSUED FOR TENDER														
0	08/2021	ISSUED FOR APPROVAL														
No	DATE	REVISION			CONSULT	DIR	CHECKED BY:	H.L. THARAGA		EMPLOYER'S PROJECT MANAGER	DATE	DRAWING TITLE:	STORMWATER LAYOUT AND LONGITUDINAL SECTION		CONSULTANTS DRAWING No. S39.2-SW/003	CLIENT DRAWING No.

SECTION C. STANDARDS DRAWINGS

12. TYPICAL SECTION AND PAVEMENT DESIGN .....

13. KERB INLET DETAILS .....

14. JUNCTION BOX DETAILS.....

15. ROADS SIGNS ,ATTACHMENT & FIXING DETAILS.....

16. ROAD SIGNS, ATTACHMENT & FIXING DETAILS .....

17. ROAD MARKINGS DETAILS.....

18. FIELD INLET DETAILS.....

19. HEADWALL AND BEDDING DETAILS .....

20. SPEED HUMP DETAILS .....

S39.2-SD/001

S39.2-SD-002

S39.2-SD-003

S39.2-SD-004

S39.2-SD-005

S39.2-SD/006

S39.2-SD/007

S39.2-SD/008

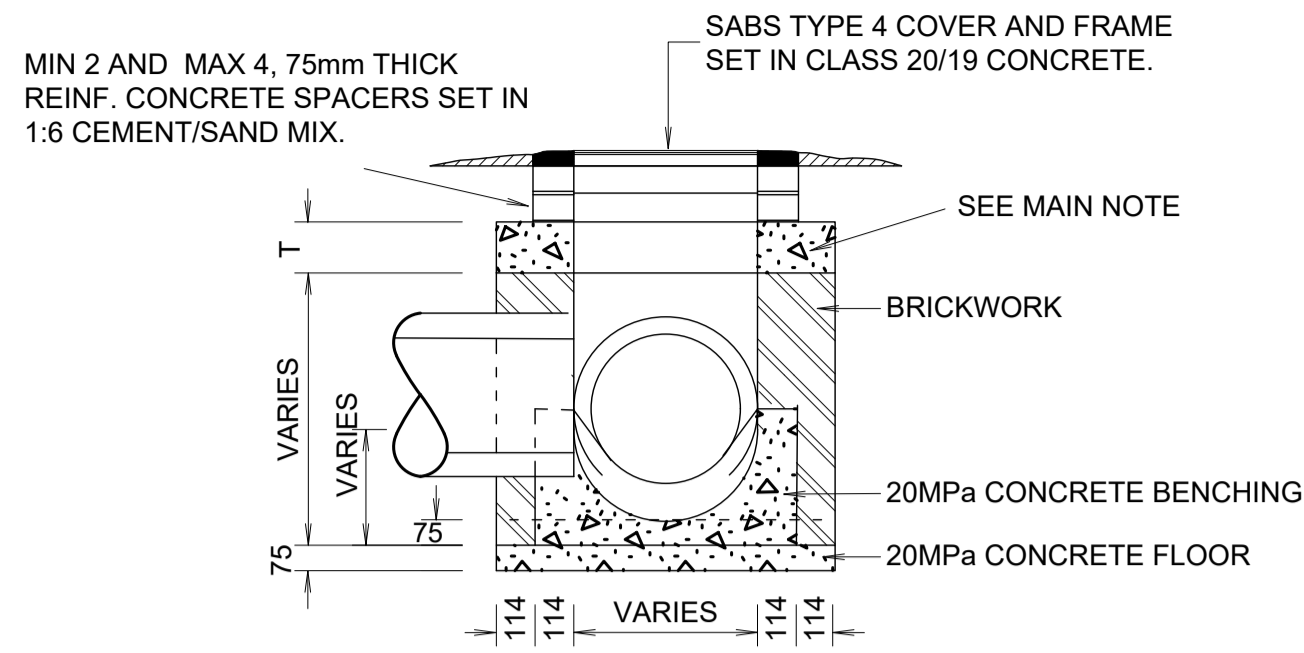
S39.2-SD/009

					DESIGNED BY:	R.R RAVELE			_____	DATE	CONTRACT No.: 67 OF 2021	ISSUED FOR TENDER (Full signature)	
					DRAWN BY:	F.I MARAGENI			CONSULTING ENGINEER		PROJECT NAME:	For : Client	
1	09/2021	ISSUED FOR TENDER									REHABILITATION OF JOE SLOVO STREET AT VLEIFONTEIN	For : Consulting Engineer	SCALE
0	08/2021	ISSUED FOR APPROVAL										CONSULTANTS DRAWING No.	CLIENT DRAWING No.
No	DATE	REVISION	CONSULT	DIR	CHECKED BY:	H.L. THARAGA			EMPLOYER'S PROJECT MANAGER	DATE	DRAWING TITLE:	SECTION C - STANDARDS DRAWINGS	

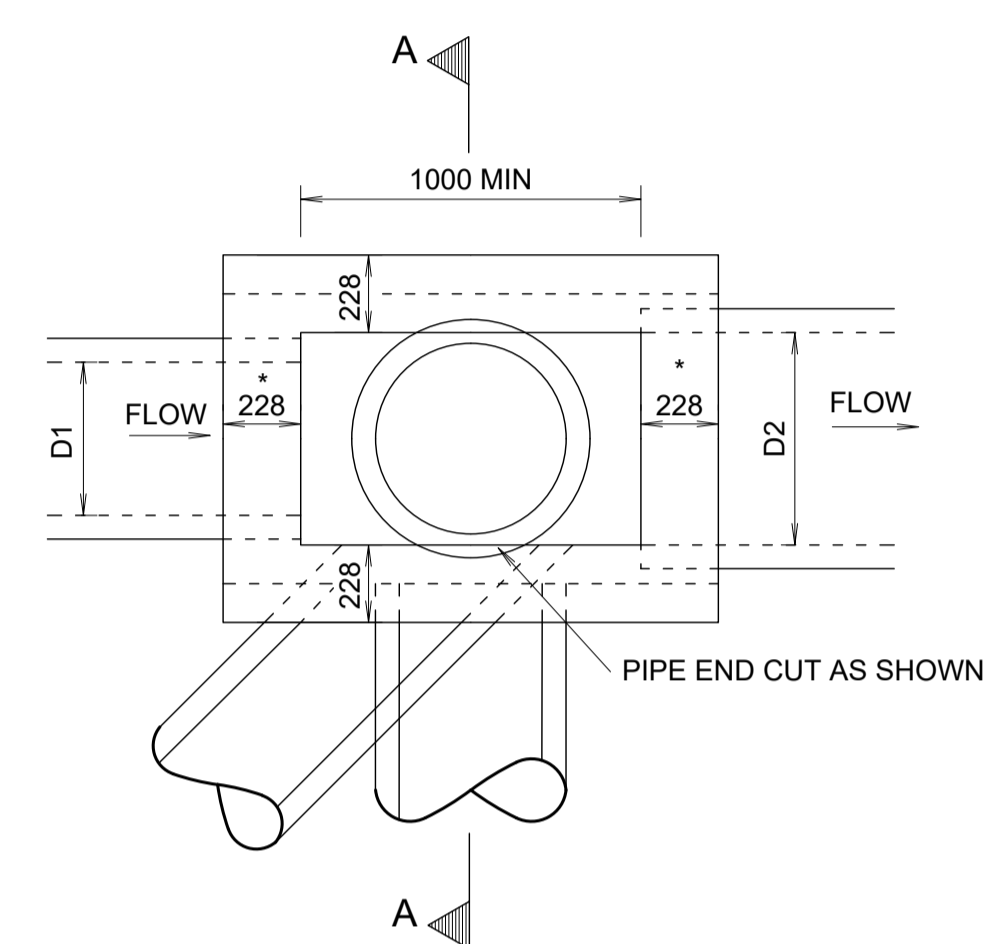


					DESIGNED BY:	R.R. RAVELE		 <p>No. 6 Hans Van Rensburg Street Office No. 14 Private Bag X9676, Postnet Suite 141 Polokwane, 0700 Tel : (015) 291 1020 Email : info@sizeya.co.za</p>	_____		PROJECT NAME: CONTRACT No.: 67 OF 2021		ISSUED FOR TENDER (Full signature)		
					DRAWN BY:	F.I MARAGENI			CONSULTING ENGINEER	DATE	REHABILITATION OF JOE SLOVO STREET AT VLEIFONTEIN		For : Client	SCALE	
1	09/2021	ISSUED FOR TENDER											For : Consulting Engineer		
0	08/2021	ISSUED FOR APPROVAL													
No	DATE	REVISION	CONSULT	DIR	CHECKED BY:	H.L. THARAGA			EMPLOYER'S PROJECT MANAGER	DATE	DRAWING TITLE: TYPICAL SECTION AND PAVEMENT DESIGN	CONSULTANTS DRAWING No. S39.2-SD/001	CLIENT DRAWING No.		

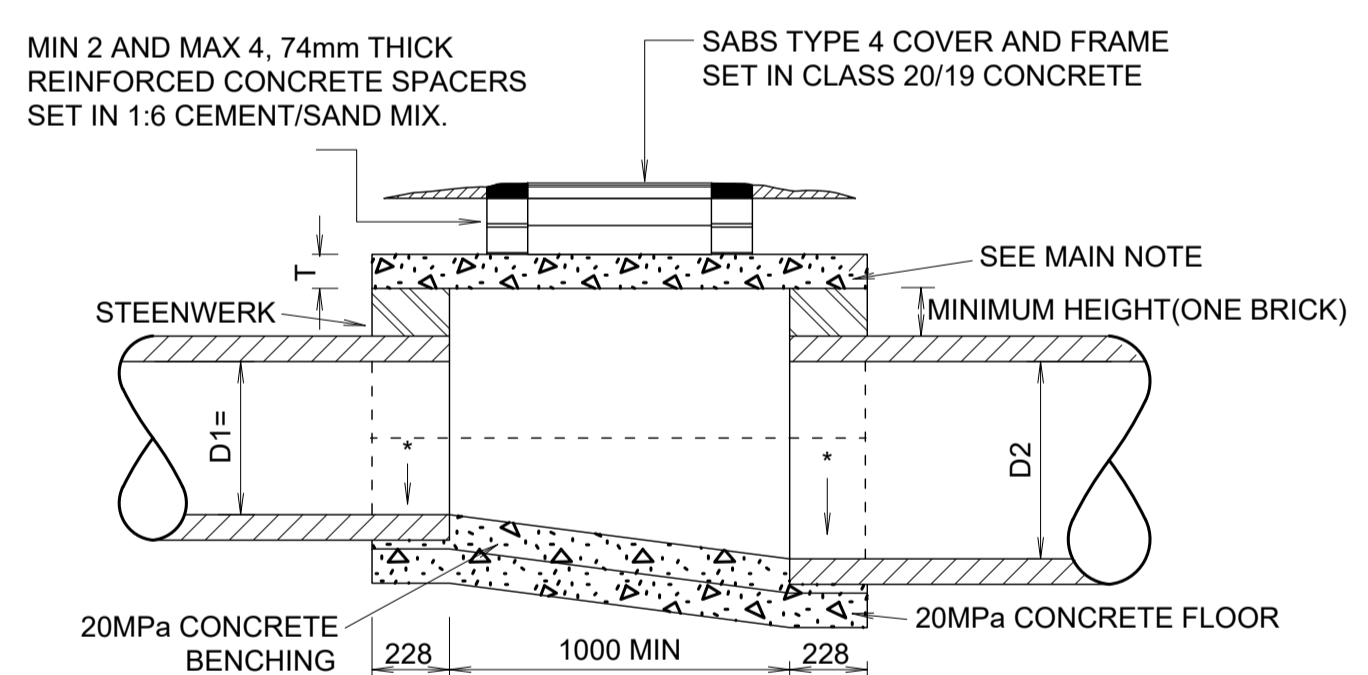




SECTION A-A

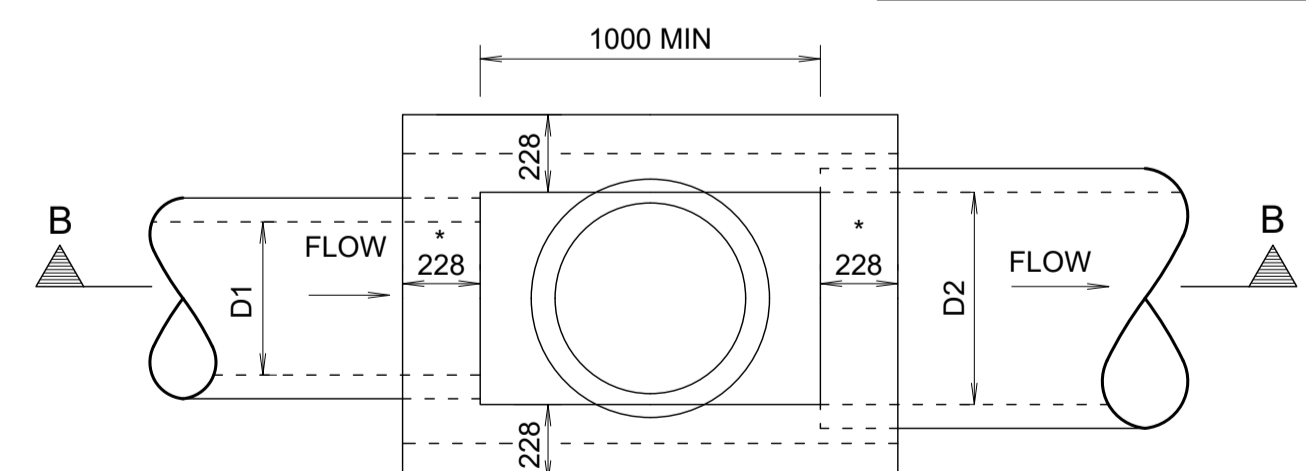


PLAN TYPE 1  
MANHOLE/JUNCTION BOX TYPE 1

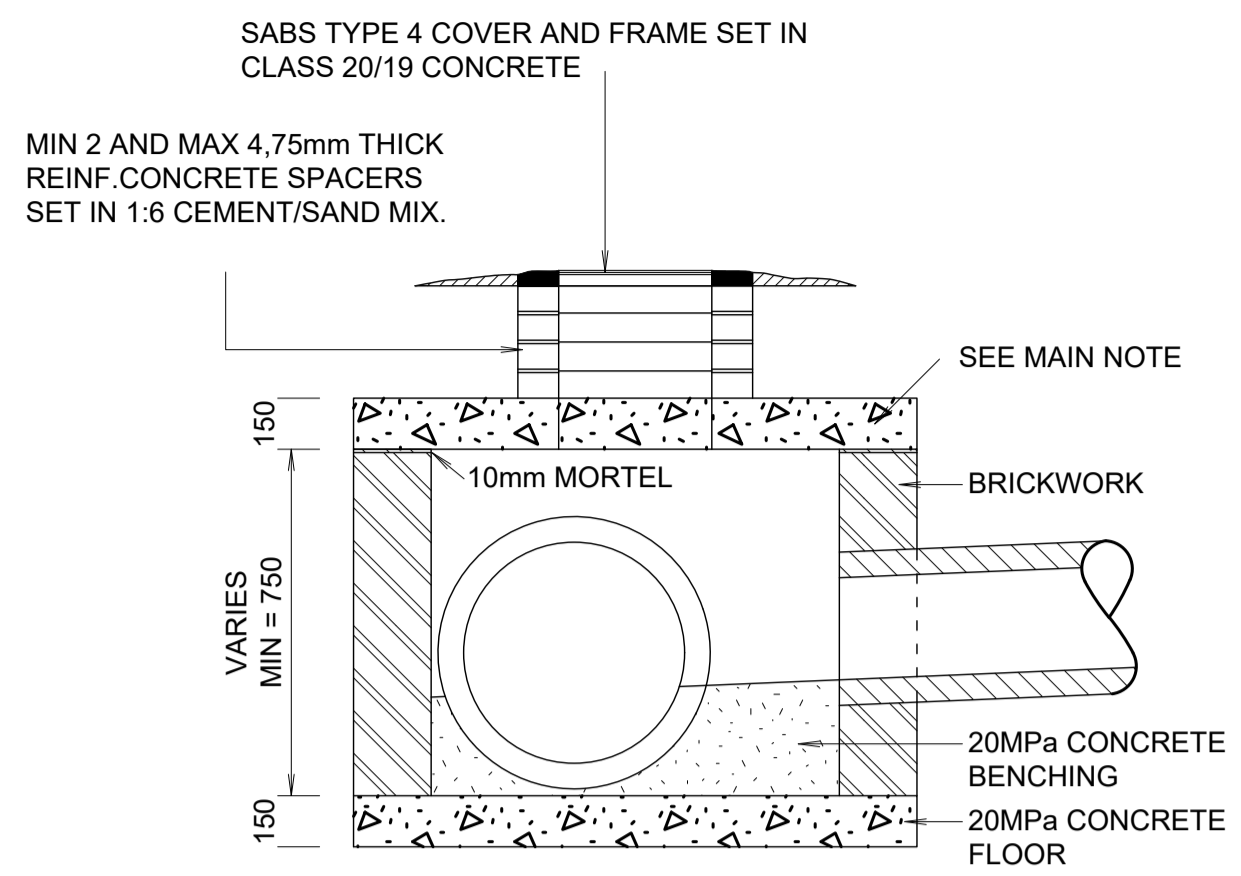


SECTION B-B

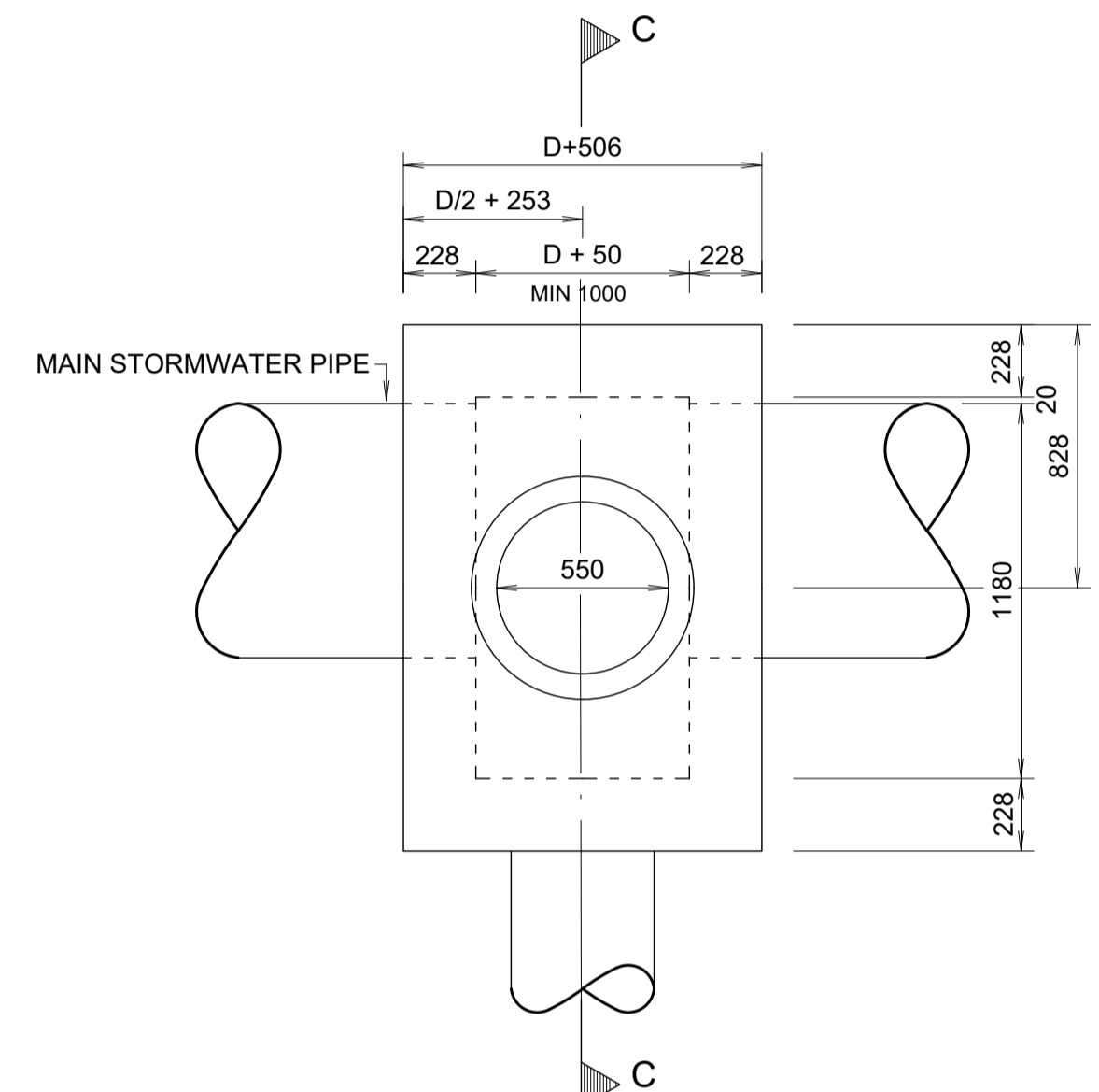
\*NOTE:  
INVERT LEVELS AS SPECIFIED  
ON THE LONGITUDINAL SECTIONS.



PLAN TYPE 2  
MANHOLE/JUNCTION BOX TYPE 2

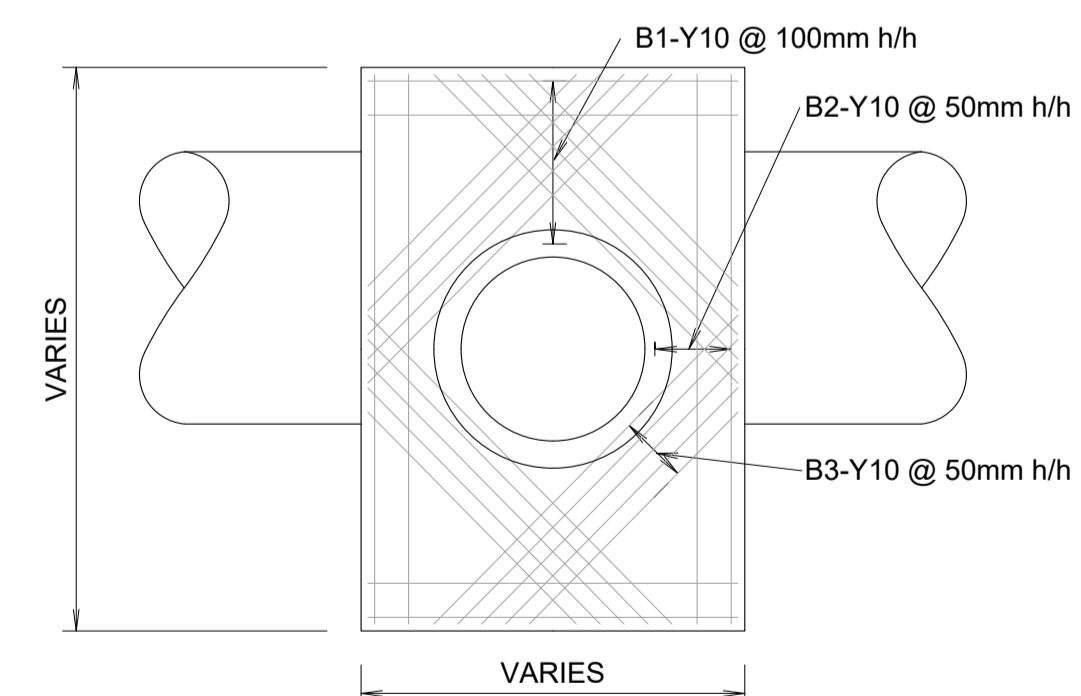


SECTION C-C



PLAN TYPE 3  
MANHOLE/JUNCTION BOX TYPE 3

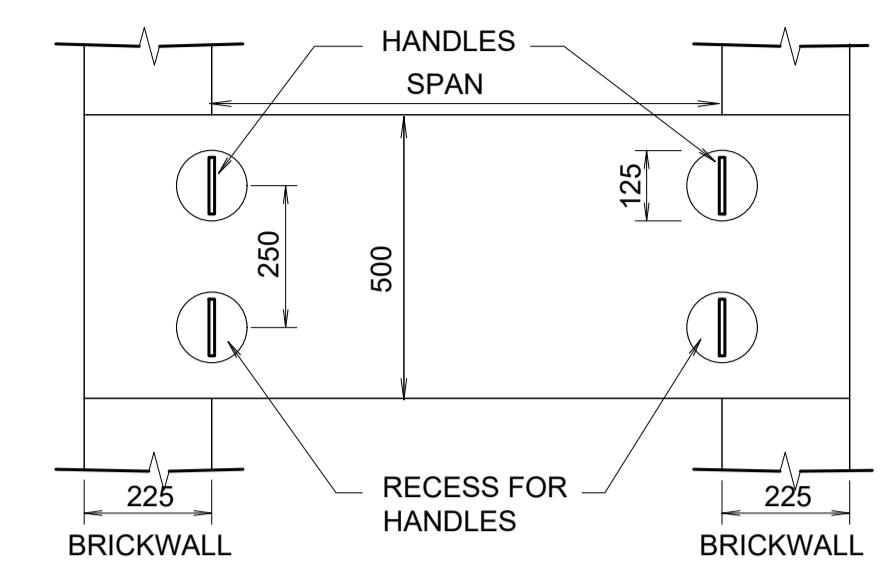
NOTE:  
1. MIN. CONCRETE COVER 40mm.  
2. ALL REINFORCEMENT IN CONCRETE BOTTOM OF SLAB.  
3. B1, B2 AND B3 ARE STRAIGHT BARS.



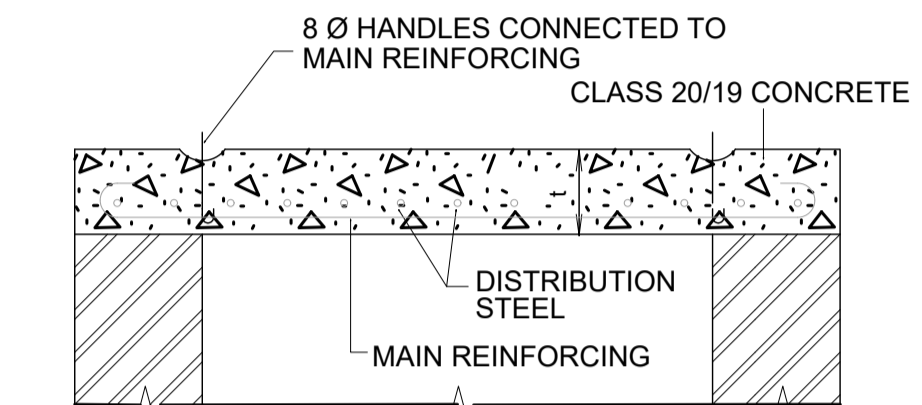
REINFORCEMENT DETAIL OF SLAB  
FOR ALL TYPES OF MANHOLES

NOTES:

JUNCTION BOXES OF ALL TYPES ARE COVERED WITH THE PRECAST CONCRETE SLABS SHOWN IN DETAIL A. THIS REPLACES THE CONCRETE SLAB AND MANHOLE COVER PRESCRIBED FOR MANHOLES.



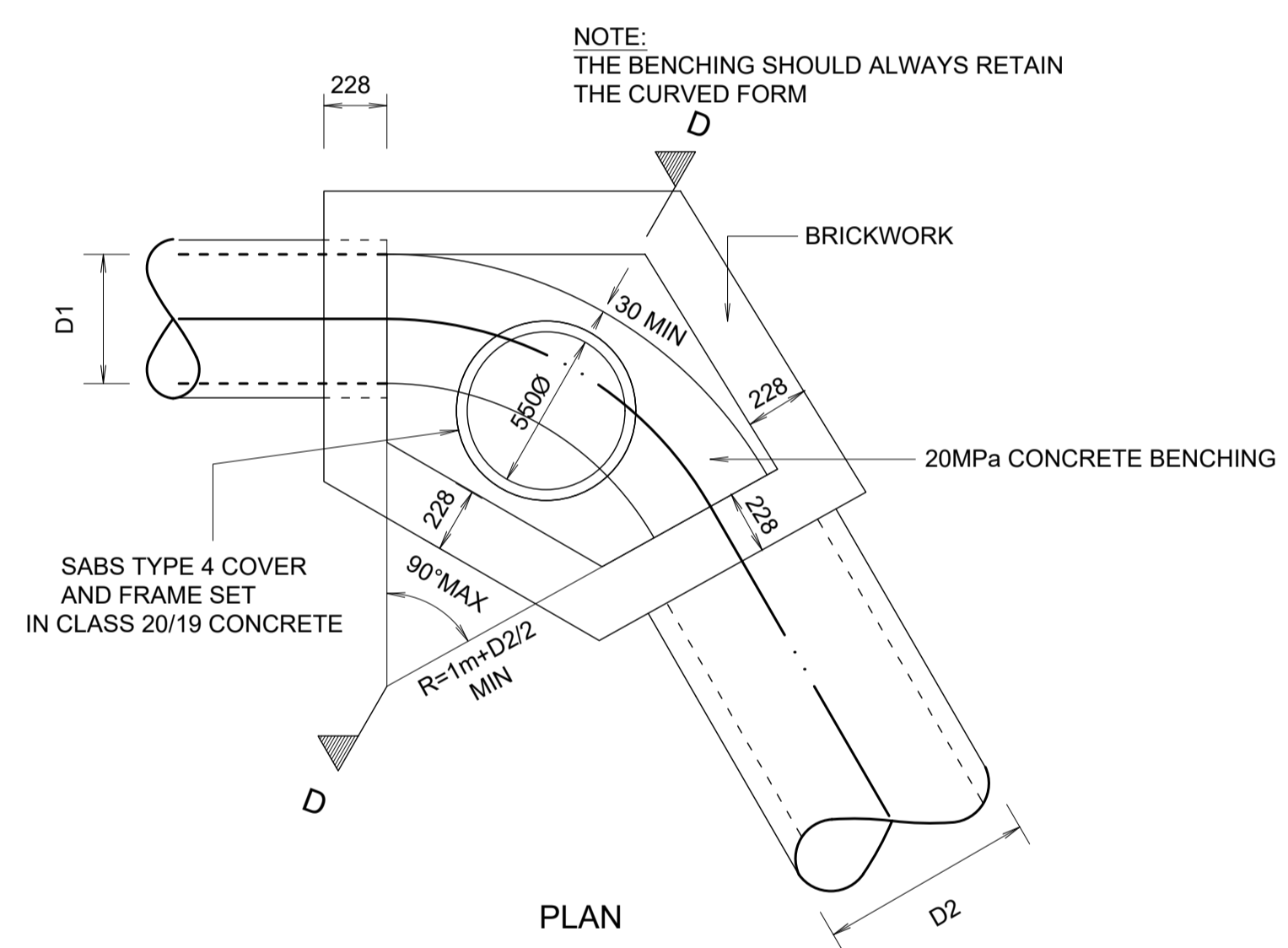
PLAN OF PRECAST COVER



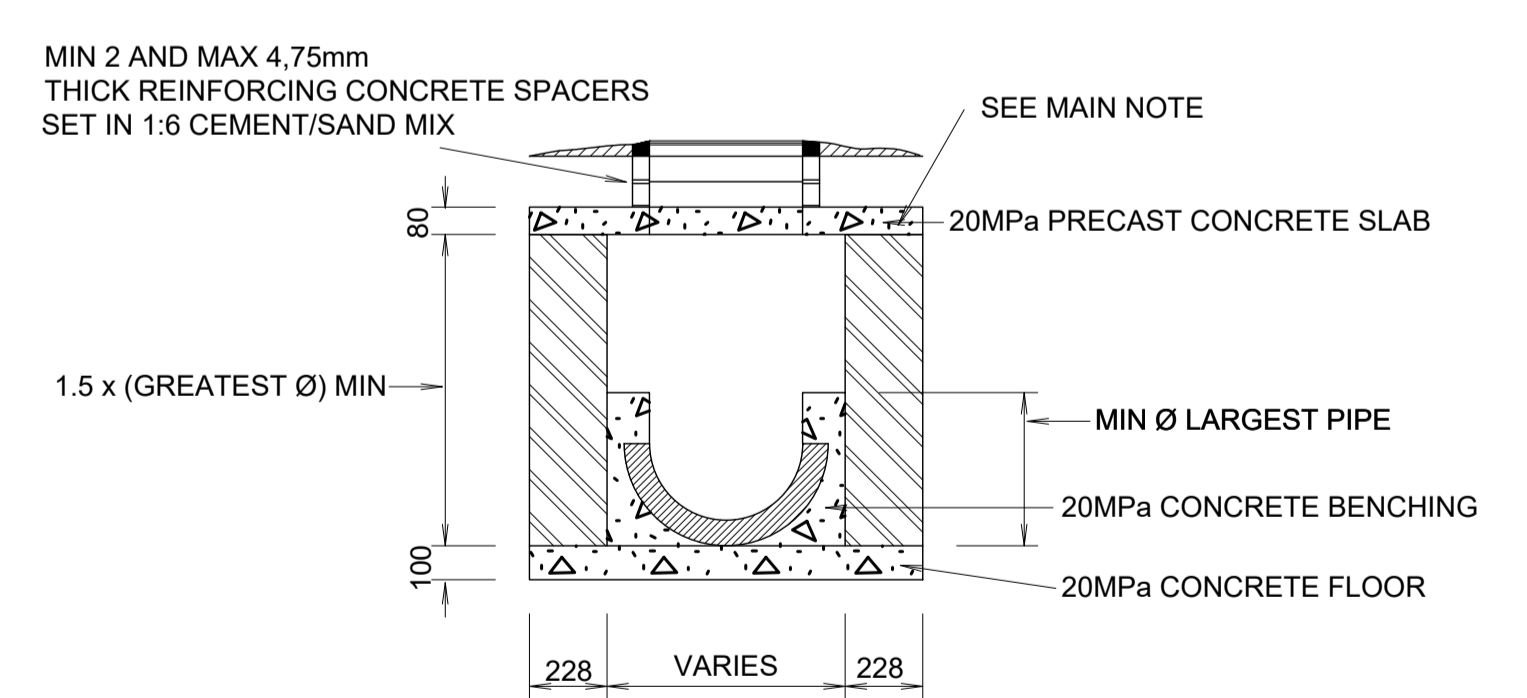
SECTION: PRECAST COVER

SLAB REINFORCING			
SPAN	t	MAIN REINFORCING	DISTR. STEEL
450	75	10 Ø @ 150	6 Ø @ 300
500	90	12 Ø @ 200	6 Ø @ 250
600	100	12 Ø @ 160	6 Ø @ 200
750	100	12 Ø @ 160	6 Ø @ 200
900	125	16 Ø @ 210	10 Ø @ 300
1 000	125	16 Ø @ 200	10 Ø @ 300
1 100	140	16 Ø @ 200	10 Ø @ 300
1 200	140	16 Ø @ 185	10 Ø @ 300
1 350	150	16 Ø @ 175	10 Ø @ 300
1 500	165	16 Ø @ 175	10 Ø @ 270
1 650	165	16 Ø @ 165	10 Ø @ 270
1 800	180	16 Ø @ 165	10 Ø @ 260
2 000	190	16 Ø @ 125	10 Ø @ 230
2 200	200	20 Ø @ 170	10 Ø @ 200
2 400	200	20 Ø @ 150	10 Ø @ 200
2 600	215	20 Ø @ 150	10 Ø @ 180

(20mm COVER FOR ALL REINFORCING)



PLAN



SECTION D-D

MANHOLE/JUNCTION BOX TYPE 4

1	09/2021	ISSUED FOR TENDER				
0	08/2021	ISSUED FOR APPROVAL				
No	DATE	REVISION	CONSULT	DIR	CHECKED BY:	H.L. THARAGA

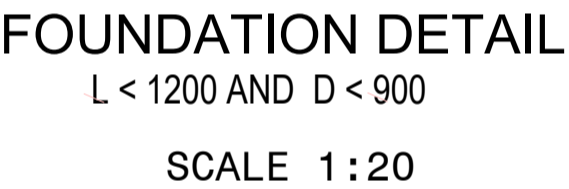
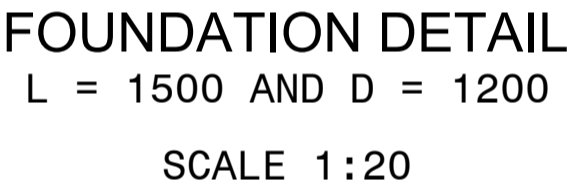


**SIZEYA**  
CONSULTING ENGINEERS  
No. 6 Hans Van Rensburg Street  
Office No. 14  
Private Bag X9676, Postnet Suite 141  
Polokwane, 0700  
Tel : (015) 291 1020  
Email : info@sizeya.co.za

CONSULTING ENGINEER	DATE
EMPLOYER'S PROJECT MANAGER	DATE

CONTRACT No.: 67 OF 2021
PROJECT NAME:
REHABILITATION OF JOE SLOVO STREET AT VLEIFONTEIN
DRAWING TITLE:
JUNCTION BOX DETAILS

ISSUED FOR TENDER (Full signature)	
For : Client	SCALE
For : Consulting Engineer	CLIENT DRAWING No.
CONSULTANTS DRAWING No.	S39.2-SD/003

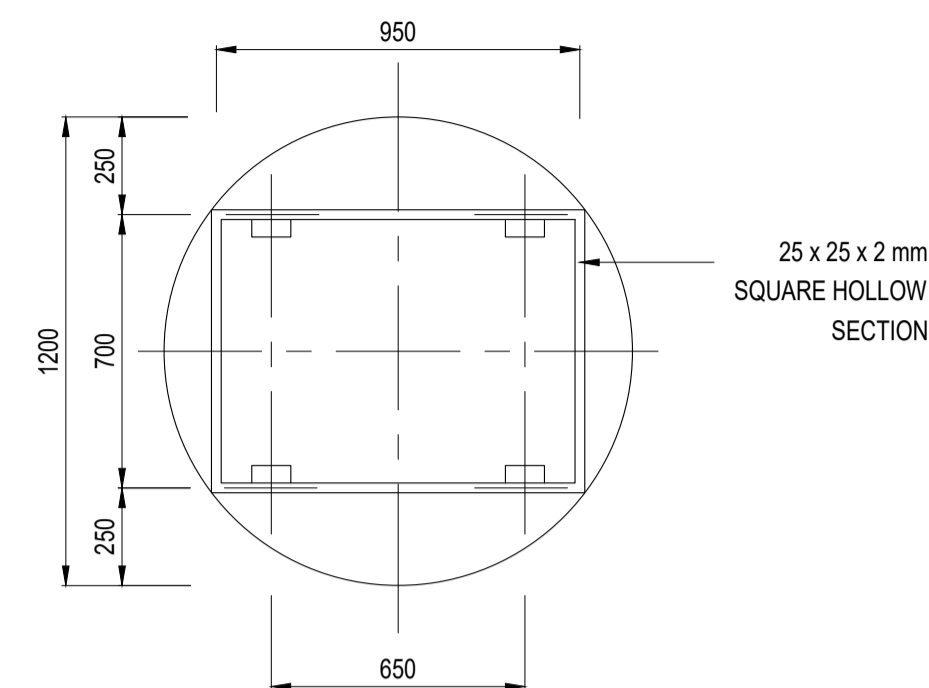
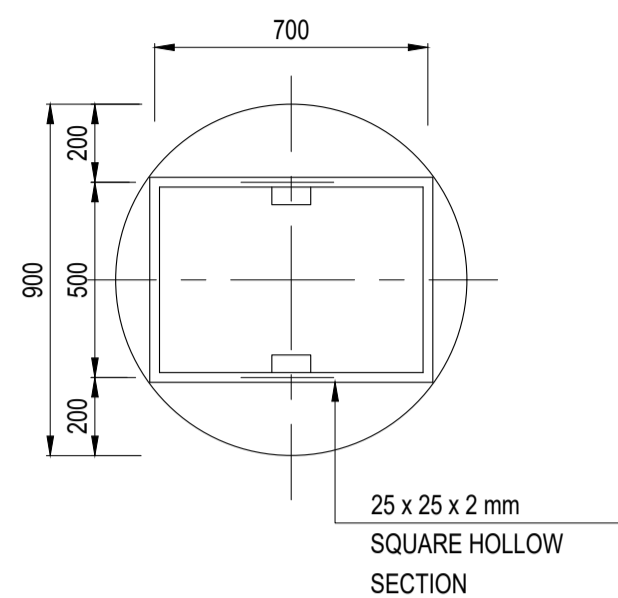
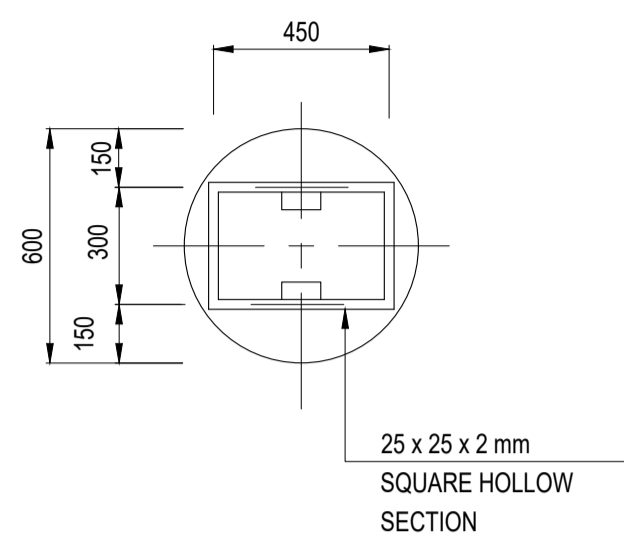


NOTES :

THE ROAD SIGN FACES SHALL BE MANUFACTURED AND ERECTED IN ACCORDANCE WITH THE FOLLOWING REQUIREMENTS :

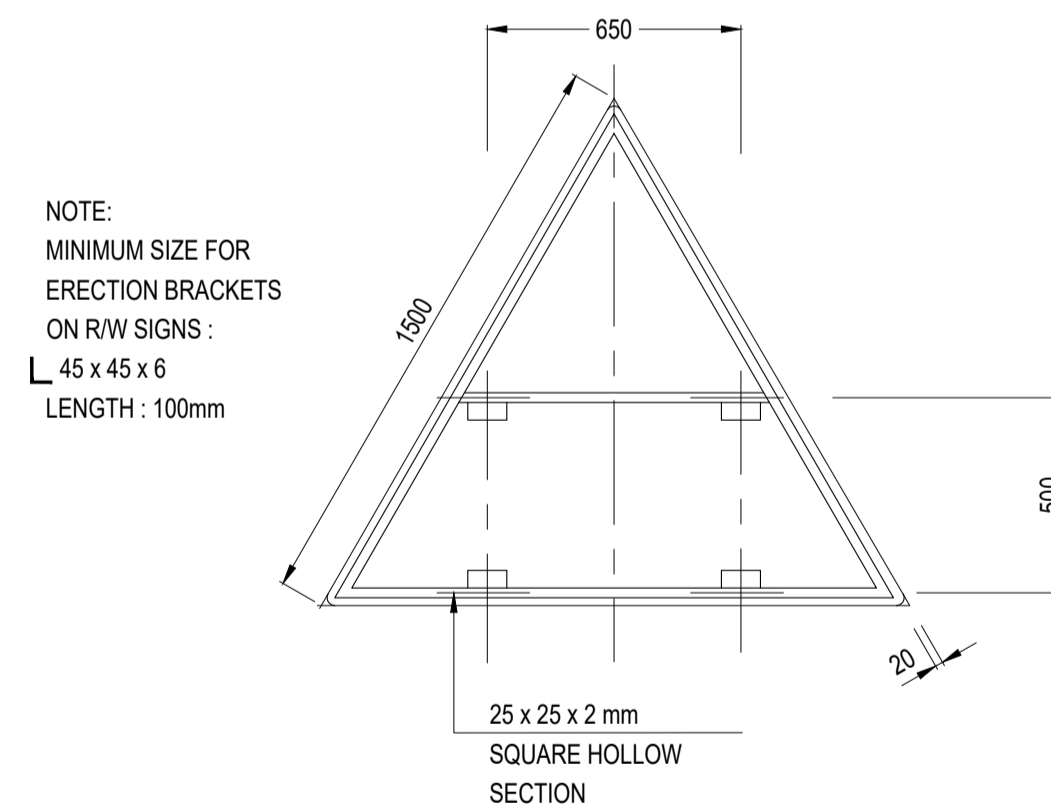
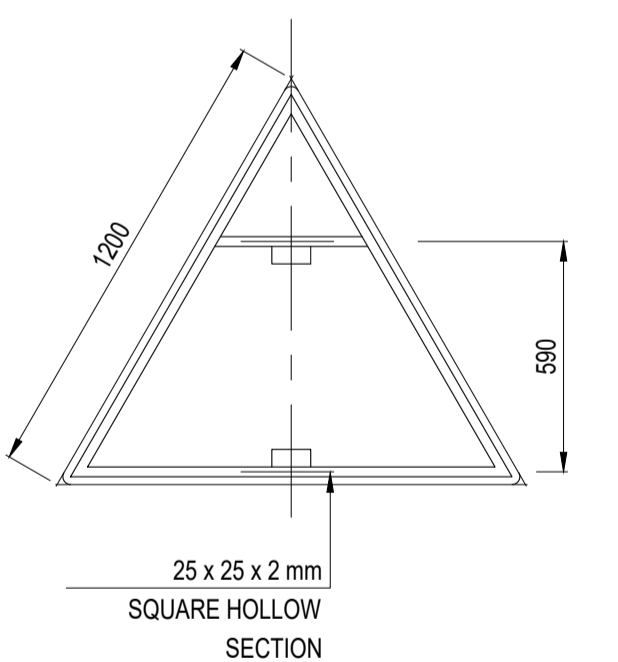
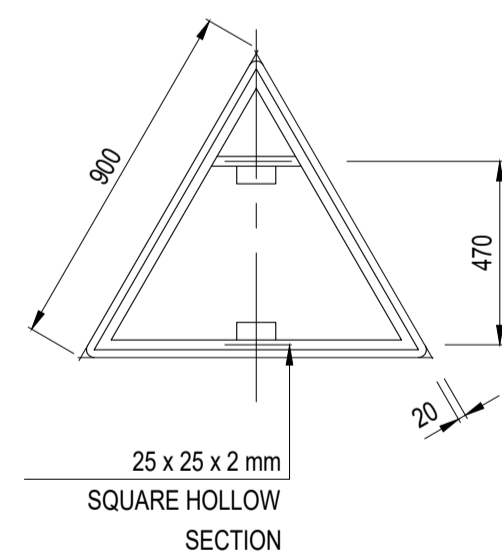
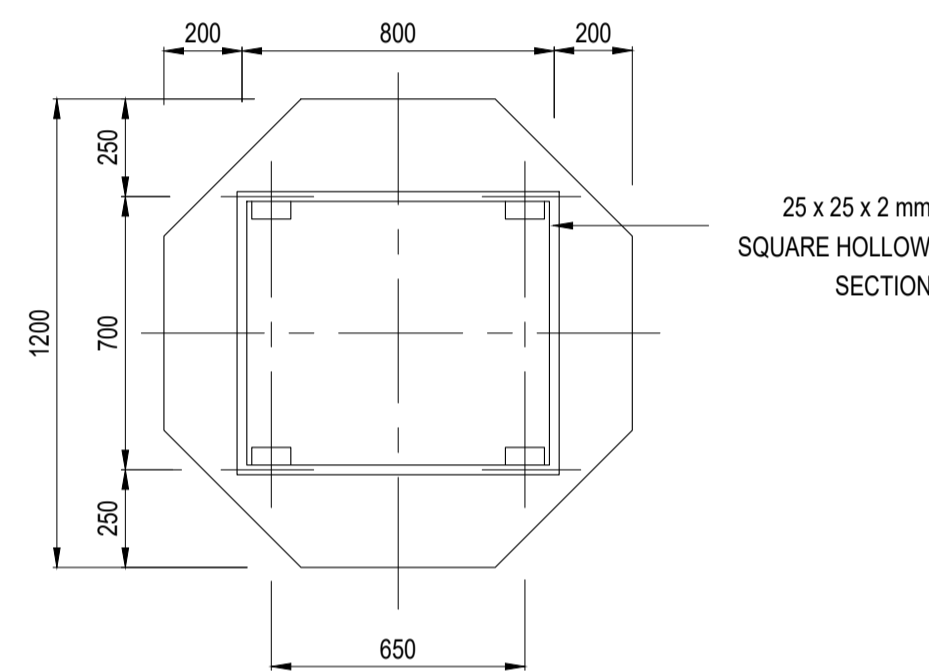
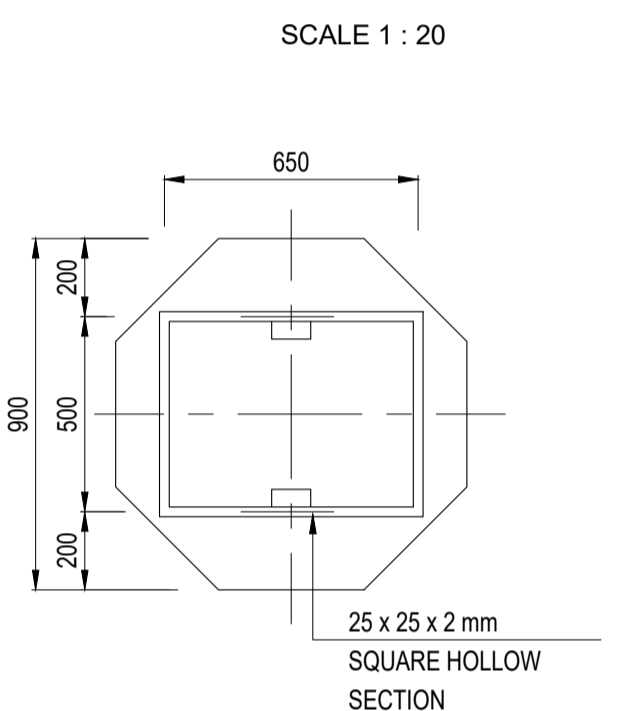
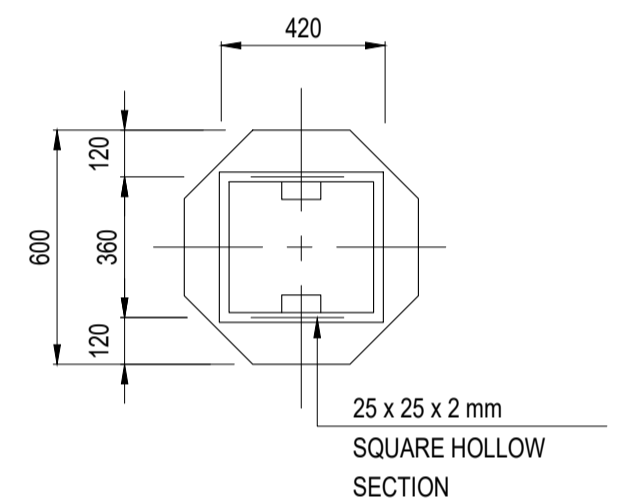
1. STRUCTURAL STEEL SECTIONS SHALL BE MILD STEEL CONFORMING TO THE REQUIREMENTS OF SANS 1431, GRADE 300W. RECTANGULAR HOLLOW SECTION AND SPECIAL CHANNEL PROFILES MAY BE COLD FORMED OF COMMERCIAL QUALITY MILD STEEL. ALL SECTIONS SHALL BE HOT-DIP GALVANISED IN ACCORDANCE WITH THE REQUIREMENTS OF SANS 121 : 2000 (ISO 1461 : 1999).
2. BOLTS, WASHERS AND NUTS SHALL COMPLY WITH THE REQUIREMENTS OF SANS 1700-5.1 AND SHALL BE GALVANISED IN ACCORDANCE WITH THE REQUIREMENTS OF SANS 121 : 2000 (ISO 1461 : 1999).
3. BLIND RIVETS SHALL BE 4,8mm DIA CADMIUM PLATED MILD STEEL.

						DESIGNED BY:	R.R. RAVELE		 <p><b>SIZEYA</b> CONSULTING ENGINEERS <small>civil engineers   structural engineers   quantity surveyors   project managers</small> No. 6 Hans Van Rensburg Street Office No. 14 Private Bag X9676, Postnet Suite 141 Polokwane, 0700 Tel : (015) 291 1020 Email : info@sizeya.co.za</p>	<table><tr><td>_____</td><td>DATE</td><td rowspan="2">PROJECT NAME: <b>CONTRACT No.: 67 OF 2021</b></td><td>ISSUED FOR TENDER (Full signature)</td><td></td></tr><tr><td>CONSULTING ENGINEER</td><td></td><td rowspan="2"><b>REHABILITATION OF JOE SLOVO STREET AT VLEIFONTEIN</b></td><td>For : Client</td><td>SCALE</td></tr><tr><td>_____</td><td>DATE</td><td>DRAWING TITLE:</td><td>For : Consulting Engineer</td><td></td></tr><tr><td>EMPLOYER'S PROJECT MANAGER</td><td></td><td><b>ROAD SIGNS, ATTACHMENT AND FIXING DETAILS</b></td><td>CONSULTANTS DRAWING No. <b>S39.2-SD/004</b></td><td>CLIENT DRAWING No.</td></tr></table>	_____	DATE	PROJECT NAME: <b>CONTRACT No.: 67 OF 2021</b>	ISSUED FOR TENDER (Full signature)		CONSULTING ENGINEER		<b>REHABILITATION OF JOE SLOVO STREET AT VLEIFONTEIN</b>	For : Client	SCALE	_____	DATE	DRAWING TITLE:	For : Consulting Engineer		EMPLOYER'S PROJECT MANAGER		<b>ROAD SIGNS, ATTACHMENT AND FIXING DETAILS</b>	CONSULTANTS DRAWING No. <b>S39.2-SD/004</b>	CLIENT DRAWING No.
_____	DATE	PROJECT NAME: <b>CONTRACT No.: 67 OF 2021</b>	ISSUED FOR TENDER (Full signature)																											
CONSULTING ENGINEER			<b>REHABILITATION OF JOE SLOVO STREET AT VLEIFONTEIN</b>	For : Client	SCALE																									
_____	DATE	DRAWING TITLE:		For : Consulting Engineer																										
EMPLOYER'S PROJECT MANAGER		<b>ROAD SIGNS, ATTACHMENT AND FIXING DETAILS</b>	CONSULTANTS DRAWING No. <b>S39.2-SD/004</b>	CLIENT DRAWING No.																										
					DRAWN BY:	F.I MARAGENI																								
1	09/2021	ISSUED FOR TENDER																												
0	08/2021	ISSUED FOR APPROVAL																												
No	DATE	REVISION	CONSULT	DIR	CHECKED BY:	H.L. THARAGA																								



MINIMUM REGULATORY SIGN SIZES			
	OPERATING SPEED (km/h)		
	100 - 120	70 - 90	60
CIRCULAR SIGN DIAMETER (mm)	1200	900	600
RECTANGULAR SIGN WxH (mm)	1200 x 900	900 x 675	600 x 450
TRIANGULAR SIGN SIDE LENGTH (mm)	1500	1200	900

ADVANCE WARNING SIGN LOCATION AND SIZE		
OPERATING SPEED (km/h)	LOCATION (DISTANCE FROM HAZARD) (m)	SIZE (mm)
120	330	1500
100	240	1500
80	160	1200
60	120	900



NOTE:  
MINIMUM SIZE FOR  
ERECTION BRACKETS  
ON R/W SIGNS :  
L 45 x 45 x 6  
LENGTH : 100mm

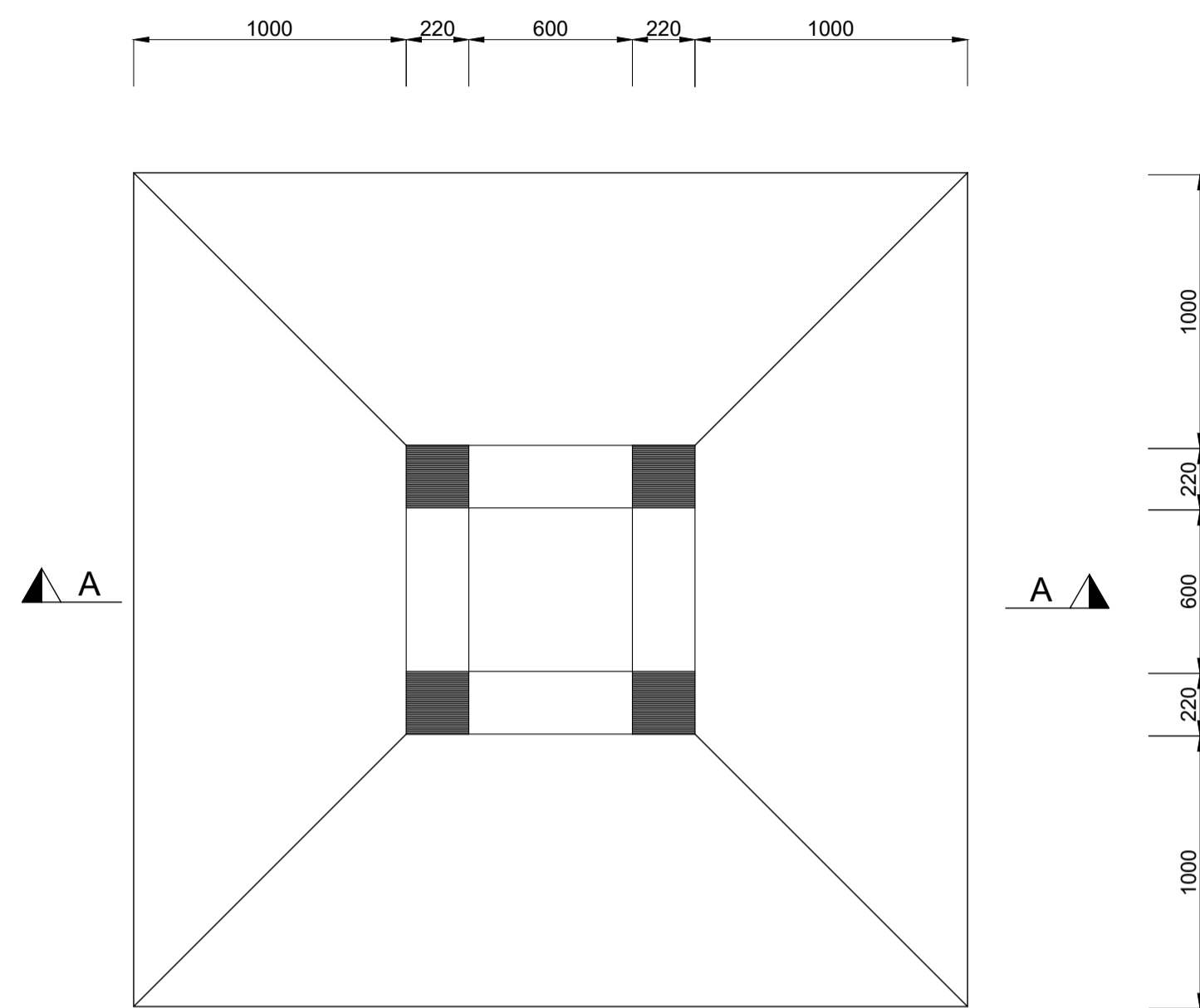
NOTES :

THE ROAD SIGN FACES SHALL BE MANUFACTURED AND ERECTED IN ACCORDANCE WITH THE FOLLOWING REQUIREMENTS :

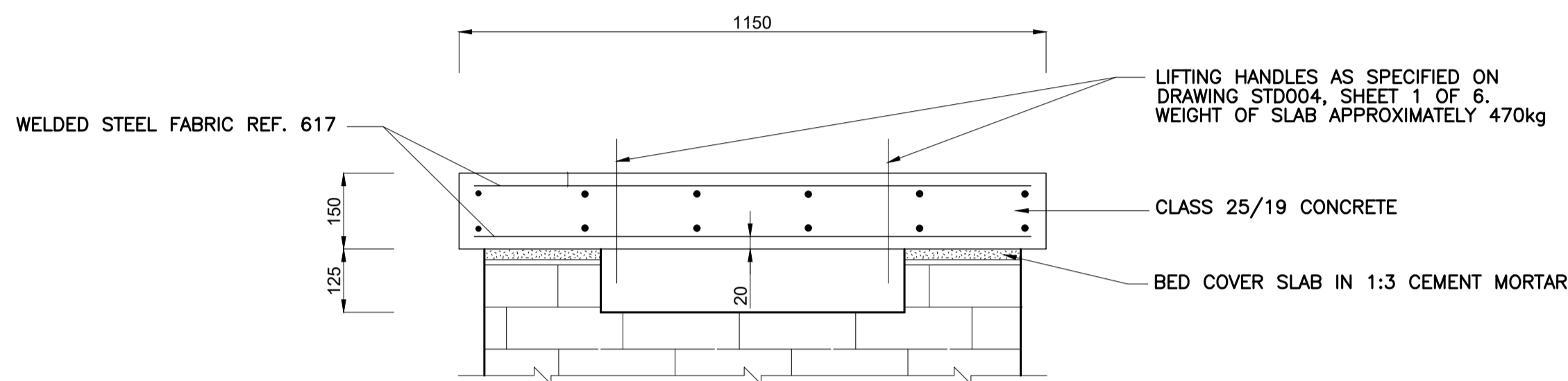
1. DETAILS ON THIS DRAWING ARE APPLICABLE TO ROAD SIGNS SMALLER THAN 1,5m<sup>2</sup> REQUIRING DOUBLE / SINGLE SUPPORTS.
2. STRUCTURAL STEEL SECTIONS SHALL BE MILD STEEL CONFORMING TO THE REQUIREMENTS OF SANS 1431, GRADE 300W. RECTANGULAR HOLLOW SECTION AND SPECIAL CHANNEL PROFILES MAY BE COLD FORMED OF COMMERCIAL QUALITY MILD STEEL. ALL SECTIONS SHALL BE HOT-DIP GALVANISED IN ACCORDANCE WITH THE REQUIREMENTS OF SANS 121 : 2000 (ISO 1461 : 1999).

					DESIGNED BY:	R.R. RAVELE		 <p>No. 6 Hans Van Rensburg Street Office No. 14 Private Bag X9676, Postnet Suite 141 Polokwane, 0700 Tel : (015) 291 1020 Email : info@sizeya.co.za</p>	_____	_____	CONTRACT No.: 67 OF 2021	ISSUED FOR TENDER (Full signature)	
					DRAWN BY:	F.I MARAGENI			CONSULTING ENGINEER	DATE	PROJECT NAME:	For : Client	SCALE
1	09/2021	ISSUED FOR TENDER										For : Consulting Engineer	
0	08/2021	ISSUED FOR APPROVAL										CONSULTANTS DRAWING No.	CLIENT DRAWING No.
No	DATE	REVISION	CONSULT	DIR	CHECKED BY:	H.L. THARAGA			EMPLOYER'S PROJECT MANAGER	DATE	DRAWING TITLE: ROAD SIGNS, ATTACHMENT AND FIXING DETAILS	\$39.2-SD/005	

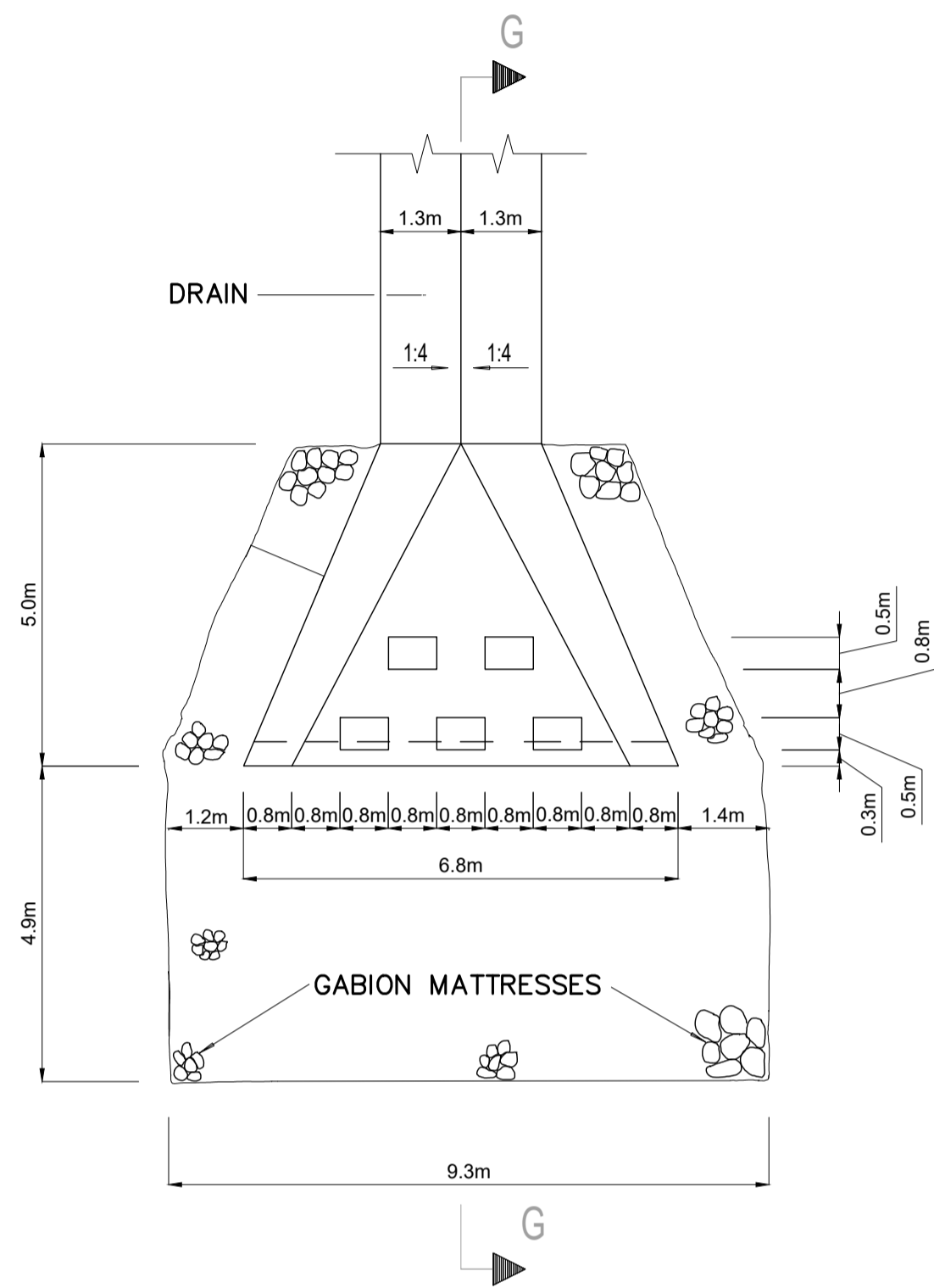




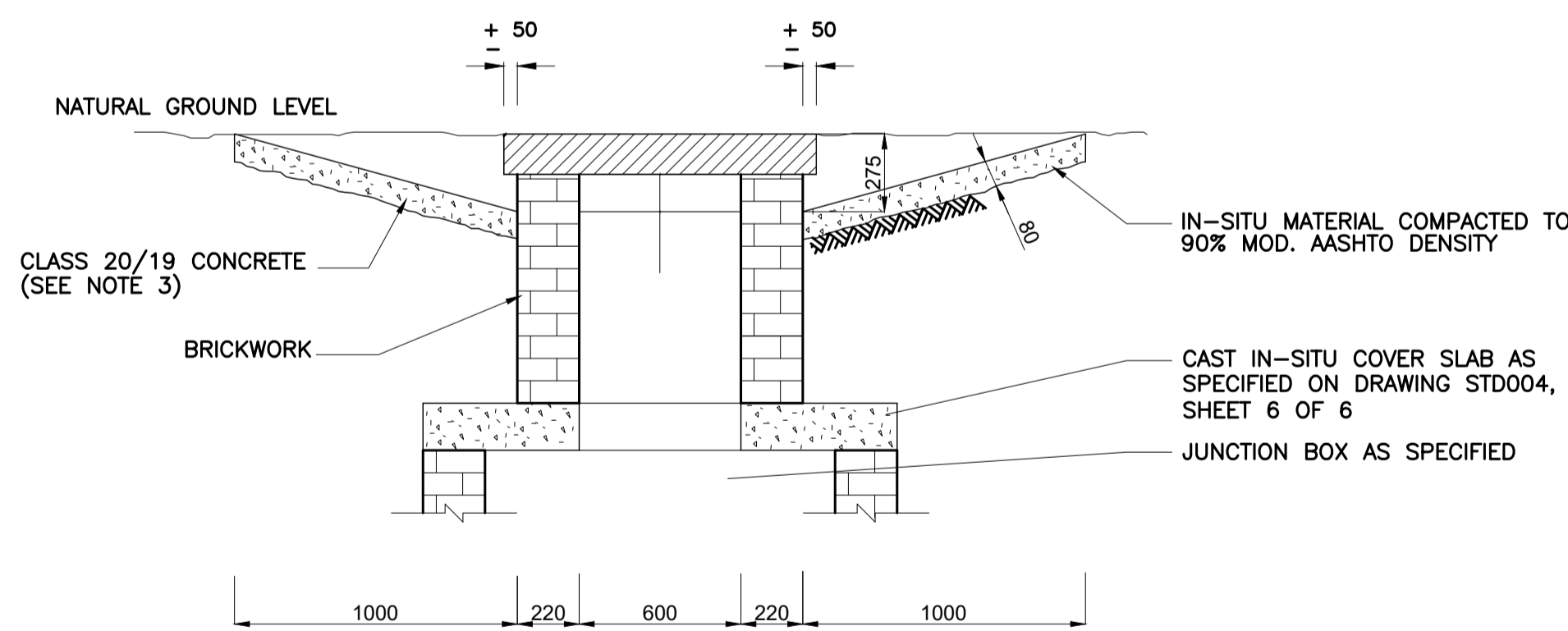
PLAN OF FIELD INLET (Without cover slab)



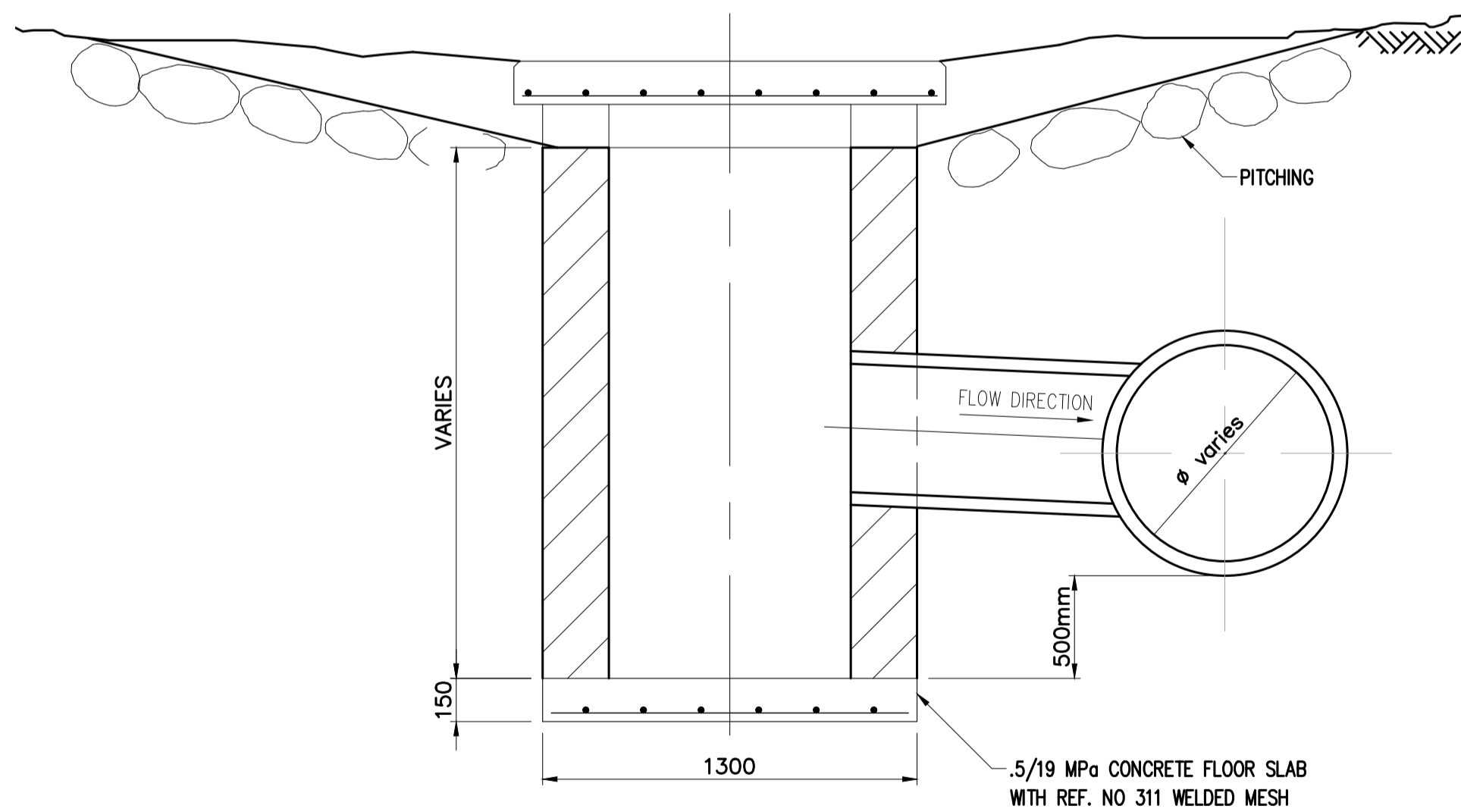
DETAIL OF PRECAST COVER SLAB



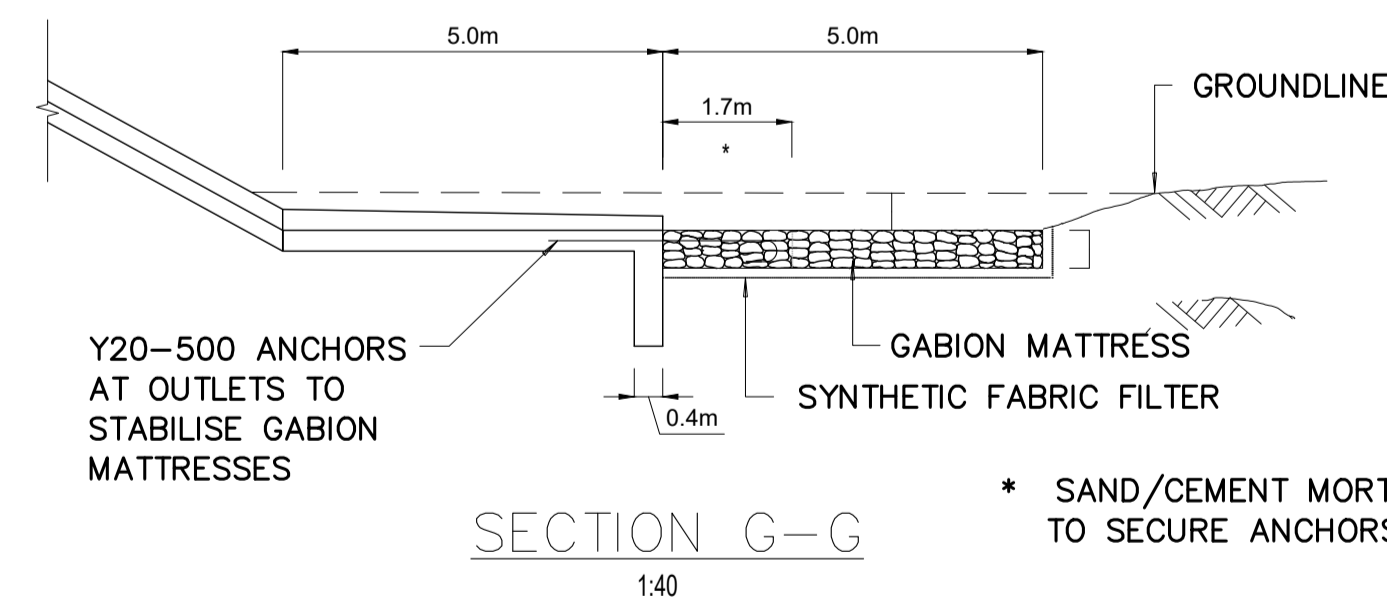
ENERGY BREAKER  
1:40



SECTION A-A



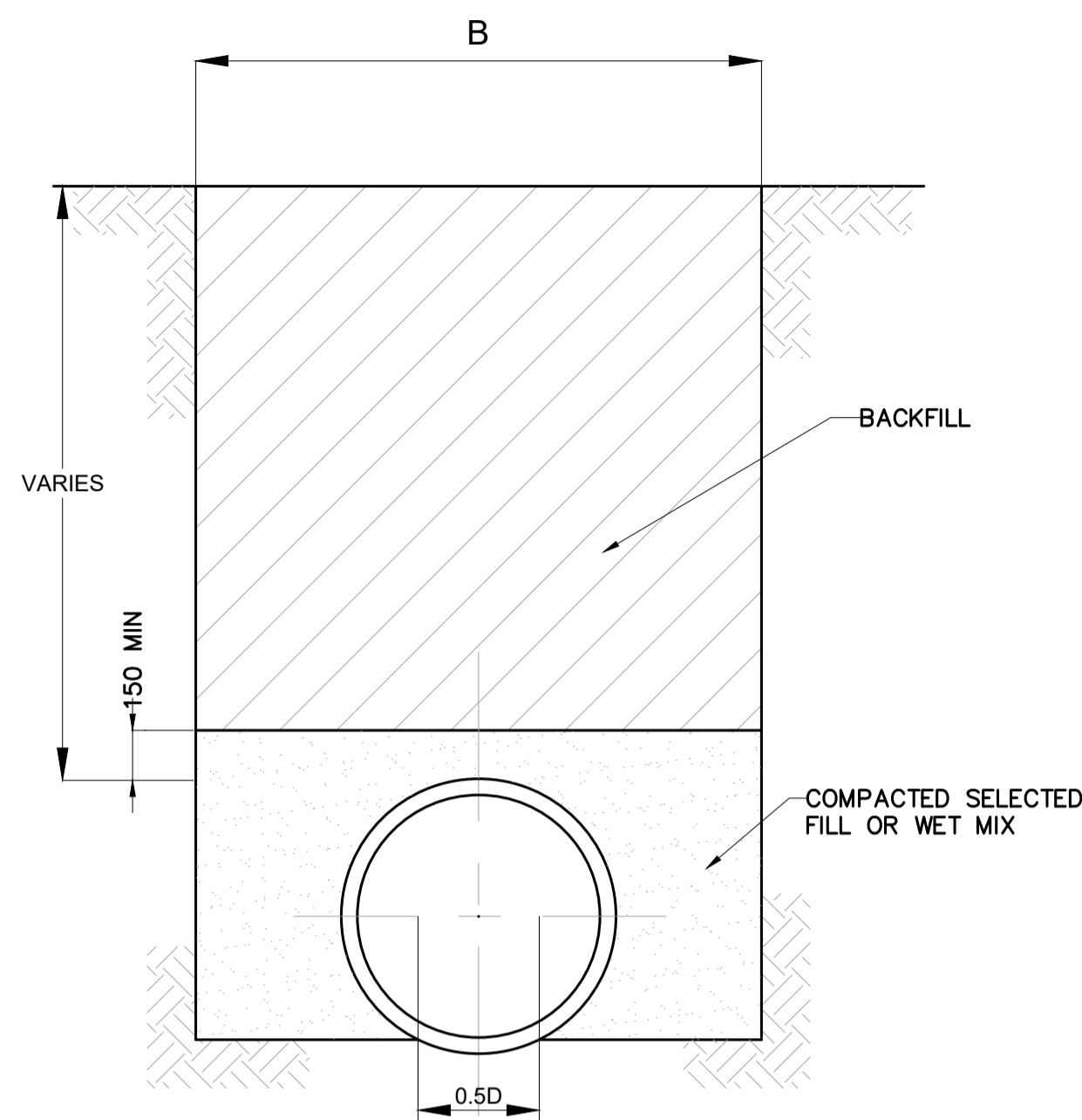
FIELD INLET – DETAILS



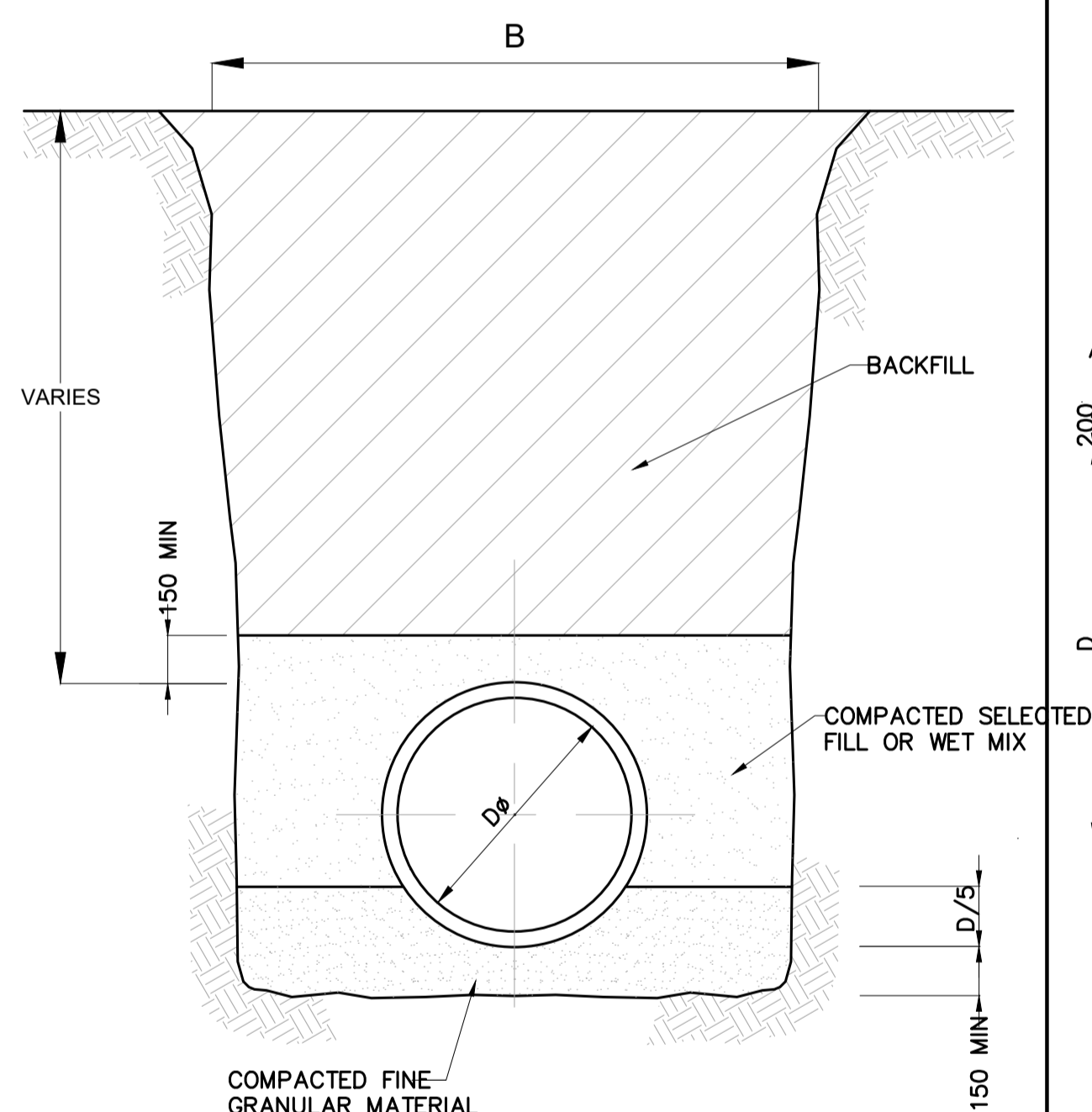
\* SAND/CEMENT MORTAR TO SECURE ANCHORS

SECTION G-G  
1:40

					DESIGNED BY:	R.R. RAVELE		 <p>No. 6 Hans Van Rensburg Street Office No. 14 Private Bag X9676, Postnet Suite 141 Polokwane, 0700 Tel : (015) 291 1020 Email : info@sizeya.co.za</p>	_____	_____	CONTRACT No.: 67 OF 2021	ISSUED FOR TENDER (Full signature)		
					DRAWN BY:	F.I. MARAGENI			CONSULTING ENGINEER	DATE	PROJECT NAME:		For : Client	SCALE
1	09/2021	ISSUED FOR TENDER			CHECKED BY:	H.L. THARAGA			EMPLOYER'S PROJECT MANAGER	DATE	DRAWING TITLE:	REHABILITATION OF JOE SLOVO STREET AT VLEIFONTEIN	For : Consulting Engineer	CLIENT DRAWING No.
0	08/2021	ISSUED FOR APPROVAL											CONSULTANTS DRAWING No.	
No	DATE	REVISION	CONSULT	DIR							FIELD-INLET DETAILS	S39.2-SD/007		



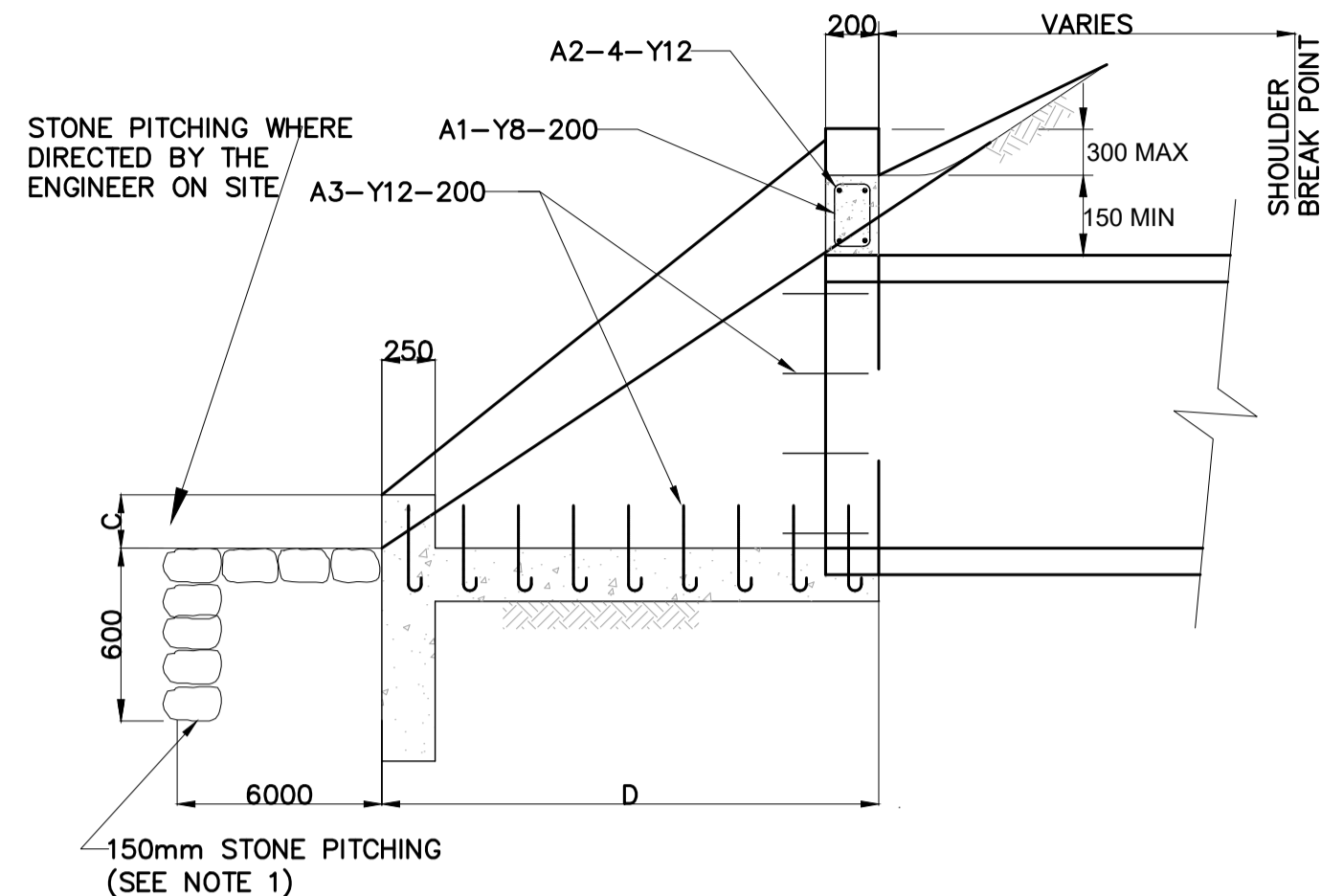
CLASS C PIPE BEDDING IN SOIL  
SCALE 1:20



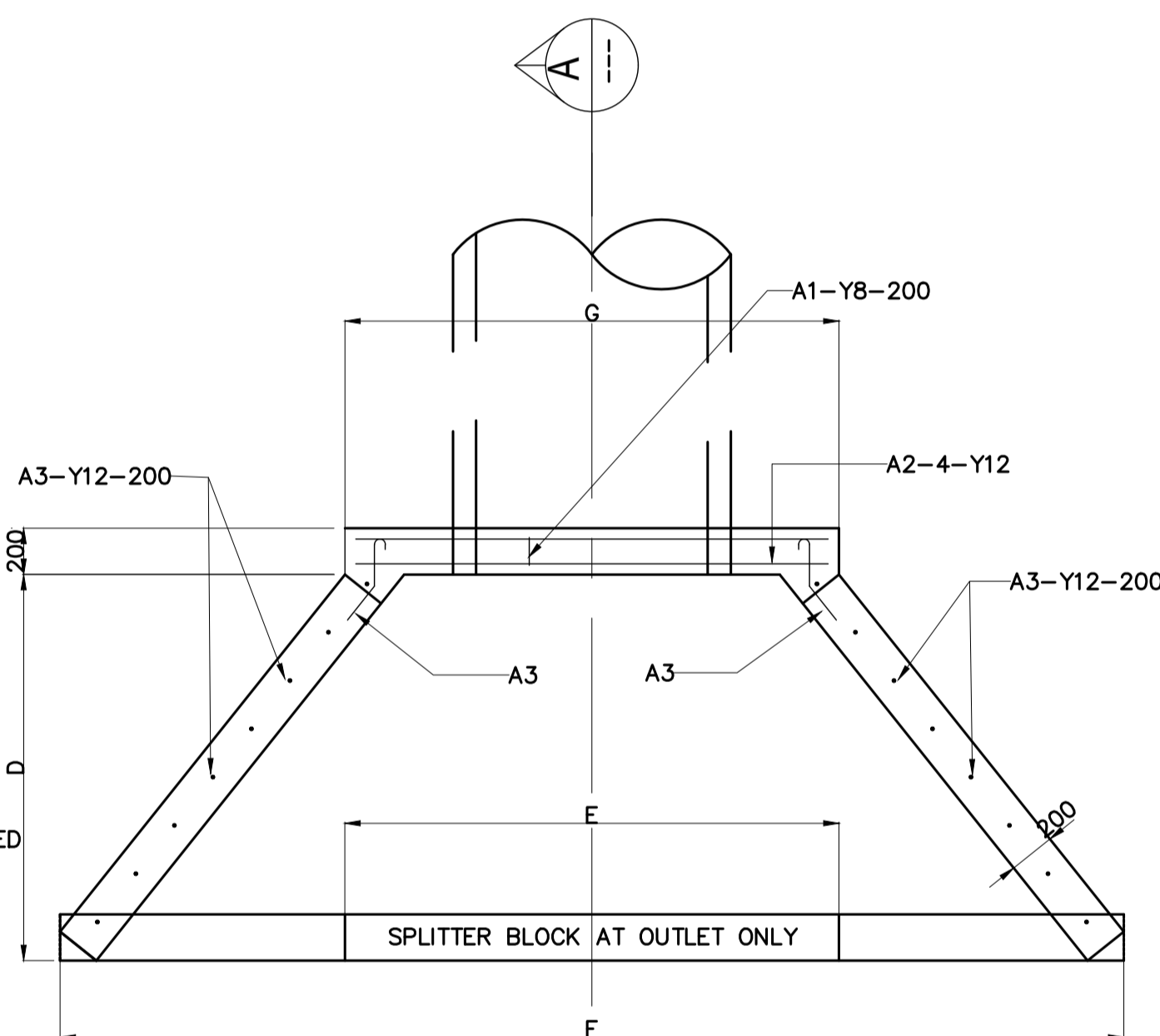
CLASS C PIPE BEDDING IN ROCK  
SCALE 1:20

Dφ	WIDTH 'B'	
	SINGLE PIPE	DOUBLE PIPE
600	1600	2500
750	1750	2875
900	1900	3250

PIPE BEDDING DETAILS



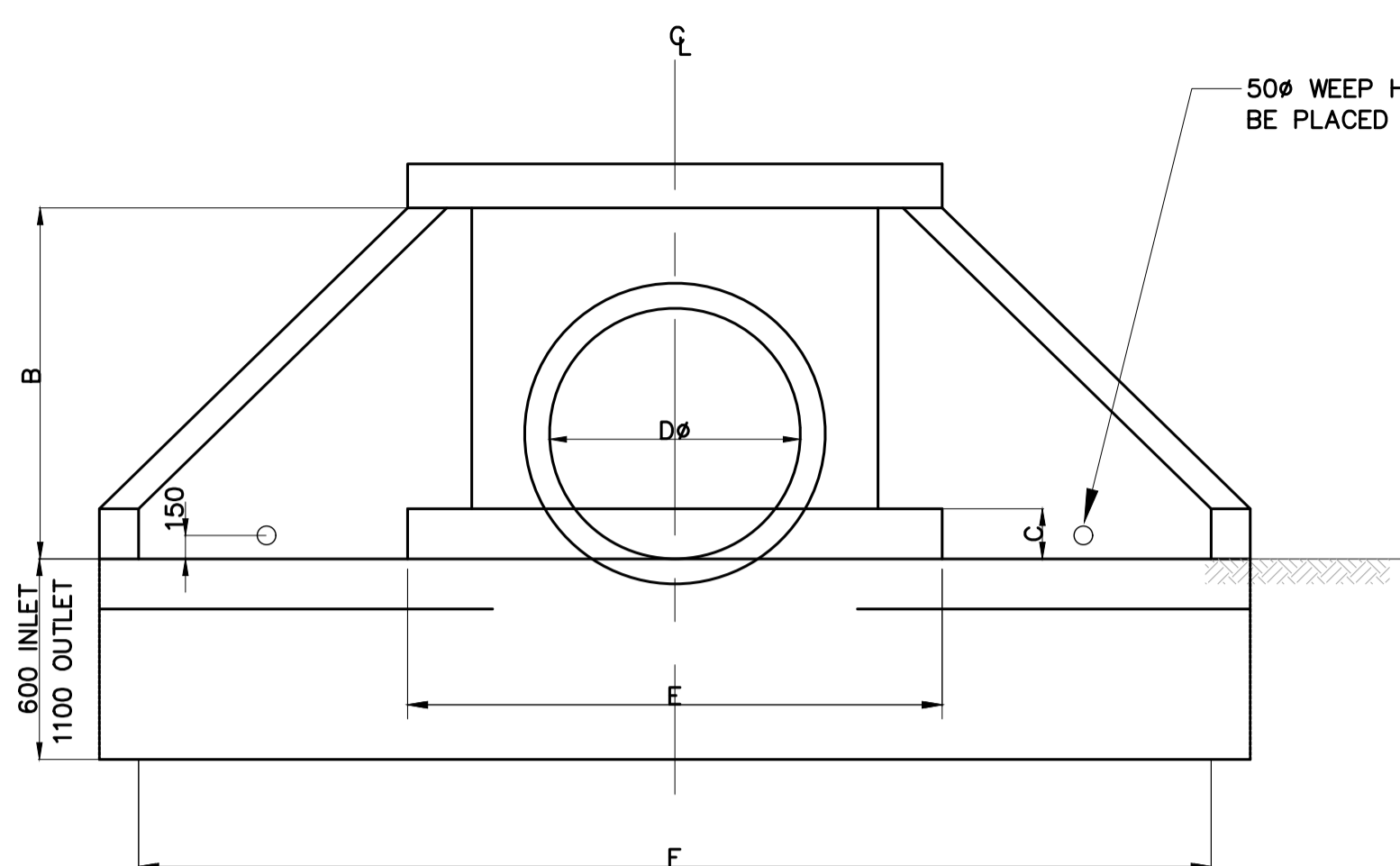
SECTION A-A  
(FOR DIMENSIONS SEE TABLE 1)  
(FOR REINFORCEMENT SEE TABLE 2)  
SCALE 1:20



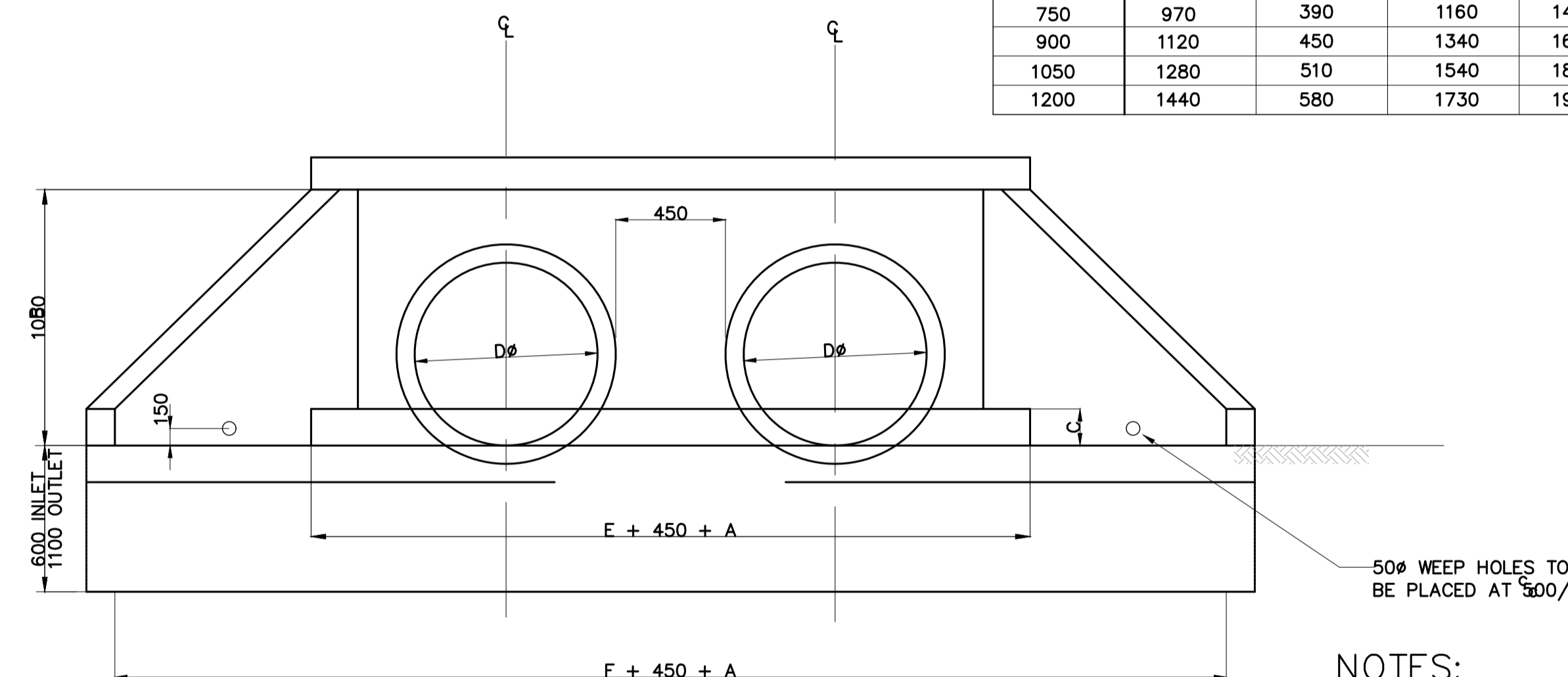
PLAN  
SCALE 1:20  
(FOR DIMENSIONS SEE TABLE 1)  
(FOR REINFORCEMENT SEE TABLE 2)

TABLE 1

NOMINAL DIAMETER	DIMENSIONS					
A	B	C	D	E	F	G
450	660	270	790	1140	2050	1140
600	810	320	990	1300	2420	1300
750	970	390	1160	1470	2810	1470
900	1120	450	1340	1630	3180	1630
1050	1280	510	1540	1810	3570	1800
1200	1440	580	1730	1960	3960	1960



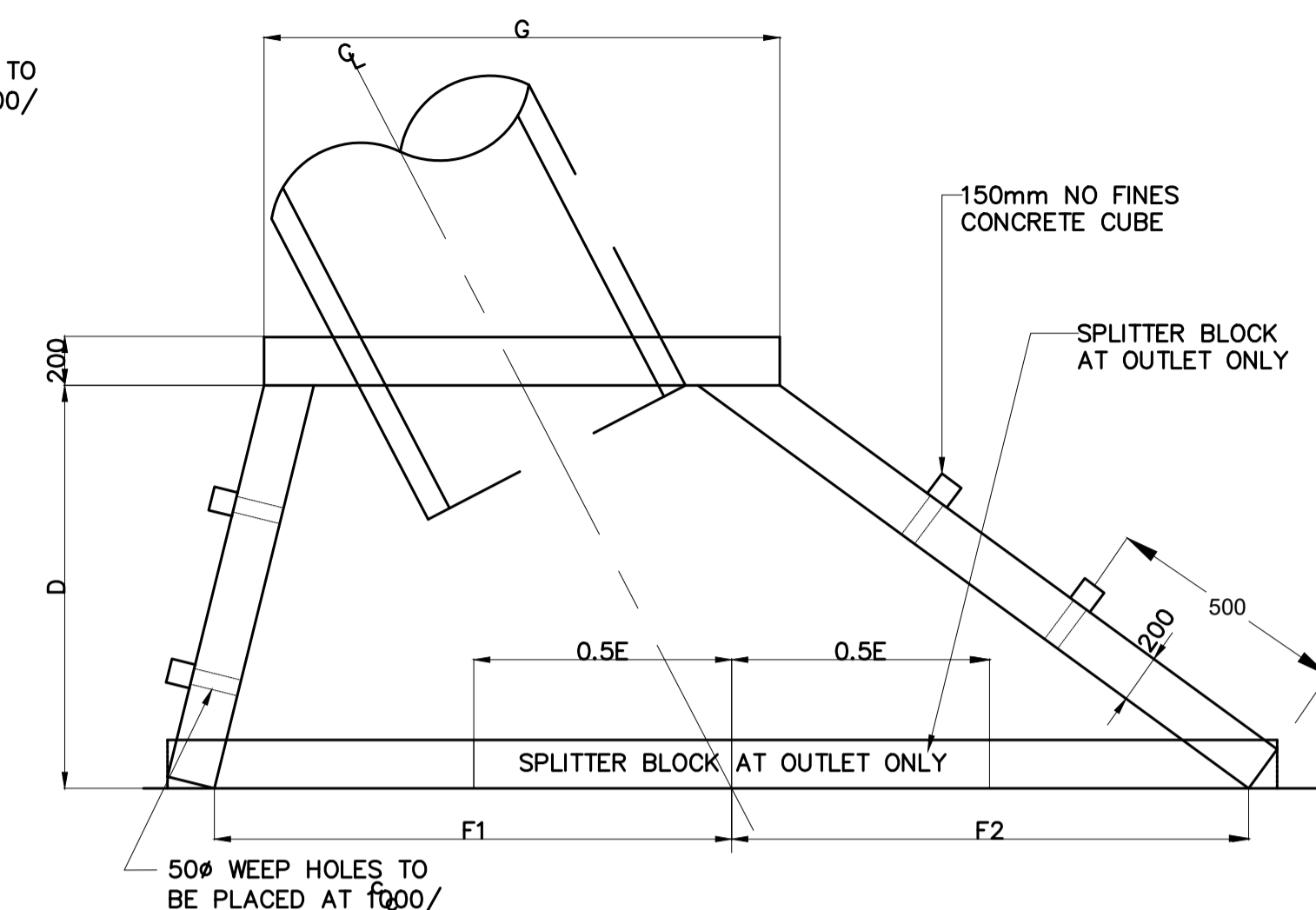
FRONT ELEVATION - SINGLE PIPE  
(FOR DIMENSIONS SEE TABLE 1)  
SCALE 1:20



FRONT ELEVATION - MULTIPLE PIPES  
(FOR DIMENSIONS SEE TABLE 1)  
SCALE 1:20

TABLE 2

ITEM	NUMBER	DIAMETER	CUT LENGTH	CODE	SHAPE
A1	VARIES	Y8	600	60	150 110
A2	4	Y12	VARIES	20	STRAIGHT
A3	VARIES	Y12	500	32	



SKREW PIPE CULVERT  
(FOR DIMENSIONS SEE TABLE 3)  
SCALE 1:20

TABLE 3

NOMINAL DIAMETER	DIMENSIONS						
A	B	C	D	E	F1	F2	G
450	660	270	790	1140	1025	1025	1140
600	810	320	990	1300	1210	1210	1300
750	970	390	1160	1470	1410	1410	1470
900	1120	450	1340	1630	1590	1590	1630
1050	1280	510	1540	1800	1800	1800	1800
1200	1440	580	1730	1960	980	980	1960

## NOTES:

- INLET/OUTLET APPROACHES IN FILL CONDITION TO BE STONE PITCHED WHERE EROSION IS LIKELY TO OCCUR.
- SPLITTER BLOCK MAY BE OMITTED IF DISCHARGE VELOCITY IS LESS THAN 1.50m/s AND PROVIDED AT OUTLETS ONLY.
- CUT OFF WALLS MAY BE OMITTED IF STRUCTURE IS FOUNDED ON ROCK.
- FOR MULTIPLE PIPE CULVERTS INCREASE DIMENSIONS "E" AND "F" BY  $(n-1)(A+450)$ mm WHERE n = NUMBER OF PIPES WHERE A = NOMINAL DIAMETER OF PIPES
- FOR SKEW PIPE CULVERTS THE HEADWALL SHALL BE PARALLEL TO THE CENTER LINE OF THE ROAD.
- IF CORRUGATED METAL PIPES ARE USED 4 x 20mm x 150mm LONG GALVANISED ANCHOR BOLTS IN THE HOLLOW OF THE CORRUGATIONS ARE TO BE USED.
- ALL CONCRETE TO BE 20MPa. MIN COVER TO STEEL IS 40mm UNLESS OTHERWISE STATED.
- SQUARE MESH FABRIC (REFERENCE S.M.F 311) TO BE PLACED CENTRALLY
- DIMENSIONS IN TABLE 1 AND 3 ARE AS PER MANUFACTURING STANDARD OF ROCLA PIPE CULVERT TYPE SC TO SABS .

					DESIGNED BY:	R.R. RAVELE			CONSULTING ENGINEER DATE	CONTRACT No.: 67 OF 2021		ISSUED FOR TENDER (Full signature)	
					DRAWN BY:	F.I. MARAGENI				PROJECT NAME:		For: Client	SCALE
					CHECKED BY:	H.L. THARAGA				REHABILITATION OF JOE SLOVO STREET AT VLEIFONTEIN		For: Consulting Engineer	
1	09/2021	ISSUED FOR TENDER								DRAWING TITLE:		CONSULTANTS DRAWING No.	CLIENT DRAWING No.
0	08/2021	ISSUED FOR APPROVAL								HEADWALL AND BEDDING DETAILS		S39.2-SD/008	
No	DATE	REVISION		CONSULT	DIR				EMPLOYER'S PROJECT MANAGER	DATE			

