

# APPOINTMENT OF CONTRACTORS FOR THE BUILDING CONSTRUCTION FOR A PERIOD OF 36 MONTHS

# Bid No: 25/2020-21

# **MUNICIPAL BID DOCUMENT**

NAME OF BIDDER	:	
CIDB CRS NUMBER	:	
ADDRESS OF BIDDER	:	
TEL. NUMBER	:	
FAX NUMBER	:	
BID AMOUNT (INCL.VAT)	:	
(BID AMOUNT IN WORDS)	:	

Issued by		Prepared by:	
	a Local Municipality ker and School Streets, 40	-	onsulting Engineers PTY (LTD) reet,Golfview 745
Contact: Name: Telephone	Ms. Gloria Monchwe (053)712 9403	Contact: Name: Telephone:	Mr Norman Mongae 018 381 1478



# Closing Date & Time: 21<sup>ST</sup> May 2021 @12H00



Employer

Witness

1

Contractor

Witness



# FOREWORD

This document consists of three (3) Volumes clustered to form the **<u>BID</u>** and the **<u>CONTRACT</u>**.

# **VOLUME 1- BID PROCEDURES**

This volume contained the Invitation to Bidders describing the nature of construction works required, as well as the BID Data outlining the conditions of Bid to be complied with by every Bidder submitting a bid.

The volume also contains the Bid Adjudication process to be followed and points awarded for compliance.

# **VOLUME 2- RETURNABLE DOCUMENTS**

This volume contains the returnable schedules, forms to be completed by each Bidder for the purpose of evaluating bids and the Bills of Quantities which will subsequently form part of the contract between successful Bidder and the Employer.

# **VOLUME 3 – CONRTRACTOR INFORMATION**

This contract will be governed by the JBCC Principal Agreement – (JBCC Series 2000 Edition 5.0 Code 2101- CE © July 2007). The contract Data will include the following sections:

- Applicable Conditions of Contract
- Scope of Work and Project Specifications
- Site Information

Each volume is preceded by its own table of Contents.

# IMPORTANT NOTE

Each Bidder must complete the **BID SUMMARY PAGE** for bid opening purposes following hereafter as well as the **BID CHECKLIST** to ensure complete compliance of submitting all relevant documents in order to evaluate the **BID.** 



BID SUMMARY PAGE	
Name of bidder	
CIDB CRS Number	
Company VAT registration no.	
CSD MAAA Number	
DETAILS OF CONTACT PERSON:	
Name	
Telephone number	
Fax number	
E-mail address	
Address of Bidder	
	•••••••••••••••••••••••••••••••••••••••
	•••••••••••••••••••••••••••••••••••••••
Bid price (All inclusive)	
Construction period offered	
Date	
Bidder's signature	

(Person authorised to sign the Bidder. Same person to be as per Resolution of Authority – T2)



# Bid checklist and supporting document

Bidders are requested to complete the flowing checklist table in order to ensure that all supporting documents as required throughout the bid documents are submitted with the bid.

Ref/Form	Description	Checked
	Bid Amount (Incl. VAT) Carried Over To Summary Page And Bid Cover	
~	Form Of Bid Duly Completed : T5- Volume 1-Page 20	
	Bills Of Quantities –Completed In BLACK INK	
	Complete And Signed Resolution Of Authority	
	Complete And Signed Contract Data (Employer ) EC: T3-Volume 1	
	Complete And Signed Contract Data (Contractor ) CE: T4-Volume 1	
	Certified Copies Of Id Documents Of Shareholder	
	Company Registration Documents	
	Compensation for occupational injuries and diseases-letter od good standing	
Form 1	Attendance At Briefing Meeting	
Form 2	Enterprise Declaration Affidavit	
Form 3	Declaration Of Interest (MBD 4)	
Form 4	Declaration Of Bidder's Past Supply Chain Management Practices (MBD	
Form 5	Certificate Of Independent Bid Determination (MBD 9)	
Form 6	Bidder's Financial Standing And Tax Clearance Certificate(TCS with pin)	
Form 7	Appendix To Bid	
Form 8	Similar Works Completed With Certificate Of Completion	
Form 9	Schedule Of Construction Plant	
Form 10	Schedule Of Labour Content	
Form 11	Skilled Key Personnel /Operators And Drivers	
Form 12	Proposed Sub-Contractors	
Form 13	Proposed Construction Programme Schedule	
Form 14	Alterations To Bid	
Form 15	Certificate Of Registration With CIDB	
Form 16	Record Of Addenda To Bid Document	
Form 17	B-BBEE Status Level Validation Certificate	
Form 18	OHS Declaration	
Form 19	Day works Schedule	

Employer



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# INVITATION TO BID

# BID NO: 25/2020-21

# APPOINTMENT OF CONTRACTORS FOR THE BUILDING CONSTRUCTION FOR A PERIOD OF 36 MONTHS

Bids are hereby invited from **Civil Engineering Building Contractors** with relevant experience for the **Appointment of Contractors for the Building Construction for a Period of 36 Months** in **Kuruman** area in the **Northern Cape Province**.

Bidders will be required to have a CIDB Contractor Grading designation of 5GB or higher in order to qualify.

Bid documents with detailed specifications and detailed information are obtainable from the **Cashiers 'office**, **Finance Department of The Ga-Segonyana Local Municipality** from on the 30<sup>th</sup> April 2021. A non-refundable cash deposit of **R 2 000-00** payable is required on collection of the bid document; proof thereof should be submitted/ attached to the bid document. Cheques should be bank guarantee and made payable to Ga-Segonyana Local Municipality. Bid documents can also be downloaded from <u>www.etenders.gov.za and /or</u> <u>www.ga-segonyana.gov.za</u>

No compulsory bid brief will be held. Prospective bidders are requested to send their enquires at <u>tenders@ga-segonyana.gov.za</u>. Enquires must be sent to the stated e-mail address by no later than **14<sup>th</sup> May 2021**.

Bids marked with reference number on the outside of the sealed envelope must be placed in the Bid Box of Ga-Segonyana Local Municipality on or before 21<sup>st</sup> May 2021; 12H00 Noon. No compulsory Site Briefing will be held. Enquires can be sent to the consultant on e-mails provided for on the bid document. The closing date for enquires is 14<sup>th</sup> May 2021.

No late, faxed or emailed bids will be accepted.

Bids Will Be Evaluated on the **80/20** Basis, Where **80 Points** will be allocated to price **20 Points** Allocated To Preferential Points. Bids Will Be Evaluated and Adjudicated In Terms Of the Municipality's Supply Chain Management Policy and Other Statutory Regulations Governing the Supply Chain of the Municipality.

A valid Tax Compliance Status (with pin) Certificate must be included in the Bidder's submission. Bidders must be registered on the Central Supplier Database for Government (CSD)

For **Preferential Points** bidder(s) must attach a B-BBEE status level contribution certificate authorised /issued by **SANAS, IRBA** or a **Sworn Affidavit (Commission of Oath**). Failure to attach, no preference points will be allocated. CSD certificate will not be used for the purpose of evaluating preference points. **MFMA circular 81.** 

The Ga-Segonyana Local Municipality does not bind itself to accept the lowest, or any bid or no reason for the acceptance or rejection of any bid will be given.

For Technical Enquiries please contact Mr H Smit on (053) 712 9371 and SCM enquiries Mr. B Sechogela on (053) 712 9344 during working hours.

MR MM TSATSIMPE MUNICIPAL MANAGER

Employer

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# **VOLUME 1**

# **BID PROCEDURES**

# **T1 NOTICE TO BIDDERS**

This bid has been compiled under the auspices of the CIDB'D Standard For Uniformity In The Construction Procurement Of August 2006 contained in Annexure F thereof, Ga-Segonyana Municipality procurement procedures and *sans 294:2004 with amendments as published in government gazette no. 33239, board notice 86 of 2010,* together will all standard conditions of bid applicable relating to the JBCC principal agreement – (JBCC Series 2000 Edition 5.0 Code 2101- CE ©July 2007)

This project is <u>not registered</u> as an **EPWP** project, however, the guidelines of the **EPWP** will be followed to aim implementing labour intensive construction methods, skilled transfer and development, maximum local employment. Local economic empowerment and alleviation of poverty.

# **T1.1 SITES DESCRIPTION**

The various sites are located in Ga-Segonyana Local Municipality under the John Taolo Gaetsewe District Municipality in the Northern Cape.

# **T1.2 WORKS DESCRIPTION**

The Work should involve the Construction of Community Buildings, Libraries and Municipal Building etc.

# **T1.3 BID ADJUDICATION**

All bidders with **CIDB** grading of **5GB** and higher will be adjudicated on the **80/20**- point /preferences basis, according to the employer's supply chain management policy, applicable procurement for goods and services in line with both the preferential procurement policy framework act, 2000 (act no.5 of 2000) and the broad –base black economic empowerment act, 2006 (act no. 53 of 2003). Stage evaluation will comprise the following:

- Stage 1 : responsiveness
- Stage 2 : financial and preference evaluation

Employer



# STAGE EVALUATION

# Stage 1- Responsiveness

All bids will on opening and before detailed evaluation, be treated whether each bid offer properly received:

- a) Meets the requirements of these conditions of bid,
- b) Has been properly and fully completed and signed , and
- c) Is responsive to the other requirements of the bid documents

# Stage 2- Financial and preference

# a) Financial evaluation : 80 points

The following formula will be applied to calculate the points for price (finance) in respect of bids/procurement received. A maximum of 80 points is allocated to price on the following basis.

The price and preference calculations should be as follow:

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

Where

Ps = Points scored for price of tender under consideration

Pt = Price of tender under consideration

Pmin = Price of lowest acceptable tender

# b) Preference evaluation : 20 points

Subject to sub-regulations (3) below, points must be awarded to a Bidder for attaining their **B-BBEE** status level of contributor with in accordance with the table below.

In the event that two or more bids score equal total points, the successful bid must be the one scoring the highest number of preference points for **B-BBEE**.

However, when functionality is part of the valuation 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.

Employer



<b>B-BBEE status level on contribution</b>	Number of points scored
1	20
2	18
3	14
4	12
5	8
6	6
7	4
8	2
Non-compliant contributor	0

## Preference Points Table: 80/20

## T1.4 VALUE- ADDED TAX (VAT)

The total bid price must include FOR VALUE-ADDED TAX (VAT). All billable items (rates) in the bills of quantities must exclude VAT. VAT is to calculated and added to the total value of a billable items in Final Summary.

# T 1.5 SITE INSPECTION

No compulsory bid brief will be held. Prospective bidders are requested to send their enquires at <u>tenders@ga-segonyana.gov.za</u>. Enquires must be sent to the stated e-mail address by no later than **14**<sup>th</sup> May 2021.

 Bid No
 : 25/2020-21

 Time
 : 12H00

 Closing Date
 : 21<sup>st</sup> May 2021

# T 1.6 SUBMISSION OF COMPLETE PRICED BILLS OF QUANTITIES WITH THE BID

Bidders Should submit their priced bills of quantities in **black ink**, with their bid. Bidders to ensure that the employer receives the bid offer sealed n an envelope marked as detailed below at the address specified in the bid notice not later than the closing time stated in the bid notice and the cover page of the bid document.

• Bid number : 25/2020-21 Appointment of Contractors for the Building Construction for a Period of 36 Months

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Place : Cnr, Voortrekker and School Streets, Kuruman

Witness

- Time : 12H00
- Closing date : 21<sup>st</sup> May 2021

Employer



The lowest or any bid may not necessarily be accepted. No correspondence will be entered into with unsuccessful bidders and the selection will be at the **Municipality's** sole discretion and will be final.

# NB: No Late/Faxed/E-Mailed/Posted Bid Submissions Will Be Accepted or Considered.

# T1.7 BID VALIDITY

Bid validity period is <u>90 days</u> from day of bid closing

# T1.8 RETURNABLE SCHEDULES

The following additional information/documents are to be supplied and / or fully completed and handed in with the bid and special note to be taken of the *ITEMS OF POTENTIAL DISQUALIFICATIONS*, if not submitted

# T1.8.1 Statuary Documents

- Certified Copies of Identity Documents of Members/Directors/Shareholders
- Copies of company registrations documents
- Fully completed declaration of interest (MBD 4)
- Fully completed declaration of interest of past supply chain management practices (MBD 8 FORM)
- Fully completed declaration certificate of independent determination (MDB 9)
- Valid SARS Tax Compliance Status (With Pin)
- CSD registration report not older than 30 days
- Fully completed and signed JBCC form of bid
- B-BBEE status level certificate
- CIDB grading certificate
- Priced bills of quantities fully completed in BLACK INK
- Compensation for occupational injuries and diseases (COIDA) certificate Letter of Good Standing

# T 1.8.2 Documents for Evaluation

- Project list for similar projects for the current and previous projects
- Certified completion certificates for completed projects
- Certified copies of certificates of qualifications of key staff, their CV'S including references
- Five (5) or more traceable references for similar building projects completed
- Three (3) contactable trade reference
- List of schedule of plant equipment
- Proposed construction programme schedule

Employer



# **T2 RESOLUTION OF AUTHORITY**

DESCRIPTION OF PROJECT: Appointment of Contractors for the Building Construction for a Period of 36 Months

Firm .....

**RESOLUTION PASSED BY THE BOARD OF DIRECTORS OF THE COMPANY ON** 

...../(year)

# It was resolved:

 THAT ...... in his/her capacity as ...... is hereby authorized to sign bid negotiate and settle the terms of all agreements with principals, sub-contractors and /or any persons g directly to contracting operations to be carried out and executed by the company and is hereby such agreement for and on behalf of authorized to sign such agreement for and on behalf of:

For and on behalf of the bidder.

...... (Signature)

# AS WITNESSES:

- 1. .....
- 2. .....



# T3 CONTRACT DATA (EMPLOYER)

THE JOINT BUILDING CONTRACTS COMMITTEE
JBCC SERIES 2000
PRINCIPAL BUILDING AGREEMENT Contract Data EC
 PRINCIPAL BUILDING AGREEMENT CONTract Data EC
· · · · · · · · · · · · · · · · · · ·
Project
Employer
Contractor
Contract Date File Code
prepared by the JOINT BUILDING CONTRACTS COMMITTEE Inc RECOMMENDED BY THE JECC CONSTITUENTS Association of Construction Project Managers Association of South African Quantity Surveyors Master Builders South Africa South African Association of Consulting Engineers South African Institute of Architects South African Property Owners Association Specialist Engineering Contractors Committee
JBCC SERIES 2000 Edition 5.0 Code 2101-EC © JULY 2007



# JBCC SERIES 2000 Principal Building Agreement Edition 5.0

### Contract Data - Employer to Contractor Employer Addendum Code 2101-EC

#### Introduction

This addendum contains all variables referred to in the Principal Building Agreement that are the responsibility of the Employer to provide the appropriate information that is necessary for the Contractor to complete his render. The Addendum must be completed in full and included in the tender documents. The applicable addendums "Contract Data - EC", "Contract Data - CE", "Contract Data - ES " and "Contract Data - SE " form part of the contract between the parties

#### Definitions

The definitions used in this document and the interpretation thereof are as listed in the Principal Building Agreement. The word or phrase of a definition is in **bold text** and shall bear the meaning assigned to it in the Principal Building Agreement. Where such word or phrase is not highlighted it shall bear the meaning consistent with the context of its use. The listed defined word or phrase does not qualify as a definition where information required to be stated in the **contract data** has not been provided

#### Provision of Contract Data

Spaces requiring information must be filled in, shown as 'not applicable' or deleted and not left blank. Where choices are offered, the non-applicable items are to be clearly struck out. Where insufficient space is provided the additional information should be annexed hereto and cross referenced to the applicable clause of the contract data

#### **Reference Clauses**

Where relevant the Principal Building Agreement clause applicable to the required information is printed in tailies under the Contract Data clause number i.e. [27.4.2]

Section No	Description	Page
1.0	CONTRACTING AND OTHER PARTIES	2
2.0	CONTRACT AND SITE INFORMATION	3
3.0	INSURANCES AND SECURITIES	5
4.0	PRACTICAL COMPLETION DATES AND PENALTIES	5
5,0	DOCUMENTS AND GENERAL	6
ō.0	CHANGES MADE TO THE STANDARD JBCC DOCUMENT	6
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Employer



## **CONTRACT DATA - EMPLOYER**

1.1	Employer			
	Postal address			
			Code	
	Tel	Fax	E-mail	
	Tax / VAT registration No	$\Box$		
[1.2]	Physical address			
		·····		
1.2	Principal Agent			
[5.1]	Postal address			•
			Code	
	Tel	Fax	E-mail	
1.3	Agent (1)			
[5.2]				
	•			
			Code	
	Tel	Fax	E-mail	
1.4	Agent (2)			
[5.2]	•			
			Code	
	Tel	Fax		
1.5	Agent (3)		•	
[5.2]				
			Code	
	Tel	Fax	E-mail	
1.6	Agent (4)			
[5.2]	÷			
	-			
		1 - 1	Code	
	Tel	Fax	E-mail	

Employer



Postal address			
Tel	Fax		
		C	ode
Tel	Fax		
	igent or other agents in the pr		(yes/no)
schedule and must be	named in 1.2 above is respon e contacted should the contrac e to complete the contract dat	tor be uncertain of the in	nformation provi
aloqualitiou			
	SITE INFORMATION		
CONTRACT AND		ate)	
	this agreement	te)	
CONTRACT AND The law applicable to	this agreement	ate)	
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CONTRACT AND The law applicable to Works identification	this agreement	hte)	



# Ga-Segonyana Local Municipality Bid No. 25/2020-21 Appointment of Contractors For The Building Construction for a Period of 36 Months

3.4 [15.2.1]	Possession of the sit	e is to be given o	n	(date)	
1.5 [15.3]	Period for the comme the contractor takes	encement of the w possession of the	vorks after e site		(working days)
2.6 115.4, 2	Completion of the wo	orks in <b>sections</b> is	s required	(yes/no)	(N° of sections)
2.7 [3.3, <b>3</b> 1		ictor's lien or righ	nt of continuing	possession is required	(yes/no)
2.8 [16.1]	Defined restrictions t described below or d	o the site area. N letailed in the con	Where "yes" th Itract docume	e specific requirements nts	are (yes/no)
2.9 [16.4]	Geotechnic investiga Where "yes" results	ation of the <b>site</b> har are included in th	as been under e <b>contract do</b>	aken cuments	(yes/no)
2.10 [16.6]	Existing premises w are described below	ill be occupied. V or detailed in the	Vhere "yes" the contract doc	specific requirements uments	(yes/no)
			<i>.</i>		
2.11 [16.7]	Provision of tempor are described below	ary services is read or detailed in the	quired. Where e contract doo	"yes" the specific requ uments	irements (yes/no)
2.11.1	Water	Option A Option B Option C	Contractor - Employer - Employer -	his cost free of charge metered (contractor of	cost) (A, B or C)
2.11.2	Electricity	Option A Option B Option C	Contractor - Employer - Employer -	his cost free of charge metered ( <b>contractor</b> of	cost) (A, B or C)
2.11.3	Telecom	Option A Option B Option C	Contractor - Employer - Employer -	his cost free of charge metered ( <b>contractor</b> of	cost) (A, B or C)
2.11.4	Ablutions	Option A Option B	Contractor - Employer -	his cost free of charge	(A or B)
2.12 [16.8]	Protection of existir Where "yes" the sp contract documer	ecific requiremen	bs is required ts are describe	d below or detailed in t	he (yes/no)



# 3.0 INSURANCES AND SECURITIES

a.1 110.1.1.	Contract works insurance to be effected by 12.6]	y (Employer/C	Contractor)
	F	or the sum of	(amount)
	With a	deductible of	(amount)
3.2 [10.1.2,	Supplementary/Special insurance to be ef 11.1-3, 12.6]	fected by (Employer/C	Contractor)
	Fo	or the sum of	(amount)
	With a	deductible of	(amount)
3.3 110.1. <b>3</b> .	Public liability insurance to be effected by 12.6]	(Employer/C	Contractor)
	Fo	or the sum of	(amount)
	With a	deductible of	(amount)
5.4 ./1.1.11	Support insurance to be effected by the er	nployer	
	Fo	or the sum of	(amount)
	With a	deductible of	(amount)
3.5 ;11.1.2-3	Special insurance to be effected by 3, 12.1]	(Employer/C	Contractor)
	Туре		
	For	the sum of	(amount)
	Wi	ih a deductible	e (amount)

## 4.0 PRACTICAL COMPLETION DATES AND PENALTIES

1.1For the works as a whole:[24.3.1]The date for practical completion[30.1-3]and the penalty per calendar day	Date	Penalty amount
or		
4.2 For the <b>works</b> in <b>sections</b> : [24.3.1] The date for <b>practical completion</b> [28.1] and the penalty per <b>calendar day</b>	Date	Penalty amount
Section 1		
Section 2		
Section 3		
Section 4		
Section 5		
Section 6		
Section 7		
Section 8		



# 5.0 DOCUMENTS AND GENERAL

5,1 [3.7]		Construction document copies to be supplied to the free of charge	contractor	(N° of)
5.2 [3.9]		The <b>priced document</b> may be used as a specificat and work methods	ion of <b>materials a</b>	nd goods (yes/no)
5.3 [3.10]		The contractor shall provide a schedule of rates	(yes/no)	(Addendum No)
5.4 [3.11]		Changes made to <b>JBCC</b> standard documents	(yes/no)	(Addendum No)
5.5 [15.1.1	1]	On acceptance of the tender the priced document the stated working days	is to be submitted	(N° of)
5.6 [22.2]		Work to be undertaken by direct contractors	(yes/no)	(Addendum No)
5.7 [24.9]		On achievement of practical completion the <b>contra</b> the <b>works</b> as listed below	ctor is to hand ove	er manuals etc related to
	(1)			······
	(3)			
	(5)			
	(7)			
5.8 [31.1]	Inter	im payment certificate to be issued by		(Date of month)
6.0	СНА	NGES MADE TO THE STANDARD JBCC	DOCUMENT	
	Note:	All changes in detail must be listed below or provid		lendum N°)
			· · · · · · · · · · · · · · · · · · ·	

### 7.0 DECLARATION BY THE PRINCIPAL AGENT

I. the principal agent named in 1.2 above, declare that the information provided above is complete and accurate at the time of calling for tenders. Where necessary, should any of the above information need to be varied, tenderers will be forthwith informed thereof in writing

Principal Agent

Date



# **T4 CONTRACT DATA (CONTRACTOR)**



# PRINCIPAL BUILDING AGREEMENT Contract Data CE

Employer	
Employer	
Contractor	
Contract Date	File Code
	Association of Construction Project Managers Association of South African Quantity Surveyors Master Builders South Africa South African Association of Consulting Engineers South African Institute of Architects South African Property Owners Association Specialist Engineering Contractors Committee

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Employer

Witness



# JBCC SERIES 2000 Principal Building Agreement Edition 5.0

Contract Data - Contractor to Employer Contractor Addendum Code 2101-CE

#### Introduction

This addendum contains all variables referred to in the Principal Building Agreement that are the responsibility of the Contractor to provide the appropriate information that is necessary for the Contractor to complete his tender. The Addendum must be completed in full and included in the tender documents. The Addendums "Contract Data - EC", "Contract Data - ES" and "Contract Data - SE " form part of the contract between the parties

#### **Definitions**

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#### Provision of Contract Data

Spaces requiring information must be filled in, shown as 'not applicable' or deleted and not left blank. Where choices are offered, the non-applicable items are to be clearly struck out. Where insufficient space is provided the additional information should be annexed hereto and cross referenced to the applicable clause of the contract data

#### Reference Clauses

Where relevant the Principal Building Agreement clause applicable to the required information is printed in italics under the Contract Data clause number i.e. [27.4.2]

Section No	Description	Page
1.0	CONTRACTING PARTY	2
2.0	SECURITIES	2
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5.0	THE TENDER	4

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### **CONTRACT DATA - CONTRACTOR**

#### CONTRACTING PARTY 1.0

1.1	Contractor		
	Postal address		
			Code
	Tel	Fax	E-mail
	Tax / VAT registration !		
[1.2]	Physical address		
	Tel	Fax	E-mail

#### SECURITIES 2.0

2.1	The security provisions selected are:	[]
2.1.1	Variable Construction Guarantee	(yes/no)
[14.3] 2.1.2 (14.4]	Fixed Construction Guarantee and Payment Reduction	(yes/no)
2.1.3 [14.5]	Advanced Payment is required. Where "Yes" (Amount)	]
2.1.4 [14.5]	An Advance Payment Guarantee to be provided	(yes/no)

#### PAYMENT AND ADJUSTMENT OF PRELIMINARIES 3.0

#### Payment of preliminaries 3.1

The The payment of preliminaries shall be according to the option selected by the contractor. amount included in each monthly payment certificate in respect of preliminaries as stated in the contract data shall be:

#### **Option A** 3.1.1

Assessed by the principal agent as an amount prorated to the value of the work duly executed in the same ratio as the preliminaries bears to the contract sum excluding:

- The amount for preliminaries
- Any contingency sum
   Any amount in respect of CPAP
   All inclusive of tax

#### 3.1.2 **Option B**

Calculated from the priced items in the bills of quantities/lump sum document. The contractor and the principal agent shall agree on a division of the priced preliminaries items into:

- An initial or establishment charge
- A monthly charge A final or disestablishment charge
- All inclusive of tax

- In arriving at such a division cognisance shall be taken of such factors as:
  Premiums for annually renewable insurance policies
  Plant, scaffolding and the like remaining the property of the contractor or the hiring company and the capital costs thereof not treated as part of the initial charge

Where the initial **construction period** is extended the monthly charge shall be recalculated on the same basis as was originally applied but taking into account the revised **construction period** and the amounts already paid to the **contractor** 



Should the **contractor** and the **principal agent** be unable to agree such division then the **principal agent** shall make a division of the amount of preliminaries to be incorporated in the valuations for each monthly **payment certificate** 

#### 3.2 Adjustment of preliminaries

The amount or items of preliminaries shall be adjusted to take account of the theoretical financial effect which changes in time and/or value have on preliminaries. Such an adjustment shall be based on the particulars provided by the **contractor** for this purpose in terms of Option A or B and shall preclude any further adjustment of preliminaries

Adjustment of preliminaries in terms of Options A or B shall apply notwithstanding the actual employment of resources by the **contractor** in the execution of the **works**. The adjustment of preliminaries shall be based on the option as selected in the **contractor's** tender

For the adjustment of the preliminaries both the **contract sum** and the **contract value** shall exclude: • The amount of preliminaries

Any contingency sum

Option A

Any amount in respect of CPAP

All inclusive of tax

3.2.1

The amount of preliminaries shall be adjusted in the following categories:

- An amount which shall not be varied
- An amount which shall be varied in proportion to the **contract value** as compared with the **contract sum**
- An amount which shall be varied in proportion to the construction period as compared to the initial construction period excluding revisions to the construction period for which the contractor is not entitled to adjustment of the contract value in terms of the agreement

The contractor shall, within fifteen (15) working days of taking possession of the site, give the principal agent a breakdown, subdivided into the above categories, of the amount for preliminaries in tabulated form, all to the satisfaction of the principal agent

Should the **contractor** fail to provide such information within the period stipulated then the amount for preliminaries shall be deemed to be subdivided into the following proportions: • 10% (ten per cent) which amount shall not be varied

- 15% (fifteen per cent) which amount shall be varied in proportion to the **contract** value as compared with the **contract sum**
- 75% (seventy-five per cent) which amount shall be varied in proportion to the construction period as compared with the initial construction period

For a lump sum document, should the contractor fail to identify the amount for preliminaries, then such an amount shall be deemed to be 7,5% (seven and a half per cent) of the contract sum excluding:

Any contingency sum

Any amount in respect of CPAP

All inclusive of tax

Where sectional completion is required in terms of the agreement, the contractor shall provide the **principal agent** with the division of the above categorised amounts into sections. Should the **contractor** fail to provide such information within the period stipulated the categorised amounts shall be prorated to the value of each section

3.2.2

3.2.3

#### Option B

The **contractor** shall, within fifteen (15) **working days** of taking possession of the site, provide the **principal agent** with a detailed breakdown of the amount for preliminaries. This breakdown shall set out, among others, full particulars of administrative, supervisory and other personnel, plant, transport and other resources and charges included in the amount for preliminaries. The **contractor** shall show the periods to which the individual items relate with the charge rate for such items by means of a **programme** all to the satisfaction of the **principal agent** 

Where sectional completion is required in terms of the **agreement**, the **contractor** shall provide the **principal agent** with details of the resources required for each section and those that are common to sections. Should the **contractor** fail to provide such information within the period stipulated, Option A shall apply

#### Payment certificate cash flow

The contractor shall provide all reasonable assistance to the principal agent in the preparation of cash flow projections of claims for payment certificates where required by the employer. The projections shall be based on the programme and shall be updated as

Employer

Witness

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and when the programme requires updating. The cooperation of the contractor in terms of this item shall not prejudice his right to receive payment in terms of the agreement

(Yes or No)

3.2.4	The contract value shall be adjusted according CPAP[3.1]	(yes/no)
3.2.5	Payment of preliminaries [3.1.1-2]	(A or B)
3.2.6	Adjustment of preliminaries [3.2.1-2]	(A or B)

#### 4.0 EMPLOYER CHANGES TO JBCC STANDARD DOCUMENTS

4.1	Changes (if any) in terms of the Employer's Contract Data are accepted [3.11]
	Where "No" an addendum referenced to this clause is to be attached

#### 5.0 THE TENDER

5

5 5

- 5.1 This tender is to be submitted to the principal agent at the street address provided in the invitation to tender before the tender closing date and time stated therein
- 5.2 By the submission of this tender to the employer the tenderer offers and agrees to contract for, execute and complete the works for the tender sum as stated below
- 5.3 Tenders will be opened in public directly after the stated closing time. Only the total tender sum as stated in each tender will be announced
- 5.4 The lowest or any tender will not necessarily be accepted
- This tender shall remain in full legal force for thirty (30) calendar days. The tenderer accepts liability for damages as may be suffered by the employer should the tender validity period not be honoured 5.5
- 5.6 This tender takes into account all listed items [4.0] for the purpose of preparing and submitting this tender
- 5.7 The successful tenderer will be appointed in terms of the JBCC Principal Building Agreement

5.8	TENDER SUM COMPILATION	Amount
5.8.1	Tenderer's work including prime cost amounts	
5.8.2	Employer allowances stated by the principal agent	
5.8.3	SUB TOTAL	
5.8.4	Add tax on 5.8.3	
5.8.5	TOTAL TENDER SUM inclusive of tax	
5.8.6	Tender Sum in words	
	Thus done and signed at	on
	Name of signatory	Capacity of authorised signatory
	As witness	for and on behalf of the tenderer who warrants authorisation hereto





# PRINCIPAL BUILDING AGREEMENT

Employer	· .
Contractor	
Contract Date	File Code

Association of Construction Project Managers Association of South African Quantity Surveyors Master Builders South Africa South African Association of Consulting Engineers South African Institute of Architects South African Property Owners Association Specialist Engineering Contractors Committee

JBCC SERIES 2000 Edition 5.0 (Reprint 1) Code 2101 © JULY 2007

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Witness



# JBCC SERIES 2000 Principal Building Agreement - Edition 5.0 R1

#### Preface

JBCC documents are compiled in the interests of standardisation and portray the consensus view of the Joint Building Contracts Committee of good practice and an equitable distribution of contractual risk. The documentation sets out a clear, balanced and enforceable set of procedures, rights and obligations which, when competently managed and administered, protect the employer, contractor and subcontractors alike It should be noted that each of the documents has been formulated for use specifically as part of the Series 2000 and is most unlikely to be suitable for use with other forms of contract

#### The Agreement Structure

The JBCC document suite has been structured for use by both the Private and State sectors. However it has been found that the direct inclusion of State requirements as was the case in previous editions produced difficulties in accommodating the necessary differences in a single document. Therefore when the employer is a State institution the document will require an Addendum to be compiled of all the substitutions that are required to the standard clauses as published

The Agreement, in catering for both bills of quantities and lump sum contracts, brings about a strong consistency in the contractual language used and the administrative procedures required. The agreement clauses are divided into sections that correspond as closely as possible to the project execution sequence. The previously separately published Preliminaries has been incorporated into this Agreement with the variables dealt with therein being replaced by Contract Data Addendums for both Employer and Contractor requirements

The N/S Subcontract Agreement covers both nominated and selected subcontractors and mimics the Principal Building Agreement with all common clauses retaining the same numbering. A few 'blank' clause numbers occur to maintain the common numbering system. '*No clause*' is used where this occurs. A comprehensive set of legally compatible certificates and forms for use in administering the Agreement and other primary documents are available

#### Warning!

This Edition 5.0 results in most support documents having been revised to remain compatible. Persons entering into or preparing contracts using the JBCC Series 2000 are warned of the dangers inherent in modifying any part of it. Where it is considered essential to make changes, users are advised to ensure that such changes are drafted by qualified legal persons with extensive knowledge of the JBCC documentation and the construction industry. Experience has shown that changes drafted by others, including members of the building professions, often have results very different from those intended which may be prejudicial to either or both parties

#### **JBCC Documentation Services**

Series 2000 documents are obtainable through most regional offices of JBCC constituents as listed on the cover of this document. The JBCC supplies documents exclusively to constituents and does not sell direct to users. JBCC can be contacted at <a href="mailto:bbcc@mweb.co.za">bbcc@mweb.co.za</a> in relation to these services

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## SCHEDULE OF MODIFICATIONS IN EDITION 5.0

### Legend

A D N R 2.1-5, 8	Ame Dele New		
Note:	1 2	nconsequential wording, grammar and previous typographical corrections are not listed Reprints of this edition may include further inconsequential corrections that will not be listed	teci

### Table of modifications to definitions listed in clause 1.0:

A	Arbitrator	D	Lump Sum Document	N	Priced Document
A	Bills of Quantities	A	Mediator	A	Principal Agent
D	CIDB	N	N/S Agreement	N	Programme
N	Contract Data	N	N/S Subcontractor	A	Section
A A A A	Contract Documents Contract Instruction CPAP Defect	N A A	Party Payment Certificate Penalty Practical Completion	D A	State Working Days

#### Table of modifications to clauses:

N 1.4	R 10.0	N 15.5-9	A 26.1	D 31.11.1-2	N 38.3
A 1.5.2	R 10.1,4	A 16.0	D 26.1.1-2	A 31.12	A 38.5.4
A 1.5.4	R 11.0	N 16.1	N 27.3	D 31.12.1-2	R 39.0
D 1.5.6	N 11.1	R 16.2-3	A 29.2.4	A 31.15	A 39.1
A 1.6.1	N 11.1.1-3	N 16.4-9	A 29.3	A 31.16.3	A 39.3.7
D 1.9	N 12.1.1-2	A 17.5	A 29.7	A 32.2.1-2,5	A 40.2-7
A 3.1	N 12.5-6	<b>R</b> 19.0	A 29.7.1-3	A 34.1	<b>R</b> 40.9
D 3.4	N 13.0	<b>N</b> 19.1-3	R 30.0	A 34.3	<b>D</b> 40.10-11
A 3.6	N 13.1-2	<b>A</b> 20.4-5,7	A 30.1	A 34.5	<b>N</b> 41.0
<b>D</b> 3.6.1-2 <b>A</b> 3.10 <b>R</b> 3.11	A 14.3.1 A 14.4.1 A 14.7.1	A 24.1 A 24.1.1-2 A 24.1.3	A 30.2 N 30.2.1-2 N 30.3	A 34.13 R 36.0 A 36.5.9-10	N 41.1-4 N 42.0
A 5.1	A 15.1	N 24.8-10	A 31.8.2-3	R 37.0	
N 5.5-6	A 15.1.2-3	N 24.10.1-2	A 31.9	A 37.3.5	
N 9.2.11	A 15.3	D 25.3.1-2	A 31.11	R 38.0	

#### Reprint 1

3.2.1	"contract data" replaces "Form of Offer and Acceptance"
31.3	"post tender provisions [41.7]" replaces "contract data"
36.2, 37.2	After "principal agent" "or the employer" is added
40.2.2	2nd line "no body" replaces "nobody"
41.4	Renumbered 41.6
41.4	Specific provision made for recording Employer Payment Guarantee
41.5	Specific provision made for recording Annual Building Holiday Period

Employer



# PRINCIPAL BUILDING AGREEMENT

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Employer



# DEFINITIONS

#### 1.0 DEFINITIONS AND INTERPRETATION

1.1 The definitions used in this document and the interpretation thereof are listed below. The work phrase of a definition is highlighted in the text and shall bear the meaning assigned to it in this . Where such word or phrase is not highlighted it shall bear the meaning consistent with the context of its use. The listed defined word or phrase does not qualify as a definition where information reducted to be stated in the contract data has not been provided.

ADJUDICATOR: The person appointed by the parties to decide any dispute arising out ci-

ADVANCE PAYMENT GUARANTEE: A guarantee at call obtained by the contractor from eninstitution approved by the employer on the JBCC Advance Payment Guarantee form in the amount as stated in the contract data

AGENT: A party named in the contract data and/or appointed by the employer to deal with specific aspects of the works

AGREEMENT: This JBCC Principal Building Agreement and other contract documents that together form the contract between the parties

ARBITRATOR: The person appointed by the parties to decide any dispute arising out of this agreement

BILLS OF QUANTITIES: The document drawn up in accordance with the measuring system as state: in the contract data. The contractor shall have priced the document to reflect the contract sum

BUDGETARY ALLOWANCE: A sum of money included in the contract sum for work intended for execution by the contractor, the extent of which is identified but not detailed

CALENDAR DAYS: Twenty-four (24) hour days commencing at midnight (00:00) which include working and non-working days

CERTIFICATE OF FINAL COMPLETION: A certificate issued by the principal agent to the contractor stating the date on which final completion of the works was achieved

CERTIFICATE OF PRACTICAL COMPLETION: A certificate issued by the principal agent to the contractor stating the date on which practical completion of the works was achieved

CERTIFICATE OF WORKS COMPLETION: A certificate issued by the principal agent to the contractor stating the date on which works completion of the works was achieved

CONSTRUCTION GUARANTEE: A guarantee at call obtained by the contractor from an institution approved by the employer in terms of the JBCC Construction Guarantee form as elected in the contract data

CONSTRUCTION PERIOD: The period commencing on the intended date as stated in the contract data that possession of the site shall be given to the contractor and ending on the date of practice completion

CONTRACTOR: The party contracting with the employer for the execution of the works as named in the contract data

CONTRACT DATA: The defined listed variables applicable to this agreement

CONTRACT DOCUMENTS: This document, the contract drawings, the priced document and such other documents as are identified in the contract data

CONTRACT DRAWINGS: The drawings stated in the contract data upon which the accepted tender or negotiated amount was based



CONTRACT INSTRUCTION: A written instruction which may include drawings and other construction information signed and issued by or under the authority of the principal agent to the contractor

CONTRACT SUM: The tender or negotiated amount, inclusive of tax, as accepted by the employed and stated in the contract data that is not subject to adjustment

CONTRACT VALUE: A monetary value that initially is equal to the contract sum that is subject in adjustment

CPAP: The JBCC Contract Price Adjustment Provisions used for the adjustment of the contract values as stated in the contract data

DEFECT: Any aspect of materials and workmanship forming part of the works that, in the opinion of the principal agent, is due to the failure of the contractor to comply with his obligations in terms of the agreement

DIRECT CONTRACTOR: A party appointed directly by the employer to do specialist work on site prior to practical completion

EMPLOYER: The party contracting with the contractor for the execution of the works as named in the contract data

FINAL ACCOUNT: The document, prepared by the principal agent, which reflects the contract value of the works at final completion or termination

FINAL COMPLETION: The stage of completion where the works is free of all defects as certified by the principal agent

**INTEREST:** The bank rate that is applicable from time to time to registered banks when borrowing money from the Central or Reserve Bank of the country named in the **contract data**. The ruling bank rate on the first **calendar day** of each month shall be used in calculating the interest due for such month

JBCC: The Joint Building Contracts Committee Incorporated

LATENT DEFECT: A defect that a reasonable inspection of the works by the principal agent would not have revealed before the issue of the defects list

LAW: The law of the country stated in the contract data

MATERIALS AND GOODS: Materials and goods delivered to the contractor or his subcontractors for inclusion in the works whether stored on or off the site or in transit but not yet part of the works

MEDIATOR: The party appointed by the parties to mediate any dispute arising out of this agreement

NOMINATED SUBCONTRACTOR: The party executing work provided for in a nominated subcontract amount included in the contract sum or, in respect of additional specialist work, a subcontractor appointed as a nominated subcontractor in terms of a contract instruction

N/S AGREEMENT: The JBCC Nominated / Selected Subcontract Agreement and the n/s contract documents that together form the contract between the contractor and the nominated subcontractor or selected subcontractor

N/S SUBCONTRACTOR: A nominated subcontractor or a selected subcontractor

PARTY: The employer and/or contractor

PAYMENT CERTIFICATE: A document issued monthly by the principal agent certifying the amount due and payable by the employer to the contractor or vice versa in terms of the JBCC Payment Certificate form

PAYMENT GUARANTEE: A guarantee in the amount as stated in the contract data obtained by the employer from an institution approved by the contractor in terms of the JBCC Payment Guarantee form

PENALTY: A monetary value determined at a rate per calendar day as stated in the contract data Principal Building Agreement Page 2



**PRACTICAL COMPLETION:** The stage of completion where the works or a section thereof, as certified by the principal agent, is substantially complete and can effectively be used for the purposes intended

PRICED DOCUMENT: Bills of quantities, schedule of rates or other documents as are appropriate to this agreement

PRIME COST AMOUNT: An amount included in the contract sum for the delivered cost of materials and goods obtained from a supplier as instructed by the principal agent

PRINCIPAL AGENT: The party named in the contract data and/or appointed by the employer with full authority and obligation to act in terms of the agreement

PROGRAMME: A diagrammatic representation of the planned execution of units of work or events of the works indicating the dates for commencement and completion thereof

RECOVERY STATEMENT: The statement prepared monthly by the principal agent in terms of the JBCC Recovery Statement form

SECTION: A defined portion of the works for which practical completion is required on the date statec in the contract data that is earlier than that required for the works as a whole

SECURITY: The form of guarantee provided by the employer or contractor, as stated in the contraction data, from which a party may recover expense and loss in the event of default

SELECTED SUBCONTRACTOR: A party executing work provided for in a selected subcontract amount included in the contract sum or, in respect of additional specialist work, a subcontractor appointed as a selected subcontractor in terms of a contract instruction

SITE: The land or place on, over, under, in or through which the works is to be executed as defined in the contract data

TAX: Value-added tax, sales tax or any other statutory tax, duty or levy applicable by law

WORKING DAYS: Twenty-four (24) hour days commencing at midnight (00:00) which excludes Saturdays and Sundays, statutory holidays and any recognised annual building holiday period

WORKS: The works described in general terms in the contract data, detailed in the contract documents, ordered in contract instructions and including the contractor's and n/s subcontractors' temporary works. Works includes materials and goods and those supplied free or otherwise by the employer to the contractor and excludes work or installations to be executed by direct contractors

WORKS COMPLETION: The stage of completion where the work on the works completion list has been completed as certified by the principal agent

- 1.2 The parties each choose their physical address as stated in the contract data where notices or processes arising out of or concerning this agreement may validly be delivered to and served on them. Either party may, at any time, by notice to the other change its physical address provided that it is in the same country as that initially stated in the contract data
- 1.3 Documents and legislation referred to in this agreement shall mean the current edition thereof with all amendments thereto at the date of submission of the contractor's tender unless otherwise stated
- 1.4 In the interpretation of second level subclauses (e.g. 1.6.4) in this document:
- 1.4.1 Where one of several subclause options is to be selected, the word 'or' links such subclauses
- 1.4.2 Where consecutive subclauses apply these are linked by the word 'and'
- 1.4.3 All other such subclauses are interpreted on a 'stand alone' basis any or all apply
- 1.5 In this document, unless inconsistent with the context:
- 1.5.1 The word "deemed" shall be conclusive that something is fact, regardless of the objective truth

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Employer



- 1.5.2 The words "accept, appoint, approve, certify, decide, grant, inform, instruct, issue, notice, object, record, reduce, refuse, request, state" and their derivatives indicate an act carried out in writing
- 1.5.3 The masculine gender includes the feminine and neuter genders and vice versa, the singular includes the plural and vice versa, and a person includes corporate bodies
- 1.5.4 Clause numbers written as [54.1.5] means "in terms of" to such referenced clauses where [54.1.5-8] means the subclauses 5, 6, 7 and 8 inclusively and [54.1.5,8] means the subclauses 5 and 8 only
- 1.5.5 The headings of clauses are for reference purposes only and shall not be taken as construing, the context thereof
- 1.6 Notice shall be presumed to have been duly given when:
- 1.6.1 Hand delivered on the working day of delivery
- 1.6.2 Sent by registered post five (5) working days after posting
- 1.6.3 Sent by telefax one (1) working day after transmission
- 1.6.4 Sent by e-mail one (1) working day after transmission
- 1.7 For the purposes of sentence in relation to a payment certificate only, the parties consent to the jurisdiction of any court of the country as stated in the contract data although the amount of the claim by either of the parties against the other may exceed the jurisdiction of such court
- 1.8 This agreement is the entire contract between the parties regarding the matters addressed in this agreement. No representations, terms, conditions or warranties not contained in this agreement shall be binding on the parties. No agreement or addendum varying, adding to, deleting or terminating this agreement including this clause shall be effective unless reduced to writing and signed by the parties.

# **OBJECTIVE AND PREPARATION**

#### 2.0 OFFER, ACCEPTANCE AND PERFORMANCE OBLIGATIONS

- 2.1 The objective of this **agreement** is the execution of and payment for the **works** for which there has been an offer by the **contractor** and an acceptance thereof by the **employer**
- 2.2 In pursuance of the objective the parties undertake to carry out their reciprocal obligations

#### 3.0 DOCUMENTS

- 3.1 The employer shall provide a payment guarantee where required by the contractor in the accepted tender. The guarantee shall be according to the relevant JBCC Payment Guarantee form in the amount as stated in the contract data and shall be provided within twenty-one (21) calendar days of acceptance of the tender. Such security shall be for the due fulfilment of the employer's liability only and the contractor hereby waives all common law rights to recover from or set-off against such security
- 3.2 The contractor shall provide:
- 3.2.1 A construction guarantee [14.3-4] where so elected in the contract data
- 3.2.2 An advance payment guarantee where so required in the contractor's accepted tender. The guarantee shall be according to the JBCC Advance Payment Guarantee form in the amount as stated in the contract data
- 3.3 Where the employer requires the contractor to waive his lien or right of continuing possession of the works as stated in the contract data, the contractor shall do so within seven (7) calendar days of Principal Building Agreement Page 4

Employer



having received a payment guarantee from the employer [3,1]. The waiver shall be according to the JBCC Waiver of Contractor's Lien form or such other form as stated in the contract data

- 3.4 No clause
- 3.5 The principal agent shall complete the contract data and arrange the formal signing of the agreement once the contract documents have been provided and effected. Formal signatures be not required to render this agreement binding
- 3.6 The parties shall sign, in original, the number of sets of contract documents required by the parties. The contractor shall be entitled to receive one (1) set of contract documents for this agreement are two (2) sets of contract documents for each n/s subcontract agreement at no expense to the contractor. The original signed set of contract documents shall be held by the principal agent to such other party as stated in the contract data
- 3.7 The principal agent shall provide the number of copies of drawings, unpriced bills of quantifies activities activities as stated in the contract data at no cost to the contractor. The contractor shall keep cost a copy of such documents and any other documents required for construction as well as contract instructions to which the employer, principal agent and agents shall have access at all times.
- 3.8 Information contained in the contract documents and other documents flowing from this agreement shall be used only for the purposes of this agreement and shall not be published or disclosed without the prior written consent of the employer
- 3.9 The priced document shall not be used as a specification of materials and goods or methods unless so selected in the contract data
- 3.10 Where the **priced document** is not a **bills of quantities** the **contractor** shall provide a schedule of rates in the **contract data** which meets with the **principal agent's** approval
- 3.11 The principal agent shall identify in detail any changes made to the provisions of JBCC standard documentation in the contract data

#### 4.0 DESIGN RESPONSIBILITY

- 4.1 The contractor shall not be responsible for the design of the works other than the contractor's or be subcontractors' temporary works. The contractor shall not be responsible for the coordination of design elements
- 4.2 Any design responsibility undertaken by a n/s subcontractor shall not devolve upon the contractor. The rights flowing from a warranty regarding such design responsibility are hereby ceded to the employer. All contractual or other rights the contractor has against such n/s subcontractor arising from any design responsibility undertaken are hereby ceded to the employer [26.7]
- 4.3 The contractor shall be responsible for ensuring the timeous preparation of the design documentation undertaken by a selected subcontractor for acceptance by the principal agent to avoid delay to the intended date for practical completion or any revision thereof [29.0]

#### 5.0 EMPLOYER'S AGENTS

- 5.1 The employer warrants that the principal agent as stated in the contract data has full authority sociobligation to act in terms of the agreement
- 5.2 The employer shall appoint agents as stated in the contract data and may appoint further agents with the contractor being informed thereof
- 5.3 The principal agent shall be the only party having the authority to bind the employer, except where agents issue contract instructions under delegated authority [5.3.2]. Without detracting from the above, the principal agent shall be the only party empowered to:
- 5.3.1 Issue contract instructions, except as provided [5.3.2]

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Employer



- 5.3.2 Delegate to other agents authority to issue contract instructions and perform such duties as may be required for specific aspects of the works, provided that the contractor is given notic of such delegation
- 5.3.3 Receive notices on behalf of the employer
- 5.4 Should the principal agent or any agent be unable to act or cease to be an agent, the employer shell inform the contractor of the new principal agent or agent to be appointed. The employer shall not appoint such a principal agent or agent against whom the contractor makes a reasonable objection in writing within five (5) working days of receipt of such notice
- 5.5 Should the **principal agent** or any **agents** have a legal interest or involvement in the project constituting the **works**, other than a professional interest, such shall be stated in the **contract** data or immediately upon the acquisition of such interest or involvement
- 5.6 The employer shall not interfere with or prevent the principal agent from exercising his independenjudgement when performing his obligations in terms of this agreement

#### 6.0 CONTRACTOR'S SITE REPRESENTATIVE

- 6.1 The contractor shall keep a representative competent to administer and control the works continuously on the site during the execution of the works. The contractor shall inform the principal agent of the name of the representative
- 6.2 A contract instruction given to the contractor's representative shall be deemed to be given to the contractor

#### 7.0 COMPLIANCE WITH LAWS AND REGULATIONS

7.1 The parties shall comply with all laws, regulations and bylaws of local or other authorities having jurisdiction regarding the execution of the works. The parties shall give all notices and pay all charges required by such authorities. The principal agent shall deal with the amounts thus paid [32.4, 33.2.1]

#### 8.0 WORKS RISK

- 8.1 The contractor shall take full responsibility for the works from the date on which possession of the site is given to the contractor and up to the date of issue of the certificate of practical completion or deemed achievement of practical completion. Thereafter responsibility for the works shall pass to the employer
- 8.2 The **contractor** shall make good physical loss and repair damage to the **works**, including clearing away and removing from the **site** all debris resulting therefrom, which occurs after the date on which possession of the **site** is given and up to the date of **final completion** [26.0] and resulting from:
- 8.2.1 Any cause arising up to the date of practical completion [24.0]
- 8.2.2 The carrying out of any operation complying with the contractor's obligations after the date of practical completion
- 8.3 The liability of the contractor [8.2] shall include:
- 8.3.1 The cost of such making good physical loss and repairing damage
- 8.3.2 The replacement value of materials and goods supplied by the employer to the contractor
- 8.3.3 The additional professional services of the employer's agents
- 8.4 The limit of the contractor's liability shall not exceed the amount of the contract works insurance as stated in the contract data

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- 8.5 The contractor shall not be liable for the cost of making good physical loss and repairing damage the works where this results from any of the following circumstances:
- 8.5.1 War, whether declared or not, invasion and hostile acts of foreign enemies
- 8.5.2 Rebellion, insurrection, revolution, terrorism, military or usurped power or civil war
- 8.5.3 Civil commotion, riot, strike, lockout or disorder by persons other than the contractor personnel and other employees or his subcontractors
- 8.5.4 Confiscation, nationalisation or requisition by any public or local authority
- 8.5.5 Sonic shock waves caused by aircraft or other aerial devices and ionising radiatir, contamination except where attributable to the **contractor's** use of such technology
- 8.5.6 The use or occupation of any part of the **works** by the **employer**, the **employer**'s servacus of agents and those for whose acts or omissions they are responsible
- 8.5.7 An act or omission of the employer, the employer's servants or agents and those for whose acts or omissions they are responsible
- 8.5.8 An act or omission by a direct contractor appointed [22.0]
- 8.5.9 Design of the works where the contractor is not responsible [4.0]
- 8.5.10 A latent defect in materials and goods specified by trade name where the contractor has no right of substitution. The contractor hereby cedes any right of action to the employer the may exist against the supplier and/or manufacturer of such materials and goods
- 8.6 Where the **contractor** is not liable for the costs [8.5] such making good physical loss and repairing damage shall be measured and valued [32.0] and added to the **contract value**
- 8.7 The contractor shall forthwith notify the principal agent and insurer of any physical loss and damage to the works that comes to his attention

#### 9.0 INDEMNITIES

- 9.1 Subject to the 9.2 provisions the contractor indemnifies and holds the employer harmless against any loss in respect of all claims, proceedings, damages, costs and expenses arising from:
- 9.1.1 Claims from other parties consequent upon death or bodily injury or illness of any person or physical loss or damage to any property, other than the works, arising out of or due to the execution of the works or occupation of the site by the contractor
- 9.1.2 Noncompliance by the contractor with any law, regulation or bylaw of any local or other authority arising out of or due to the execution of the works or occupation of the site by the contractor
- 9.1.3 Physical loss or damage to any plant, equipment or other property belonging to the contractor or his subcontractors
- 9.2 The employer indemnifies and holds the contractor harmless against loss in respect of all claim s proceedings, damages, costs and expenses arising from:
- 9.2.1 An act or omission of the employer, the employer's servants or agents and those for whose acts or omissions they are responsible
- 9.2.2 An act or omission of a direct contractor appointed [22.0]
- 9.2.3 Design of the works where the contractor is not responsible [4.0]
- 9.2.4 The occupation of any part of the works by the employer or his tenants
- 9.2.5 The right of the **employer** to have the **works** or any part thereof executed at the **site** *Principal Building Agreement Page* 7



# Ga-Segonyana Local Municipality Bid No. 25/2020-21 Appointment of Contractors For The Building Construction for a Period of 36 Months

9.2.6	Interference with any servitude or other right that is the unavoidable result of the execution of									
	the works including the weakening of or interference with the support of land adjacent to the									
	site unless resulting from any negligent act or omission by the contractor or his									
	subcontractors									

- 9.2.7 Physical loss or damage to an existing structure and the contents thereof in respect of which this agreement is for alteration or addition to the existing structure
- 9.2.8 Physical loss or damage to the contents of the works where practical completion has been achieved [24.0]
- 9.2.9 The use or occupation of the site by the works
- 9.2.10 Advance payments where certified [31.6.5] and duly made by the contractor to rule subcontractors
- 9.2.11 A defect in materials or goods supplied by the employer for incorporation in the works including any consequential damage caused by such defect

### 10.0 GENERAL INSURANCES

- 10.1 The following general insurances are required to be effected in the joint names of the **parties** in terms of this **agreement**:
- 10.1.1 Contract works insurance which shall include the contractor's subcontractors and the full value of materials and goods supplied by the employer to the contractor
- 10.1.2 Supplementary insurance for the works in respect of civil commotion, riot and strike
- 10.1.3 Public liability insurance generally covering accidental injury or death of a person and accidental loss or damage to material property
- 10.2 The insured amounts, deductibles and durations of cover shall be as stated in the contract data
- 10.3 Where this agreement is cancelled [37.0] and the contractor is not required to make good the physical loss or repair damage to the works, the right to the proceeds of a contract works insurance claim shall vest in the employer
- 10.4 Subject to 10.3 the right to any claims paid or payable in terms of the insurances [10.1] shall vest in the party entitled to indemnity thereunder and such party shall be liable for the deductible

#### 11.0 SPECIAL INSURANCES

- 11.1 The following special insurances may be required to be effected. Such insurances shall be in the joint names of the **parties** in terms of this **agreement**:
- 11.1.1 Temporary lateral support insurance where the **employer** considers that the execution of the **works** could cause the weakening of or interference with the support of land adjacent to the **site** and the consequences thereof
- 11.1.2 Geotechnics insurance where the **employer** considers that the ground conditions of the site could be unsuitable to support the **works**
- 11.1.3 Such other specialised insurance as the **employer** deems necessary as stated in the **contract** data

### 12.0 EFFECTING INSURANCES

12.1 The party responsible as stated in the contract data [12.6] shall effect and keep in force:

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### Ga-Segonyana Local Municipality Bid No. 25/2020-21 Appointment of Contractors For The Building Construction for a Period of 36 Months

12.1.1 General insurance [10.1] from the date of the handover of the site and until the contractor's responsibility [8.0] has ended, and

#### 12.1.2 Special insurances where required [11.1] until the date of practical completion

- 12.2 The party responsible [12.6] for effecting such insurances shall make available to the other party before the commencement of the construction period, documentary evidence that insurances have been effected. A copy of the insurance policies shall be provided to the other party within thirty (30) calendar days of the commencement of the construction period. Approval by the other party shall be deemed unless a reasonable objection is lodged within fourteen (14) calendar days of receipt of such policies. Where required, the party responsible shall provide evidence of renewal to the other party party before the expiry of the current period of insurance
- 12.3 Where the party responsible [12.1] fails to effect any of the required insurances or to keep them in force, the other party may effect such insurances. Where the employer effects such insurances consequent on the contractor's default, the employer may recover expense and loss resulting therefrom [33.0]. Where the contractor effects or keeps in force such insurances, consequent on the employer's default, the cost thereof shall be addressed [32.4]
- 12.4 Before effecting support insurance [11.1.1] the employer shall engage an engineer or technologist as an agent [5.3.2] to design and inspect the provision of the necessary support. The principal agent shall delegate to such engineer or technologist the authority to issue contract instructions in relation to the support provisions
- 12.5 Where the employer has not ascertained the need for or effected any of the insurances [11.0] the contractor, on demonstrating reasonable cause, may give the employer five (5) working days notice to do so. Where the employer fails to act thereon the contractor may give three (3) working days notice of suspension of the works. Where the employer fails to act on such notice the contractor may give notice of termination [38.1.4]
- 12.6 Where practical completion in sections is required [28.0] or the works is for alterations or renovations to an existing building(s) the effecting of contract works insurance [10.1.1] shall be the responsibility of the employer

#### 13.0 ASSIGNMENT

- 13.1 Neither party shall assign or cede his rights or obligations without the written consent of the other party. which consent shall not be withheld without good reason
- 13.2 The contractor shall not consent to a nominated subcontractor assigning or ceding his rights or obligations in terms of the JBCC Nominated Subcontract Agreement without obtaining the prior approval of the principal agent

#### 14.0 SECURITY

- 14.1 The contractor shall have the right to choose the security to be provided [14.3-4] as stated in the contract data. The choice of security shall be included in the contractor's tender, failing which a variable construction guarantee [14.3] shall be deemed to have been chosen. Such security shall be provided to the employer within twenty-one (21) calendar days of acceptance of the contractor's tender.
- 14.2 No clause
- 14.3 Where security as a variable construction guarantee has been chosen the following shall apply:
- 14.3.1 The contractor shall provide the employer with a variable construction guarantee initially equal in value to ten per cent (10%) of the contract sum
- 14.3.2 The variable construction guarantee shall come into force, be administered and expire in terms of the JBCC Construction Guarantee form
- 14.3.3 The employer shall return the variable construction guarantee to the contractor within fourteen (14) calendar days of its expiring
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14.3.4	Where the employer has a right of recovery against the contractor [33.0], the employer me issue a written demand in terms of the variable construction guarantee
14.4	Where security as a fixed construction guarantee and payment reduction of the value certified the been chosen the following shall apply:
14.4.1	The contractor shall provide a fixed construction guarantee to the employer equal to five per cent (5%) of the contract sum
14.4.2	The fixed construction guarantee shall come into force, be administered and expire in term of the JBCC Construction Guarantee form
14.4.3	The employer shall return the fixed construction guarantee to the contractor within fourtee (14) calendar days of its expiring
14.4.4	The payment reduction to the value certified in a payment certificate shall be made [31 $\%$ 34.8]
14.4.5	Where the <b>employer</b> has a right of recovery against the <b>contractor</b> [33.0], the <b>employer</b> main issue a written demand in terms of the fixed <b>construction guarantee</b> or may recover from the payment reduction [33.4] or both
14.5	Where security as an advance payment guarantee is to be provided by the contractor:
14.5.1	The guaranteed amount shall be equal in value to the cash advance requirement stated in the accepted tender, and
14.5.2	Such guarantee shall come into force, be administered and expire in terms of the JBCC Advance Payment Guarantee form, and
14.5.3	The <b>employer</b> shall return such guarantee to the <b>contractor</b> within fourteen (14) calendar days of its expiring
14.6	Payments made by the guarantor to the employer in terms of a construction guarantee or an advance payment guarantee shall not prejudice the rights of the employer or contractor
14.7	Should the contractor fail to provide the security [14.1] the employer, in his sole discretion, may either:
14.7.1	Hand over the site to the contractor and withhold payment from the contractor until the amount withheld is equal to ten per cent (10%) of the contract sum. Such amount shall be reduced to two per cent (2%) of the contract sum on the achievement of practical completion [24.0] and to zero per cent (0%) in the final payment certificate [34.8], or
14.7.2	Terminate this agreement [36.1.1]
14.8	A security held by the employer [14.3-5] shall be for the due fulfilment of the contractor's liability on: and the employer hereby waives all common law rights to recover from or set-off against such security

## **EXECUTION**

## 15.0 PREPARATION FOR AND EXECUTION OF THE WORKS

- 15.1 After acceptance of the tender or negotiated amount the contractor shall submit to the principal agent within the period stated in the contract data:
- 15.1.1 The priced document with all items properly priced, extended and cast. Priced items are deemed to include all costs, overheads and profit. The principal agent may instruct the contractor to adjust prices which are considered to be imbalanced or unreasonable and to eliminate errors or discrepancies. Such adjustments shall be effected to the approval of the principal agent and shall not change the contract sum, and
- 15.1.2 Such other documents and information identified in the contract data

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- 15.2.1 Give possession of the site to the contractor on the date stated in the contract data. are
- 15.2.2 Where required in the contract data, provide an advance payment on receipt of an advance payment guarantee from the contractor, and
- 15.2.3 Inform the contractor of all cash advances and the quantum of each to be provided to pic subcontractors, and
- 15.2.4 Make payment to the contractor [31.0, 34.0]
- 15.3 On being given possession of the site the contractor shall commence the works within the worklade days period stated in the contract data and, subject to 31.15-16, shall proceed continue.s. industriously and with due skill and appropriate physical resources to bring the works to:
- 15.3.1 No clause
- 15.3.2 Practical completion [24.0]. and
- 15.3.3 Works completion [25.0], and
- 15.3.4 Final completion [26.0]
- 15.4 Where completion in sections is required in terms of the contract data the further provisions of 22 ^ shall be applicable
- 15.5 The contractor shall provide everything necessary for the proper execution of the works and shall carr out and complete the works in compliance with the contract documents, using materials are workmanship of the quality and standards specified therein, provided that such quality and standards shall be to the reasonable satisfaction of the principal agent
- 15.6 The contractor shall:
- 15.6.1 Prepare a programme of the works together with a schedule of outstanding construction information in sufficient detail to enable the principal agent to assess the progress of the works and timeously provide the necessary contract instructions, and
- 15.6.2 Coordinate the n/s subcontractors' and direct contractors' programmes with his own, an
- 15.6.3 Continuously revise and modify the programme and the schedule of outstanding construction information and issue copies timeously to the principal agent
- 15.7 The contractor shall provide all reasonable assistance to the principal agent in the preparation of cash flow projections where required by the employer. The projections shall be based on the contractor's programme and shall be updated as and when necessary
- 15.8 The principal agent and contractor shall hold regular meetings related to the progress of the works and at such other times as may be necessary. The principal agent shall record and distribute the minutes of the meetings. At the request of the principal agent or the contractor meetings shall contract to the contract or meetings shall contract to the subcontract or subcontract or subcontract.
- 15.9 The contractor shall maintain daily records of the number and categories of persons and , a employed on the works and shall provide copies thereof to the principal agent on request

#### 16.0 SITE AND ACCESS

- 16.1 The contractor shall have unrestricted access to the site on being given possession thereof to fulfness obligations [15.2.1]. Any restrictions to the site area, including servitudes and the like, that the contractor may not occupy are defined in the contract data. The contractor shall not extend to operations into such defined areas
- 16.2 The employer, principal agent and agents shall have reasonable access to the works, worksnew, and other places where work in terms of this agreement is being prepared, executed or stored

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- 17.1 15 Budgetary allowances and work executed by the contractor thereunder
- 17.1.16 Contingency and other monetary provisions included in the contract sum
- 17.1.17 Work by a direct contractor [22.0]
- 17.1.18 The lists for practical completion, works completion, final completion and defects
- 17.1.19 Compliance with laws, regulations and bylaws [7.0]
- 17.1.20 Access for previous contractors and subcontractors to remedy defective work
- 17.2 The contractor shall comply with and duly execute all contract instructions subject to 24.6
- 17.3 An oral instruction given by the principal agent or any other agent shall be of no force or effect Neither the contractor nor the employer may rely upon an oral instruction for any purpose
- 17.4 Should the contractor fail to proceed with due diligence with a contract instruction, the principal agent may notify the contractor to proceed within five (5) working days from receipt of such not convert without further notice, on default by the contractor, the employer may employ other parties to group effect to such contract instruction in addition to any other rights that the employer may have the employer may recover expense and loss [33.0] resulting from such employment
- 17.5 The contractor shall cooperate with and assist the principal agent where execution of a contract instruction could cause an adjustment to the contract value [32.2]

## 18.0 SETTING OUT OF THE WORKS

- 18.1 The employer shall appoint an agent to establish the boundary pegs or beacons identifying the site and the correctness of the datum level. At the commencement of the construction period such agen\* shall point out the pegs, beacons and datum level to the contractor in the presence of the principa agent
- 18.2 The **principal agent** shall define the levels required for the execution of the **works** and provide supinformation as shall enable the **contractor** to set out the **works** correctly
- 18.3 The contractor shall provide all assistance and everything necessary to enable the accuracy of the setting out to be checked. Checking of the setting out by others shall not relieve the contractor of the responsibility for correctness thereof. The contractor shall rectify any errors in the works that ar as from incorrect setting out without adjustment to the contract value. The contractor shall not be had a for incorrect setting out should information given [18.1-2] cause incorrect setting out of the works
- 18.4 The contractor shall take all precautions to preserve such pegs, beacons, datum levels and other a : used in setting out the works and should any be disturbed have them replaced by the employer's agent at the contractor's expense

#### 19.0 TEMPORARY WORKS AND PLANT

- 19.1 Where required in the priced document the contractor shall erect, maintain and remo completion:
- 19.1.1 Hoardings with gantries, fans, safety screens, barriers, access gates, covered gangways : the like as necessary for the enclosure of the works and elements thereof all for the protector of the public and others or to meet the specific hoarding requirements of the employer are
- 19.1.2 Office accommodation for meetings held on the site which shall be kept clean and fit for a tall times
- 19.2 All advertising rights on the site and the hoardings are reserved exclusively for the employer. Specific requirements of the employer are described in the priced document. The contractor shall provand erect notice boards of an approved design as instructed by the principal agent. No individual boards or advertising material shall be allowed on the site without the principal agent's approve.

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- 16.3 The contractor and n/s subcontractors shall be given reasonable access to the works and an exection thereof subsequent to practical completion to fulfil their obligations [25.0, 26.0]
- 16.4 Where a geotechnic investigation has been undertaken by the employer the results thereof shall be provided in the contract data
- 16.5 The contractor shall be deemed to have inspected the site and any existing structures thereon and the be thoroughly acquainted, with the conditions under which the works is to be executed including the means of access to the works, the condition of the roads and generally of all matters which may influence the execution of the works.
- 16.6 Where the existing premises will be in use and occupied during the execution of the works teal contractor shall execute the works with the least interference with the general routine of the occupants of the premises and minimise any nuisance from dust, noise or other causes. Specific requirements of the employer are described in detail in the contract data
- 16.7 The employer has recorded all known services in the contract documents and annotated as to whether such services are to be terminated, diverted or continue in use either temporarily or permanently. Where undocumented services are encountered the contractor shall immediate' suspend all affected work in the vicinity and request the principal agent to issue a contract instruction in regard thereto.
- 16.8 Trees and shrubs shall not be removed, cut back or disturbed without a contract instruction from the principal agent. Specific requirements of the employer are described in the contract data
- 16.9 Any relics, treasure or other articles of potential value found on the site shall remain the property of the employer and shall be handed over to the principal agent who shall be the sole arbiter of what is an article of value

#### 17.0 CONTRACT INSTRUCTIONS

- 17.1 The principal agent may issue contract instructions to the contractor regarding:
- 17.1.1 Alteration to design, quality or quantity of the **works** provided that such **contract instructions** shall not substantially change the scope of the **works**
- 17.1.2 Rectification of discrepancies, errors in description or omissions in contract documents other than this document
- 17.1.3 Removal of any materials and goods from the site and the substitution of any other materials and goods therefor
- 17.1.4 Removal or re-execution of any work
- 17.1.5 Opening up of work for inspection
- 17.1.6 Provision and testing of samples of materials and goods, specimens of finishes and assemblies of elements of the works
- 17.1.7 Protection of the works
- 17.1.8 Making good physical loss and repairing damage to the works [8.0]
- 17.1.9 Removal from the site of any party employed on the works
- 17.1.10 Removal from the site of any persons not engaged on or connected with the works
- 17.1.11 The appointment of **n/s subcontractors**, the n/s subcontract amounts and the work to be executed thereunder
- 17.1.12 Proof of payment to n/s subcontractors [20.6 and 21.6]
- 17.1.13 Notices to nominated subcontractors
- 17.1.14 Prime cost amounts and the purchase of materials and goods included therein Principal Building Agreement Page 12

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- 17.1.15 Budgetary allowances and work executed by the contractor thereunder
- 17.1.16 Contingency and other monetary provisions included in the contract sum
- 17 1 17 Work by a direct contractor [22.0]
- 17.1.18 The lists for practical completion, works completion, final completion and defects
- 17.1.19 Compliance with laws, regulations and bylaws [7.0]
- 17.1.20 Access for previous contractors and subcontractors to remedy defective work
- 17.2 The contractor shall comply with and duly execute all contract instructions subject to 24.6
- 17.3 An oral instruction given by the principal agent or any other agent shall be of no force or effect Neither the contractor nor the employer may rely upon an oral instruction for any purpose
- 17.4 Should the contractor fail to proceed with due diligence with a contract instruction, the principal agent may notify the contractor to proceed within five (5) working days from receipt of such notice Without further notice, on default by the contractor, the employer may employ other parties to give effect to such contract instruction in addition to any other rights that the employer may have. The employer may recover expense and loss [33.0] resulting from such employment
- 17.5 The contractor shall cooperate with and assist the principal agent where execution of a contract instruction could cause an adjustment to the contract value [32.2]

#### 18.0 SETTING OUT OF THE WORKS

- 18.1 The employer shall appoint an agent to establish the boundary pegs or beacons identifying the site and the correctness of the datum level. At the commencement of the construction period such agent shall point out the pegs, beacons and datum level to the contractor in the presence of the principal agent
- 18.2 The principal agent shall define the levels required for the execution of the works and provide such information as shall enable the contractor to set out the works correctly
- 18.3 The contractor shall provide all assistance and everything necessary to enable the accuracy of the setting out to be checked. Checking of the setting out by others shall not relieve the contractor of his responsibility for correctness thereof. The contractor shall rectify any errors in the works that arise from incorrect setting out without adjustment to the contract value. The contractor shall not be liable for incorrect setting out should information given [18.1-2] cause incorrect setting out of the works
- 18.4 The contractor shall take all precautions to preserve such pegs, beacons, datum levels and other aids used in setting out the works and should any be disturbed have them replaced by the employer's agent at the contractor's expense

#### 19.0 TEMPORARY WORKS AND PLANT

- 19.1 Where required in the priced document the contractor shall erect, maintain and remove at completion:
- 19.1.1 Hoardings with gantries, fans, safety screens, barriers, access gates, covered gangways and the like as necessary for the enclosure of the works and elements thereof all for the protection of the public and others or to meet the specific hoarding requirements of the employer, and
- 19.1.2 Office accommodation for meetings held on the site which shall be kept clean and fit for use at all times
- 19.2 All advertising rights on the site and the hoardings are reserved exclusively for the employer. Specific requirements of the employer are described in the priced document. The contractor shall provide and erect notice boards of an approved design as instructed by the principal agent. No individual boards or advertising material shall be allowed on the site without the principal agent's approval

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19.3 The contractor shall provide, maintain and remove on completion all plant, equipment, scaffolding tools, temporary sheds, enclosures and the like required by the contractor for the due and proper fulfilment of the works.

#### 20.0 NOMINATED SUBCONTRACTORS

20.1 The principal agent shall:

- 20.1.1 Prepare tender documents in conformity with the n/s agreement and this agreement for work intended to be executed by a nominated subcontractor and thereafter call for tenders, and
- 20.1.2 Nominate a subcontractor and instruct the contractor to appoint such subcontractor as a nominated subcontractor in terms of the n/s agreement and other tender requirements and
- 20.1.3 Inform the contractor that an advance payment shall be made to the nominated subcontractor where such requirement is included in the accepted tender and that recover in thereof will be effected [33.2.4]
- 20.2 The contractor may refuse to appoint such subcontractor:
- 20.2.1 Against whom the contractor makes a reasonable objection, or
- 20.2.2 Who refuses to enter into a subcontract in terms of the n/s agreement and other tender requirements, or
- 20.2.3 Who is unable to provide security in terms of the n/s agreement
- 20.3 Where such subcontractor is not appointed by the contractor for reasons [20.2] another subcontractor shall be nominated and appointed [20.1]
- 20.4 The contractor shall provide a payment guarantee in terms of the n/s agreement where required by the nominated subcontractor
- 20.5 The contractor shall make payment to the nominated subcontractor of the amount certified and identified [31.13.1] in terms of the n/s agreement
- 20.6 The contractor shall, within five (5) working days of receipt of a contract instruction provide proof to the principal agent [17.1.12], that the contractor's payment obligations [20.5] have been discharged. Failure by the contractor to provide such proof to the satisfaction of the principal agent shall entitle the employer to instruct the principal agent to certify payment direct to the nominated subcontractor [35.1.2]. The contractor shall have no recourse to recover such amounts from the employer. Such direct payment shall not create privity of contract between the employer and the nominated subcontractor. The employer may recover such direct payment from the contractor [33.2.8]
- 20.7 Where, after notification by the contractor, the principal agent agrees that the nominated subcontractor is in default of a material term of the n/s agreement the principal agent shall instruct the contractor to notify the nominated subcontractor to rectify such default. The principal agent may instruct the contractor to terminate the n/s agreement should such default continue for five (5) working days after such notice
- 20.8 Where termination of the nominated subcontract occurs another subcontractor shall be nominated and appointed to carry out and complete the balance of the nominated subcontract works
- 20.9 Where the n/s agreement is terminated due to default or insolvency of the nominated subcontractor or default by the employer or his agents, any variation in the cost of carrying out and completing the nominated subcontract works shall be adjusted [32.5-6]
- 20.10 Where the n/s agreement is terminated due to default or insolvency of the contractor, any variation in the cost of carrying out and completing the nominated subcontract works shall be for the account of the contractor. Expense and loss suffered by the employer from such termination may be recovered [33.2.3]

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### 21.0 SELECTED SUBCONTRACTORS

- 21.1 The principal agent shall:
- 21.1.1 Prepare tender documents in conformity with the n/s agreement and this agreement for work intended to be executed by a selected subcontractor. Such preparation shall be carried in consultation with and to the reasonable approval of the contractor, and
- 21.1.2 Call for tenders from a list of tenderers agreed between the contractor and the principal agent, and
- 21.1.3 In consultation with the contractor, choose the successful tenderer to be appointed as a selected subcontractor in terms of the n/s agreement and other tender requirements and
- 21.1.4 Inform the contractor that an advance payment shall be made to the selected subcontractor where such an advance payment requirement is included in the accepted tender and that recovery thereof will be effected [33.2.4]
- 21.2 The contractor shall within ten (10) working days of such selection [21.1.3] determine that such subcontractor can:
- 21.2.1 Meet the requirements of the n/s agreement and other tender requirements, and
- 21.2.2 Provide security in terms of the n/s agreement
- 21.3 The contractor [21.2] shall forthwith either:
- 21.3.1 Appoint such subcontractor as a selected subcontractor and inform the principal agent accordingly, or
- 21.3.2 Provide reasonable cause to the satisfaction of the **principal agent** for not making such appointment in which event another subcontractor shall be chosen [21.1.3]
- 21.4 The contractor shall provide a payment guarantee in terms of the n/s agreement where required by the selected subcontractor
- 21.5 The contractor shall make payment to the selected subcontractor of the amount certified and identified [31.13.1] and in terms of the n/s agreement
- 21.6 The contractor shall, within five (5) working days of receipt of a contract instruction provide proof to the principal agent [17.1.12] that the contractor's payment obligations [21.5] have been discharged. Failure by the contractor to provide such proof to the satisfaction of the principal agent shall entitle the employer to instruct the principal agent to certify payment direct to the selected subcontractor [35.1.2]. The contractor shall have no recourse to recover such amounts from the employer. Such direct payment shall not create privity of contract between the employer and the selected subcontractor. The employer may recover such direct payment amounts from the contractor [33.2.8]
- 21.7 Where the selected subcontractor is in default of a material term of the n/s agreement the decision of whether or not to terminate the n/s agreement is that of the contractor
- 21.8 Where termination of the selected subcontract occurs the contractor shall appoint another subcontractor subject to the approval of the principal agent
- 21.9 Where the n/s agreement is terminated due to default by the employer or his agents, any variation in the cost of carrying out and completing the selected subcontract works shall be adjusted [32.5-6]
- 21.10 Where the n/s agreement is terminated, other than due to employer default [21.9], any variation in the cost of carrying out and completing the selected subcontract works shall be for the account of the contractor

## 22.0 EMPLOYER'S DIRECT CONTRACTORS

22.1 On instruction of the principal agent [17.1.17] the contractor shall permit work to be executed and installed in the works by a direct contractor. The direct contractor, the work or installation to be *Principal Building Agreement Page 15* 

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undertaken, the insurances related thereto and the associated risks shall be the direct responsibility of the employer [9.2.2]

- 22.2 The type and extent of such work shall be described in the contract data. The contractor shall make reasonable allowance in his programme for such work or installation.
- 22.3 A direct contractor executing such work or installation shall be subject to reasonable controls or required by the contractor
- 22.4 The contractor shall be entitled to claim expense or loss caused by a direct contractor [32.5.4]
- 22.5 The payment of a direct contractor shall be the responsibility of the employer and shall not be deal with in terms of this agreement

#### 23.0 CONTRACTOR'S DOMESTIC SUBCONTRACTORS

- 23.1 The contractor shall appoint all domestic subcontractors in terms of an agreement that provides (or fair and equitable conditions of contract compatible with this agreement
- 23.2 All work or installations and the associated risks related to domestic subcontractors shall be the direct responsibility of the contractor

### COMPLETION

#### 24.0 PRACTICAL COMPLETION

- 24.1 The principal agent at appropriate intervals shall:
- 24.1.1 Inspect the works to give the contractor interpretations and guidance on the building standards and the state of completion of the works which the contractor will be required to achieve for practical completion, and
- 24.1.2 Where necessary timeously issue a contract instruction [17.1.4] consequent upon such inspection, and
- 24.1.3 Inform the contractor of the period required for inspection of the works related to the issue of the certificate of practical completion
- 24.2 The contractor shall inspect the works to satisfy himself that the state of completion of the works [24.1] has been achieved
- 24.3 The contractor shall give timeous notice of the anticipated date of practical completion to the principal agent to inspect the works so as to meet such date. Where, in the opinion of the principal agent, after such inspection the works either:
- 24.3.1 Has reached practical completion, the principal agent shall forthwith issue a certificate of practical completion to the contractor with a copy to the employer. The certificate of practical completion, unless otherwise agreed by the parties, shall not be issued before the date for practical completion as stated in the contract data or the revised date [29.0], cr
- 24.3.2 Has not reached practical completion, the principal agent shall forthwith issue a practical completion list to the contractor defining the incomplete work and defects to be rectified to achieve practical completion
- 24.4 Where, in the opinion of the contractor, the work on the practical completion list has been completed the contractor shall inform the principal agent who shall inspect such work within seven (7) calendar days of receipt thereof. Where, in the opinion of the principal agent, the work on the practical completion list either:
- 24.4.1 Has been satisfactorily completed, the principal agent shall forthwith issue a certificate of practical completion [24.3.1], or

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- 24.4.2 Has not been satisfactorily completed, the principal agent shall forthwith identify the items on the practical completion list that are not yet complete and inform the contractor thereof. The contractor shall repeat the procedure [24.4]
- 24.5 Should the principal agent not issue a practical completion list [24.3.2] or the updated list [24.4.2], within seven (7) calendar days of the end of the inspection period, the contractor shall notify the employer and principal agent. Should the principal agent not issue such practical completion list within seven (7) calendar days of receipt of such notice practical completion shall be deemed to have been achieved either:
- 24.5.1 On the date that practical completion was anticipated [24.3], or
- 24.5.2 On the date of expiry of the notice given by the contractor [24.5]
- 24.6 The contractor shall not be obliged to carry out any contract instruction for additional work [17.2] issued after the date of practical completion
- 24.7 Upon the issue of the certificate of practical completion the employer shall be entitled to possession of the works and the site subject to the contractor's lien or right of continuing possession of the works
- 24.8 Where the employer at any time takes possession of the whole or part of the works by agreement with the contractor [24.3.1, 28.2.2] prior to the applicable date for practical completion [24.0, 28.0] then practical completion shall be deemed to have taken place and the applicable certificate of practical completion shall be issued
- 24.9 Upon the achievement of practical completion the contractor shall hand over to the principal agent all operating and instruction manuals, product guarantees and manufacturers' instructions as stated in the contract data and information for the preparation of as built drawings as required by the principal agent
- 24.10 On practical completion of a section of the works [28.0] and where the principal agent instructs that tenant installation work is to be executed by others therein [22.0]:
- 24.10.1 The contractor shall allow reasonable access to such section, and
- 24.10.2 The principal agent shall inspect and record the state of completion to such section and include a list of defects pertaining thereto

#### 25.0 WORKS COMPLETION

- 25.1 Within seven (7) calendar days of the date of practical completion the principal agent shall issue to the contractor a works completion list defining the incomplete work and defects apparent at the date of practical completion to be completed or rectified to achieve works completion
- 25.2 Where, in the opinion of the contractor, the works completion list has been completed the contractor shall notify the principal agent who shall inspect within seven (7) calendar days of receipt of such notice. Where, in the opinion of the principal agent, the works completion list either:
- 25.2.1 Has been satisfactorily completed, the **principal agent** shall forthwith issue a **certificate** of **works completion** to the **contractor** with a copy to the **employer**, or
- 25.2.2 Has not been satisfactorily completed, the principal agent shall forthwith identify the items on the works completion list that are not yet complete and inform the contractor thereof. The contractor shall repeat the procedure [25.2]
- 25.3 Should the principal agent not issue a works completion list [25.1, 25.2.2] within seven (7) calendar days of the end of the inspection period, the contractor shall notify the employer and principal agent. Should the principal agent not issue such works completion list within seven (7) calendar days of receipt of such notice, the certificate of works completion shall be deemed to have been issued on the date of expiry of the initial notice period and works completion shall be deemed to have been achieved on such date

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- 25.4 Should the works completion list not be completed within a period of twenty (20) working days of the issue thereof the contractor shall not be entitled to compensatory interest [31,10] on the value of the outstanding work so listed
- 25.5 The defects liability period [26.1] shall commence with the issue of the certificate of works completion or deemed achievement of works completion [25.2.1 cr 25 3]

#### 26.0 FINAL COMPLETION

- 26.1 The defects liability period for the works shall commence on the date of works completion and enc. at midnight (00:00) ninety (90) calendar days from such date
- 26.2 At the end of the defects liability period the principal agent shall forthwith inspect the works and where the works either:
- 26.2.1 Has reached final completion the principal agent shall forthwith issue a certificate of fina. completion to the contractor with a copy to the employer. or
- 26.2.2 Has not reached final completion the principal agent shall forthwith issue a defects list to the contractor defining the defects, which have appeared during the defects liability cence to be rectified to achieve final completion
- 26.3 Where, in the opinion of the contractor, the defects list has been completed, the contractor shall notify the principal agent who shall inspect within seven (7) calendar days of receipt of such notice. Where, in the opinion of the principal agent, the defects list either:
- 26.3.1 Has been satisfactorily completed the principal agent shall forthwith issue a certificate of final completion to the contractor with a copy to the employer, or
- 26.3.2 Has not been satisfactorily completed or where further defects have become apparent the principal agent shall forthwith identify such items on the updated defects list and inform the contractor thereof. The contractor shall repeat the procedure [26.3]
- 26.4 Should the principal agent not issue a defects list [26.2.2, 26.3.2] within seven (7) calendar days from the end of the defects liability period, the contractor shall notify the employer and principal agent. Should the principal agent not issue such defects list within seven (7) calendar days of receipt of such notice, the certificate of final completion shall be deemed to have been issued on the date of expiry of the initial notice period and final completion shall be deemed to have been achieved on such date
- 26.5 Where a n/s subcontractor's defects liability period extends beyond the contractor's defects liability period [26.1]:
- 26.5.1 The contractor's obligations and liability concerning such subcontractor's defects shall nevertheless end on the issue of the certificate of final completion, and
- 26.5.2 The remaining portion of such subcontractor's defects liability period shall be subject to a direct agreement between the employer and the subcontractor and shall no longer be the responsibility of the contractor
- 26.6 An issued certificate of final completion [26.2.1, 26.3.1] shall be conclusive evidence as to the sufficiency of the works and that the contractor's obligations [2.2, 15.3] have been fulfilled other than for latent defects
- 26.7 Where a subcontractor is required to give a guarantee, warranty or indemnity related to subcontract work, other than a security to the contractor, the rights under such guarantee, warranty or indemnity shall be ceded to the employer on the date of issue of the certificate of final completion [4.2]. This cession shall not prejudice any other rights that the employer may have

#### 27.0 LATENT DEFECTS LIABILITY PERIOD

27.1 The latent defects liability period for the works shall commence at the start of the construction period and end five (5) years from the date of achievement of final completion [26.0]

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27.2	Where termination of this agreement occurs before the achievement of final completion the later
	defects liability period shall end either:

- 27.2.1 Five (5) years from the date of termination [36.0, 39.0], or
- 27.2.2 On the date of termination [37.0. 38.0]
- 27.3 The contractor shall make good all defects that appear up to the date of final completion [24] [24]

#### 28.0 SECTIONAL COMPLETION

- 28.1 Where sections are required to be completed as stated in the contract data, terms and conclusion applicable to the works without sections shall apply to each section. The following documents of the shall include each section, shall be issued by the principal agent for the works as a whole
- 28.1.1 Interim payment certificates [31.1]
- 28.1.2 Recovery statements [33.1]
- 28.1.3 Final account [34.1]
- 28.1.4 Final payment certificate [34.5]
- 28.1.5 Certificate of final completion [26.0] that shall incorporate the certificate of final completion of the last section
- 28.2 The following documents shall be issued by the principal agent individually for each section:
- 28.2.1 No clause
- 28.2.2 A certificate of practical completion [24.0]
- 28.2.3 A certificate of works completion [25.0]
- 28.2.4 A certificate of final completion [26.0] other than in terms of 28.1.5

#### 29.0 REVISION OF DATE FOR PRACTICAL COMPLETION

- 29.1 The circumstances for which the contractor is entitled to a revision of the date for practical completion and for which revision the principal agent shall not adjust the contract value [32.12] are delays to practical completion caused by one or more of the following:
- 29.1.1 The adverse effect of weather conditions
- 29.1.2 The inability to obtain materials and goods where the contractor has taken all practical ster to avoid or reduce such delay
- 29.1.3 Making good physical loss and repairing damage to the works [8.0] where the contractor is at risk
- 29.1.4 An event that neither party could prevent, civil commotion, riot, strike or lockout
- 29.1.5 Late supply of a prime cost amount item where the contractor has taken all reasonable step to avoid or reduce such delay
- 29.1.6 Default by a nominated subcontractor where the contractor has taken all reasonable ster. to avoid or reduce such delay
- 29.2 The circumstances for which the contractor is entitled to a revision of the date for practical completion and for which revision the principal agent shall adjust the contract value [32:12] and delays to practical completion caused by one or more of the following:
- 29.2.1 Failure to give possession of the site to the contractor [15.2.1]

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- 29.2.2 Making good physical loss and repairing damage to the works [8.0] where the contractor is not at risk
- 29.2.3 Contract instructions [17.0] not occasioned by default by the contractor
- 29.2.4 Failure to issue construction information timeously [15.6]
- 29.2.5 Late acceptance by the principal agent of a design undertaken by a selected subcontractor where the contractor's obligations [4.3] have been met
- 29.2.6 Suspension or termination invoked by a n/s subcontractor due to default by the employer or the principal agent [38.1]
- 29.2.7 Insolvency of a nominated subcontractor
- 29.2.8 A direct contractor
- 29.2.9 Opening up and testing of work and materials and goods [17.1.5-6] where such work us in accordance with the contract documents
- 29.2.10 The execution of additional work for which the quantity included in the bills of quantities -s not sufficiently accurate
- 29.2.11 Late or failure to supply materials and goods for which the employer is responsible
- 29.2.12 Suspension of the works [12.5, 31.15]
- 29.3 Further circumstances for which the contractor is entitled to a revision of the date for practical completion are delays to practical completion by any other cause beyond the contractor's reasonable control that could not have reasonably been anticipated and provided for. The principal agent shall adjust the contract value where such delay is due to the employer exercising his rights in terms of the agreement or by the default of the employer
- 29.4 Should a circumstance as listed [29.1-3] occur which could, in the opinion of the contractor. cause a delay to practical completion the contractor shall:
- 29.4.1 Give the principal agent reasonable and timeous notice of such circumstance, and
- 29.4.2 Take all reasonable steps to avoid or reduce the delay
- 29.4.3 Within twenty (20) **working days** from the date upon which the **contractor** became aware or ought reasonably to have become aware of the potential delay notify the **principal agent** or his intention to submit a claim for a revision to the date for **practical completion** or any previous revision thereof resulting from such delay, failing which the **contractor's** right to claim shall lapse
- 29.5 The contractor shall, within forty (40) working days of the delay ceasing, submit such claim to the principal agent, failing which the contractor shall forfeit such claim
- 29.6 Where the contractor requests a revision of the date for practical completion the claim shall in respect of each circumstance separately state:
- 29.6.1 The relevant clause or clauses [29.1-3] on which the contractor relies, and
- 29.6.2 The particulars of the effect of the delay on critical progress towards practical completion and
- 29.6.3 The extension period claimed in working days, and the calculation thereof
- 29.7 The principal agent shall within fifteen (15) working days of receipt of a claim [29.6] grant in fur reduce or refuse the working days claimed. The principal agent shall:
- 29.7.1 Determine the revised date for practical completion in relation to the working days granted and
- 29.7.2 Identify each circumstance and relevant subclause for each revision granted or amended or Principal Building Agreement Page 20

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- 29.7.3 Give reasons for refusing such claim
- 29.8 Where the principal agent fails to act [29.7] the claim shall be deemed to be refused

#### 30.0 PENALTY FOR LATE OR NONCOMPLETION

- 30.1 Where the contractor fails to bring the works or sections thereof to practical completion on the interface or dates stated in the contract data or revision thereof [29.0], the contractor shall be liab ε in employer for the determined penalty.
- 30.2 Where the employer elects to levy such penalty [33.1.1] the principal agent shall detail the penaltamount due at the rate(s) per calendar day stated in the contract data from the current dow practical completion [29.0] up to and including:
- 30.2.1 The actual or deemed date of practical completion of the works [24.8] or section of ever [28.2], or
- 30.2.2 The date of termination [36.3]
- 30.3 Where possession of part of the works is taken [24.8] and no penalty related to sections is state: the contract data the principal agent shall prorate the penalty as stated for the works as a whole the ratio of the contract value of the occupied part of the works to that of the works as a whole

### PAYMENT

#### 31.0 INTERIM PAYMENT

- 31.1 The principal agent shall issue an interim payment certificate every month until the issue of the first payment certificate. The payment certificate shall be based on a valuation prepared within section (7) calendar days before the date stated [31.3] and may be for a nil or negative amount
- 31.2 The contractor shall cooperate with and assist the principal agent in the preparation of the payment claim information for an interim payment certificate by providing to the principal agent all relevant documents and assessments of quantified amounts of work completed. For a contract without bills of quantities the contractor shall compile such information for work completed and materials and goods in such form as agreed by the principal agent. The principal agent shall not be relieved of the responsibility to issue an interim payment certificate [31.4] whether or not such information is provider by the contractor
- 31.3 An interim **payment certificate** shall be issued to the **contractor** with a copy to the **employer** by no later than the day of the month stated in the post tender conditions [41.7]
- 31.4 The value certified in an interim payment certificate shall separately include:
- 31.4.1 A reasonable estimate of the value of the work executed taking into account the information submitted by the contractor [31.2] and making due allowance for adjustments to the contract value [32.0], and
- 31.4.2 A reasonable estimate of the value of materials and goods [31.6], and
- 31.4.3 The total of amounts previously certified [31.4.1-2]
- $31.5 \qquad \mbox{The following adjustments shall be made to the amounts certified [31.4, 1-2] and shall separately in $c^2$ , the following:}$
- 31.5.1 No clause
- 31.5.2 Security adjustment [14.0, 31.8]
- 31.5.3 CPAP adjustment where elected in the contract data



31.5.4	The amounts due to the employer or contractor in the recovery statement [33-1] excluent
	interest amounts [31,5,6]

- 31.5.5 Tax on the net total of the amounts [31.4. 31.5.1-4]
- 31.5.6 Interest amounts included in the recovery statement [33.1]
- 31.6 The value of materials and goods [31.4.2] shall be included in the value certified only where us to satisfaction of the principal agent, the materials and goods are:
- 31.6.1 Not prematurely delivered or offered for delivery in terms of the programme, and
- 31.6.2 Timeously delivered or offered for delivery where the placing of the order was in terms of the requirements of the principal agent, and
- 31.6.3 Stored and protected against loss or damage, and
- 31.6.4 Covered by insurance [10.1]. and
- 31.6.5 Where stored off the site, covered by an advance payment guarantee or such other security as may be accepted by the employer
- 31.7 Materials and goods certified [31.6] shall become the property of the employer and shall not be removed without the written authority of the principal agent
- 31.8 Where security as a fixed construction guarantee and payment reduction [14.4] has been chosen the value of the works [31.4.1] and materials and goods [31.4.2] that exceeds the contract sum and any CPAP adjustment shall be certified in full. The value certified that does not exceed the contract sum shall be subject to the following percentage adjustments:
- 31.8.1 Ninety-five per cent (95%) of such value in interim payment certificates issued up to the date of practical completion
- 31.8.2 Ninety-seven per cent (97%) of such value in interim payment certificates issued on the date of practical completion and up to but excluding the date of final completion
- 31.8.3 Ninety-nine per cent (99%) of such value in interim **payment certificates** issued on the date of **final completion** and up to but excluding the final **payment certificate** [34.6]
- 31.8.4 One hundred per cent (100%) of such value in the final **payment certificate** except where the amount certified is in favour of the **employer**. In such an event the payment reduction shat remain at the adjustment level applicable to the final **payment certificate** [ 34.6]
- 31.9 The employer shall pay to the contractor the amount certified in an interim payment certificate within seven (7) calendar days of the date for issue of the payment certificate
- 31.10 The employer shall pay the contractor compensatory interest on all amounts certified in an interim payment certificate issued after thirty-one (31) calendar days of the date of practical completion. Subject to 25.4 the principal agent shall calculate such compensation at the interest rate compounded monthly from the date of practical completion up to and including the date on which payment is due to the contractor and include such amount in the recovery statement [33.0]
- 31.11 Where the contractor does not receive payment of the amount due by the due date [31.9], the employer shall be liable for default interest on the amount without prejudice to any other rights the contractor may have. Such interest amount shall be compounded monthly from the due date for payment up to and including the date on which the contractor is to receive payment and included in the recovery statement [33.0]. The principal agent shall calculate such default interest at the rate of one hundred and sixty per cent (160%) of the interest.
- 31.12 Where a payment certificate reflects an amount in favour of the employer, the contractor shall pay the amount certified within twenty-one (21) calendar days of the date of issue of the payment certificate. Where such amount has not been paid, the contractor shall be liable for default interest [31.11] and the principal agent shall include such amount in the next recovery statement [33.0]. The principal agent shall calculate such interest at the rate of one hundred and sixty per cent (160%) of the interest

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- 31.13 The principal agent shall concurrently with the issue of each interim payment certificate also is the following:
- 31.13.1 A statement to the contractor showing the formulation of the amount identified and common for each n/s subcontractor
- 31.13.2 A notification to each n/s subcontractor showing the formulation of the subcontract a minimulation included in the payment certificate and its date of issue
- 31.13.3 A statement to the parties showing the total amount certified to date of all adjusted amou [31.5]
- 31.14 An interim payment certificate shall not be evidence that the works and materials and goods event terms of this agreement
- 31.15 Where the principal agent fails to issue a payment certificate [31.1] or the employer fails to the payment [31.9] the contractor may give three (3) working days notice to suspend the works of employer, with a copy to the principal agent
- 31.16 Where the employer has not paid or has made a partial payment only of the amount due in an issue payment certificate [31.1] the contractor may:
- 31.16.1 Issue a demand to the employer in terms of the payment guarantee where such is provide. [3.1], or
- 31.16.2 Exercise his lien or right of continuing possession where this has not been waived in terms the contract data and where practical completion has not been achieved, or
- 31.16.3 Give notice of suspension of the works [31.15]. Where the employer fails to act in relation to such notice the contractor may give notice of termination [38.1.4.6]

#### 32.0 ADJUSTMENT TO THE CONTRACT VALUE

- 32.1 The principal agent shall determine the value of adjustments to the contract value according to the priced document. Where items of additional work are required the principal agent and the contractor may agree on the adjustment before the commencement of such work
- 32.2 Adjustment to the contract value resulting from a contract instruction [17.5] for additional work sna be determined as follows:
- 32.2.1 Work of similar character executed under similar conditions shall be priced at the rates in the priced document, or
- 32.2.2 Where 32.2.1 is not applicable at rates based on those in the priced document and adjuster to suit the changed circumstances, or
- 32.2.3 Where 32.2.1-2 cannot be used such work shall be priced at new rates that take into account the labour, engineering, drawings, material, transport and plant necessary for executing the work plus an allowance of ten per cent (10%) markup thereon
- 32.2.4 Work omitted shall be valued at the rates in the priced document, but where the omission of such work afters the circumstances in which the remaining work is carried out, the value of the remaining work shall be determined by the method [32.2.2]
- 32.3 Where work has been identified in the priced document as provisional, the principal agent shall or the value thereof from the contract value and the work as executed shall be valued [32.2] and adder. to the contract value
- 32.4 Where the contractor has made payment for items that are not included in the priced document. to actual amounts paid plus a ten per cent (10%) markup shall be added to the contract value for to following:

32.4.1 Charges by authorities [7.1]

32.4.2 The cost of opening up and testing [17.1.5-6], provided that the contractor shall bear the cost thereof should the test show that the work is not according to the contract documents Principal Building Agreement Page 23



32.4.3	The cost of insurance [12.3]
32.4 4	The cost of support insurance [11.1.1]
32.5	Where the contractor has incurred expense and loss due to no fault of the contractor for the provision was not required in the contract sum and for which reasonable compensation has not been made [32.2.12], the contractor shall provide details of such expense and loss to the principal agent [32.6]. Such circumstances are:
32.5.1	The issue of a contract instruction
32.5.2	Failure to issue or the late issue of a contract instruction following a timeous request from the contractor [15.6]
32.5.3	Nondisclosure of changes made to the provisions of JBCC standard documentation $[3,\uparrow\uparrow]$
32.5.4	Expense and loss caused by a direct contractor [22.4]
32.5.5	Default by the employer or his agents
32.5.6	Suspension or termination of a n/s subcontract due to default by the employer or his agents
32.5.7	Default or insolvency of a nominated subcontractor
32.5.8	Suspension of the works [31.15]
32.6	The contractor shall notify the principal agent within forty (40) working days from becoming aware or from when he ought reasonably to have become aware of such expense and loss [32.5] failing which no compensation will be made. Where such notification has been given:
32.6.1	The contractor shall submit details of the expense and loss once these can be quantified, and
32.6.2	The <b>principal agent</b> shall make a reasonable assessment of the compensation to be added to the <b>contract value</b> within twenty (20) <b>working days</b> of receipt of such details
32.6.3	The claim shall be deemed to have been refused where the principal agent fails to make such an assessment
32.7	The <b>principal agent</b> shall omit the n/s subcontract amounts from the <b>contract value</b> and determine the amounts as the final account value of the respective subcontract works to be added to the <b>contract value</b>
32.8	The principal agent shall prorate the contractor's attendance and profit provision on the n/s subcontractor amounts in the contract sum to the value of each subcontract [32.7] excluding any allowance for CPAP
32.9	The <b>principal agent</b> shall omit <b>budgetary allowances</b> and any other monetary provisions [17.1.15 16] from the <b>contract value</b> and determine the value of work related thereto [32.0] to be added to the <b>contract value</b>
32.10	The principal agent shall omit prime cost amounts [17.1.14] from the contract value and the actual delivered cost of such items, including a reasonable allowance for waste, shall be added to the contract value
32.11	The principal agent shall prorate the contractor's allowances for overheads and profit on prime cost amounts in the contract sum to the value of each item [32,10]
32.12	The preliminary and general amounts in the priced document shall be adjusted and paid in terms of the alternative chosen by the contractor as stated in the contract data
32.13	Where applicable the contract value shall be adjusted according to CPAP using the information states in the contract data
32.14	Where adjustments need to be measured on the site the contractor shall be given the opportunity to be present and shall be supplied with a copy of the measurement
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32.15 The principal agent shall rectify all identified discrepancies, errors in description or quartity omission of items from the contract documents. Such rectification shall be treated as an adjustment to the contract value where there is a monetary implication.

#### 33.0 RECOVERY OF EXPENSE AND LOSS

- 33.1 The principal agent shall issue a recovery statement monthly to the parties simultaneously we payment certificate. Explanatory documentation as may be necessary to support the calculation the amounts stated shall accompany the recovery statement. The principal agent shall show or recovery statement amounts due to the employer for:
- 33 1.1 Penalties levied where the employer so elects [30.2]
- 33.1.2 Default interest [31.12]
- 33.1.3 Expense and loss [33.2]

and amounts due to the contractor for:

- 33.1.4 Compensatory interest [31.10]
- 33.1.5 Default interest [31.11]
- 33.1.6 Damages [38.5.6]
- 33.1.7 Advance payments granted [14.5]
- 33.2 The employer may recover expense and loss incurred or to be incurred resulting from
- 33.2.1 The employer paying charges or effecting insurance upon the contractor's default [7 1 12 1
- 33.2.2 Work executed by other parties [17.4]
- 33.2.3 Termination of a nominated subcontract [20.10]
- 33.2.4 Recoupment of advance payments [14.5, 20.1.3, 21.1.4]
- 33.2.5 The contractor not paying the amount due to the employer [31.12]
- 33.2.6 The agreement being terminated [36.0]
- 33.2.7 Default by the contractor where not less than seven (7) calendar days notice detailing sucdefault has been given before the issue of the next recovery statement to allow the contractor the opportunity to remedy such default
- 33.2.8 Amounts paid direct to n/s subcontractors [20.6, 21.6]
- 33.3 The principal agent shall include an amount due in terms of the recovery statement in accompanying payment certificate. Where the payment certificate reflects an amount in favour of the employer and the contractor has not paid [31.12], such amount may be recovered by the employer from any or all of the following in no specific sequence:
- 33.3.1 Subsequent payment certificates
- 33.3.2 Security [14.0]
- 33.3.3 The contractor as a debt
- 33.4 Where the **employer** decides to recover amounts due [33.3] from a payment reduction [14.4 5], t : **employer** shall notify the **contractor** and the **principal agent** thereof. Should such amount not be pa to the **employer** within seven (7) **calendar days** of the date of receipt of such notice by the **contractor** the **employer** may recover such amount from the **security**

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- 33.5 Where the employer decides to recover an amount due [33.3] from a construction guarantee advance payment guarantee held as security, the employer shall issue a written demand to contractor in terms of such guarantee
- 33.6 Where a provisional sequestration or provisional liquidation order has been granted or where an order has been granted which commences sequestration, liquidation, bankruptcy, receivership, windinged or any similar effect against the contractor or this agreement is terminated [36,0] the employer is issue a demand to the guarantor to terms of the construction guarantee or advance payment guarantee held as security.

#### 34.0 FINAL ACCOUNT AND FINAL PAYMENT

- 34.1 The contractor shall cooperate with and assist the principal agent in the preparation of the first account by timeously providing all relevant documents on request. The principal agent shall of the final account to the contractor within ninety (90) working days of the date of practice completion
- 34.2 No clause
- 34.3 The contractor shall accept or object to the final account within forty-five (45) working days of receipt thereof. On acceptance, or should the contractor not object with reasons to the final account with results use period, the principal agent shall issue the final payment certificate [34.5]
- 34.4 Should the contractor dispute the correctness of the final account and such dispute not be rescuent, within the period [34.3], or such an extended period as the principal agent may allow on a request from the contractor, the final payment certificate shall nevertheless be issued [34.5].
- 34.5 The principal agent shall issue the final payment certificate within seven (7) calendar days to toe contractor [34.3-4]. Notwithstanding the foregoing such final payment certificate shall not be issue: before the issue of the certificate of final completion other than where termination occurs [36.0.39.0].
- 34.6 The amount certified in the final payment certificate shall separately include:
- 34.6.1 The gross amount of the final account, and
- 34.6.2 The amounts previously certified [31.4.1-2]
- 34.7 Where applicable the following adjustments shall be made to the net amount certified [34.6] and shall separately include:
- 34.7.1 No clause
- 34.7.2 Amounts due to the employer or contractor in the final recovery statement [33.1] exclusing interest amounts [34.7.4], and
- 34.7.3 Tax on the net total of the amounts [34.7.2], and
- 34.7.4 Interest amounts included in the final recovery statement [33.1]
- 34.8 The principal agent shall certify one hundred per cent (100%) of the amount of the final account in the final payment certificate
- 34.9 No clause
- 34.10 The employer shall pay the contractor the amount certified in the final payment certificate with seven (7) calendar days of the date of issue of the final payment certificate
- 34.11 Subject to 25.4 the employer shall pay the contractor compensatory interest on the net amount certified in the final payment certificate. The principal agent shall calculate the compensatory interest amount due to the contractor at the ruling interest rate compounded monthly from the date of practical completion up to and including the date on which payment is due to the contractor as stated in the recovery statement [33.0]
- 34.12 Where the contractor does not receive payment of the amount due in the final payment certificate by the due date [34.10], the employer shall be liable for default interest on such amount. The interes Principal Building Agreement, Page 25



shall be calculated from the due date for payment up to and including the date on which the contract receives payment. The amount due and the interest thereon shall be recoverable by the contract. from the **employer** as a debt. Such interest shall be calculated at the rate of one hunored and source cent (160%) of the **interest**.

- 34.13 Where the final **payment certificate** reflects an amount in favour of the **employer**, the contractor of pay the amount certified within twenty-one (21) calendar days of the date of issue of the final payment certificate.
- 34.14 Where such an amount certified [34.10, 13] has not been paid the defaulting party shall be liable default interest [34.12]. The amount due and the interest thereon shall be recoverable as a deb.

#### 35.0 PAYMENT TO OTHER PARTIES

- 35.1 The principal agent shall issue separate payment certification to other parties with copies contractor where the employer:
- 35.1.1 Engages other parties to execute work [17.4, 36.5.5]
- 35.1.2 Elects to pay a n/s subcontractor direct [20.6, 21.6]
- 35.2 The employer may recover expense or loss resulting from such payments [33.2]

### **TERMINATION**

### 36.0 TERMINATION BY EMPLOYER - CONTRACTOR'S DEFAULT

- 36.1 The employer may terminate this agreement where the contractor:
- 36.1.1 Fails to comply [3.3, 14.1, 15.1,3], or
- 36.1.2 Refuses to comply with a contract instruction [17.1] subject to 17.2
- 36.2 Where the employer considers terminating this agreement, the principal agent or the employer snak notify the contractor of such default [36.1]. The issuing of such notice shall be without prejudice to an rights that the employer may have
- 36.3 The employer may give notice of termination should the contractor remain in default for tenworking days after the date of receipt of such notice of default
- 36.4 No clause
- 36.5 Where this agreement is terminated the following shall apply:
- 36.5.1 The employment of the contractor shall be terminated and execution of the works shall cease. The contractor shall vacate the works and the site [36.5.6]. The contractor shall remain responsible for the works [8.1] until possession is relinquished to the employer
- 36.5.2 The principal agent shall forthwith compile a report on the status of the portion of the works executed by the contractor and shall issue such report to the parties
- 36.5.3 The principal agent shall timeously commence and complete a final account [34.0]
- 36.5.4 The contractor shall not be relieved of any of his liabilities concerning that portion of the works executed by the contractor
- 36.5.5 The **employer** may employ other parties to safeguard the **works**, complete the outstand, no work and to rectify **defects** in that portion of the **works** executed by the **contractor**. The cost of work thus carried out shall be certified by the **principal agent** and paid direct to such parties [35.0]
- 36.5.6 The **employer** may use the **contractor's materials and goods**, temporary buildings of and machinery on the **site** for proceeding with the **works**

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36.5 7	When informed by the principal agent or employer the contractor shall remove from the site his temporary buildings plant, machinery and surplus materials and goods within suc- reasonable time as determined by the principal agent, in default of which the employer without being responsible for any loss or damage, may have the same removed and sold. The net profit or loss of such sales shall be for the account of the contractor.
36 5.8	Where applicable [30.1] the employer shall be entitled to apply the penalty up to the data thermination and thereafter may recover damages from the contractor including, but isother to, extra costs incurred in the completion of the outstanding work
36.5.9	Where the current practical completion date [30.1] has not occurred the employer $\gamma  \epsilon$ recover damages [36.5.8]
36.5.10	The principal agent shall continue to issue interim payment certificates in a nil amount until the quantum of damages [36.5.8] has been determined and the final account [36.5.5] traveled been completed. The final payment certificate shall then be issued
36.5.11	The latent defects liability period shall end [27.2.1]
36.6	The right to terminate may not be exercised where the $employer$ is in material breach of the agreement
37.0	TERMINATION BY EMPLOYER - LOSS AND DAMAGE
37.1	The employer may terminate this agreement where:
37.1.1	The completed portion of the <b>works</b> constructed has been substantially destroyed howsoever caused, or
37.1.2	The works is for alterations and/or additions to an existing building(s) which has been substantially destroyed howsoever caused
37.2	Where the employer considers terminating this agreement [37.1] the principal agent or employer shall notify the contractor accordingly
37.3	Where this agreement is terminated the following shall apply:
37.3.1	The principal agent shall issue a contract instruction specifying protective measures necessary to be executed by the contractor before cessation of work. Termination shall only take effect after completion thereof
37.3.2	Execution of the works shall cease. The contractor shall remain responsible for the works [8.1] until possession is relinquished to the employer
37.3.3	On relinquishing possession of the works, the contractor shall remove from the site $\rm hes$ temporary buildings, plant and machinery without delay
37.3.4	The principal agent shall forthwith compile a report on the status of the portion of the works executed by the contractor before the destruction occurred [37.1] including all work executed [37.3.1] and shall issue such report to the parties
37.3.5	The principal agent shall timeously commence and complete a final account [34.0]
37.3.6	The employer shall be liable to the contractor for the cost of materials and goods including those ordered before such termination where the contractor is bound to accept and make payment. The contractor shall deliver such materials and goods to the employer in good order
37.3.7	The principal agent shall continue to certify the value of the work executed and the value of materials and goods for payment until the issue of the final payment certificate [31.1]
37.3.8	The latent defects liability period shall end [27.2.2]
37 4	Neither narty shall be liable for any expanse and loss reputing from this termination other then the

37.4 Neither party shall be liable for any expense and loss resulting from this termination other than the liabilities [37.3] related hereto

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### 38.0 TERMINATION BY CONTRACTOR - EMPLOYER'S DEFAULT

38.1	The contractor may terminate this agreement where.
	The employer fails to
38.1.1	Provide a payment guarantee [3,1]. or
38.1.2	Appoint a principal agent or agents [5.1-2 4] or
38.1.3	Allow the principal agent to exercise his judgement [5.6]. or
38.1.4	Effect special insurances [11.0.12.5], or
38.1.5	Give possession of the site to the contractor [15.2]. or
38.1.6	Pay the amount certified [31.9, 31.16.3, 34.10]. or
	The principal agent fails to:
38.1.7	Issue a statement to the contractor [31.13.1]. or
38.1.8	Issue any payment certificate [2.1, 15.2.4]. or
38.1.9	Issue any completion certificate [2.1, 15.3]
38.2	Where the <b>contractor</b> considers terminating this <b>agreement</b> , notice shall be given to the <b>employer</b> are the <b>principal agent</b> of the default [38.1]. Should such default persist for ten (10) <b>working</b> days are the date of issue of such notice the <b>contractor</b> may give notice of termination to the <b>employer</b> are the <b>principal agent</b> . Such termination shall be without prejudice to any rights that the <b>contractor</b> may have
38.3	Where default is due to non-performance of the principal agent [38.0] the contractor may take such actions as are deemed necessary to fulfil the obligations of the principal agent [38.5]
38.4	No clause
38.5	Where the contractor terminates this agreement the following shall apply:
38.5.1	Execution of the <b>works</b> shall cease. The <b>contractor</b> shall remain responsible for the works [8.1] until possession is relinquished to the <b>employer</b>
38.5.2	On relinquishing possession of the works, the contractor shall remove from the site better temporary buildings, plant and machinery without delay
38.5.3	The principal agent shall forthwith compile a report on the status of the portion of the works executed by the contractor and shall issue such report to the parties
38.5.4	The principal agent shall timeously commence and complete a final account [34.0]
38.5.5	The employer shall be liable to the contractor for the cost of materials and goods include: those ordered before such termination where the contractor is bound to accept and mere payment. The contractor shall deliver such materials and goods to the employer in good order
38.5.6	The employer shall be liable to the contractor for damages resulting from such termination
38.5.7	The principal agent shall continue to certify the value of the work executed and the value of materials and goods for payment by the employer [31.1]
38.5.8	The security [14.3-4] shall expire and be returned by the employer to the contractor
38.5.9	The latent defects liability period shall end [27.2.2]
38.6	The right to terminate may not be exercised where the contractor is in material breach of the agreement

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#### 39.0 TERMINATION - CESSATION OF THE WORKS

- 39.1 Either party may terminate this agreement on the cessation of the works for a continuous period in ninety (90) calendar days, or an intermittent period totalling one hundred and twenty (120) calendar days, due to circumstances beyond their control. The terminating party shall give notice to the other Such termination shall be without prejudice to any rights that either party may have
- 39.2 No clause
- 39.3 Where this agreement is terminated the following shall apply:
- 39.3.1 The principal agent shall forthwith issue a contract instruction specifying the continuate of work and protective measures required to bring the works to specific points of cessatio The contractor may cease work should the contractor be prevented from carrying out suc contract instruction due to reasons entirely beyond his control
- 39.3.2 Execution of the works shall cease. The contractor shall remain responsible for the works [8.1] until possession is relinquished to the employer
- 39.3.3 On relinquishing possession of the works, the contractor may remove from the site his temporary buildings, plant and machinery
- 39.3.4 The principal agent shall forthwith compile a record of the status of the works executor before the termination and shall issue such record to the parties
- 39.3.5 The principal agent shall timeously commence and complete a final account [34.0]
- 39.3.6 The employer shall be liable to the contractor for the cost of materials and goods including those ordered before such termination where the contractor is bound to accept and make payment. The contractor shall deliver such materials and goods to the employer in goor order
- 39.3.7 The principal agent shall continue to certify the value of the work executed by the contractor and the value of materials and goods for payment by the employer until a final payment certificate is issued
- 39.3.8 The security [14.0] shall reduce to the value applicable after the issue of the certificate of practical completion
- 39.3.9 The latent defects liability period shall end [27.2.1]
- 39.4 Neither party shall be liable to the other for any expense and loss resulting from this termination

## DISPUTE

### 40.0 SETTLEMENT OF DISPUTES

- 40.1 Should any disagreement arise between the employer, including his principal agent or agents, and the contractor arising out of or concerning this agreement or its termination, either party may give notice to the other to resolve such disagreement
- 40.2 Where such disagreement is not resolved within ten (10) working days of receipt of such notice it sha be deemed to be a dispute and shall be referred by the party which gave such notice to either.
- 40.2.1 Adjudication [40.3] where the adjudication shall be conducted in terms of the edition of the JBCC Rules for Adjudication current at the time when the dispute was declared, or
- 40.2.2 Arbitration [40.4] where the arbitrator is to be appointed by the body selected by the parties [41.3] whose rules shall apply. Where no body is stated or where the stated body is unable or unwilling to act, the appointment shall be made by the chairman for the time being of the Association of Arbitrators (Southern Africa). The appropriate rules current at the time when the dispute is declared shall apply

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- 40.3 Where a dispute is referred to adjudication the following shall apply:
- 40.3.1 The adjudicator shall be appointed in terms of the Rules [40.2.1]
- 40.3.2 The adjudicator shall not be eligible for subsequent appointment as the arbitrator
- 40.3.3 The adjudicator's decision shall be binding on the parties who shall give effect to the state delay unless and until it is subsequently revised by an arbitrator [40,4]
- 40.3.4 Should either party be dissatisfied with the decision given by the adjudicator. or should decision be given within the period set in the Rules, such party may give notice dissatisfaction to the other party and to the adjudicator within ten (10) working days receipt of the decision or, should no decision be given, within ten (10) working days of exclosed the date by which the decision was required to be given the dissatisfied party shall refer dispute to arbitration.
- 40.4 Where a dispute is referred to arbitration the following shall apply:
- 40.4.1 The arbitrator shall be appointed at the request of either party by the body stated in 41 is
- 40.4.2 The arbitration shall be conducted by the arbitrator in accordance with the rules of the constated in the contract data
- 40.4.3 The arbitrator shall have the power to open or revise any certificate, opinion, decisic requisition, or notice relating to the dispute as if no such certificate, opinion, decisic requisition or notice had been issued or given
- 40.4.4 The arbitrator's decision shall be binding on the parties who shall give effect to it wtr , delay
- 40.5 The above provisions [40.2-4] shall not be construed as a waiver of the parties' entitlement to resp a dispute by mediation at any time
- 40.6 Where a dispute is submitted to mediation the following shall apply:
- 40.6.1 The parties shall agree on and appoint the mediator within ten (10) working days of the octor on which the dispute was declared. Whether or not the mediation resolves the dispute. \* parties shall bear their own costs concerning the mediation and share the costs of the mediator and related costs equally
- 40.6.2 The mediator shall agree the procedures, representation and dates for the mediation proceswith the parties. The mediator may meet the parties together or individually to help resoa settlement
- 40.6.3 Where the parties reach settlement of the dispute or any part thereof, the mediator set. record such agreement and on signing thereof by the parties the agreement shall be final arbinding
- 40.7 Recording of a dispute [40.1] shall not relieve the parties from liability for the due and times. performance of their obligations
- 40.8 The employer consents to the joining of any n/s subcontractor with the contractor as a party to an of the proceedings contemplated in terms of this 40.0
- 40.9 The termination of this agreement shall not affect the validity of this clause 40.0

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CONTR	RACT	AGRE	EMENT

### 41.0 POST TENDER PROVISIONS

41.1 All information provided in this section requires consultation with the parties to the agreement. The principal agent shall not preselect any of the alternatives available to the contractor

41.2 The completed Contract Data - Employer and Contract data - Contractor addenda and such other pertinent documents as listed below shall form part of this agreement:

41.3 The dispute resolution body [40.2.2] selected by the parties is:

41.4	The employer shall provide a Payment Guarantee (amount)	<b></b>

(yes/no)

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41.5 An annual building industry holiday period is applicable

41.6 Further provisions and information agreed by the parties:

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Employer

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Contractor

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2.1	represent the parti	tations, terms, conditions, terms, term	tions or warra	inties not contained varying, adding to	arding the matters addressed herein ad in this agreement shall be binding , deleting or terminating this agreement ting and signed by the parties
.2	Contrac	ting Parties			
	(1)	Employer			
	Phy	ysical address			
	Tel		Fax	E-	-mail
	Tax	x / VAT No			
	(2)	Contractor			
	PI	hysical address			
	Tel		- Fax	E-	-mail
	Tax	X/VAT No			
2.3	The acce In words	epted contract sum		t inclusive of tax)	
2.3	In words	e of the contracting p	parties:		
	In words	e of the contracting p	parties:		
	In words Signatur Thus dor	e of the contracting point and signed at	parties:		on nd on behalf of the employer who by ure hereof warrants authonsation here
	In words Signatur Thus dor	e of the contracting p ne and signed at Name of signatory Capacity of signatory	parties:	for a signatu	on
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	In words Signatur Thus dor Thus dor Thus dor	e of the contracting p ne and signed at Name of signatory Capacity of signatory ne and signed at Name of signatory Capacity of signatory	parties:	for a signatu	on
	In words Signatum Thus dor Thus dor Thus dor Details o Name:	e of the contracting p ne and signed at Name of signatory Capacity of signatory ne and signed at Name of signatory Capacity of signatory	parties:	for a signatu	on
	In words Signatum Thus dor Thus dor Thus dor Details o Name:	e of the contracting p ne and signed at Name of signatory Capacity of signatory ne and signed at Name of signatory Capacity of signatory f Witness (1)	parties:	for a signatu	on
	In words Signatum Thus dor Thus dor Thus dor Details o	e of the contracting p ne and signed at Name of signatory Capacity of signatory ne and signed at Name of signatory Capacity of signatory	parties:	for a signatu for a signatu Details of Witne	on

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Employer



# T5 FORM OF BID



# FORM OF BID

1.	Bid Sum Compilation	· · ·
1.1	Bidder's Work Including Prime Cost Amounts	•
1.2	Employer Allowances Stated By The Principal Agent	
1.3	Sub Total	
1.4	Add VAT Of 15% On 1.3	
1.5	Total Bid Sum Inclusive If VAT	
1.6	Bid Sum In Works	•
		·
	Thus done and signed at on _	
	Name of Signatory	Capacity of Authorized Signatory
	As Witness (Name)	Witness (Signature)
Em	ployer Witness 62	Contractor Witness
	•	



## **VOLUME 2**

## **RETURNABLE DOCUMENTS**

## FORMS TO BE COMPLETED

This section contains all the documents the employer requires the bidder to submit with his bid offer for the purpose of evaluating bid offers, which may when the bid is, accepted form part of the subsequent contract, other than that contained in the **Contract Data**.

······································	Page
Form 1 - Certificate of Bidder's Attendance at the Bid Briefing Meeting Not applicable –as there will be no CSB.	2
Form 2 - Declaration With Regards To Company /Firm	. 3
Form 3 - Declaration of Interest (MBD 4)	5
Form 4 – Declaration of Bidders Participation In Previous Procurement (MBD 8)	8
Form 5 – Certificate of Independence Declaration (MBD9)	10
Form 6 – Bidders Financial Standing	13
Form 7 – Appendix to Bid	14
·Form 8 – Similar Works Completed With Certificates of Completion	16
Form 9 - Construction Plant	17
Form 10 – Labour Contents	18
Form 11 – Skilled Key Personnel/ Operators and Drivers	19
Form 12 – Proposed Sub-Contractors	20
Form 13 – Proposed Construction Programme Schedule	21
Form 14 – Alterations to Bid	· 22
Form 15 – Certificate of Registration with CIDB	23
Form 16 – Record of Addenda to Bid Document	24
Form 17 – Preferential Points Claimed 9b-Bbee Status Level Validation Certificate)	25
Form 18 – Health and Safety Declaration	26
Form 19- Day Works Schedules and Rates	28

Bidder are to ensure that the **BID CHECKLIST TABLE** in front of the bid document is completed and all additional supporting documentation requested in the above forms be submitted together with the bid documents

Employer

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## Form 1: Certification of Bidder's Attendance at the Briefing Session Attendance certificate

	Bid information .	
Bid no.		
Description of works	•	
Date of briefing meeting		•
Time of meeting		
	Bidder's representative	
	• •	
	· ·	
Declaration		
Name of representative	· ·	
Capacity		
Signature ·		
Telephone number	· Fax	
	number	
	Employer's representative	
Attendance of the a	above person at the meeting is confirmed by the employer	s agent
Name of company		,
Name of representative	•	
Capacity	· · ·	
		•
Signature		
Telephone number	Fax	
	·number	

Employer

Witness



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Form 2: Declaration With Regard To Company /Fi	<u>rm</u>
1.1 Name of Company/Firm	:
1.2 VAT Registration Number	
1.3 Company Registration Number	:
1.4 TYPES OF COMPANY /FIRM	
[Tick applicable box]	
Partnership/ joint venture /consortium	
One person business/ sole propriety	
Close corporation	
□Company	•
🗆 (PTY) LIMITED	•
1.5 DESCRIBE PRINCIPAL BUSINESS ACTIVITIES	
<ul> <li>I.6 COMPANY CLASSIFICATION         <ul> <li>[Tick Applicable Box]</li> <li>Manufacturer</li> <li>Supplier</li> <li>Professional Service Provider</li> <li>Other Service Providers, e.g Transport, Efged</li> <li>Contractor</li> </ul> </li> </ul>	
<b>1.7 MUNICIPAL INFORMATION</b>	•
Municipality where business is situated:	(attach copy of account)
Registered account number:	(Attach copy of account)
Stand number:	
1.8 Total number of years the company/ firm h	as been in business:(years)

65

:



1.9 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-BBEE status level of contributor indicated in paragraphs 1.4 and 6.1 of the foregoing certificate , qualifies the company/ firm for 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 1.4 and 6.1, the contractor may be required to furnish documentary proof of the satisfaction of the purchaser that the claims are correct;
- iv. If the B-BBEE status level of contributor has been claimed or obtained on a fraudulent basis or any of the conditions of contract have not been fulfilled, the purchaser may, in addition to any other remedy it may have-
- a) Disqualify the person from the bidding process;
- b) Recover costs, losses or damages it has incurred or suffered as a result of the person's conduct;
- c) Cancel the contract and claim any damage which it has suffered as a result of having to make less favourable arrangement due to such cancellation;
- d) RECOMMEND that the bidder or contractor, its shareholders and directors, or only the shareholders and directors who acted on a fraudulent basis, be restricted by the national treasury from obtaining business from any organ of state for a period exceeding 10 years, after the audi alteram partem (hear the other side) rule has been applied; and
- e) Forward The matter for criminal prosecution

	······
SIGNATURE C	OF BIDDER
DATE:	
	° *
ADDRESS:	
	······································

•	
1	
2	•••••
	•

Employer



### FORM 3- Declaration Of Interest

· MBD 4

- 1. No bid will be accepted from persons in the service of the state.
- 2. Any person, having a kinship with persons in the service of the state, including a blood relationship, may make any offer or offers in terms of this invitation of 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 if bidder or his or he representative:....
  - 3.2 Identity number:.....
  - 3.3 Position occupied in the company (director, trustee shareholder):.....
  - 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 number
    - and state employee numbers must be indicated in paragraph 4 below.

3.8 Are you presently in the services of the state:

YES/NO

## 3.8.1 if yes, furnish particulars

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 ,

Employer

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- (b) A Member Of The Board Of Directors Of Any Municipal Entity,
- (c) An Official Of Any 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 , 199 (act no.1 of 199)
- (e) A member of the accounting authority of any national or provincial public entity , or
- (f) An employee of parliament or a provincial legislature.

3.9 Have you been in the service of the state for the past twelve months?

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?

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 services of the state who may be involved with the evaluation and or adjudication of this bid?

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?

3.12.1 If yes, furnish particulars

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Contractor

Employer

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Witness



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

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?

3.14.1 If yes, furnish particulars

.....

# 4. FULL DETAILS OF DIRECTORS/ TRUSTEES/MEMBERS/SHAREHOLDERS.

Full Name	Identity number	Employee number

Note: Certified copies of ID's must be attached to the Bid document.

.....

Date

Signature

.....

Capacity

Name of Bidder



## FORM 4: Declaration of Bidder's Past Supply Chain Management Practices

(MBD 8)

- It serves as a declaration to be used by municipalities and municipal entities in ensuring that when good and services are being procured all reasonable steps are taken to combat the abuse of the supply chain management system.
- 2. The bid of any bidder may be rejected if that bidder or any of its directors have;
  - a. Abused the municipality 's municipal entity supply chain management system or committed any improper conduct in relation to such system;
  - b. Been convicted for fraud or corruption during the past five years;
  - c. Wilfully neglected, reneged on or failed to comply with any government , municipal or other public sector contract during the past five years;
  - d. Been listed in the register for bid defaulters in terms of section 29 of the prevention and combating of corrupt activities act (No. 12 of 2004).
- 3. In order to give effect to the above, the following questionnaire must be completed with the bid.

Item	Question	Yes	No
4.1	Is the bidder or any its directors listed on the national treasury's	Yes	No
	database as a company or person prohibited from doing business with the public sector?		
	(Companies or persons who are listed on this database were		
	informed in writing of this restriction by the national treasury		
	after the audi alteram partem rule was applied.)		
4.1.1	If so, furnish particulars:		
4.2	Is the bidder or any of its directors listed on the register for bid	Yes	No
	defaulters in terms of sections 29 of the prevention and combating		
	or corrupt activities act (No 12 of 2004)?		
	(To access this Register enter the National Treasury's website,		
	www.treasury.gov.za, click on the icon "Register for Bid		
	Defaulters"		
4.2.1	If so, furnish particulars:		

Employer



ltem	Question		
4.3	Was the bidder or any of its directors convicted by a court of law	Yes	No
	9incuding a court of law outside the republic of south Africa) for fraud or corruption during the past five years:		
4.3.1	If so, furnish particulars:		
4.4	Does the bidder or any of its directors owe any municipal rates and	Yes	No
	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 ?		
4.4.1	If so, furnish particulars:		
4.5	Was any contract between the bidder and the municipality	Yes	No
	/municipal entity or any other organ of state terminated during the		
	past five years on account of failure to perform on a comply with		
	the contract?		
4.5.1	If so, furnish particulars:		

### CERTIFICATION

I, the undersigned (FULL **NAME**)..... certify that the information furnished on this declaration form to be true and correct.

I accept that, in addition to cancellation of the contract, legal action may be taken against me should the declaration prove to be false.

•••••••

••••••

Signature

Date

.....

.....

Position

Name of Bidder

Employer

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Contractor

Witness



### FORM 5 : Certificate of Independent Bid Determination (MBD9)

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

<sup>1</sup>includes price quotation, advertised competitive bids, limited bids and proposals.

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


I, undersigned, in submitting the accompanying bid:

(MBD 9)

(Bid Number and Description)

In response to the invitation for the bid made by:

(Name of Municipality / Municipal Entity)

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

I certify, in behalf of: _	th	at:

(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 authorised 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 purpose of this certificate and the accompanying bid, I understand that the word "competitor" Should 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 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.

<sup>3</sup> joint venture or consortium means associations of persons for the purpose of combining their expertise, property, capital, efforts skills and knowledge in an activity for the execution of a contract.

Employer

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- 7. In particular, without limiting the generality of paragraph 6 above, there has been on consultation, communication, agreement or arrangement with any competitor regarding;
  - (a) Prices:
  - (b) Geographical area where product or service will be rendered (market allocated)
  - (c) Methods, factors or formulas used to calculate prices;
  - (d) The intention or decisions to submit or not to submit, a bid;
  - (e) The submission of a bid which does not meet the specifications and conditions of the bid; Or
  - (f) Bidding with the intention not to win the bid.
- 8. In addition, there have been no consultations, communication, agreement or arrangements with any competitor regarding the quality, quantity, specifications and conditions or delivery particulars of the products or services to which this bid invitation relates
- 9. The terms of the accompanying bid have not been, and will not be disclosed by the bidder, directly or indirectly, to any competitor, prior to the date and time of the official bid opening or of the awarding of the contract.
- 10. I am aware that, in addition ad 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	
nployer Witness	74	Contractor	W



## Form 6: Bidder's Financial Standing And Tax Clearance Requirements

#### a) Financial Standing

A part of the conditions of bid the **Employer** may make enquires to obtain a bank rating from the bidder's bank. To that end of bidder must provider the with his/her bid the following details of his/ her banker and bank account that he intends to use for project:

Name of account holder:	
Name of bank:	Branch:
Account Number:	Type of Account:
Telephone Number:	Facsimile Number:
Name of contact person (at bank):	
Bid amount:	
Construction period:	BANK STAMP
	DAINK STAIVIP
	AND SIGNATURE

Failure to provide either the required bank details or a certified bank rating with his bid, will led to the conclusion that the bidder does not have the necessary financial resources at his disposal to complete the contract successfully within the specifies time for completion.

The employer undertakes to treat the information thus obtained as confidential, strictly for the use of evaluation of the bid submitted by the bidder.

## b) Tax Clearance Requirement

It is a condition of bid that the taxes of the successful bidder must be in order, or that satisfactory arrangements have been made with south African revenue services (SARS) to meet the bidder's tax obligations.

Sign on behalf of the bidder: \_\_\_\_\_

Employer

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#### Form 7: Appendix to Bid- Data Provided By the Employer

# (Clauses with reference to JBCC Principal Agreement – (JBCC Series 2000 Edition 5.0 code 2101- CE © July 2007)

Clause						
Time within which works to be commenced	16.1	7 days from engineers instruction to commence				
Defects liability period	27.0	12 months				
Address of employer		See contract data-employer				
Address and telephone number of principal age	nt	See contract data –employer				
Address and telephone number of contractor						
Time for completion (employer's target)		Max. of 8 months for the works				
Time for completion (contractor's undertaking)						
	(Identic	al to the above unless stated otherwise by the bidder)				
Programme to be furnished with acceptance	15.6.1	7 days from engineer's instruction to commence				
Special non-working days	-	The period of 16 December to 5 January inclusive plus Sundays and all statutory holidays as declared national or regional government				
Penalty for delay	30.0	R 2,000.00 per calendar day for works				
Performance guarantee (surety) amount	14.1	10% of acceptance bid sum				
Time within which guarantee to be provided	-	14 days from the date of commencement				
Duration of guarantee	14.8	until issue of certificate of works completion				
Overall charges/profits	-	Maximum of <b>10</b> %				
Application of contract price adjustment	31.5.3	Not applicable to tis contract				
Advance for materials on site not yet build into the permanent works	31.6	80%				
Percentage retention	14.7	10 percent				
Limit of retention money	14.7.1	5 percent				

#### Sign on behalf of bidder:\_\_\_\_\_

Employer



Appendix to bid (continues)		
Clause		
Time within which payment to be made	31.9	30 days after receipt by the employer of the contractor's corrected statement
Retention money guarantee		Not Permitted
Special risk insurance	11.1	required
If required, to be arranged by	11.1	Contractor
Amount of special risk insurance	11.1	R 5 000 000 per event, the number of events being unlimited
Minimum amount of liability insurance	-	R 5 000 000 per event, the number of event being unlimited
Payment of all insurance and policies		10.0 Contractor to provide poof f payments
Bid validity period		90days from closing date

Sign on behalf of the bidder:\_\_\_\_\_

Employer

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#### Form 8: Similar Works Completed With Certificate Of Completion

The bidder Should list below civil engineering contracts of a similar nature successfully completed by him for the **last 5 years.** This information is material to the evaluation of the bid offer.

Employer Contact person & telephone no.	Consulting Engineer Contact person & telephone no.	Nature of work	Value of work	Year Completed Or expected Completion Time

NB: Certificate of Completion for each of the above contracts MUST be submitted with the Bid document.

Sign of behalf of the bidder: \_\_\_\_\_

Employer



#### FORM 9 : Construction Plant

The Bidder Should state below what construction plant will be available for the execution of the works

Details of major equipment that is owned and immediately available for this contract.

Description (type, size, capacity, etc.)	Quantity	Year o manufacture	of	Registration no.

Attach additional pages if more space is required

# Details of major equipment that will be hired or acquired for this contract if Bid is accepted

Quantity	How Acquir	How Acquired			
	Hire/Buy	Source			
	Quantity	Quantity			

A Letter Of Intent from the plant hire company must be submitted with the bid.

Sign on behalf of the bidder:

Employer

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#### FORM 10: Labour Content

The bidder must complete the table below to reflect the labour force anticipated to complete this contract.

Estimated labour conten	t					
Description	Permanent staff		Temporary staff		Total value (rands)	% of contract value
	Number	Man- hours	number	Man- hours		
Labours						
Other ( specify )						
Total unskilled						
Semi-skilled						
Section leaders						
Operators						
Other (specify )						_
Total Semi-Skilled /Skilled						
GRAND TOTAL						

The above information could be used to evaluate the bids and will be monitored by the engineer during the construction phase.

Sign on Behalf of the Bidder:\_\_\_\_\_

Employer

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## FORM 11: Skilled Key Personnel/ Operator and Drivers

In terms of the contract specific bid conditions, skilled workers may not be imported if personnel with the required skills can be recruited from the local beneficiary community.

The contractor will however be allowed to import his own permanently employed key personnel, plant operator and drivers.

The bidder Should list below only the permanently key personnel or personnel to be recruited from outside which he/she intends to utilize on the works.

	Number of persons						
Category of employment	Key personnel						
category of employment	Permaner	ntly employed	Recruited from outside				
	HDI	NON HDI	HDI	NON HDI			
Site agents and project managers							
Foremen							
Safety personnel							
Plant operator and drivers							
Artisans and other skilled works							
Semi-skilled workers							
Unskilled workers							
Others (describe)							
Total							

NOTE: CV'S of all key personnel proposed must be submitted with the bid

Sign On Behalf Of Bidder:\_\_\_\_

Employer



## FORM 12: Proposed Sub-Contractors

In terms of the conditions of contract, the bidder Should enter below the names of sub-contractors he intends to employ for work on this contract, as well as the portion and value of the work to be executed by such sub-contractors.

Based on the definition of **SMME** provided below the bidder should indicate in which category, i.e Medium, Small, Very Small or Micro, the intended sub-contractor is categorized if applicable

Portion of works to executes as sub-contractor	Approx. Value (excl. VAT)	Name and contact details of sub-contractors	SMME (yes/no)	B-BBEE of sub-contractor

According to the national small business amendment act, 2003 (act 26 of 2033) small business (i.e SMME) is defined as follows:

A separate and distinct business entity, including co-operative enterprise and non-governmental organisations, managed by one owner or more which, including its branches or subsidiaries, if any, I predominantly carried on in any sector or sub-sector of the economy as mentioned in column 1 of the bills and which can be classified as a micro, a very small, a small or a medium enterprise by satisfying the criteria mentioned in column 3,4 and 5 of the bills opposite the smallest relevant size or class as mentioned in column 2 of the bills.

Sign on behalf of the bidder: \_

Employer

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#### Form 13: Proposed Construction Programme

The bidder Should outline below and attach the **MS Projects format**, a preliminary programme reflecting the scope, proposed sequence and time of execution of the various activities (in weeks) to complete the works within the specified construction period.

The successful bidder Should use the programme submitted below as the basis for the detailed programme, which is to be provided within 7 days after the commencement date.

Description of phase and section of the works	Duration (weeks)	Starting Week*	Finishing week	Cash flow
		-		
TOTALS				

\*The execution of the works must star within 5 days from the site handover date

Sign on behalf of bidder:\_\_\_

Employer

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#### Form 14: Alterations of Bid

This is not an invitation for amendments, but should the bidder desire to make any departures from the provisions of this contract he Should set out his proposal clearly hereunder, or alternatively state them in a covering letter attached to his bid, with full details of all financial implications, failing which the bid will be prejudiced

Page, clause or item no.	Proposed amendment	Financial implication

Full details of alternative bid offers based on alternative designs and the financial implications are submitted with this document but bound is separately.

NOTE: Amendments to the General and Special Conditions of Contract are not permitted.

Sign on behalf of bidder:

Employer

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#### Form 15: Certificate of Registration With CIDB

The bidder Should attach hereto the certificate of registration with **CIDB** or proof of application for registration with **CIDB** as a contractor grading equal to or higher than the corresponding sum bid. Failure to submit the certificate or proof with the bid document will lead to the conclusion that the bidder is not registered with the CIDB and therefore not eligible to bid.

The following information regarding registration with the CIDB must be provided together with the proof of registration, failing which may result in rejection of the bid.

Category	Information	
Contractor name		
Trading name		
CRS number		
Grading registered		
Status		

#### Sign on behalf of the bidder:\_

Employer

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#### Form 16: Record of Addenda to Bid Document

We confirm that the following communication received from the employer before the submission of this Bid offer, amending the bid documents, has been taken into account in this Bid offer:

No.	Date	Title Or Details
1.		Minutes of compulsory site brief
		· ·
-		

All addendums to be attached to the bid as proof of the above table information

Sign on behalf of the bidder:\_

Employer



#### Form 17: Preferential Points (B-BBEE Status Level Validation Certificate)

Bidders are requested to submit information of the verification agency that validated and award a status level towards the bidder. Only **B-BBEE** status level certificates issued by the following institutions are valid:

- Verification agencies accredited by the south African national accreditation system (SANAS); or
- Registered auditors approved by the independent regulatory board of auditors (IRBA) in accordance with the approval granted by the department of trade and industry.
- (EME'S and SMME'S) sworn affidavit not older than 3 months.

Details of the Verification Agent must be completed in the following table.

Description	Information
Name of	
institution	
Address of	
institution	
Telephone number	
Fax number	
Contact person	

A trust consortium or joint venture will qualify for points for their **B-BBEE** status level as legal entity, provided that the entity submits their **B-BBEE** status level certificate.

A trust , consortium or joint venture will qualify for points for their **B-BBEE** status level as an unincorporated entity, provided that the entity submits their consolidated **B-BBEE** scorecard as if they were a group structure and that such a consolidate **B-BBEE** scorecard is prepared for every separate bid.

Bidder to attach hereto the Board-Based Black Economic Empowerment Status Level Certificate Of The Bidding Company And /Or Joint Venture Partners.

Sign on behalf of bidder:

Employer

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Contractor

Witness



#### Form 18: Health and Safety Declaration

In terms of clause 4(4) of the OH&S Act 1993 Construction Regulations 2003(referred to as "the regulations" hereafter). A Contractor may only be appointed to perform construction work if the employer is satisfied that the contractor has the necessary competencies and resources to carry out the work safety in accordance with the Occupational Health And Safety Act No 85 of 1993 and the Construction Regulations 2003.

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

- 1. I the undersigned hereby declare that I am fully conversant with the Occupational Health and Safety Act No.85 of 1993 (as amended by the occupational health and safety amendment act no 181 of 1993), and the OHSA 1993 Construction Regulations 2003.
- 2. O hereby declare that my company has the competence and the necessary resources to safety carry out the construction work under this contract in compliance with the construction regulations and the employer's health and safety specifications.
- 3. I hereby undertake, if my bid is accepted, to provide, before commencement of the works under the contract, a suitable and sufficiently documented health and safety plan in accordance with Regulations 5 (1) of the Construction Regulations, which plan Should be subject to approval by the employer.
- 4. I confirm that copies of my company's approved Health And Safety Plan, the employer's safety specifications as well as the OHSA 1993 construction regulations 2003 will be provided on site and will at all times be available for inspection by the contractor's personnel, the employer's personnel, the engineer, visitor s, and official and inspectors of the department of labour.
- 5. I hereby confirm that adequate provision has been made in my bided rates and prices in the bill of quantities to cover the cost of all resources ,actions, training and all health and safety measures envisaged in the OHSA 1993 Construction Regulations 2003, including the cost of specific items that may be scheduled in the bill of quantities.
- 6. I hereby confirm that I will be liable for any penalties that may be applied by the employer in terms of the said regulations for failure on my part of comply with the provisions of the act and the regulations as set out in regulations 30 of the regulations.
- 7. I agree that my failure to complete and execute this declaration to the satisfactions of the employer will mean that I am unable to comply with the requirements of the OHSA 1993 Construction Regulations 2003, and accept that my bid will be prejudices and may be rejected at the discretion of the employer.
- 8. I am aware of the fact that, should I be awarded that contract, I must submit the notification required in terms of regulations 3 of OHSA 1993 Construction Regulations 2003 before I will allowed to proceed with any work under the contract.

#### Sign on behalf of the bidder:

Employer

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Contractor

Witness



#### Form 19: Dayworks Schedules

#### PREAMBLE

#### 1. General requirements

- 1.1 Work similar to the scope of works stated in the documents will be requested upon instruction of the **ENGINEER** on a day-to-day basis and therefore day work schedules should apply in respect of all Day Works executed by the CONTRACTOR.
- 1.2 No work should be executed on a Day works basis except on the written instruction of the engineer, and no Day works resulting in the necessity for the payment of overtime or Sunday rates should be executed by the contractor without the prior written authorisation of the engineer in each specific case.

#### 2. Measurement and payment

#### 2.1 Plant

This Day works Schedules is not applicable in respect of plant used for items listed in the bills of quantities and should apply for plant used on Day works ONLY.

#### 2.2 Personnel

- (a) The Day works rates submitted for labour and tradesmen in the Day works schedule Should be all inclusive labour rates and Should apply only to the actual number of personnel engaged on the Day works, s authorised in writing by the engineer.
- (b) The Bid Day works rates for personnel Should include full compensation to the contractor for providing the personnel and their execution of the Day works, for providing and using hand tools appliances, equipment and all consumables related to the engagement of the personnel on the Day works operations, for the transport of the personnel as necessary, the provision of all safety clothing and equipment necessary and all supervision. The Bidder Day works rates should further include for all other overhead charges and profit.
- (c) The Bid Day works rates for personnel should exclude value added tax (vat) as well as for the costs of all materials necessarily utilised in any temporary works executed under Day works and all materials incorporated in the permanent works.
- (d) No additional mark-up or other chargers Should be payable to the contractor, in respect of personnel utilised on Day works when payment for the work in made at Bided Day works rates,
- (e) The Day works rate bided for each category of personnel should apply, irrespective of the quantities of Day works actually executed by the respective categories of personnel to which the rate applies.
- (f) Labour categories-definitions.

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#### Form 19: Dayworks Bills( Continues)

- (g) No additional mark-up or other chargers Should be payable to the contractor, in respect of personnel utilised on Day works when payment for the work in made at Bided Day works rates,
- (h) The Day works rate bided for each category of personnel should apply, irrespective of the quantities of Day works actually executed by the respective categories of personnel to which the rate applies.
- (i) Labour categories-definitions.

# Note: these definitions serve as a guideline to complete the following table and will in no respect alter the project specifications or standardised specifications.

(i) <u>General Foreman/Foreman</u>

Any employee who gives out work to and directly co-ordinates and supervision employees.

His duties encompass anyone or more of the following activates:

#### **Supervision**

- Maintaining discipline;
- Being responsible to the contractor for efficiency and portion of the works;
- Performing skilled work, where in an instructional capacity or otherwise.

#### (ii) Charge hand

#### Any employee engaged in anyone or more of the following activates:

- Being primarily employed in a supervisory capacity, but who may also be doing the work of any artisan.
- Giving out work to other employees under his control and supervision;
- Maintaining discipline;
- Being directly responsible to a general foreman or foreman or the contractor or the contractor's representative for efficiency and production for his portion of the works

#### (iii) <u>Artisans</u>

An employee who has successfully completed all prescribed courses at a practical institutional training centre for a particular and trade and who has successfully completed the on-site period of training as prescribed and who has successfully passed the prescribed trade tests.



## Form 19 : Dayworks Bills (Continues)

#### (iv) <u>Team leader</u>

An employee in anyone or more of the following activities:

- Being employed in a supervisory capacity, but who may be doing the work of a skilled person;
- Giving out work to the other employees under his control and supervision;
- Maintaining discipline
- Being directly responsible to a charge hand or a foreman or a general foreman or the Bophirima district municipality 's authorised representative for efficiency and production for his portion of the works

## (v) <u>Skilled employees</u>

An employee engaged in an ancillary trade or an assistant artisan.

#### (vi) <u>Semi-skilled employee</u>

An employee with ant specified skilled, an apprentice or a trainee-artisan

#### (vii) Unskilled employee

An employee engaged on any task or operation not specified above.

ltem No.	Description	Unit	Normal Rate	Overtime, Sunday & Public Holiday\Rate	Standing Time Rate

Employer

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#### Form 19: Dayworks Bills (Continues)

# Dayworks Bills for Plant and Equipment

ltem No.	Description	Unit	Normal Rate	Overtime, Sunday & Holiday Rate	Standing Time Rate
1	LDV's	HR			
2	Excavators	HR			
3	Bulldozers	HR			
4	Graders	HR			
5	Scrapes	HR			
6	Front-end loaders	HR			
7	Rollers	HR			
8	Pneumatic tyre rollers	HR			
9	Small rollers	HR			
10	Trucks( m <sup>3</sup> specified )	HR			
11	Water truck ( Litres specified )	HR			
12	Tractor and trailer	HR			
13	" Shaunee: Trailer	HR			
14	Crane Truck (tons specified )	HR			
15	Compressor	HR			
16	Concrete mixer (litres specified)	HR			
17	"Dumper " (m <sup>3</sup> specified )	HR			
18	Water Pumps 75mm 100mm 150mm	HR HR HR			
19	Compactors (plate)	HR			

Sign on behalf of the bidder:

Employer



#### PRICING INSTRUCTION

This section contains information on the Pricing Instruction and Bills of Quantities giving guidelines for the execution pf the Works.

# 1. GENERAL

THE Bills of Quantities forms part of the Contract Document and must be read and priced in conjunction with all the other documents comprising the Contract Documents which include the Conditions of Bid, Conditions of contract, the Specifications (including the Project Specifications) and the Drawings.

## 2. DESCRIPTION OF ITEM IN THE BILLS

The Bills of Quantities has been drawn up generally in accordance with Civil Engineering Quantities 1990 issued by the SA Institution of Civil Engineers and SANS 1200 and the Standard System of Measuring Works 1999, Sixth Edition (Revised).

the short description of the items in the Bills of Quantities are for identification purposes only and the measurement and payment clause of the Standardized Specifications and each Particular Specification, read together with the relevant clauses of the Project specification and directive on the drawings, set out what ancillary or associated work and activities are included in the rates for the operations specified.

## 3. QUANTITIES REFLECTED IN THE BILLS

The quantities given in the Bills of Quantities are estimated only, and subject to re-measuring during the execution of the work. where quantitates or sums are indicated as "Provisional " the Employer reserves the right to adjust the quantity or sum upwards or downward as necessary, or item can be omitted altogether. The Contractor Should obtain the Engineer's detailed instructions for all work before ordering any material or executing work or making arrangements for it.

The Works as finally completed in accordance with the Contact Should be measured and paid for as specified in the Bills of Quantities and in accordance with the general and Special Conditions of Contract, the Specifications and Project Specifications and the Drawings. Unless otherwise stated, items are measured net in accordance with the Drawings, and no allowance has been made for waste.

The Employer reserves the right to increase to decrease the quantities in the Bills of quantities to the effect to increase or decrease the accepted contract price with up to 20% without any rates renegotiated by the Contractor. The validity of the contract will in no way be affected by different between the quantities in the Bills of quantities and the quantities finally certified for payment.

Employer

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## 4. PROVISIOANL SUMS AND PRIME COST SUMS

Where "Provincial" quantities or sums (Or Prime Cost sums) are provided for items in the Bills of Quantities, payment for the work done under such items will be made in accordance with the General Condition of Contract. The Employer reserves the right, during the execution of the works, to adjust the quantity or sum upward or downward as necessary, or the item may be omitted altogether, without affecting the validity of the Contract.

The Bidder not deleted or amend any of the quantities or sums that are scheduled in either the Bills r the Summary of the bills of Quantities. Any changes made by the Bidder to provisional items in the schedules, or to the provisional percentages and sums in the Summary of the Bills of Quantities, will ne rejected, and will be treated as arithmetical errors.

however should the Bidder desire to amend any stated provisional percentages, sums or quantities, such amendments or changes will only be considered if they are indicated on the relevant "Alterations to Bid" in volume 2, as well as in a covering letter with full details of the proposed amendment.

## 5. PRICING OF THE BILLS

The prices and rates to be inserted in the Bills Of Quantities should be the full inclusive prices (excl. VAT) to be paid by the Employer for the work described under the several items, and should include full compensation for all costs and expenses that may be required in and for the completion and maintenance during the defects liability period of all work described and as shown on the drawings as well as all overheads, profits, incidentals and cost of all general risks, liabilities and obligations set forth or complied in the documents on which the bid is based.

Each item should be priced and extended to the "Amount" column by the Bidder, with the exception of the items for which only rates are required, or which already have Provisional Sums affixed thereto. if the Contractor omits t price any items in the Bills of Quantities, then these items will be considered to have zero rate or price.

All items for which terminology such as "inclusive" r "not Applicable" have been added by the Bidder will be regarded as having a nil rate which be valid irrespective of any changes in quantities during the execution of the contract.

The Bidder shall fill in rates for all items where the words "rate only" appears in the "Amount" column.

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

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Where no quantities are given in the "Quantity" column the quoted rate shall apply in the event of work under this item being required. The Bidder however note that in terms of the Conditions of Bid the Bidder may be asked to reconsider any such rates which the Employer may regard as imbalanced.

All rates and amounts quoted in the Bills if Quantities should be in Rand and include all levies and Taxes (other than VA). VAT will be added in the summary of the Bills of Quantities.

## 6. CORRECTION OF ENTRIES

Incorrect entries should not be erased or obliterated with correction fluid but must be crossed out neatly. The correct figures must be entered above or adjacent to the deleted entry, and the alteration must be initialled by the Bidder.

## 7. MONTHLY PAYMENTS

Unless otherwise specified in the Specifications and Project Specifications, progress payments in Interim Certificates be by means of interim progress instalments assessed by the Principal Agent and based on the measure in which the work actually carried out relates to the extent of the or to be done by the contractor.

## 8. UNITS OF MEASUREMENT

The units of measurement described in the Bills of Quantities are metric for which the standard international abbreviations are used. Non-standard abbreviations which may appear in the Bills of Quantities are as follows:

mm	=	millimetre	ha	=	hectares
m	=	meter	kg	=	kilogram
km	=	kilometre	t	=	ton( 1000kg)
m²	=	square metre	No	=	number
m³	=	cubic metre	Sum	=	lump sum
PC Sum	=	Prime Cost sum	1	=	litre
Prov Sum	=	Provisional Sum	%	=	percent
kl	=	kilolitre	Sum	=	Lump Sum
MPa	=	mega pascals	item	=	Line Item

Abbreviations in the Bills of Quantities:



# 9. BILL OF QUANTITIES

As per the notes and specifications detailed in the Bills of Quantities.

Employer

		<u>D'MIN</u>	ang oonstruction
ltem No		QUANTITY	AMOUNT
	BILL NO 1		
	PRELIMINARIES		
	MEANING OF TERMS "TENDER / TENDERER"		
	Any reference to the words "Tender" or "Tenderer" herein and/or in any other documentation shall be construed to have the same meaning as the words "Bid" or "Bidder"		
	PRELIMINARIES		
	The JBCC Preliminaries Code 2103, May 2005 edition for use with the JBCC Principal Building Agreement Edition 4.1 Code 2101, March 2005 is taken to be incorporated herein. The tenderer is deemed to have referred to these documents for the full intent and meaning of each clause. These clauses are referred to by number and heading only. Where standard clauses or options are not applicable to the contract such modifications or corrections as are necessary are given under each relevant clause. Where an item is not relevant to this specific contract such item is marked. "N/A"		
	PRICING OF PRELIMINARIES		
	Should Option A, as set out in clause B10.3.1 hereinafter be used for the adjustment of preliminaries then each item priced is to be allocated to one or more of the three categories Fixed, Value Related or Time Related and the respective amounts entered in the spaces provided under each item		
	Items not priced in these Preliminaries shall be deemed to be included elsewhere in these Bills of		
	SECTION A: JBCC PRINCIPAL BUILDING AGREEMENT DEFINITIONS		
	DEFINITIONS		
1	A1 DEFINITIONS AND INTERPRETATION		
	Clause 1.0 Clause		
	1.1 Definition of <b>"Commencement Date"</b> is added:		
	<b>'COMMENCEMENT DATE</b> " means the date that the agreement, made in terms of the Form of Offer and Acceptance, comes into effect		
	Clause 1.1 Definition of "Construction Period" is amended by replacing it with the following:		
	Carried to Collection		
	Section No. 1 Preliminaries Bill No. 1 Preliminaries 1		

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			AMOUNT
	<b>TRUCTION PERIOD</b> means the period commencing on the commencement ad ending on the date of practical completion		
Clause	1.1 Definition of "Interest" is amended by replacing it with the following:		
indicate	EST means the interest rates applicable on this contract, whether specifically ad in the relevant clauses or not, will be in terms of the legislation of the ic of South Africa, and in particular:		
(a)	In respect of interest owed by the employer, the interest rate as determined by the Minister of Justice and Constitutional Development, from time to time, in terms of section 1(2) of the Prescribed Rate of Interest Act, 1975 (Act No. 55 of 1975), will apply; and		
i(b)	In respect of interest owed to the employer, the interest rate as determined by the Minister of Finance, from time to time, in terms of section 80(1)(b) of the Public Finance Management Act, 1999 (Act No. 1 of 1999), will apply.		
Clause	1.6.4 is amended by replacing it with the following:		
No clau	ISe		
Fixed:_	Value related: Time related:	Item	
Clause			
Fixed:_	Value related: Time related:	Item	
3 A3	DOCUMENTS		
Clause	3.0		
Clause	3.7 is amended by the addition of the following:		
Building	ntractor shall supply and keep a copy of the JBCC Series 2000 Principal g Agreement and Preliminaries applicable to this contract on the site, to which ployer, principal agent and agents shall have access at all times		
Fixed:_	Value related:Time related:	ltem	
	Carried to Collection		
Section Prelimi	naries		
Bill No. Prelimi			
1	2		

ltem No				AMOUNT
	A4	DESIGN RESPONSIBILITY		
	Clause	4.0		
	Fixed:_	Value related: Time related:	Item	
5	A5	EMPLOYERS AGENTS		
	Clause	5.0		
	Clause	5.1.2 is amended to include clauses 32.6.3, 34.3 and 34.4		
	Fixed:	Value related:Time related:	ltem	
6	<b>A</b> 6	SITE REPRESENTATIVE		
	Clause	6.0		
	Fixed:_	Value related: Time related:	Item	
7	A7	COMPLIANCE WITH REGULATIONS		
	Clause	7.0		
	Note: T	he provisions herein include inter alia, compliance with all the requirements set out in the		
	Allow th	he amount of R for agent's fees including		
	Fixed:_	Value related: Time related:	Item	
8	A8	WORKS RISK		
	Clause	8.0		
	Fixed:_	Value related: Time related:	Item	
		Carried to Collection.		
	Section			
	Section Prelimit	naries		
	Bill No. Prelimi			
		3		

ltem			AMOUNT
<b>No</b> 9	A9 INDEMNITIES		
	Clause 9.0		
	Fixed:Value related: Time related:	ltern	
10	A10 WORKS INSURANCES		
	Clause 10.0		
	Clause 10.0 is amended by the addition of the following clauses:		
	10.5 Damage to the Works		
	(a) Without in any way limiting the contractors obligations in terms of the contract, the contractor shall bear the full risk of damage to and/or destruction of the works by whatever cause during		
	construction of the works and hereby indemnifies and holds harmless the employer against any such damage. The contractor shall take such precautions and security measures and other steps for the protection and security of the works as the contractor may deem necessary		
	(b) The contractor shall at all times proceed immediately to remove or dispose of any debris arising from damage to or destruction of the works and to rebuild, restore, replace and/or repair the works		
	(c) The employer shall carry the risk of damage to or destruction of the works and material paid for by the employer that is the result of the excepted risks as set out in 10.6		
	(d) Where the employer bears the risk in terms of this contract, the contractor shall, if requested to do so, reinstate any damage or destroyed portions of the works and the costs of such reinstatement shall be measured and valued in terms of 32.0 bereof	:	
	10.6 Injury to Persons or loss of or damage to Properties		
	(a) The contractor shall be liable for and hereby indemnifies the employer against any liability, loss, claim or proceeding whether arising in common law or by statute, consequent upon personal injuries to or the death of any person whomsoever arising out of or in the course of or caused by the execution of		
	the works unless due to any act or neglect of any person for whose actions the employer is legally liable	4	
	Carried to Collection	n	
	Section No. 1 Preliminaries		
	Bill No. 1 Preliminaries		
	4		

	QUANTITY	AMOUNT
(b) The contractor shall be liable for and hereby indemnifies the employer against any liability, loss, claim or proceeding consequent upon loss of or damage to any moveable or immovable or personal property or property contiguous to the site, whether belonging to or under the control of the employer or any other body or person, arising out of or in the course of or by reason of the execution of the works unless due to any act or neglect of any person for whose actions the employer is legally liable		
(c) The contractor shall, upon receiving a contract instruction from the principal agent, cause the same to be made good in a perfect and workmanlike manner at his own cost and in default thereof the employer shall be entitled to cause it to be made good and to recover the cost thereof from the contractor or to deduct the same from amounts due to the contractor		
(d) The contractor shall be responsible for the protection and safety of such portions of the premises placed under his control by the employer for the purpose of executing the works until the issue of the certificate of practical completion		
(e) Where the execution of the works involves the risk of removal of or interference with support to adjoining properties including land or structures or any structures to be altered or added to, the contractor shall and will remain adequately insured or insured against the death of or injury to persons		
(f) The contractor shall at all times proceed immediately at his own cost to remove or dispose of any debris and to rebuild, restore, replace and/or repair such property and to execute the works		
10.7 High risk insurance		
In the event of the project being executed in a geological area classified as a High Risk Area, that is an area which is subject to highly unstable subsurface conditions that might result in catastrophic ground movement evident by sinkhole or doline formation the following will apply:		
10.7.1 Damage to the works		
The contractor shall, from the commencement date of the works until the date of the certificate of practical completion bear the full risk of and hereby indemnifies and holds harmless the employer against any damage to and/or destruction of the works consequent upon a catastrophic ground movement as mentioned above. The contractor shall take such precautions and security measures and other steps for the protection of the works as he may deem necessary		
Carried to Collection		
Section No. 1 Preliminaries Bill No. 1 Preliminaries		
5		

ltem No		QUANTITY	AMOUNT
	When so instructed to do so by the principal agent, the contractor shall proceed immediately to remove and/or dispose of any debris arising from damage to or destruction of the works and to rebuild, restore, replace and/or repair the works, at the contractor's own costs		
	10.7.2 Injury to persons or loss of or damage to property		
	The contractor shall be liable for and hereby indemnifies and holds hamless the employer against any liability, loss, claim or proceeding arising at any time during the period of the contract whether arising in common law or by statute, consequent upon personal injuries to or the death of any person whomsoever resulting from, arising out of or caused by a catastrophic ground movement as mentioned		
	The contractor shall be liable for and hereby indemnifies the employer against any and all liability, loss, claim or proceeding consequent upon loss of or damage to any moveable or immovable or personal property or property contiguous to the site, whether belonging to or under the control of the employer or any other body or person whomsoever arising out of or caused by a catastrophic ground movement, as mentioned above, which occurred during the period of the contract		
	10.7.3 It is the responsibility of the contractor to ensure that he has adequate insurance to cover his risk and liability as mentioned in 10.7.1 and 10.7.2. Without limiting the contractors obligations in terms of the contract, the contractor shall, within twenty-one (21) calendar days of the commencement date but before commencement of the works, submit to the employer proof of such insurance policy, if requested		
	10.7.4 The employer shall be entitled to recover any and all losses and/or damages of whatever nature suffered or incurred consequent upon the contractors default of his obligations as set out in 10.7.1; 10.7.2 and 10.7.3. Such losses or damages may be recovered from the contractor or by deducting the same from any amounts still due under this contract or under any other contract presently or hereafter existing between the employer and the contractor and for this purpose all these contracts shall be		
	Fixed:Value related:Time related:	Item	
11	A11 LIABILITY INSURANCES Clause 11.0		
	Fixed: Value related: Time related:	ltem	
12	A12 EFFECTING INSURANCES		
	Clause 12.0		
	Fixed:Value related:Time related:	ltem	
13	A13.0 No clause		
	Carried to Collection		
	Section No. 1 Preliminaries Bill No. 1 Preliminaries		
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		QUANTITY	AMOUNT
4	A14 SECURITY		- - -
	Clause 14.0		
1	Clauses 14.1 - 14.8 are amended by replacing them with the following:		
	14.1 In respect of contracts with a contract sum up to R1 million, the security to be submitted by the contractor to the employer will be as a payment reduction of five per cent (5%) of the value certified in the payment certificate (excluding VAT)		
	14.1.1 The payment reduction of the value certified in a payment certificate shall be mutatis mutandi in terms of 31.8(A)		
1	14.1.2 The employer shall be entitled to recover expense and loss from the payment reduction in terms of 33.0 provided that the employer complies with the provisions of 33.4 in which event the employers entitlement shall take precedence over his obligations to refund the payment reduction security or portions thereof to the contractor		-
: : :	14.2 In respect of contracts with a contract sum above R1 million, the contractor shall have the right to select the security to be provided in terms of 14.3, 14.4, 14.5, 14.6, or 14.7 as stated in the schedule. Such security shall be provided to the employer within twenty-one (21) calendar days from commencement date. Should the contractor fail to select the security to be provided to provide do r should the contractor fail to provide the employer with the selected security within twenty-one (21) calendar days from commencement date. Should the contractor fail to select the security to be provided or should the contractor fail to provide the employer with the selected security within twenty-one (21) calendar days from commencement date, the security in terms of 14.7 shall be		
- 1	14.3 Where security as a cash deposit of ten per cent (10%) of the contract sum (excluding VAT) has been selected:		
	14.3.1 The contractor shall furnish the employer with a cash deposit equal in value to ten per cent (10%) of the contract sum (excluding VAT) within twenty-one (21) calendar days from commencement		
	14.3.2 Within twenty-one (21) calendar days of the date of practical completion of the works the employer shall reduce the cash deposit to an amount equal to three per cent (3%) of the contract value (excluding VAT), and refund the balance to the contractor		
	14.3.3 Within twenty-one (21) calendar days of the date of final completion of the works the employer shall reduce the cash deposit to an amount equal to one per cent (1%) of the contract value (excluding VAT) and refund the balance to the contractor		
	14.3.4 On the date of payment of the amount in the final payment certificate, the employer shall refund the remainder of the cash deposit to the contractor		
	Carried to Collection		
	Section No. 1		
	Preliminaries Bill No. 1		
	Preliminaries		
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	QUANTITY	AMOUNT
14.3.5 The employer shall be entitled to recover expense and loss from the cash deposit in terms of 33.0 provided that the employer complies with the provisions of 33.4 in which event the employers entitlement shall take precedence over his obligations to refund the cash deposit security or portions thereof to the contractor		
14.3.6 The parties expressly agree that neither the employer nor the contractor shall be entitled to cede the rights to the deposit to any third party		
14.4 Where security as a variable construction guarantee of ten percent (10%) of the contract sum (excluding VAT) has been selected:		
14.4.1 The contractor shall furnish the employer with an acceptable variable construction guarantee equal in value to ten per cent (10%) of the contract sum (excluding VAT) within twenty-one (21) calendar davs from commencement date		
14.4.2 The variable construction guarantee shall reduce and expire in terms of the Variable Construction Guarantee form included in the invitation to tender		
14.4.3 The employer shall return the variable construction guarantee to the contractor within fourteen (14) calendar days of it expiring		
14.4.4 Where the employer has a right of recovery against the contractor in terms of 33.0, the employer shall issue a written demand in terms of the variable construction guarantee		
14.5 Where security as a fixed construction guarantee of five per cent (5%) of the contract sum (excluding VAT) and a five per cent (5%) payment reduction of the value certified in the payment certificate (excluding VAT) has been selected:		
14.5.1 The contractor shall furnish a fixed construction guarantee to the employer equal in value to five per cent (5%) of the contract sum (excluding VAT)		
14.5.2 The fixed construction guarantee shall come into force on the date of issue and shall expire on		
14.5.3 The employer shall return the fixed construction guarantee to the contractor within fourteen (14) calendar days of it expiring		
14.5.4 The payment reduction of the value certified in a payment certificate shall be in terms of 31.8 (A)		
14.5.5 Where the employer has a right of recovery against the contractor in terms of 33.0, the employer shall be entitled to issue a written demand in terms of the fixed construction guarantee or may recover from the payment reduction or may do both		
14.6 Where security as a cash deposit of five per cent (5%) of the contract sum (excluding VAT) and a payment reduction of five per cent (5%) of the value certified in the payment certificate (excluding VAT)		
Carried to Collection		
Section No. 1 Preliminaries		
Bill No. 1 Preliminaries		
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ltem No

	QUANTITY	AMOUNT
14.6.1 The contractor shall furnish the employer with a cash deposit equal in value to five per cent ( of the contract sum (excluding VAT) within twenty-one (21) calendar days from commencement date		
14.6.2 Within twenty-one (21) calendar days of the date of practical completion of the works the employer shall refund the cash deposit in total to the contractor		
14.6.3 The payment reduction of the value certified in a payment certificate shall be mutatis mutandi in terms of 31.8(A)		
14.6.4 Where the employer has a right of recovery against the contractor in terms of 33.0, the employer may issue a written notice in terms of 33.4 or may recover from the payment reduction or may do both	ł	
14.7 Where security as a payment reduction of ten per cent (10%) of the value certified in the paym certificate (excluding VAT) has been selected:	ent	
14.7.1 The payment reduction of the value certified in a payment certificate shall be mutatis mutandi in terms of 31.8(B)		
14.7.2 The employer shall be entitled to recover expense and loss from the payment reduction in te of 33.0 provided that the employer complies with the provisions of 33.4 in which event the employers entitlement shall take precedence over his obligations to refund to payment reduction or portions thereof to the contractor		
14.8 Payments made by the guarantor to the employer in terms of the fixed or variable construction guarantee shall not prejudice the rights of the employer or contractor in terms of this agreement		
14.9 Should the contractor fail to furnish the security in terms of 14.2, the employer, in his sole discretion and without notification to the contractor, is entitled to change the contractors selected fo of security to that of a ten per cent (10%) payment reduction of the value certified in the payment 14.7 shall be applicable	rm	
Fixed:Value related:Time related:	Item	
EXECUTION		
5 A15 PREPARATION FOR AND EXECUTION OF THE WORKS		
Clause 15.0		
Clause 15.1.1 is amended by replacing it with: No Clause		
Clause 15.1 is amended by the addition of the following clause: 15.1.4 An acceptable health and sa plan, required in terms of the Occupational Health and Safety Act, 1993 (Act 85 of 1993), within twenty-one (21) calendar days of commencement date	afety	
Carried to Colle	ction	<u> </u>
Section No. 1 Preliminaries Bill No. 1		
		1
Preliminaries		

n				QUANTITY	AMOUNT
Clause 15.2.1	is amended by replacing it w	ith the following clause:		ŀ	
	ractor possession of the site v nplying with the terms of 15.1	vithin ten (10) working days of the .2 and 15.1.4			
Fixed:	Value related:	Time related:	_	Item	
16 A16 ACCE	SS TO THE WORKS				
Clause 16.0					
Fixed:	Value related:	Time related:	-	Item	
17 A17 CONT	RACT INSTRUCTIONS				
Clause 17.0				-	
Fixed:	Value related:	Time related:	_	Item	
18 A18 SETT	ING OUT OF THE WORKS				
Clause 18.0					
Fixed:	Value related:	Time related:		Item	
19 A19 ASSI			_		
Clause 19.0					
	Value related:	Time related:		ltem	
			-	Iteini	
	NATED SUB-CONTRACTO	RS Clause 20.0		l	
Clause 20.0					
Clause 20.1.3	is amended by replacing it w	ith the following: No Clause		1	
No Clause 20	.0				
	n B9.1 hereinafter for adjustr for under provisional sums	nent of attendance on nominated sul	bcontractors executing		
Fixed:	Value related:	Time related:	-	Item	
			Carried to Collection		
			Carried to Collection	-	
Section No. 1 Preliminaries Bill No. 1					
Preliminaries					
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ltem No		QUANTITY	AMOUNT
	A21 SELECTED SUBCONTRACTORS		
	Clause 21.0		
	Clause 21 is amended by replacing it with: No Clause		
	Fixed:Value related: Time related:	ltem	
22	A22 EMPLOYERS DIRECT CONTRACTORS		
	Clause 22.0		
	Fixed:Value related:Time related:	Item	
23	A23 CONTRACTOR'S DOMESTIC SUBCONTRACTORS		
	Clause 23.0		
	Fixed:Value related:Time related:	Item	
	COMPLETION		
24	A24 PRACTICAL COMPLETION		
	Clause 24.0		
	Fixed:Value related:Time related:	ltem	
25	A25 WORK'S COMPLETION		
	Clause 25.0		
	Fixed: Value related: Time related:	ltem	
26	A26 FINAL COMPLETION		
	Clause 26.0		
	Fixed:Value related:Time related:	ltem	
	Carried to Collection		
	Section No. 1 Preliminaries Bill No. 1 Preliminaries		
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item		QUANTITY	AMOUNT
No 27	A27 LATENT DEFECTS LIABILITY PERIOD		
	Clause 27.0		
	Fixed:Value related:Time related:	ltem	
28	A28 SECTIONAL COMPLETION		
	Clause 28.0		
	Fixed:Value related: Time related:	item	
29	A29 REVISION OF DATE FOR PRACTICAL COMPLETION		
	Clause 29.0		
	Fixed:Value related:Time related:	ltem	
30	A30 PENALTY FOR NON-COMPLETION		
	Clause 30.0		
	Fixed:Value related:Time related:	Item	
	PAYMENT		
31	A31 INTERIM PAYMENT TO THE CONTRACTOR		
	Clause 31.0		
	Clause 31.8 is amended by replacing it with the following two alternative clauses:		
	Alternative A		
	31.8(A) Where a security is selected in terms of 14.1; 14.5 or 14.6, the value of the works in terms of		
	31.4.1 and materials and goods in terms of 31.4.2 shall be certified in full. The value certified shall be subject to the following percentage adjustments:		
	31.8(A).1 Ninety-five per cent (95%) of such value in interim payment certificates issued up to the date of <b>practical completion</b>		
	31.8(A).2 Ninety-seven per cent (97%) of such value in interim payment certificates issued on the date of practical completion and up to but excluding the date of final completion		
	31.8(A).3 Ninety-nine per cent (99%) of such value in interim payment certificates issued on the date of final completion and up to but excluding the final payment certificate in terms of 34.6		
	Carried to Collection		
	Section No. 1		
	Preliminaries Bill No. 1		
	Preliminaries		
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tem No		QUANTITY	AMOUNT
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	31.8(A).4 One hundred per cent (100%) of such value in the final <b>payment certificate</b> in terms of 34.6 except where the amount certified is in favour of the <b>employer. In</b> such an event the payment reduction shall remain at the adjustment level applicable to the fi <b>nal</b>		
	Alternative B		
	31.8(B) Where security is a payment reduction in terms of 14.7 the value of the works in terms of 31.4.1 and materials and goods in terms of 31.4.2 shall be certified in full. The value certified shall be subject to the following percentage adjustments:		
	31.8(B).1 Ninety per cent (90%) of such value in interim payment certificates issued up to the date of practical completion		
	31.8(B).2 Ninety-seven per cent (97%) of such value in interim payment certificates issued on the date of practical completion and up to but excluding the date of final completion		
	31.8(B).3 Ninety-nine per cent (99%) of such value in interim payment certificates issued on the date of		
	31.8(B).4 One hundred per cent (100%) of such value in the final payment certificate in terms of 34.6 except where the amount certified is in favour of the employer. In such an event the payment reduction shall remain at the adjustment level applicable to the final payment certificate		
	Clause 31.12 is amended by deleting the following:		
	Payment shall be subject to the employer giving the contractor a tax invoice for the amount due		
	Fixed:Value related:Time related:	ltem	
32	A32 ADJUSTMENT TO THE CONTRACT VALUE		
	Clause 32.0		
	Clauses 32.5.1, 32.5.4 and 32.5.7 are amended by the addition of the following at the end of the due to no fault of the contractor		
	Fixed:Value related: Time related:	ltem	
	Carried to Collection		
	Section No. 1 Preliminaries		
	Bill No. 1 Preliminaries		
	13		
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Item			AMOUNT
<b>No</b> 33	A33 RECOVERY OF EXPENSE AND LOSS		
	Clause 33.0		
	Clause 33.2 is amended by adding the following clauses:		
	33.2.9 the contractors failure or neolect to commence with the works on the dates prescribed in the		
	33.2.10 the contractors failure or neglect to proceed with the works in terms of the contract		
	33.2.11 the contractors failure or neglect for any reason to complete the works in accordance with the		
	33.2.12 the contractors refusal or neglect to comply strictly with any of the conditions of contract or any contract instructions and/or orders in writing given in terms of the contract		
	33.2.13 the contractors estate being sequestrated, liquidated or surrendered in terms of the insolvency laws in force within the Republic of South Africa		
	Fixed:Value related: Time related:	ltem	
34	A34 FINAL ACCOUNT AND FINAL PAYMENT		
	Clause 34.0		
	Clause 34.13 is amended by replacing seven (7) calendar days with twenty-one (21) calendar days and deleting the words subject to the employer giving the contractor a tax invoice for the amount due		
	Fixed:Value related:Time related:	ltem	
35	A35 PAYMENT TO OTHER PARTIES		
	Clause 35.0		
	Fixed: Value related: Time related:		
	CANCELLATION		
36	A36 CANCELLATION BY EMPLOYER - CONTRACTORS DEFAULT		
	Clause 36.0		
	Clause 36.3 is amended by removing the reference to No clause and replacing the words <b>principal</b> agent with employer		
	Carried to Collection		
	Section No. 1		
	Preliminaries Bill No. 1		
	Preliminaries		
	14		

item No			AMOUNT
NO	Clause 36.0 is amended by the addition of the following clause:		
	36.7 Notwithstanding any clause to the contrary, on cancellation of this agreement either by the employer or the contractor; or for any reason whatsoever, the contractor shall on written instruction, discontinue with the works on a date stated and withdraw himself from the site. The contractor shall not be entitled to refuse to withdraw from the works on the orounds of any lien or right of retention or on the		
	Fixed: Value related: Time related:	Item	
37	A37 CANCELLATION BY EMPLOYER LOSS AND DAMAGE		
	Clause 37.0		
	Clause 37.0 is amended by the addition of the following clause:		
	37.5 Notwithstanding any clause to the contrary, on cancellation of this agreement either by the employer or the contractor; or for any reason whatsoever, the contractor shall on written instruction, discontinue with the works on a date stated and withdraw himself from the site. The contractor shall not be entitled to refuse to withdraw from the works on the grounds of any lien or right of retention or on the		
	Fixed:Value related:Time related:	ltem	
38	A38 CANCELLATION BY CONTRACTOR - EMPLOYERS DEFAULT		
	Clause 38.0		
	Clause 38.0 is amended by the addition of the following clause:		
	38.7 Notwithstanding any clause to the contrary, on cancellation of this agreement either by the employer or the contractor; or for any reason whatsoever, the contractor shall on written instruction, discontinue with the works on a date stated and withdraw himself from the site. The contractor shall not be entitled to refuse to withdraw from the works on the grounds of any lien or right of retention or on the		
	Fixed: Value related: Time related:	ltem	
39	A39 CESSATON - CANCELLATION OF THE WORKS		
	Clause 39.0		
	Fixed:Value related:Time related:	ltem	
	Carried to Collection		
			-
	Section No. 1 Preliminaries Bill No. 1 Preliminaries		1
	15		

ltem No		QUANTITY	AMOUNT
	A40 DISPUTE SETTLEMENT		
	Clause 40.0		
	Clause 40.2.2 is amended by replacing one (1) year with three (3) years		
	Clause 40.6 is amended by removing the reference to: No clause		
	No Clause		
	Clause 40.7.1 is amended by replacing (10) with (15) and by the addition of the following:		
	Whether or not mediation resolves the dispute, the parties shall bear their own cost concerning the mediation and equally share the costs of the mediator and related costs		
	Fixed:Value related:Time related:	ltem	
	SUBSTITUTE PROVISIONS		
41	A41 STATE CLAUSES		
	Clause 41.0		
	Fixed:Value related:Time related:	Item	
42	A42 STATE CLAUSES		
	Clause 42.0	r	
	Fixed:Value related: Time related:	Item	
	THE SCHEDULE		
	Information necessary for completion of those clauses contained in the schedule which are necessary		
43	Pre-tender information (clause 42)		
	Fixed:Value related:Time related:	Item	
44	42.1 CONTRACTING AND OTHER PARTIES		
		1	
	Carried to Collection	n	
	Section No. 1 Preliminaries Bill No. 1 Preliminaries		
	16		

### ltem No

n			1	QUANTITY	AMOUNT
•	42,1,1 Employer:	GA-SEGONYANA LOCAL MUNICIPALITY			
	Postal address:				
	Code:	8640			
	Tel:	+27 53 712 9403			
	Fax: E-mail .	+27			
	Physical Address:	Cnr. Voortrekker and School Streets, Kuruman, 8640			
	42.1.2 <b>Principal Agent:</b> Postal address: Code:	<b>Godimong Consulting Engineers (Pty) Ltd</b> P. O. Box 3687, Mmabatho 2735			
	Tel	+27 (18) 381 1478			
	Fax	+27 (18) 381 0488			
	E-mail	Info@godimong.com			
	Physical Address:	5 Dadford Street, Golfview, Mahikeng, 2745			
	42.1.3 Agents service:				
	Agent (1) Postal Address: Tel. Fax.				
	E-mail.				
	Physical Address:				
			Carried to Collection		
	Section No. 1 Preliminaries Bill No. 1 Preliminaries				
		17			

ltem No			QUANTITY	AMOUNT
NO	42.1.4 Agents service:	Quantity Surveyor		
	Agent (2)			
	Tel	+27		
	Fax	+27		
	E-mail			
	Physical Address:			
	42.1.5 Agents service:	Structural & Civil Engineer		
	Agent (3)	Godimong Consulting Engineers		
	Postal address:	P.O. Box 3687, Mmabatho		
	Code:	2735		
	Tel:	+ 27 (18) 381 1478		
	Fax:	+ 27 (18) 381 0488		
	E-mail:	Info@godimong.com		
	Physical: Address	5 Dadford Street, Golfview, Mahikeng, 2745		
		Carried to Collection		
	Section No. 1 Preliminaries Bill No. 1			
	Preliminaries			
		18		

ltem No		QUANTITY	AMOUNT
	42.1.6 Agents service: Electrical Engineer		
	Agent (4)		
	Postal address: Code		
	Tel		
	Fax		
	E-mail		
	Physical Address:		
	42.1.7 Agents Service : Mechanical Engineer		
	Agent (5):		
	Postal address: Code		
	Tel: +27		
	Fax +27		
	E-mail		
	Physical Address:		
45	42.2 CONTRACT DETAILS		
	42.2.1 Works Description:		
	Construction of a New Clinic at Madikwe		
	Carried to Collection		
	Section No. 1 Preliminaries Bill No. 1 Preliminaries		
	19		

m		QUANTITY	AMOUNT
	42.2.2 Site Description:		
	The site is located at Madikwe		
	42.2.3 Work or installations by direct contractors:		
	N/A		
	41.2.4 Specific options that are applicable to a State organ only		
	Where so:		
	(1) Legislation applicable to the interest rate		
	In terms of the Prescribed Rate of Interest Act 55 of 1975		
	(2) Lateral support insurance will be effected by the contractor		
		NO	
	(3) Payment will be made for material and goods		
	(a) r aj mont mil so mado loi matorial ana goodo		
		YES	
		1	
	(4) Dispute resolution by litigation		
		YES	
	(5) Extended defect liability period applicable to the following elements:		
	N/A		
	N/A	1	
	12.2.5 Data on which reconnection of the site is intended to be given:		
	42.2.5 Date on which possession of the site is intended to be given:		
	42.2.6 Period for the commencement of the works after the contractor takes		
	possession of the site	l l	
	21 (Twenty One) wor	king days	
		1	
			<u> </u>
	Carried to Collection	ๆ	
	Section No. 1 Preliminaries	1	
	Bill No. 1		
	Preliminaries		
	20	1	
			•

Item		QUANTITY	AMOUNT
No	42.2.7 For the works <b>as a whole.</b> Intended date of practical completeion and the penalty per calendar day		
	18 <i>(Eighteen) calendar months after the date of handing over of the site</i> R 5,300.00 Penalty Amount		
	42.2.8 For the works in <b>sections</b> : Intended date of practical completion and the penalty per calender day <b>N/A</b>		
	42.2.9 The law applicable to this agreement shall be that of		
	The Republic of Sou	th Africa	
46	42.3 INSURANCES		
	42.3.1 Contract works insurance to be effected by: Refer to clause 13		
	Refer to clause 13 (State Pro	visions)	
	42.3.2 Supplementary insurance is required		
	42.3.3 Public liability insurance to be effected by:	No	
		ntractor:	
	For the Sum of : R 5 00	0 000,00	
47	42.4 DOCUMENTS With a deductible of: R	5 000,00	
	42.4.1 Waivers of contractors lien or right of continuing possession is required		
	42.4.2 Number of construction document copies to be supplied to the <b>contractor</b> free of charge:		
	3 (Three) Nu	mber of	
	Carried to Collection		
	Section No. 1 Preliminaries Bill No. 1 Preliminaries		
	21		
			l

ltem No		QUANTITY	AMOUNT
110	42.4.3 Bills of Quantities/Lump sum document schedule of rates drawn up in accordance with:		
	The Standard System of Measuring Building Work		
	4 2 . 4 . 4 On acceptance of the tender the bills of quantities/lump sum document is to be submitted within <b>working days</b>		
	10 (Төл)	Number	
	4 2 . 4 . 5 JBCC Engineering General Conditions are to be included in the contract documents:		
	42.4.6 The contract value is to be adjusted using escalation adjustment indices	No	
		YES	
	Where JBCC CPAP is to be used	TES	
	Base Month: The month in which tenders close		
	4 2 .4.7 Details of changes made to the provision of JBCC standard documentation:		
		N/A	
	Carried to Collection		
	Section No. 1 Preliminaries Bill No. 1 Preliminaries		
	22		

ltem					QUANTITY	AMOUNT
No	SECTION B: JBCC F	PRELIMINARIES				
	DEFINITIONS AND I	NTERPRETATION				
48	47 Definitions and in	nterpretation				
	Fixed:	Value related:	_ Time related:		ltem	
	DOCUMENTS					
49	Checking of docum	ents				
	Fixed:	Value related:	Time related:		Item	
50	Provisional bills of a	quantities				
	Fixed:	Value related:	Time related:		ltem	
51	Availability of const	truction documentation				
	Fixed:	Value related:	_ Time related:		ltem	
52	Interests of agents					
	Fixed:	Value related:	_ Time related:		ltem	
53	Priced documents					
	Fixed:	Value related:	_ Time related:		ltem	
54	Tender submission					
	Fixed:	Value related:	_ Time related:		ltem	
	THE SITE					
55	Defined works area					
	Fixed:	Value related:	Time related:		ltem	
56	Geotechnical invest	tigation				
	Fixed:	Value related:	_ Time related:		Item	
				<b>Carried to Collection</b>		
	Section No. 1 Preliminaries Bill No. 1 Preliminaries					
			23			

ltem No					QUANTITY	AMOUNT
	Inspection of the sit	te				
	Tenderers shall comp documents and return	blete the Site Inspection Cert In the same with the tender s	ificate included in the tender ubmission.			
	Fixed:	Value related:	_ Time related:		ltem	
58	Existing premises o	ccupied				
	Fixed:	Value related:	_ Time related:		ltern	
59	Previous work dime	nsional accuracy				
	Fixed:	Value related:	Time related:		ltem	
60	Previous work defe	cts				
	Fixed:	Value related:	Time related:		ltern	
61	Services known					
	Fixed:	Value related:	_ Time related:		Item	
62	61 Services unknow	'n				
	Fixed:	Value related:	_ Time related:		ltem	
63	Protection of trees					
	Fixed:	Value related:	_ Time related:		ltem	
64	Articles of value					
	Fixed:	Value related:	_ Time related:		ltem	
65	Inspection of adjoin	ing properties				
	Fixed:	Value related:	_ Time related:		ltem	
	MANAGEMENT OF	CONTRACT				
66	Management of the	works				
	Fixed:	Value related:	Time related:		ltem	
67	Programme for the	works				
	Fixed:	Value related:	_ Time related:		ltem	
				Carried to Collection		
	Section No. 1 Preliminaries Bill No. 1 Preliminaries					
			24			

ltem No		QUANTITY	AMOUNT
	Progress meetings		
	Fixed:Value related:Time related:	Item	
69	Technical meetings		
	Fixed: Value related: Time related:	Item	
70	Labour and plant records		
	Fixed: Value related: Time related:	ltern	
	SAMPLES, SHOP DRAWINGS AND MANUFACTURERS' INSTRUCTIONS		
71	Samples of materials		
	Fixed: Value related: Time related:	Item	
72	Workmanship samples		
	Fixed: Value related: Time related:	Item	
73	Shop drawings		
	Fixed:Value related:Time related:	Item	
	TEMPORARY WORKS AND PLANT		
74	Deposits and fees		
	Fixed: Value related: Time related:	Item	
75	Enclosure of the works		
	Fixed: Value related: Time related:	Item	
76	Advertising rights		
	Fixed: Value related: Time related:	Item	
77	Plant, equipment, sheds and offices		
	Fixed:Value related:Time related:	Item	
78	Main notice board		
	Fixed:Value related:Time related:	Item	
	Ca	arried to Collection	
	Section No. 1 Preliminaries Bill No. 1 Preliminaries		
	25		

)					QUANTITY	AMOUNT
79	Subcontractors no	otice board				
	Fixed:	_ Value related:	Time related:	_	Item	
	TEMPORARY SER	VICES				
80	Location					
	Fixed:	_Value related:	Time related:	_	ltem	
81	Water					
	Fixed:	_Value related:	Time related:	_	ltem	
82	Electricity					
	Fixed:	Value related:	Time related:	_	ltem	
83	Telecommunicatio	on facilities			1	
	Fixed:	_ Value related:	Time related:	_	Item	
84	Abiution facilities					
	Fixed:	Value related:	Time related:		Item	
		prime cost amounts				
	Fixed:	Value related:	Time related:	_	Item	
		Value related:		_	Item	
		N/S SUBCONTRACT		_	ltem	
86	ATTENDANCE ON 8 <i>General attendar</i> The schedule rates contractors, will be	N/S SUBCONTRACTO		nd other	ltem	
86	ATTENDANCE ON 8 <i>General attendar</i> The schedule rates contractors, will be	N/S SUBCONTRACT providing for attendance adjusted only if the sca Value related:	ORS ee on n <b>ominated subcontractors</b> a ope of the work has changed	nd other		
86 87	ATTENDANCE ON 8General attendar The schedule rates contractors, will be Fixed: Special attendanc	N/S SUBCONTRACTO providing for attendance adjusted only if the sca Value related: e	ORS ee on n <b>ominated subcontractors</b> a ope of the work has changed	nd other 		
86	ATTENDANCE ON 8General attendard The schedule rates contractors, will be Fixed: Special attendanc Fixed:	N/S SUBCONTRACTO providing for attendance adjusted only if the sca Value related: e	ORS ee on nominated subcontractors a ope of the work has changed Time related: Time related:	nd other 	ltem	
86 87 88	ATTENDANCE ON 8General attendard The schedule rates contractors, will be Fixed: Special attendanc Fixed: Commissioning fu	N/S SUBCONTRACTO providing for attendance adjusted only if the sci Value related: value related: value related: e	ORS ee on nominated subcontractors a ope of the work has changed Time related: Time related:	nd other 	ltem	
86 87 88	ATTENDANCE ON 8General attendard The schedule rates contractors, will be Fixed: Special attendanc Fixed: Commissioning fu	N/S SUBCONTRACTO providing for attendance adjusted only if the sci Value related: value related: value related: e	ORS ee on nominated subcontractors a ope of the work has changedTime related: Time related:	nd other 	ltem	
86 87 88	ATTENDANCE ON 8General attendard The schedule rates contractors, will be Fixed: Special attendanc Fixed: Commissioning fu	N/S SUBCONTRACTO providing for attendance adjusted only if the sci Value related: value related: value related: e	ORS ee on nominated subcontractors a ope of the work has changedTime related: Time related:	nd other 	ltem	

item No			QUANTITY	AMOUNT
89	FINANCIAL ASPECTS Statutory taxes, duties and levies			
05	Fixed: Value related: Time	v related:	ltem	
90	Payment for preliminaries	Teldteu	nem	
	Fixed: Value related: Time	related:	Item	
91	Adjustment of preliminaries			
	Fixed: Value related: Time	related:	ltem	
92	Payment certificate cash flow			
	Fixed: Value related: Time	e related:	ltem	
	GENERAL			
93	Protection of the works			
	Fixed:Value related:Time	o related:	ltem	
94	Protection / isolation of existing / sectionally occupie	ed works		
	Fixed: Value related: Time	related:	ltem	
95	Security of the works			
	Fixed: Value related: Time	related:	ltem	
96	Notice before covering work			
	Fixed: Value related: Time	e related:	ltem	
97	Disturbance			
	Fixed:Value related:Time	related:	ltem	
98	Environmental disturbance			
	Fixed: Value related: Time	related:	ltem	
99	Works cleaning and clearing			
	Fixed: Value related: Time	e related:	ltem	
		Carried to Collection		
	Section No. 1 Preliminaries Bill No. 1			
	Preliminaries			
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ltem No		QUANTITY	AMOUNT
	Vermin		
	Fixed:Value related:Time related:	ltem	
101	100 Overhand work	i	
	Fixed:Value related:Time related:	Item	
102	101 Instruction manuals and guarantees		
	Fixed: Value related: Time related:	Item	
103	102 As built information	:	
	Fixed: Value related: Time related:	Item	
104	103 Tenant installations		
	Fixed:Value related:Time related:	ltem	
	SCHEDULE OF VARIABLES		
	104 Pre-tender information		
	Fixed: Value related: Time related:	Item	
	This schedule contains all variables referred to in this document and is divided into pretender and post-tender categories. The pre-tender category must be completed in full and included in the tender documents. Both the pre-tender and post-tender categories form part of these Preliminaries.		
	Spaces requiring information must be filled in, shown as not applicable or deleted and not left blank. Where choices are offered, the non-applicable items are to be deleted. Where insufficient space is provided the information should be annexed hereto and cross-referenced to the applicable clause of the schedule. Key cross reference clauses are italicised in [] brackets		
	12.1 PRE TENDER INFORMATION		
	12.1.1 Provisional Bills of Quantities [2.2] The quantities are provisional		
	12.1.2 Availability of construction documentation [2.3] Construction of documentation is complete	NO	
	12.1.3 Interest of agents	YES	
	[2.4] Details: None		
	Carried to Collection		
	Section No. 1 Preliminaries Bill No. 1		
	Preliminaries		
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em		QUANTITY	AMOUNT
lo			
	12.1.4 Defined works area		
	[3.1] Details: Restrictions will be pointed out at the site inspection		
	12.1.5 Geotechnical investigation		
	[3.2] Details: N/A		
	12.1.6 Existing premises occupied		
	[3.4] Specific requirements: N/A		
	12.1.7 Previous work - dimensional accuracy		
	[3.5] Details:		
	12.1.8 Previous work - defects		
	[3.6} Details:		
	12.19. Services - known		
	[3.7] Details: Existing services and points of connection will be pointed out on		
	site by the principal agent		
	12.1.10 Protection of trees		
	[3.9] Specific requirements:		
	12.1.11 Inspection of adjoining properties		
	[3.11] Specific requirements:		
	12.1.12 Enclosure of the works [6.2} Specific requirements:		
	(0.2) Specific requirements:		
	12.1.13 Offices		
	[6.4.3] Specific requirements:		
	The contractor shall provide, maintain and remove on completion of the works		
	an office for the exclusive use of the principal agent, minimum size 4 x 3 x 3m		
	high internally, suitably insulated and ventilated, provided with electric lighting and fitted with boarded floor, desk, chair, drawing stool, drawing board and		
	lock-up drawers for drawings. The office shall be kept clean and fit for use at		
	all times.		
	Carried to Collection		
	Section No. 1		
	Preliminaries		
	Bill No. 1		
	Preliminaries		
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		ling construction
	QUANTITY	AMOUNT
<ul> <li>12.1.14 Main notice board</li> <li>[6.5] Specific requirements: The contractor shall provide, erect where directed, maintain and remove on completion of the works a notice board size 3 x 3m, constructed of suitable boarding with flat smooth surface and with edging bead 19mm thick round outer edges and projecting 12mm from face of boarding and rounded on front edge. The board shall be securely fixed to hoarding, where hoarding is provided, or fixed to and including a suitable supporting structure of timber or tubular posts and braces. The board is to be painted ivory white and the bead and 12mm wide dividing lines dark green. All wording shall be inscribed in dark green as per the coat of arms for SA. All wording shall be inscribed in dark green painted sans serif lettering.</li> <li>12.1.15 Subcontractors' notice board</li> </ul>		
[6.6] Specific requirements:		
12.1.16 Water [7.2] Option A (by contractor)		
	YES	
Option B (by employer - free of charge)	NO	
Option C (by employer - metered)	NO	
12.1.17 Electricity [7.3] Option A (by contractor)		
Option B (by employer - free of charge)		
Option C (by employer - metered)	NO NO	
12.1.18 Telecommunications [7.4] Telephone		
Facsimile		
E-mail		
12.1.19 Ablution facilities [7.5] Option A (by contractor)		
Option B (by employer)	NO	
Carried to Collection		
Section No. 1 Preliminaries Bill No. 1 Preliminaries		
30		

		QUANTITY	AMOUNT
12.1.2	0 Protection of existing/sectionally occupied works		
[11.2]	Protection is required		
		YES	
12 1 2	1 Special attendance	Item	
[9.2]	1 Special attendance N/Δ		
[0.2]			
12.1.2	2 Protection of works		
[11.1]	Specific requirements:		
[12.1.2]	3 Disturbance Specific requirements:		
[[11.5]	The contractor shall keep the site, structures, etc well watered during	1	
	operations to prevent dust and shall provide and erect and remove on		
	completion of the works all necessary temporary dust screens all to the		
	satisfaction of the principal agent	1	
12 1 2	4 Environmental disturbance		
	Specific requirements:		
[11.0]			
12.2 P	OST-TENDER INFORMATION		
12.2.1	Payment of preliminaries		
[10.2]	Option A (prorated)	VER/NO	
	Option B (calculates)	YES/NO	
		YES/NO	
12.2.2			
	Adjustment of preliminarles Option A (three categories)		
[[10.0]		YES/NO	
	Option B (detailed breakdown)		
		YES/NO	
	Additional agreed preliminaries items		
Details	i.		
	Carried to Collec	tion	
Section			
Prelimi			
Bill No. Prelimi		1	
	indireg		
	31		

				QUANTITY	AMOUNT
SECTION C	: SPECIFIC PRELIMINARIES				
	contains specific preliminary it pplicable) appears against an i	ems which apply to this contract tem	except where		
C1	CONTRACT DRAWINGS				
		ents do not comprise the complete s and for indicating the scope of the			
enable the t	tenderer to acquaint himself with in which they are to be executed	the nature and extent of the works a l	and		
		ly intelligible to the tenderer he shall ion in writing from the principal ager			
Fixed:	Value related:	Time related:	_	ltem	
C2	MODEL PREAMBLES FOR T	RADES PREAMBLES			
the descript recommend 1997 editior	tions regarded as amplified by the led and published by the Associa	e read and priced in conjunction wit e Model Preambles for Trades as titon of South African Quantity Surve ity of description of items fully descr entertained	eyors,		
Fixed:	Value related:	Time related:		item	
СЗ	TRADE NAMES				
the teridere be used sul	rs attention is drawn to the fact th	been described in the bills of quant nat any other product of equal qualit e principal agent being obtained pric	y may		
described	en approval for an alternative pro emed to have been tendered for	duct is not obtained, the product			
Fixed:	Value related:	Time related:	-	ltem	
			Carried to Collection		
Section No. Preliminarie					<u> </u>
Bill No. 1 Preliminarie	es				
		32			
				]	

		Build	ling Construction
Secti	on No. 1		1
Bill N	lo. 1		
Preli	ninaries		
COL	LECTION		
Total	Brought Forward from Page No.	Page No	Amount
		21	
		22	
		23	
		24	
		25	
		26	
		27	
		28	
		29	
		30	
		31	
		32	
	Carried to Final Summary		
Prelir	on No. 1 ninaries		
Bill N Prelir	o. 1 ninaries		
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I		I	l

	QUANTITY	RATE	AMOUNT
BILL NO.1			
FOUNDATIONS (PROVISIONAL)			
(CPAP WORK GROUP NO. 104 UNLESS OTHERWISE STATED)			
For preambles see "Model Preambles for Trades"			
Notes:			
<ol> <li>The Tenderer is referred to External Works section for the general site clearance and platforms</li> </ol>			
SUPPLEMENTARY PREAMBLES			
<u>XXII EMIENIANI FINEAMIRER</u>			
Carried to C	Collection		
Section No. 2 Building Facilities			
Bill No. 1			
Foundations (all trades) (Provisional)		1	1

	QUANTITY	RATE	
Carting away of executed material			
Carting away of excavated material			
Descriptions of carting away of excavated material shall be			
deemed to include loading excavated material onto trucks			
directly from the excavations or, alternatively, from stock piles			
situated on the buildind site and for bulking.			
Filling			
Notwithstanding the reference to prescribed multiple handling in			
clause 1 page 6 of the Standard System of Measuring Building			
Work, prices for filling and backfilling shall include for all			
selection and any multiple handling of material.			
NOTE: All excavations are measured as being in "earth" and/or			
filling compacted to 98% modified AASHTO density.			
Descriptions of excavations shall be deemed to include for			
setting aside surplus excavated material in spoil heaps for use			
as filling or for depositing within 150m of the perimeter of the			
excavations and spreading and roughly levelling as directed, as well as for increase in bulk and multiple handling of excavated			
material caused by the contractor's method of operation.			
NOTE: Working space for formwork to sides of all concrete,			
except columns, shall be measured only where the concrete			
face is less than 750mm from the face of the measured			
excavations.			
Working space for formwork to sides of columns shall be			
measured for the width of the column face only where both:			
a)The ten of the column base is more than 1500mm balaw the			
a)The top of the column base is more than 1500mm below the commencong level of the excavations and			
b)The column face is less than 500mm from the face of the			
measured excavations.			
No claim shall be considered for any working space for			
formwork to concrete other than as above described or for			
working space beyond the sides of trench excavations for			
building of brick or block walls.			
Descriptions of excavations for working space shall be deemed			
to include for any additional risk of collapse so incurred and for			
returning and compacting of the excavated material as			
described.			
Carried to Collection	1		
Section No. 2			
Building Facilities			
Bill No. 1 Foundations (all trades) (Provisional)			
ר סטונעמווטרוס (מון וומעסט) (דוטעוטוטווטו)			-
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1			

			Building Construct			
om Io			QUANTITY	RATE	AMOUNT	
	EXCAVATIONS					
	Excavate in earth not exceeding 2 m deep below reduced or filled up grou level for	nd				
1	Surface trenches and holes.	m3	10			
2	Reduce levels under floors, aprons, etc	m3	10			
3	Thickening out edges of surface beds	m3	10			
	Extra over trench and hole excavations for excavation in:					
4	Soft rock	m3	10			
5	Hard rock	m3	10			
	Working space					
6	Back excavation of vertical sides of excavations for ground beams in filling not exceeding 500mm deep as necessary for working space for placing and removing formwork to sides of ground beams 250mm away from excavated face, including backfilling compacted to 95% modified AASHTO density	m2	10			
	Extra over all excavations for carting away					
7	7 Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m3	10			
	Risk of collapse of excavations					
8	8 Side of trench and hole excavations from natural, elevated or reduced ground level not exceeding 1500mm deep	m2	10			
	Keeping excavations free of water					
9	Allow for keeping all excavation free of water and mud	item	1			
	FILLING, ETC;					
	Carried to Coll Section No. 2 Building Facilities Bill No. 1 Foundations (all trades) (Provisional)	ection				
	37					
	1		I		8	

ltem No			QUANTITY	RATE	AMOUNT
10	Earth filling of selected excavated material stabilized with 3% OPC cement Backfilling to trenches and holes compacted to 93% modified AASHTO density in maximum 150mm layers				
		n3	10		
	Backfilling to trenches and holes compacted to 95% modified AASHTO density in maximum 150mm layers	n3	10		
	Backfilling to trenches and holes compacted to 98% modified AASHTO density in maximum 150mm layers r	n3	10		
	Earth filling supplied by the contractor from commercial sources				
13	G5 fill material under solid floors, steps, etc in layers of 150mm and compacted to 93% modified AASTO density	m3	10		
14	ہ G5 fill material under aprons, steps, ramps,etc in layers of		10		
14	150mm and compacted to 95% modified AASTO density	n3	10		
	River sand filling supplied by the contractor				
	50mm Thick dry, clean, washed river sand layer evenly spread over filling (elsewhere), levelled watered and rammed to receive waterproof membrane (elsewhere) under solid floors r	m2	10		
	Compaction of surfaces				
	Scarifying ground surface under strip footings, etc for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and re-compacting to 93% Mod AASHTO density				
	· · · · · · · · · · · · · · · · · · ·	m2	10		
	Scarifying ground surface under floors, aprons, etc for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and re-compacting to 90% Mod AASHTO density				
	-	m2	10		
	COMPACTION TESTS				
	Tests to determine the degree of compaction, etc of ground or filling	m2	1		
	Carried to Collection		i		
	Section No. 2 Building Facilities Bill No. 1 Foundations (all trades) (Provisional)				
	38				r E

			Dulluli	ig construction
ltem No		QUANTITY	RATE	AMOUNT
	SOIL POISONING			
	Weedkiller mixed and applied in strict accordance with the manufacturer's instructions			
19	Poisoning surface of ground or filling under aprons, ramps, etc m2	10		
	PROTECTION AGAINST TERMITES			
20	Poisoning surface of ground to sides and bottom of trenches, bases, etc			
	m2	10		
21	Poisoning surface of ground or filling under floors, apron,steps, etc. including raking out 75mm deep V-shaped channels against the wall, etc treated with poison solution, backfilling and ramming			
	m2	m2 10 m2 10 m2 10		
	CONCRETE, FORMWORK AND REINFORCEMENT			
	(CPAP WORK GROUP NO. 110 UNLESS OTHERWISE STATED)			
	For preambles see "Model Preambles for Trades"			
	SUPPLEMENTARY PREAMBLES			
	SUPPLEMENTARY PREAMBLES			
	Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items, materials or methods of similar quality may be used with prior approval from the principal agent.			
	Cost of tests			
	The costs of making, storing and testing of concrete test cubes as required under clause 7 "Tests" of SABS 1200 G shall include the cost of providing cube moulds necessary for the purpose, for testing costs and for submitting reports on the tests to the principal agent. The testing shall be undertaken by an independent firm or institution nominated by the contractor and to the approval of the principal agent. (Test cubes are measured separately)			
	Carried to Collection			
	Section No. 2 Building Facilities Bill No. 1 Foundations (all trades) (Provisional)			
	39			
	I			

ltem No		QUANTITY	RATE	AMOUNT
NO	Formwork			
	Descriptions of formwork shall be deemed to include use and waste only (except where described as "left in" or "permanent"), for fitting together in the required forms, wedging, plumbing and fixing to true angles and surfaces as necessary to ensure easy release during stripping and for reconditioning as necessary before re-use. The vertical strutting shall be carried down to such construction as is sufficiently strong to afford the required support without damage and shall remain in position until the newly constructed work is able to support itself.			
	Formwork to soffits of (solid) slabs etc shall be deemed to be to slabs not exceeding 250mm thick unless otherwise described			
	Formwork to sides of bases, pile caps, ground beams, etc will only be measured where it is prescribed by the engineer fordesign reasons. Formwork necessitated by irregularity or collapse of excavated faces will not be measured and the cost thereof shall be deemed to be included in the allowance for taking the risk of collapse of the sides of the excavations, provision for which is made in "Earthworks"			
	UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES			
	15MPa/19mm concrete			
22	Surface blinding under strip footings, bases, etc m3	10		
	REINFORCED CONCRETE			
23	25MPa/19mm concrete Strip footings cast against excavated surfaces, stepped and levelled			
	m3	10		
24	Circular stub columns m3	10		
25	bases, etc m3	10		
	Carried to Collection			
	Section No. 2			
	Building Facilities Bill No. 1 Foundations (all trades) (Provisional)			
	40			
				l

				Dunun	ig Construction
em   No			QUANTITY	RATE	AMOUNT
-	TEST CUBES				
	Making and testing 150 x 150 x 150mm concrete strength test cubes (Provisional)	No	1		
	FORMWORK				
	(CPAP WORK GROUP NO. 111)				
	ROUGH FORMWORK (DEGREE OF ACCURACY II)				
	Rough formwork to circular columns				
27	500mm Diameter column 500mm high	No	1		
	MOVEMENT JOINTS ETC				
	Expansion joints with softboard between vertical concrete and brick surfaces				
	Movement joint not exceeding 300mm high formed of 12mm bitumen impregnated softboard placed vertically in position between concrete surface bed and brick walls, etc including raking out top section 20mm deep and filling with bituminous				
	compound	m	10		
	10mm joints with 12mm diameter x 900mm long mild steel bars at 600mm centres both ends cast into concrete surface beds, with one end greased.				
	that one one groupod.	m	10		
	Saw cut joints				
	12mm Wide x 50mm deep saw cut joints in top of concrete filled with polyurethane chord and 6mm deep polysulphide sealant				
	searant	m	10		5
	REINFORCEMENT (PROVISIONAL)				
	Mild steel reinforcement to structural concrete work				
31	8mm Diameter bars				
		t	1		
	Carried to Collec	tion			
	Section No. 2 Building Facilities Bill No. 1				
	Foundations (all trades) (Provisional)				
	41		I		

	Duranty construction				
ltem No		QUANTITY	RATE	AMOUNT	
	Deformed High yield bars to SABS 920, Grade 450, Type 2 steel reinforcement to structural concrete work				
32	16mm Diameter bars t	1			
33	12mm Diameter bars t	1			
34	10mm Diameter bars t	1			
	BRICKWORK				
	Sizes in descriptions				
	Where sizes in descriptions are given in brick units, "one brick" shall represent the length and "half brick" the width of a brick. Reinforced brick lintels Lintels shall bear at least 160mm onto adjacent walling. Where such bearing cannot be obtained due to the proximity of adjacent openings the lintel shall be continous				
	Face bricks				
	Bricks shall be ordered timeously to obtain uniformity in size and colour				
	FOUNDATIONS (PROVISIONAL)				
	Brickwork of NFX bricks (14 MPa nominal compressive strength) in class ii mortar				
35	Piers m3	10			
36	One brick walls m2	10			
37	One brick walls circular on plan m2	10			
38	One and a half brick walls m2	10			
	FACE BRICKWORK				
	Carried to Collection				
	Section No. 2 Building Facilities Bill No. 1 Foundations (all trades) (Provisional)				
	42				
	1	l			

	Building construction				IQ OVIIOTI AVIIOTI
ו י			QUANTITY	RATE	AMOUNT
	External facing (PC R5500,00/1000 excluding VAT) pointed with square				
	recessed horizontal and vertical joints				
39	Extra over brickwork for face brickwork				
		m2	10		
	Brickwork reinforcement				
0	150mm Wide reinforcement built in horizontally	m2	10		
			10		
l					
	Carried to Collect	tion			
	Section No. 2				
I	Building Facilities Bill No. 1				
	Foundations (all trades) (Provisional)				
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Section No. 1	I		
Bill No. 1			
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COLLECTION			
Total Brought Forward from Page No.	Page No		AMOUNT
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	36		
	37		
	38		
	39		
	40		
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	42		
	43		
· ·			
Carried Forward to Summary of Section 2			
Section No. 2 Building Facilities			
Bill No. 1 Foundations (all trades) (Provisional)			
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	I	I	

	QUANTITY	RATE	AMOUNT
BILL NO. 2			
CONCRETE. FORMWORK AND REINFORCEMENT			
(CPAP WORK GROUP NO. 110 UNLESS OTHERWISE STATED)			
For preambles see "Model Preambles for Trades"			
SUPPLEMENTARY PREAMBLES			
SUPPLEMENTARY PREAMBLES			
Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items, materials or methods of similar quality may be used with prior approval from the principal agent.			
Cost of tests			
The costs of making, storing and testing of concrete test cubes as required under clause 7 "Tests" of SABS 1200 G shall include the cost of providing cube moulds necessary for the purpose, for testing costs and for submitting reports on the tests to the principal agent. The testing shall be undertaken by an independent firm or institution nominated by the contractor and to the approval of the principal agent. (Test cubes are measured separately)			
Formwork			
Descriptions of formwork shall be deemed to include use and waste only (except where described as "left in" or "permanent"), for fitting together in the required forms, wedging, plumbing and fixing to true angles and surfaces as necessary to ensure easy release during stripping and for reconditioning as necessary before re-use. The vertical strutting shall be carried down to such construction as is sufficiently strong to afford the required support without damage and shall remain in position until the newly constructed work is able to support itself.			
Formwork to soffits of (solid) slabs etc shall be deemed to be to slabs not exceeding 250mm thick unless otherwise described			
Carried to Co	llection		ł 
Section No. 2 Building Facilities Bill No. 2			
Concrete, Formeork & Reinforcement			
45			

ltern No

				LYMUS	ing construction
Item			QUANTITY	RATE	AMOUNT
No	REINFORCED CONCRETE				
	15MPa/19mm concrete				
1	Aprons cast in panels				
		m3	10		
	25MPa/19mm concrete				
2	Surface beds cast over waterproofing membrane (elsewhere)	m3	10		
3	3 Vanity slabs, cupboard slabs, cover slabs, etc (provisional)				
		m3	10		
	25MPa/19mm vibrated concrete				
4	Beams	m3	10		
5	Slabs including beams and inverted beams		10		
5		m3	10		
6	Columns		10		
		m3	10		
	TEST CUBES				
7	Making and testing 150 x 150 x 150mm concrete strength test cubes (Provisional)				
		No	1		
	CONCRETE SUNDRIES				
	Finishing top surfaces of concrete smooth with a wood float				
8	Surface beds, slabs, etc		10		
		m2	10		
9	Tops of beams, walls, etc	m2	10		
10	Aprons, etc				
		m2	10		
	FORMWORK				
	(CPAP WORK GROUP NO. 111)				
	Carried to Collect	ion			
	Section No. 2				
	Building Facilities Bill No. 2				
	Concrete, Formeork & Reinforcement				
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	1				

m o			QUANTITY	RATE	AMOUNT
	Smooth formwork to				
11	Soffits of slabs propped up exceeding 1,5m and not exceeding				
	3,5m high				
		m2	10		
12	Sides and soffits of beams propped up exceeding 1,5m and not				
	exceeding 3,5m high				
		m2	10		
			10		
	Edges, risers, ends and reveals not exceeding 300mm high or				
	wide	m	10		
			10		
14	Ditto circular on plan, exceeding 1 metre radius				
		m	10		
	Smooth formwork to circular columns				
45					
15	500mm Diameter column 1,000mm high	No	1		
			·		ļ
16	500mm Diameter column 5,795mm high				
		No	1		
17	500mm Diameter column 3,570mm high				
		No	1		
18	500mm Diameter column 3,190mm high				
		No	1		
	MOVEMENT JOINTS ETC				
	Expansion joints with softboard between vertical concrete and brick surfaces				
	<u>amineea</u>				Į
	Movement joint not exceeding 300mm high formed of 12mm				
	bitumen impregnated softboard placed vertically in position between concrete surface bed and brick walls, etc including				
	raking out top section 20mm deep and filling with bituminous				
	compound				
		m	10		
			10		
	Movement joint not exceeding 300mm high formed of 12mm				
	bitumen impregnated softboard placed vertically in position between concrete surfaces, etc including raking out top section				
	20mm deep and filling with bituminous compound				
			10		
	Carried to Colle	m	10		
	Section No. 2				
	Building Facilities				
	Bill No. 2 Concrete, Formeork & Reinforcement				
	47				

m o			QUANTITY	RATE	AMOUNT
	Saw cut joints				
	12mm Wide x 50mm deep saw cut joints in top of concrete filled with polyurethane chord and 6mm deep polysulphide sealant				
	90dia) it	t	1		
	REINFORCEMENT (PROVISIONAL)				
	Mild steel reinforcement to structural concrete work				
22	8mm Diameter bars				
		t	1		
23	10mm Diameter bars	t	1		
	Deformed High yield bars to SABS 920. Grade 450. Type 2 s reinforcement to structural concrete work	teel			
24	10mm Diameter bars				
		t	1		
25	12mm Diameter bars	t	1		
26	16mm Diameter bars	t	1		
27	20mm Diameter bars	+	1		
28	25mm Diameter bars				
20		t	1		
29	32mm Diameter bars	t	1		
	Fabric reinforcement				
	Allow for mild steel spacer stoels bent to code 83 for spacing fabric reinforcement 240mm between top and bottom layers in strip foundations at 500mm centres	Item	1		
31	Type 193 fabric reinforcement in concrete surface beds, etc A: 1100 B: 173 C: 242 D: 13	m2	10		
32	Type 193 fabric reinforcement in concrete aprons (provisional) A: 208 B: 0 C: 0 D: 34	m2	10		
	A. 200 B. 0 0. 0 D. 04	Carried to Collection	10		
	Section No. 2	Carried to Collection			
	Building Facilities Bill No. 2 Concrete, Formeork & Reinforcement				
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	I	QUANTITY	RATE	AMOUNT
Type 193 fabric reinforcement in vanity slabs, cover slabs, etc				
A: 6 B: 0 C: 0 D: 0	m2	10		
		10		
	Į			
			1	
Carrie	d to Collection			
ection No. 2				
vilding Feeliking				
uliding raciities	I			
ill No. 2			1	
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Building Facilities Bill No. 2 Concrete, Formeork & Reinforcement 49				
ill No. 2 oncrete, Formeork & Reinforcement				
Section No. 1				
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Bill No. 1				
Preliminaries				
COLLECTION				
Total Brought Forward from Page No.		Page No		AMOUNT
		45		
		46		
		47		
		48		
		49		
		49		
	Carried Forward to Summary of Section 2			
Section No. 2				
Building Facilities Bill No. 2				
Concrete, Formeork & Reinforcement				
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		QUANTITY	RATE	AMOUNT
E	HLL NO. 3			
E	RECAST CONCRETE			
S	UPPLEMENTARY PREAMBLES			
s	izes:			
le W	Blocks, sills, etc measured linear shall be made in suitable angths. Large size setting out drawings shall be prepared where necessary and submitted to the architect for approval efore moulds are made			
2	General:			
s	Vhere kerbstones, blocks, etc are laid in ground descriptions hall be deemed to include necessary excavation, filling in and amming			
E	RECAST CONCRETE			
L	Intels:			
2	Concrete prestressed fabricated lintels			
1	10 x 70mm Lintels in lengths not exceeding 3m m	10		
2	Copings:			
c	50 x 550 x 200mm Precast concrete copings pyramidal pier apping finished smooth from the mould to all exposed urfaces No	1		
	Carried Forward to Summary of Section	2		
B	action No. 2 Auliding Facilities Hill No. 3 Precast Concrete			
	51			
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ltem No		QUANTITY	RATE	AMOUNT
NU	BILL NO. 4			
	MASONRY			
	(CPAP WORK GROUP NO. 118 UNLESS OTHERWISE STATED			
	For Preambles see "Model Preambles for Trades"			1
	SUPPLEMENTARY PREAMBLES			-
	Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items, materials or methods of similar quality may be used with prior approval from the principal agent.			
	Pointing			
	Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc			
	BRICKWORK			
	Sizes in descriptions			
	Where sizes in descriptions are given in brick units, "one brick" shall represent the length and "half brick" the width of a brick. Reinforced brick lintels Lintels shall bear at least 160mm onto adjacent walling. Where such bearing cannot be obtained due to the proximity of adjacent openings the lintel shall be continous			
	Face bricks			
	Bricks shall be ordered timeously to obtain uniformity in size and colour			
	SUPERSTRUCTURE			
	Brickwork of NFP bricks in class II mortar			
1	Piers m3	10		
2	Half brick walls m2	10		
	Carried to Collection R 106 350.00 Section No. 2			
	Carried to Collection			
	Section No. 2 Building Facilities Bill No. 4			
	Brickwork			
	52			
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				L'URINO	ig construction
ltem No			QUANTITY	RATE	AMOUNT
	Half brick bath enclosure wall	m2	10		
4	4 One brick walls	m2	10		
5	5 One brick circular walls	m2	10		
6	6 345mm Thick brick Wall	m2	10		
	Brickwork reinforcement				
7	75mm Wide reinforcement built in horizontally	m	10		
8	150mm Wide reinforcement built in horizontally	m	10		
	TEMPORARY TURNING PIECES. ETC				
9	To flat brick lintels not exceeding 300mm wide	m	10		
	BRICKWORK SUNDRIES				
10	Fill top of pressed steel door frame suitable for half brick wall with cement mortar and trowel smooth	m	10		
11	Fill top of pressed steel door frame suitable for one brick wall with cement mortar and trowel smooth				
		m	10		
	Galvanised hoop iron cramps, ties, etc				
12	38 x 1,6mm Galvanised hoop iron roof tie 950mm long with one end built six courses deep into top of brickwork and other end wrapped around and spiked to trusses				
		No	1		
13	<u>Air bricks etc</u> 222 x 155mm Terra-cotta vermin proof air brick with gauze backing and building into opening in brickwork with cement mortar				
		No	1		
	Carried Section No. 2 Building Facilities Bill No. 4	to Collection			
	Brickwork				
	53				
		I	I		I

Image     QUANTITY     RATE     AMOUNT       14     20mm Fibre board 220mm wide built in vertically between surfaces of brickwork (provisional)     m     10     14       2ACE BRICKWORK     The board 220mm wide built in vertically between surfaces of brickwork (provisional)     m     10     10       FACE BRICKWORK     The board 220mm file of the sacid specifications)     m     10     10       Face set or drive wall in beam filing pointed one side     m2     100     10       16     One brick walls pointed with super recessed for face brickwork     m2     100     10       17     Extra over ordinary brickwork for face brickwork     m2     100     10       18     Extra over ordinary brickwork for face brickwork     m2     100     10       18     Extra over ordinary brickwork for face brickwork     m2     100     10       19     Brick-on-edge header course copings. sills. etc of face bricks (PC faces     m     10       20     Header course lintels pointed externally to sofit and face     m     10     10       21     Gut face brick-on-edge external window cill bedded sloping and sliphty projecting     m     10     10       21     Brick-on-edge external window cill bedded sloping and sliphty projecting     m     10     10       22     Gection No. 2 Brildwork     Extra ofa				-2-110-11	ig oonstruction
Joint forming material in movement joints         14       20mm Fibre board 220mm wide built in vertically between surfaces of brickwork (provisiona)       m       10         FACE BRICKWORK       External or internal facing (PC R5500.00/1000 excluding vat but delivered on sile) pointed with square recessed horizontal and vertical Joints (NS: Please see architect's drawings for the axact specifications)       10         15       Half brick wall in beam filling pointed one side       m2       10         16       One brick walls pointed both sides       m2       10         17       Extra over ordinary brickwork for face brickwork       m2       10         18       Extra over ordinary brickwork for face brickwork on piers       m2       10         18       Extra over ordinary brickwork for face brickwork on piers       m2       10         19       Brick-on-edge header course copings. sills, site of face bricks (PC R5500/000 excluding vat) pointed with recessed joints on all exposed faces       m       10         20       Header course coping       m       10       10         21       Ut face brick-on-edge external window cill bedded sloping and sliphty projecting       m       10         21       Cut face brick-on-edge external window cill bedded sloping and sliphty projecting       m       10         22       Header course coping       m       10 <t< td=""><td></td><td></td><td>QUANTITY</td><td>RATE</td><td>AMOUNT</td></t<>			QUANTITY	RATE	AMOUNT
surfaces of brickwork (provisional)       m       10         FACE BRICKWORK       Internal facing (PC R5500.00/1000 excluding vat but delivered on site) pointed with square necessed horizontal and vertical joints (NB: Please see architest's drawings for the exact specifications)       Internal facing (PC R5500.00/1000 excluding vat but delivered on site)         15       Half brick wall in beam filling pointed one side       m2       10         16       One brick walls pointed both sides       m2       10         17       Extra over ordinary brickwork for face brickwork       m2       10         18       Extra over ordinary brickwork for face brickwork on piers       m2       10         18       Extra over ordinary brickwork for face brickwork on piers       m2       10         19       Brick-on-edge header course copings. sills, etc of face bricks (PC R5500/1000 excluding vat) pointed with recessed joints on all supposed faces       m       10         20       Header course coping       m       10       21         21       Cut face brick-on-edge external window cill bedded sloping and sliphty projecting       m       10         21       Cut face brick-on-edge external window cill bedded sloping and sliphty projecting       m       10         22       Cut face brick-on-edge external window cill bedded sloping and sliphty projecting       m       10         Section N		Joint forming material in movement joints			
External or. Internal facing (PC R5500.00/1000 excluding vat but delivered on site) pointed with square recessed horizontal and vertical joints (NB: Plaze see architect's drawings for the exact specifications)       10         15       Half brick wall in beam filling pointed one side       m2       10         16       One brick walls pointed both sides       m2       10         17       Extra over ordinary brickwork for face brickwork       m2       10         18       Extra over ordinary brickwork for face brickwork on piers       m2       10         18       Extra over ordinary brickwork for face brickwork on piers       m2       10         18       Extra over ordinary brickwork for face brickwork on piers       m2       10         19       Brick-on-edge header course copings. sills. site of face bricks (PC R5500/1000 excluding vat) pointed with necessed joints on all exposed faces       m       10         20       Header course coping       m       10         20       Header course coping       m       10         21       Cut face brick-on-edge external window cill bedded sloping and slightly projecting       m       10         21       Cut face brick-on-edge external window cill bedded sloping and slightly projecting       m       10         22       Header course coping       m       10       10         23 <td>14</td> <td>surfaces of brickwork (provisional)</td> <td>10</td> <td></td> <td></td>	14	surfaces of brickwork (provisional)	10		
on site) pointed with square recessed horizontal and vertical joints (NB: Please sea architect's drawings for the exact specifications) 15 Half brick wall in beam filling pointed one side m2 10 16 One brick walls pointed both sides m2 10 17 Extra over ordinary brickwork for face brickwork m2 10 18 Extra over ordinary brickwork for face brickwork on piers m2 10 18 Extra over ordinary brickwork for face brickwork on piers m2 10 18 Brick-on-edge header course copings, sills, stc of face bricks (PC R5500/1000 excluding vat) pointed with recessed joints on all exposed faces 19 Brick-on-edge header course lintels pointed externally to soffit and face m 10 20 Header course coping m 10 21 Cut face brick-on-edge external window cill bedded sloping and slightly projecting m 10 22 Cut face brick-on-edge external window cill bedded sloping and slightly projecting m 10 23 Extra over ordinary brickwork in the sease of the brick of the brick on the sease of the brick on the brick		FACE BRICKWORK			
m2       10         16       One brick walls pointed both sides       m2       10         17       Extra over ordinary brickwork for face brickwork       m2       10         18       Extra over ordinary brickwork for face brickwork on piers       m2       10         18       Extra over ordinary brickwork for face brickwork on piers       m2       10         18       Extra over ordinary brickwork for face brickwork on piers       m2       10         19       Brick-on-edge header course copings. sills. etc of face bricks (PC face bricks)       m       10         20       Header course coping       m       10         20       Header course coping       m       10         21       Cut face brick-on-edge external window cill bedded sloping and sightly projecting       m       10         21       Cut face brick-on-edge external window cill bedded sloping and sightly projecting       m       10         Carried to Collection         Section No. 2         Building Facilities       Bill No. 4         Building Facilities       Bill No. 4       Image: Section No. 4		on site) pointed with square recessed horizontal and vertical joints (NB:			
m2       10         17       Extra over ordinary brickwork for face brickwork       m2       10         18       Extra over ordinary brickwork for face brickwork on piers       m2       10         18       Extra over ordinary brickwork for face brickwork on piers       m2       10         18       Extra over ordinary brickwork for face bricks of face bricks (PC R5500/1000 excluding vat) pointed with recessed joints on all exposed faces       10         19       Brick-on-edge header course lintels pointed externally to soffit and face       m       10         20       Header course coping       m       10         20       Header course coping       m       10         21       Cut face brick-on-edge external window cill bedded sloping and slightly projecting       m       10         22       Header course coping       m       10         23       Cut face brick-on-edge external window cill bedded sloping and slightly projecting       m       10         Carried to Collection         Exection No. 2         Building Facilities       Bill No. 4       Inclusion facilities         Bill No. 4       Brickwork       Inclusion facilities       Inclusion facilities	15		10		
m2       10         18       Extra over ordinary brickwork for face brickwork on piers       m2       10         Brick-on-edge header course copings, sills, etc of face bricks (PC R5500/1000 excluding vat) pointed with recessed joints on all exposed faces       10         19       Brick-on-edge header course lintels pointed externally to soffit and face       m       10         20       Header course coping       m       10         21       Cut face brick-on-edge external window cill bedded sloping and slightly projecting       m       10         21       Cut face brick-on-edge external window cill bedded sloping and slightly projecting       m       10         Carried to Collection         Section No. 2         Building Facilities Bill No. 4       Brickwork       Image: Carried to Collection	16		10		
m2       10         Brick-on-edge header course copings, sills, etc of face bricks (PC R5500/1000 excluding vat) pointed with recessed joints on all exposed faces       10         19       Brick-on-edge header course lintels pointed externally to soffit and face       m       10         20       Header course coping       m       10         20       Header course coping       m       10         21       Cut face brick-on-edge external window cill bedded sloping and slightly projecting       m       10         21       Cut face brick-on-edge external window cill bedded sloping and slightly projecting       m       10         Carried to Collection         Section No. 2       Building Facilities       Bill No. 4         Bill No. 4       Brickwork       Image: Carried to Collection       Image: Carried to Collection	17	-	10		
R5500/1000 excluding vat) pointed with recessed joints on all exposed         19       Brick-on-edge header course lintels pointed externally to soffit and face         19       Brick-on-edge header course coping         10       m         20       Header course coping         11       m         21       Cut face brick-on-edge external window cill bedded sloping and slightly projecting         21       Cut face brick-on-edge external window cill bedded sloping and slightly projecting         21       Cut face brick-on-edge external window cill bedded sloping and slightly projecting         22       Carried to Collection         Section No. 2       Building Facilities         Bill No. 4       Brickwork	18	m2	10		
and face m 10 10 10 10 11 10 11 10 11 10 10		R5500/1000 excluding vat) pointed with recessed joints on all exposed			
20 Header course coping m 10 21 Cut face brick-on-edge external window cill bedded sloping and slightly projecting m 10 Carried to Collection Section No. 2 Building Facilities Bill No. 4 Brickwork	19	and face	10		
slightly projecting m 10 m 1	20	Header course coping			
Carried to Collection Section No. 2 Building Facilities Bill No. 4 Brickwork	21				
Section No. 2 Building Facilities Bill No. 4 Brickwork		m	10		
Section No. 2 Building Facilities Bill No. 4 Brickwork					
Section No. 2 Building Facilities Bill No. 4 Brickwork					
Section No. 2 Building Facilities Bill No. 4 Brickwork					
Building Facilities Bill No. 4 Brickwork		Carried to Collection			
54		Building Facilities Bill No. 4			
		54			

Section No. 2			
Bill No. 4			
Brickwork			
COLLECTION			
Total Brought Forward from Page No.	Page No		AMOUNT
	52		
	53		
	54		
Carried Forward to Summary of Section No. 2			
Section No. 2 Building Facilities Bill No. 4			
Brickwork			
55			
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item No			QUANTITY	RATE	AMOUNT
NU	BILL NO. 5				
	WATERPROOFING				
	(CPAP WORK GROUP NO. 120 UNLESS OTHERWISE STATED)				
	For preambles see "Model Preambles for Trades"				
	SUPPLEMENTARY PREAMBLES				
	Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items, materials or methods of similar quality may be used with prior approval from the principal agent.				
	DAMP PROOFING				
	WATERPROOFING TO WALLS				
1	One layer of type 375 micron embossed "Gunplas Brikgrip" black polythylene damp proof course to walls, cills, etc. (measured net)				
	A: 114 B: 26 C: 44 D: 7	m2	10		
	WATERPROOFING UNDER FLOORS, ETC				
	Colour coded polythylene sheeting complying with SABS 952, Type C, in wideset practicable widths with all joints lapped and sealed in accordance with the manufacture's instructions				
2	250 Micron green medium density sheeting laid loose on top of compacted earth under concrete surface beds, lapped 150 mm and sealed at all joints with pressure sensitive tape (measured net).				
	A: 1234 B: 173 C: 42 D: 13	m2	10		
	Sundries				
3	10mm "Flexothane 1" polysulphide sealant in joint including between wall and floor tiles				
	A: 159 B: 22 C: 58 D: 7	m	10		
	Carried Forward to Summary of Sec	tion 2			
	Section No. 2 Building Facilities Bill No. 5				
	Waterproofing				
	56				

		I	QUANTITY	RATE	
	BILL NO 6				
	ROOF COVERINGS ETC				
	(CPAP WORK GROUP NO. 124 UNLESS OTHERWISE STATED)				
	For preambles see "Model Preambles for Trades"				
	SUPPLEMENTARY PREAMBLES				
	Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items, materials or methods of similar quality may be used with prior approval from the principal agent.				
	Straight cutting				
	Descriptions of all roof coverings are deemed to include for all straight cutting				
	0.6mm Chromadek finished galvanised metal "IBR" profile ribbed sheet steel and accessories				
	NOTE: The contractor is to submit a certificate signed by the merchant, stating that the galvanised roof covering supplied complies with the required thickness specified				
	Roof sheeting with pitch not exceeding 50 degrees fixed to				
	timber purlins (elsewhere)	m2	10		
2	Apex flashing 410mm girth				
		m	10		
	Sheet iron gable trim 410mm girth three times bent to detail and fixed to roof sheeting				
		m	10		
4	Headwall flashing 370mm girth				
		m	10		
5	Stepped flashing 370mm girth	m	10		
6	0.5mm Galvanised sheet iron valley gutter 370mm girth bent to				
	profile				
		m	10		
	Carried to Co	llection			
	Section No. 2 Building Facilities Bill No. 6				
	Roof Coverings etc				
	57				

		QUANTITY	RATE	AMOUNT
Polythylene eaves fillers	m	10		
ROOF AND WALL INSULATION	· · ·	10		
Sisalation 420' heavy industrial grade aluminium foil based insulation				
Insulation laid taut over trusses and fixed concurrent with burlins including galvanised steel straining wires at				i
pproximately 1000mm centres	m2	10		
				1
			-	
Carried to Co	ollection			
Section No. 2 Building Facilities				
	I			
Bill No. 6 Roof Coverings etc 58				

Section No. 2		I I
Bill No. 6		
Roof Coverings etc		
COLLECTION		
Total Brought Forward from Page No.	Page	AMOUNT
	No	
	57	
	58	
Carried Forward to Summary of Section No. 2		
Section No. 2 Building Facilities Bill No. 6		
Roof Coverings etc		
59		

					ing construction
			QUANTITY	RATE	AMOUNT
BILL	NO. 7				
CARP	ENTRY AND JOINERY				
(CPAF STATI	P WORK GROUP NO. 126 UNLESS OTHERWISE ED)				
For pr	eambles see "Model Preambles for Trades"				
SUPP	LEMENTARY PREAMBLES				
names quality	materials or methods to be used specified by trade s or catalogue numbers are only an indication of the required. Items, materials or methods of similar quality e used with prior approval from the principal agent.				
<b>NOTE</b> PINE	TIMBER: ALL SOFTWOOD TO BE SOUTH AFRICAN				
DESC	RIPTIONS				
	rm "planted on" shall mean the nailing of one timber er to another.				
	rm "screwed on" shall mean the countersunk screwing of nber member to another.				
one tir	rm screwed on and pelleted" shall mean the screwing of nber member to another with the heads of screws sunk elleted.				
	rm "plugged" shall mean the countersunk screwing of a member to and including plastic plugs in brickwork or ste.				
timber	rm "plugged and pelleted" shall mean the screwing of a member to and including plastic plugs in brickwork or ste with heads of screws sunk and pelleted.				
	iptions of floors, ceilings, joinery, etc. shall be deemed to e for mitres, stopped ends, fitted intersections, etc.				
	iptions of rounded angles, rebates, grooves, chamfers, ed edges, etc. shall be deemed to include for angles, etc.				
		Carried to Collection			
Buildin Bill No	n No. 2 ng Facilities b. 7 ntry and Joinery				
	60				
	00		1		H

n			QUANTITY	RATE	AMOUN
'	ROOF CONSTRUCTION				
1	Allow a provisional sum of Eight Hundred and Eighty Five Thousand Rand (R285,000.00) for supply and delivery only to				
	site of roof timbers and accessories to include trusses, wall				-
	plates, purlins, braces and temporary braces, gangboarding,		4		
	fascia boards, hurricane clips, etc (Clinic building)	Item	1		
2	Allow for profit on preceding item if required	ltem	1		
3	Take delivery, store and protect roof timbers, etc. and later				
	hoist and erect the roof structure not exceeding 6360mm above				
	natural ground level	ltem	1		
4	Allow a provisional sum of One Hundred and Twenty Thousand				
	Rand (R120,000.00) for supply and delivery only to site of roof				
	timbers and accessories to include trusses, wall plates, purlins,				
	braces and temporary braces, gangboarding, fascia boards,				
	Items, materials or methods to be used specified by trade	ltem	1		
5	Allow for profit on preceding item if required				
6	Take delivery, store and protect roof timbers, etc. and later				
	hoist and erect the roof structure not exceeding 6360mm above				
	natural ground level	ltem	1		
7	Allow a provisional sum of One Hundred and Fifty Thousand				
	Rand (R150,000.00) for supply and delivery only to site of roof				
	timbers and accessories to include trusses, wall plates, purlins,				
	braces and temporary braces, gangboarding, fascia boards,				1
	hurricane clips, etc (Nurses Houses)	Item	1		
8	Allow for profit on preceding item if required Item 15 000.00	Item	1		=
9	Take delivery, store and protect roof timbers, etc. and later				
	hoist and erect the roof structure not exceeding 6360mm above				
	natural ground level	ltem	1		
10	Allow a provisional sum of Forty Five Thousand Rand				
	(R45,000.00) for supply and delivery only to site of roof timbers				-
	and accessories to include trusses, wall plates, purlins, braces				
	and temporary braces, gangboarding, fascia boards, hurricane				1
	clips, etc (Guard House) (Provisional)	Item	1		
11	Allow for profit on preceding item if required	Item	1		•
12	Take delivery, store and protect roof timbers, etc. and later				
	hoist and erect the roof structure not exceeding 6360mm above			1	
	natural ground level	ltem	1		
		Carried to Collection			
	Section No. 2				
	Building Facilities				
	Bill No. 7				
	Carpentry and Joinery				
	61				
					1

				Build	ling Construction
ltem No			QUANTITY	RATE	AMOUNT
	wrought laminated timber				
13	75 x 375mm Beams, etc bolted A: 57 B: 0 C: 0 D: 0 r	n	10		
	SKIRTINGS				
	Wrought meranti				
14	19 x 76mm Skirting including 19mm quadrant bead nailed A: 0 B: 159 C: 120 D: 20 rt	n	10		
	DOORS, ETC				
	NOTE:				
	All framed and ledged batten doors and combination doors, where battens are utilised, shall only be of construction acceptable to the Department, i.e. mortice and tennon where the tennon is exposed on the outside egdes of stiles and where the tennon is wedged to form form a dovetail shape.				
	Hollow core flush panel doors with commercial veneer both sides suitable for painting and two matching concealed vertical edge strips hung to steel frames				
15	40 x 1 270 x 2 032mm Double door with rebated meeting stiles A: 7 B: 0 C: 0 D: 0 No	0	1		
16	40 x 1 136 x 2 032mm Double door with rebated meeting stiles A: 0 B: 2 C: 0 D: 0 No	0	1		
	Semi-solid flush panel doors with commercial veneer both sides suitable for painting and two matching concealed vertical edge strips hung to steel frames				
17	40 x 813 x 1 882mm Door.				
40	A: 14 B: 0 C: 0 D: 2 Ni	°	1		
10	40 x 813 x 2 032mm Door. A: 0 B: 6 C: 20 D: 0 No	•	1		
19	40 x 900 x 2 032mm Door. A: 20 B: 0 C: 0 D: 0 No	•	1		
20	40 x 900 x 2 032mm Door with 400 x 300mm high cut out for vent (elsewhere)	1			
	A: 8 B: 0 C: 0 D: 0 No	•	1		
	Carried to Collectio	n			
	Section No. 2 Building Facilities Bill No. 7				
	Carpentry and Joinery				
	62				
		I			l

					III Y VYING UVUVII
ltem No			QUANTITY	RATE	AMOUNT
	40 x 1 359 x 2 032mm Double door in un-qual leaves with rebated meeting stiles, one leaf 394 x 2032mm high, the other leaf 965 x 2032 high				
	A: 3 B: 0 C: 0 D: 0	No	1		
22	40 x 1 611 x 2 032mm Double door with rebated meeting stiles A: 1 B: 0 C: 0 D: 0	No	1		
23	40 x 1 611 x 2 032mm Double door in equal leaves with rebated meeting stiles, each leaf with 400 x 300mm high cut out for vent panel (elsewhere) A: 1 B: 0 C: 0 D: 0	No	1		
24	40 x 1 611 x 2 032mm Double door in equal leaves with rebated meeting stiles, each leaf with glazed viewing panel size 300 x 450mm high with 20mm hardwood framing and glaziing beads all round (glazing elsewhere) A: 3 B: 0 C: 0 D: 0	No	1		
	Swartland Blue' or equal and approved meranti ply panel doors with 5 years guarantee				
25	40 x 813 x 2 032mm Three panel door A: 0 B: 2 C: 0 D: 0	No	1		
	Wrought meranti doors hung to steel frames				Ĩ
26	26 40 x 813 x 2 032mm Framed, ledged and braced batten door formed of 40 x 110mm stiles and top rail, 20 x 225mm bottom ledge, 20 x 150mm middle ledge and 20 x 110mm diagonal braces, filled in flush one side with 20 x 75mm tongued, grooved and V-jointedboth sides vertical boarding fixed in and including grooves in stiles and top rail. A: 3 B: 0 C: 0 D: 0	No	1		
	BUMP RAIL				
	<u>Carnadian beech timber bump rail fixed onto wall with 150 x 150 x 30mm</u> thick timber spacer blocks at 900mm centre to centre				
27	200 x 25mm Dado rail A: 145 B: 0 C: 0 D: 0	m	10		
	Sundries		I		
28	150 x 150 x 30mm Thick timber spacer blocks fixed to walls A: 182 B: 0 C: 0 D: 0	No	1		
	Carried to Collection R 64 940.00				
	Carried to Colle	ction			
	Section No. 2 Building Facilities Bill No. 7 Carpentry and Joinery				
	63				-

Section No. 2				
Bill No. 7				
Carpentry and Joinery				
COLLECTION				
Total Brought Forward from Page No.		Page No		AMOUNT
		60		-
		61		
		62		
		63		
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	Control Formation Control of Control			
Section No. 2	Carried Forward to Summary of Section 2			
Section No. 2 Building Facilities				
Bill No. 2 Concrete, Formeork & Reinforcement				
	64			
I		I	I	l

					ly construction
			QUANTITY	RATE	AMOUNT
1	BILL NO 8				
9	CEILINGS, PARTITIONS AND ACCESS FLOORING				
4	NOTE:Unless otherwise stated, all items in this bill shall be deemed to fall into Work Group No. 126 for Haylett Formula ourposes.				
	NOTE: Items described as "nailed" shall be deemed to be fixed with hardened steel nails or pins or shot pinned to brickwork or concrete.				
e	tems described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 500mm centres and where described as "bolted" the bolts have been given elsewhere.				
	CEILINGS, ETC.:				
1	Sawn softwood:				
	l 38 x 38mm Trimmers around light fittings (elsewhere) Provisional).	m	10		
2	2 38 x 38mm Hangers.	m	10		
-	Ceiling foil insulation:				
	3 100mm Non-combustible light weight fibreglass insulation closely fitted and laid on top of brandering between roof imbers, etc. (Provisional)	m	10		
	NAILED UP CEILINGS:				
	form "Everite Nutec" fibre-cement boards with pre-primed H-type pressed steel jointing strips: (5.2)				
	4 Ceilings including 38 x 38mm sawn softwood brandering at 400mm centres, against walls and at side joints	m	10		
5	5 Extra over for 600 x 600mm trap door		10		
	·	No	1		
	Carried to Colle	oction			
	Section No. 2 Building Facilities Bill No. 8 Sellings - Restitions and Assess Flooring				
ľ	Ceilings, Partitions and Accesss Flooring				
	65				

				Batton	ig construction
ltem No			QUANTITY	RATE	AMOUNT
NO	Meranti Cornice:				
6	19 x 76mm Meranti skirting fixed upside down against wall with hardened steel nails and 19mm quadrant at junction between ceiling and cornice	m	10		
	SUSPENDED CEILINGS				
	Proprietary suspended cellings				
	Note:				
	Electrical light fittings, diffusers, panels, etc generally are "lay in" units of the same dimensions as the suspension grid described and allowance must be made accordingly for their support inclusive of any flexibility in setting out that may be required (celling panels have not been deducted and pricing is to take cognisance thereof)				
	"Gridlock - Lafarge Gypsum" suspended ceiling Systems - 1200 x 600mm or 600 x 600mm thick vinyl clad 'Jumbo' ceiling tiles with white pre-painted 25mm exposed tee suspension system. including galvanised main tees / cross tees / wedges / hold down clips, etc. Ceiling to be laid according to manufacturer's instructions. (5.1)				
7	Horizontal ceilings suspended not exceeding 1.0m below roof trusses				
		m2	10		
o	Sloping ceilings suspended not exceeding 1.0m below roof trusses r	m2	10		
9	Pre painted mild steel shadowline recessed suspended ceiling wall angle ref sm 25				
		m	10		
	Carried to Collect	ion			
	Section No. 2 Building Facilities Bill No. 8 Ceilings, Partitions and Accesss Flooring				
	66				
	00				

Section No. 2			
Bill No. 8			
Ceilings, Partitions and Accesss Flooring			
COLLECTION			
Total Brought Forward from Page No.	Page No 57 58		AMOUNT
			-
		1	
Carried Forward to Summary of Section No. 2	2		
Section No. 2 Building Facilities Bill No. 8			
Ceilings, Partitions and Accesss Flooring			
67			

			Dunun	ng construction
ltem No		QUANTITY	RATE	AMOUNT
No	BILL NO. 9			
	FLOOR COVERINGS, PLASTIC LININGS, ETC			
	FLOOR COVERINGS			
	VINYL FLOOR SHEETING, ETC			
	2mm thick x 2m wide "Polyflor - Prestige PuR" patterned non directional yinyl floor sheeting with polyurethane reinforcement. Laid according to manufacturer's instructions with a suitably approved adhesive and laid by an approved contractor to Polyflor specification. Colour by the architect.			
1	On floor m2	10		
	Polyflor Electa skirting accessories. Laid according to manufacturer's instructions with a suitably approved adhesive and laid by an approved contractor to Polyflor specification. Colour by the architect.	10		
2	Turn-ups over coves and up against walls type MC18; not exceeding 500mm girth, including 20 x 20mm ref. CF20 cove former	10		i i
	m	10		
3	20mm Vinyl edging, ref. CS capping strip A: 639 B: 0 C: 0 D: 0	10		
	POLISH. SEALERS, ETC			
4	Two coats wax polish on my vinyl flooring m2	10		
		Ļ		
	Carried Forward to Summary of Section No. 2			
	Section No. 2 Building Facilities Bill No. 9			
	Floor Coverings, Plastic Linings, etc			
	68			
	1	I	I	11

			-1.111.	ing Construction
		QUANTITY	RATE	AMOUNT
BI	ILL NO. 10			
IR	CONMONGERY			
de	OTE:Unless otherwise stated, all items in this bill shall be semed to fall into Work Group No. 132 for Haylett Formula urposes.			
ca	OTE:Where ironmongery is referred to by a trade name or atalogue number, it may be replaced by another product of qual quality with the prior written approval of the Architect.			
to	OTE:Where ironmongery is described as plugged, prices are include for screwing to and including approved patent plugs concrete or brickwork with plaster or tiled finish.			
N	OTE:All locks to be supplied with at least two keys.			
N	OTE:Finishes to ironmongery:			
	here applicable, finishes to ironmongery are indicated by affixes in accordance with the following list:			
CH SE AE	SSatin bronze lacquered HChromium plated SCSatin chromium plated ESilver enamelled GEGrey enamelledASAnodised silver BAnodised bronze GAnodised gold			
AE	BLAnodised black BPolished brass			
PL	BPolished brass LPolished and lacquered PTEpoxy coated DSanded			
ни	ANDLES			
<u>"</u> D	Dorma":			
SI	upply and fix the following to cupboard doors			
Tc	o hardwood edged softwood doors			
	Carried to Collection			
Bi	ection No. 2 uilding Facilities ill No. 10			
Irc	onmongery			
	69	1	1	

m			QUANTITY	RATE	AMOUNT
	DPH301C' 150x19mm stainless steel 'D' shaped straight bolt through pull handle (St/Steel)				
		No	1		
	DPH301A' 305mm x 25mm stainless steel 'D' shaped back to back pull handle. BTB (St/Steel)	1			
		Pairs	1		
	DPH301C' 150x19mm stainless steel 'D' shaped straight back-to-back pull handles (St/Steel)				
		Pairs	1		
	'DPH206' 400x32mm stainless steel 'T' shaped offset back-to-back pull handle (St/Steel)				
		Pairs	1		
	<u>"Union":</u>				
	AL6W63-05AS Waterbok aluminium lever handles on backplate				
	with eurostyle piercing	Pairs	1		
	AL6W20-24AS Waterbok handle on 150 x 50mm oval				
	backplate				
		Pairs	1		
	LOCKS				
	"Dorma":				
	Supply and fix the following lock sets complete with matching screws				
	To timber doors and steel frames				
	Dorma DMWC- SS-008 bathroorn / WC dead lock (small				
	case). (St/Steel)	No	1		
			·		
8	'Dorma DDC056501 nickel plated 65mm five pin euro-profile				
	double cylinder (N/Plated)	No	1		
- 1					
		NU	-		
9	'Dorma D036S euro-profile cylinder sash lock SS (SI/Steel)	No	1		
9	'Dorma D036S euro-profile cylinder sash lock SS (St/Steel)				
9	'Dorma D036S euro-profile cylinder sash lock SS (SI/Steel) Carried to (	No			
	Carried to ( Section No. 2 Building Facilities	No			
	Carried to ( Section No. 2 Building Facilities Bill No. 10	No			
	Carried to ( Section No. 2 Building Facilities	No			

				Build	Ing construction
ltern No			QUANTITY	RATE	AMOUNT
	Dorma D037D euro-profile cylinder dead lock SS (St/Steel)	No	1		
	'Dorma D038R Rebate conversion kit for euro-profile locks SS (N/Plated)	No	1		
	Dorma DWC-006 stainless steel WC indicator with 79mm tum knob for physically impaired. (St/Steel)	Pairs	1		
	'Dorma DSC054201 nickel plated 43mm five pin europrofile single cylinder (N/Plated)	No	1		
	Dorma DCE-002 stainless steel euro profile escutcheon (St/Steel)	No	1		
15	Dorma DCE-105 Narrow stile cylinder escutcheon (St/Steel)	No	1		
	Dorma D02635 35mm Backset Narrow stile Sashlock - SS (St/Steel)	No	1		
17	'Dorma D02735 35mm Backset Narrow stile deadlock - SS (St/Steel)	No	1		
18	Dorma DPS-SS-032 dust proof socket (St/Steel)	No	1		
10	"Union": Heavy pattern five pin tumbler cylinder cupboard lockset with				
15	22mm cylinder and CH rose	No	1		
20	2295-76SS Two lever upright lock with stainless steel forend	No	1		
21	2 x 710NP Double cylinder	No	1		
	DOOR CLOSERS				
		Carried to Collection			
	Section No. 2 Building Facilities Bill No. 10 Ironmongery				
	71				

Item No       QUANTITY       RATE         No       "Union" ironmongery; Assa Abloy Group or equal and approved; supply and fix       Image: Comparison of the second street of the second str	AMOUNT
"Union" ironmongery; Assa Abloy Group or equal and approved; supply         and fix         22         Dorma TS73VN EN2-4V Delayed action door closer - (Push side - parallel arm fixing) (Silver)         No         1         23         'Dorma TS93G/EN2-5 slide channel door closer and angle bracket - non hold open. Push side fitting. (St/Steel)         Sets         24         26 'Dorma TS91/EN3 slide channel door closer - non hold open. (St/Steel)         No         1         25         Dorma TS91B/EN3-RF slide channel door closer - hold open function. (St/Steel)	
side - parallel arm fixing) (Silver)       No       1         23       'Dorma TS93G/EN2-5 slide channel door closer and angle bracket - non hold open. Push side fitting. (St/Steel)       Sets       1         24       26 'Dorma TS91/EN3 slide channel door closer - non hold open. (St/Steel)       No       1         25       Dorma TS91B/EN3-RF slide channel door closer - hold open function. (St/Steel)       No       1	
23       'Dorma TS93G/EN2-5 slide channel door closer and angle bracket - non hold open. Push side fitting. (St/Steel)       Sets       1         24       26 'Dorma TS91/EN3 slide channel door closer - non hold open. (St/Steel)       No       1         25       Dorma TS91B/EN3-RF slide channel door closer - hold open function. (St/Steel)       No       1	
24       26 'Dorma TS91/EN3 slide channel door closer - non hold open. (St/Steel)       No       1         25       Dorma TS91B/EN3-RF slide channel door closer - hold open function. (St/Steel)       No       1	
No 1 25 Dorma TS91B/EN3-RF slide channel door closer - hold open function. (St/Steel)	
function. (St/Steel)	
No 1	
PUSH PLATES	
26 Dorma DKP-SS-162 170x75x1.2mm Stainless steel back plate.	
To be prepared for DPH301C Bolt through pull handle and male/female screw fixing (St/Steel) No 1	
27 Dorma DKP-SS-162 170x75x1.2mm Stainless steel back plate.	
To be prepared for male/female screw fixing (St/Steel) No 1	
28 'Dorma DKP-SS-162 170x75x1.2mm Stainless steel back plate. To be prepared for DPH301C BTB pull handle and	
male/female screw fixing (St/Steel) No 1	
29 Dorma DKP-SS-162 170x110x1.2mm Stainless steel back plate. To be prepared for male/female screw fixing (St/Steel)	
No 1 30 Dorma DKP-SS-162 170x110x1.2mm Stainless steel back plate. To be prepared for DPH301C Bolt through pull handle	
and male/female screw fixing (St/Steel)	
Carried to Collection	
Section No. 2 Building Facilities Bill No. 10	
Ironmongery	
72	

ltem No		QUANTITY	RATE	AMOUNT
	Dorma DKP-SS-162 345x110x1.2mm Stainless steel back plate. To be prepared for DPH301A BTB pull handle and male/female screw fixing (St/Steel)			
	No	1		
	Stainless steel 1.6mm thick kick plate 300mm x width of door, finished size to be checked on site. Grade 304 0,9mm thick drilled and countersunk for screw fixing (Door C1, DO4;D07;D08; D09; D10) No	1		
		ſ		
	Stainless steel 1.6mm thick BUMPER PLATE plate size 200mm x width of door, finished size to be checked on site. Grade 304 0,9mm thick drilled and countersunk for screw fixing (Door C1, DO4; D07; DO8; D09; D10) No	1		
	HINGES, BOLTS, ETC.:			
	<u>"Dorma":</u>			
34	150mm CH barrel bolt No	1		
35	37 'Dorma' DFB-SC-180/150mm Satin Chrome flush bolt with heel (Sat Chrome) No	1		
	38 'Dorma' DFB-SC-181/300mm Satin Chrome flush bolt with heel (Sat Chrome)			
	No	1		
37	39 Erebus heavy duty adjustable roller bolt No	1		
38	40 Stainless steel door barrel bolt latch stapler No	1		
	"Union":			
39	37651 helping hand indicator bolt for paraplegic WC (Left Hand)			
	Sets	1		
40	37651 helping hand indicator bolt for paraplegic WC (Left Hand)			
	Sets	1		
	Carried to Collection			
	Section No. 2 Building Facilities Bill No. 10 Ironmongery			
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				Build	ling Construction
m   0			QUANTITY	RATE	AMOUNT
41	Flush bolts	No	1		
	SUNDRIES:				
42	Dorma DDH-SS-020 Stainless steel wall buffer (St/Steel)	No	1		
43	Dorma DDS-NP-018 nickel plated floor stop (N/Plated)	No	1		
	Dorma DHC-SS-031B stainless steel hat and coat hook with rubber buffer (St/Steel)				
		No	1		
45	'Union' AL8102AS Hat and coat hook	No	1		
	28mm Diameter x 1mm thick brass key label with 12mm high stamped number or letters and holed for and hung to cuphook (elsewhere).				
		No	1		
	LETTERS, NAMEPLATES, ETC. (PROVISIONAL):				
	Dorma DSS - 133 stainless steel 150 x 150mm DISABLED PERSONS sign (St/Steel)	No	1		
	Dorma DSS - 145 stainless steel 150 x 150mm FIRE HOSE REEL sign (St/Steel)				
		No	1		
	Dorma DSS - 143 stainless steel 150 x 150mm ARROW sign (St/Steel)	No	1		
	Dorma DSS - 130 stainless steel 150 x 150mm MALE sign (St/Steel)				
		No	1		
	Dorma DSS - 131 stainless steel 150 x 150mm FEMALE sign (St/Steel)	No	1		
	Dorma DSS - 136 stainless steel 150 x 150mm ELECTRICAL SYMBOL sign	No	•		
		Carried to Collection			
	Section No. 2 Building Facilities Bill No. 10				
	Ironmongery				
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				Build	ling construction
ltem No			QUANTITY	RATE	AMOUNT
	BATHROOM FITTINGS:				
	"Chairman Industries Code DL2" or similar and approved side grab rail, plugged				
		No	1		
54	"Chairman Industries Code BER or Code BEL" or similar and approved side grab rail, plugged				
		No	1		
	"Chairman Industries Code SR2" or similar and approved rear grab rail, plugged				
		No	1		
	"Chairman Industries Code BS" or similar and approved wall grab rail, plugged	No	1		
		NO			
57	"Buchel" - 32mm Diameter Stainless Steel Cistem back rail (Code B2816)	No	1		
		NO	•		
58	Frankie' code: STRX 673 E18/10 stainless steel recessed single toilet roll holder	No	1		
			-		
59	Frankie' code: STRX 672 E18/10 stainless steel recessed single toilet roll holder with spindle system, 2 rolls.	No	1		
60	Buchel' code: b 2789 stainless steel soap dish securely fixed to wall.				
	жин. А: 3 В: 0 С: 0 D: 0 No 3 120.00 360.00				
	Kimberly-Clark - TWINPAK soap dispenser' - Code: 925570, or similar approved, 'white' soap dispenser, securely plugged to wall. The unit shall be supplied with 'ANTIBACTERIAL				
	CLEANSER (hand soap)' code: 925170.	No	1		
62	Kimberly-Clark - Deluxe Towel System - Multi Fold' - Code: 425792, or similar approved, durable 'white' ABS plastic with grey-base towel dispenser, securely plugged to wall. The unit shall be supplied with - 2 off 'Kleenex Multi Fold Towels'				
	code: 925170.	N			
		No	1		
		Carried to Collection			
	Section No. 2 Building Facilities				
	Bill No. 10				
	Ironmongery				
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	Building Construction				
ltem No		1	QUANTITY	RATE	AMOUNT
	Kimberly-Clark, Reflex Disposer' Litter bin- Code: 426213. Colour: white.	No	1		
64	Frankie' Sorter Waste Bin model 150B, including kickbox mechanism	No	1		
65	Union' - code: AL 5515-FL 500mm long towel rail (pull handle-flange on rose), securely fixed to wall	No			
66	Union 8101' - AS, multirack' one hook, securely fixed to wall	No	1		
67	Union 8253' - AS, Rubber Tipped Hat and coat hook,	No	1		
	securely fixed to wall	No	1		
	Section No. 2	Carried to Collection			
	Building Facilities Bill No. 10 Ironmongery				
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Bill No. 10 Ironmongery COLLECTION Total Brought Forward from Page No. Total Brought Forward from Page				ing consudention
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Carried Forward to Summary of Section No. 2				
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74         75         76         76         9				
Carried Forward to Summary of Section No. 2 Building Facilities Bill No. 10 Intromongery				
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		<b>Building Construction</b>		
		QUANTITY	RATE	
	BILL NO. 11			
	METALWORK			
	(CPAP WORK GROUP NO. 136 UNLESS OTHERWISE STATED)			
	For preambles see "Model Preambles for Trades"			
	SUPPLEMENTARY PREAMBLES			
	Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items, materials or methods of similar quality may be used with prior approval from the principal agent.			
	Descriptions			
	Descriptions of bolts shall be deemed to include nuts and washers.			
	Descriptions of expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortices in brickwork or concrete.			
- 1	Metalwork described as "holed for bolts" shall be deemed to exclude the bolts unless otherwise described.			
	Powder coated aluminium windows and doors			
	All poweder coating shall be executed only by applicators approved by the Powder Coating Marufacturers Association and shall be executed strictly in conformance with SABS 1796. A guarantee of no less than ten years is to be provided against peeling and discolouration.			
	All windows to be provided with heavy duty friction stays and 2 x catch handles per window. All windows to meet the standard of SANS 10137.			
	Glazing to meet the standard of SANS 10400 Part N: Glazing			
	The installed glazing materials for doors must in all respects comply with AAAMSA's selection guide for safety glazing materials All safety glazing materials (individual panes) shall be permanently marked. Such marking to be visible after glazing. All doors to have safety glazing throughout except for fanlight.	r		
	Carried to Collection			
	Section No. 2 Building Facilities Bill No. 11 Metalwork			
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			Building Construction		
tem No			QUANTITY	RATE	AMOUNT
	SUNDRY STEELWORK				
1	IPE 180 I-section column and beam assembly in covered stoep with mitred and welded joint, one end cast in concrete base and the other fixed to brickwall				
		kg	10		
2	150 x 75 x 20 x 2mm Lipped Channels welded to IPE beams	kg	10		
3	80 x 80 x 4.0mm square hollow section column and beam assembly as per Gate House drawing with mitred and welded joint, both end cast in concrete base				
		kg	10		
4	80 x 80 x 4mm Hollow section 2090mm long with 230 x 90 x 7.5mm parallel flange channel welded on top and holed for and including M20 bolt, 120 x 120 x 6mm base plate welded on at				
	bottom and cast 800mm deep on top of concrete column	No	1		
	STAINLESS STEEL BUMP RAIL, ETC				
	Stainless Steel bump rail welded to spacers and fixed on to wall with base plates				
5	50.8mm Diameter x 1.6mm thick stainless steel bump rail	m	10		
6	25mm Diameter x 1.6mm thick spacers welded to bump rail at one end and to wall base plate the other end				
		No	1		
7	100 x 100 x 4.5mm Thick base plate pre - drilled and including 2No. M16 rawlbolts on each plate and fixing to wall	No	1		
	WELDED SCREENS. GATES. ETC				
	Steel security gates, screens, etc. comprising 50 x 38 x 3mm rectangular hollow sections outer frame, 4No, vertical rails, 1No, horizontal rail and 19 x 19 x 3mm square hollow section bars welded to outer frames at 100mm centres, installed complete including bolts, expansion bolts, etc				
8	Steel single security gate size 882 x 2000mm including hinges.	No	1		
	Carried to Co	llection			
	Section No. 2 Building Facilities Bill No. 11				
	Metalwork				
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		Building construction			
ltem No			QUANTITY	RATE	AMOUNT
	Pre-primed steel palisade fencing comprising 3No. 75 x 75mm square tube horizontal rails with 200 x 200 x 5mm mild steel fixing plates welded on at ends of rails and rawlbolted to brick columns including holing, 40 x 40 x 3mm angle iron vertical rails spiked at ends top and bottom, and welded onto horizontal rails at 80mm spacing				
9	1536 x 1300mm High panel	No	1		
10	1739 x 1300mm High panel	No	1		
11	1870 x 1300mm High panel	No	1		
12	1847 x 1300mm High panel	No	1		
13	1916 x 1300mm High panel	No	1		
	PRESSED STEEL DOOR FRAMES				
	Note: All external opening out doors to have 6mm counter sunk self tapping screw through pin of hinge as anti-theft device				
	1.2mm Double rebated door frames suitable for half brick walls				
14	Frame for door size 813 x 2032mm with three 100mm steel butt hinges	No	1		
15	Frame for door size 900 x 2032mm with three 100mm satin stainless steel ball bearing butt hinges	No	1		
16	Frame for door 900 x 2032mm high and fixed fanlight 305mm high with standard pressed steel glazing beads on one side of fanlight and three 100mm satin stainless steel ball bearing butt	NO			
	hinges	No	1		
17	Frame for door 1219 x 2032mm high with two 100mm steel butt hinges per door leaf	No	1		
		NO			
	Carried to Colle	ction			
	Section No. 2 Building Facilities Bill No. 11 Metalwork				
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Item			RATE	
No	1.2mm Double rebated frames suitable for one brick walls			
18	Frame for door size 813 x 2032mm with three 100mm steel butt			
	hinges No	1		
	Frame for door size 813 x 2032mm with two 100mm steel butt			
	hinges No	1		
	Frame for door size 900 x 2032mm high and fixed fanlight 305mm high with standard pressed steel glazing beads on one side of fanlight, and with three 100mm satin stainless steel ball bearing butt hinges			
	No	1		
	Frame for double door size 1359 x 2032mm high and fixed fanlight 305mm high with standard pressed steel glazing beads on one side of fanlight, and with three 100mm satin stainless steel ball bearing butt hinges per door leaf			
	No	1		
22	Frame for double door size 1600 x 2032mm high and fixed fanlight 305mm high with standard pressed steel glazing beads on one side of fanlight, and with three 100mm steel butt hinges per door leaf			
	No	1		
	Frame for double door size 1600 x 2032mm high and fixed fanlight 305mm high with standard pressed steel glazing beads on one side of fanlight, and with three 100mm satin stainless steel ball bearing hinges per door leaf			
	No	1		
	PRESSED STEEL CUPBOARD DOOR FRAMES			
	Standard cupboard door frames			
24	Type CBS frame to suit double doors 1270 x 2032mm high overall			
	Νο	1		
	ALUMINIUM LOUVRE PANELS			
	White powder coated aluminium louvre panels screwed onto flash panel doors			
25	Panel 400 x 300mm high No	1		
	Carried to Collectio			
	Section No. 2			
	Building Facilities Bill No. 11 Metalwork			
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		Pullaring Construction			
ltem No			QUANTITY	RATE	AMOUNT
	ALUMINIUM WINDOWS, DOORS, ETC				
	White powder coated aluminium windows glazed with and including 6.38mm thick "Colourvue Serene Green Low E" laminated safety glazing, plugged to brickwork or concrete				
26	Window size 900 x 900mm high with one top hang openable sash (W02 - Refer to architect's drawing no. MDH_A4/W02)	No			
27	Window size 900 x 1500mm high with one fixed lightand two top hang openable sashes (W01 - Refer to architect's drawing no. MDH_A4/W01)				
		No	1		
28	28 Window size 1200 x 900mm high with one top hang openable sash (W03 - Refer to architect's drawing no. M_A4/W03)	No			
29	Window size 1200 x 1200mm high with one top hang openable sash (W01 - Refer to architect's drawing no. M_A4/W01)	No	1		
30	30 Window size 1500 x 2100mm high with one fixed bottom light and one top hang openable sash (W02 - Refer to architect's drawing no.M_A4/W02)	No	1		
31	Window size 1500 x 2720mm high with one fixed light and two top hang openable sashes (W06 - Refer to architect's drawing no. M_A4/W06)	No	1		
32	Window size 1500 x 3545mm high with two fixed lights and two top hang openable sashes (W05 - Refer to architect's drawing no. M_A4/W05)	No	1		
	White powder coated aluminium windows glazed with and including 6.38mm thick "DecorLam AQUALAM" patterned laminated safety glazing, plugged to brickwork or concrete				
33	Window size 600 x 600mm high with one top hang openable sash (W07 - Refer to architect's drawing no. M_A4/W07)	No	1		
34	Window size 900 x 900mm high with one top hang openable sash (W04 - Refer to architect's drawing no. M_A4/W04)	No	1		
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		Building Construction			on
ltern No	1		QUANTITY	RATE	AMOUNT
NO	White powder coated aluminium windows 'Caselite 28' or similar type of frame glazed with and including 6.5mm thick clear laminated safety glazing with a polyvinyl butyral (PVB) plastic interlayer, to be fixed in window frame with matching glazing beads as per manufacturer, glazing system 'dry glazing', plugged to brickwork or concrete				
35	35 Comer Window overall size 2500 x 1115mm high consisting of 4no. panels; two sliding panels 1350 x 558mm high and 1150 x 558mm high, including sliding mechanism; and two fixed panels 1350 x 557mm high and 1150 x 557mm high (W17 - Refer to architect's drawing)				
		No	1		
36	Window size 900 x 900mm high with one top hang openable sash (W16 - Refer to architect's drawing)				
		No	1		
	Powder coated aluminium doors and frames with 6.38mm "Colourvue Serene Green" safety glazing unless otherwise described, all necessary ironmongery, plugged to brickwork or concrete				
37	890 x 2100mm high overall Standard Olympia single swing door and frame (D1-Architect's drawing M_A4/D01)	No	1		
			•		
38	1780 x 3995mm high overall double door and fanlights comprising 2 x 1780 x 798mm high fanlights glazed with 6.38mm standard glazing and 2 x 890 x 2400mm high Standard Olympia swing doors glazed with 6.38mm "Colourvue Serene Green" safety glazing (Architect's drawing M_A4/A1)				
	Green salety glazing (Architect's drawing m_A4/AT)	No	1		
39	2100 x 2100mm high overall folding sliding door in three equal panels (A1)				
		No	1		
	SHOWER CUBICLE DOORS, PANELS, ETC				
	Natural anodised aluminium shower cubicle doors, panels, etc, with frames, hinges, etc and 6mm toughened obscure safety glass plugged to tiled walls				
40	Sliding door in two leaves, 1500 x 1800mm high overall	No	1		
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	Carried to Colle	ection			
	Section No. 2 Building Facilities Bill No. 11				
	Metalwork				
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ltem No			QUANTITY	RATE	
	BILL NO 12				
	PLASTERING				
	(CPAP WORK GROUP NO. 142 UNLESS OTHERWISE STATED)				
	For preambles see "Model Preambles for Trades"				
	SCREEDS:				
	Screeds on concrete:				
1	28mm Thick on floors to receive porcelain floor tiles (elsewhere).	m2	10		
			10		
	Tal' or similar approved 'screedmaster' self levelling screed				
2	35mm Thick on floors to receive vinyl floor sheeting (elsewhere).	m2	10		
	GRANOLITHIC:				
	Untinted granolithic on concrete:				
3	35mm Thick on floors to receive vinyl floor sheeting	m2	10		
	Granolithic Skirting:				
4	100mm High skirting (2.6)				
		m	10		
5	100mm High skirting with 'Flowcrete' Flowtex HT epoxy mortar screeding compound (2.7)	m	10		
	Enoug floor finish		10		
	Epoxy floor finish:				
		Carried to Collection			
	Section No. 2 Building Facilities Bill No. 12				
	Plastering				
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ltem No			QUANTITY	RATE	AMOUNT
	Elowtex HT epoxy mortar screeding compound, with Matt seal coat finish, on clean, sound, laitance and dust free surface with a maximum moisture content of 5%. Prime surface with one coat Flowprime Solver Free Epoxy Primer and Base coat with a maximum over coating time o 24 hours. Apply one coat Light Stone Flowtex HT to a minimum 7mm thickness with a maximum over coating time of 48 hours. Applied in accordance with approved Flowcrete Specifications, by approved applicators:	ıt			
6	Flowcrete' Flowtex HT epoxy mortar screeding compound, with Matt seal coat finish.Colour: Light Stone (1.7)	m2	10		
	INTERNAL PLASTER:				
	ONE COAT (4:1) CEMENT PLASTER FINISHED TO A SMOOTH AND EVEN STEEL TROWELLED SURFACE:				
	On brickwork:				
7	On walls.	m2	10		
8	On narrow widths.	m2	10		
	ONE COAT (4:1) CEMENT PLASTER FINISHED TO RECEIVE CERAMIC WALL TILES (ELSEWHERE):				
	On brickwork:				
9	On walls.	m2	10		
10	On narrow widths.	m2	10		
	ONE COAT (3:1) CEMENT PLASTER FINISHED TO A SMOOTH AND EVEN STEEL TROWELLED SURFACE:				
	On concrete:				
11	On ceilings or soffits.	m2	10		
12	Soffits of vanity tops	m2	10		
13	On narrow widths.	m2	10		
	Carried to	Collection			
	Section No. 2 Building Facilities Bill No. 12 Plastering				
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m o			QUANTITY	RATE	AMOUNT
	EXTERNAL PLASTER				
	<u>15mm Thick One Coat cement and sand (1:3) plaster, wood</u> floated finish including all labour, etc.				
14	On walls.	m2	10		
	DIVIDING STRIPS, ETC				
15	3 x 25mm Thick flat section brass dividing stips between differing floor finishes		10		
		m	10		
	Ca	rried to Collection			
	Section No. 2 Building Facilities Bill No. 12 Plastering				
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Building Facilities Bill No. 12			
Plastering			
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ltem No		QUANTITY	RATE	AMOUNT
	BILL NO. 13			
	TILING:			
	(CPAP WORK GROUP NO. 144 UNLESS OTHERWISE STATED)			
	For preambles see "Model Preambles for Trades"			
	NOTE:Descriptions:			
	Unless described as "fixed with adhesive to plaster (plaster elsewhere)" descriptions of tiling on brick or concrete walls, columns, etc. shall be deemed to include 1:4 cement plaster backing and descriptions of tiling on concrete floors, etc. shall be deemed to include 1:3 plaster bedding.			
	WALL TILING:			
	400 x 400mm 'Nocros - Paarden Picasso 2' wall tiles fixed with an approved waterproof adhesive (3.4)			
1	On walls	10		
2	m2 Narrow widths	10		
2	manow widths m2	10		
	<u>150 x 150 x 5mm White glazed ceramic wall tiles fixed with adhesive to plaster (plaster elsewhere):</u>			
3	On walls	10		
4	m2 Narrow widths	10		
4	marrow widens m2	10		
5	On splash-back above the wash hand basin and sink m2	10		
6	Fair exposed cutting and fitting around pipe not exceeding 100			
	mm internal diameter No	1		
	FLOOR TILING			
	Carried to Collection			
	Section No. 2 Building Facilities Bill No. 13			
	Tiling			
	89			
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ltem No		QUANTITY	RATE	AMOUNT
NO	400 x 400mm 'Nocros - Paarden Picasso 2' Porcelain floor tiles fixed to screed with 'Tylon' Code: CN 12 adhesive, cut to desired shape and sizes and flush pointed with 'Tylon' Code CE 235 Acid Resistant tiling grout (1.1)			
7	On floors m2	10		
	<u>400 x 400mm 'Nocros - TP 092 Beige' non slip tiles, all in accordance to manufacturer's specifications (1.12)</u>			
8	On floors m2	10		
	<u>400 x 400mm 'Nocros - TP 092 Beige' non slip cut tiles, all in accordance to manufacturer's specifications (2.9)</u>			
9	Tile skirtings m	10		
	Carried to Collection Section No. 2 Building Facilities Bill No. 13			
	Tiling 90			
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Bill No. 13			
Tiling			
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Building Facilities Bill No. 13			
Tiling			
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ltem No			QUANTITY	RATE	AMOUNT
	BILL NO. 14				
	PLUMBING AND DRAINAGE (PROVISIONAL)				
	(CPAP WORK GROUP NO. 148 UNLESS OTHERWISE STATED)				
	For preambles see "Model Preambles for Trades"				
	SUPPLEMENTARY PREAMBLES				
	Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items, materials or methods of similar quality may be used with prior approval from the principal agent				
	SANITARY FITTINGS				
	"Franke Kitchen Systems (Pty) Ltd "(trading as "Citimetal") stainle	ess steel			
1	"Franke" - Model LDL - drop-on stainless steel, 43 litres bowl washtrough Grade: 304 (18/10), size; 600 x 500mm Washtrough fitted to wall by a pair of Falcon brackets. (7.19)				
		No	1		
2	"Franke" - Rondo RNDH360 - round inset vanity basin (vanity elsewhere measured), manufactured from 18/10 stainless steel with satin finish (to bowl interior and exterior) complete with 1 1/4 waste hole, with overflow, including chrome plated distance piece and overflow connection, no flush grated waste included, for under mounting installation. Provide CP waste overflow				
	tube, CP waste connection, plug and chain, etc. (Basin). (7.30)	No	1		
3	"Series 400" - type DEB double bowl single drainer sink size 1500 x 535mm wide fixed in position on top of kitchen cabinet (kitchen cabinets by specialist)				
		No	1		
4	540 x 450mm Single compartment stainless steel washtrough fixed to wall with and including a pair of falcon brackets				
		Carried to Collection			
	Section No. 2 Building Facilities Bill No. 14 Plumbing and drainage (provisional)				
	92				
	52	Ì			

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ltem		1	QUANTITY	RATE	AMOUNT
No	Vaal"				
5	Protea paraplegic' White vitreous china 90 degrees outlet pan (code 710536), complete with lid, fitments and purpose made CP side-flush lever mounted on wall adjacent to cistern, complete with 'white' heavy duty double flap seat. Joint between WC pan and floor to be sealed with 'flexothane 1' polyurethane sealant, colour: white' all as per (abe Industrial Products). (7.2)	No	1		
6	Hibiscus' 'White vitreous china, close coupled 90 degrees outlet open rim washdown pan (code 772600), and matching 9 litre cistern (code 710531) complete with lid, fitments and flush pipe elbow all as per manufacturer including 'white' timber heavy duty double flap seat.Joint between WC pan and floor to be sealed with 'flexothane 1' polyurethane sealant, colour:'white' all as per (abe Industrial Products) (7.1)	Νο	1		
7	"Lavatera" white vitreous china 610 x 385mm urinal with top inlet (code 704001), complete with 38mm CP domical grating (code 8787), CP spreader (code 8543) and two hanger brackets (code 8127). Joint between urinal and wall tiles to be sealed with 'abe industrial products - silicone sealant' colour white, to be installed with EcoSmellStop ESS001 fitting according to instructions. (7.3)	No	1		
8	HIBISCUS' white vitreous china 510 x 405mm basin with one tap hole, complete with plug, chain, etc. hang to wall with 2No. concealed brackets ref. 8246. (7.5)	No	1		
g	HIBISCUS' white vitreous china 510 x 405mm basin with two tap hole, complete with plug and chain, hang to wall with 2No. concealed brackets ref. 8246. (7.6)	No	1		
10	BANTAM' white vitreous china 415 x 290mm 'cloak' basin with one tap hole, fixed to wall as per manufacturer's specifications, complete with CP waste connection, with plug, chain, etc. 15mm CP ballostops to be provided on cold and hot water supply. Joint between basin and wall to be sealed with 'abe industrial products - silicone sealant', colour: white. (7.7)	No	1		
		Carried to Collection			
	Section No. 2 Building Facilities Bill No. 14 Plumbing and drainage (provisional)				
	93				
			1	1	l

			Bu	ilding Construct	ion
item No			QUANTITY	RATE	AMOUNT
	WASTE UNIONS ETC				
	"Cobra Watertech"				
11	32mm "301" Basin waste union	No	1		
12	38mm "310" Bath or Sink waste union.	No	1		
13	WASTE UNIONS ETC	No	1		
	TRAPS ETC				
	Butyl rubber:				
14	40mm Deep seal "P" or "S" trap	No	1		
15	40 x 300mm Sink combination for double bowl with deepseal "P" trap	No	1		
	"Cobra Watertech":				
16	32mm "340" CP bottle trap	No	1		
	uPVC gulleys				
17	110 mm Gulley not exceeding 1 m deep	No	1		
	TAPS, VALVES, ETC				
	Brass				
18	40mm Bath trap with overflow outlet and pipe	No	1		
19	22mm Bibcock	No	1		
20	22mm Bibcock with hose union	No	1		
21	15mm ref. 131 Brass stopcock	No Carried to Collection			
	Section No. 2 Building Facilities Bill No. 14 Plumbing and drainage (provisional)				
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ltem No			QUANTITY	RATE	AMOUNT
	Cobra Watertech"				
22	15mm CP 'Carina' single tap hole basin mixer (code 294), with red and blue insets	No	1		
23	15mm Demand pushbutton pillar taps with raised nose "cobra" ref. KM2.102	No	1		
24	15mm Code 294CP single taphole basin mixer	No	1		
25	15mm CP wall type elbow action 'Medical' mixer, with bent connections and swan - neck swivel outlet, including hook (code : 515/055h-21)				
		No	1		d.
26	15mm Chromium plated elbow 'medical' action pillar taps (Code: 505-21)	No	1		
27	15mm "166/041" CP 'Carina' wall type sink mixer with over arm swivel outlet.	No	1		
28	15mm "166/041" CP 'Carina' wall type mixer with over arm swivel outlet, including CP extension connecting pieces with sliding wall flange to space from wall				
29	15mm CP wall type elbow action bath mixer, with bent connections and swan - neck swivel outlet, including hook	No	1		
	(code : 515/055h-21)	No	1		
	22mm 147CP 'Carina' wall type bath mixer	No	1		
31	20mm 'Carina' type hose bib taps with red and blue insets, including CP extension connecting pieces with sliding wall flange to space from wall				1
		No	1		
32	15mm CP angle regulating valve	No	1		
33	30mm "318" CP standing overflow tube.	No	1		
		Carried to Collection			
	Section No. 2 Building Facilities Bill No. 14 Plumbing and drainage (provisional)				
	95				
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	·		DU	liaing construct	
ltern No			QUANTITY	RATE	AMOUNT
	15mm "FJT 5.5" CP urinal tail pipe.	No	1		
35	15mm CP ball-o-stopcock	No	1		
36	"FJ 6000 CP Flushmaster Junior" urinal flushing valve.	No	1		
37	15mm ref. 131 Brass stopcock	No	1		
38	"Masterbox" valve set.	No	1		
39	Complete valve set for 100 litre geyser	No	1		
	SANITARY PLUMBING				
	uPVC pipes				
40	40mm Pipes	m	10		
41	50mm Pipes	m	10		
42	110mm Pipes	m	10		
	Extra over uPVC pipes for fittings				
43	40mm Plain bend	No	1		
44	40mm Access bend	No	1		
45	50mm Access bend	No	1		
	50mm Plain bend	No	1		
47	50mm Junction	Νο	1	-	
48		No	1		
		<b>Carried to Collection</b>			
	Section No. 2 Building Facilities Bill No. 14 Plumbing and drainage (provisional)				
	96				

			Bu	ilding Construct	ion
item No			QUANTITY	RATE	AMOUNT
49	110mm Access bend	No	1		
50	110mm Junction	No	1		
51	110 x 40mm Access reducing junction.	No	1		
52	100 x 50mm Access reducing junction	No	1		
53	110mm Vent valve.	No	1		
54	Pan connector	No	1		
	<u>Stainless steel gulleys (Floor Drain)</u>				
	Floor gulley trap type 'Herbish' HB200H or similar approved stainless steel floor drain with square top flange, and tamper proof lid and tiling key.	No	1		
	Sundries				
56	Allow for testing waste pipe system	Item	1		
	WATER SUPPLIES				
	Galvanised mild steel pipes				
	15mm Pipes	m	10		
58	22mm Pipes	m	10		
59	22mm Pipes laid in and including trenches.	m	10		
	Extra over galvanised mild steel pipes for fittings				
60	15mm Fittings	No	1		
61	22mm Fittings	No	1		
		Carried to Collection			
	Section No. 2 Building Facilities Bill No. 14 Plumbing and drainage (provisional)				
	97				

			Bu	tion	
tem No			QUANTITY	RATE	AMOUNT
	Copper overflow and service pipes				
62	15mm Service pipe 300mm girth	No	1		
63	22mm Service pipe 300mm girth.	No	1		
	Kwikot":				
64	100 Litre horizontal type electric water heater including drip tray	No	1		
	FIRE APPLIANCES				
65	"Everyway" fixed hose reel with plastic hose including assembling and bolting frame to brickwall	No	1		
66	5kg CO2; dry powder chemical fire extinguisher with hook made of 120 x 20 x 2mm mild steel strip bent to form hook for extinguisher screwed twice to 520 x 100 x 22 hardwood. Hardwood screwed and plugged with 6 screws and plugs, including 190 x 190mm ABS plastic symbol safety signs - type FB2 plugged and screwed to wall at each fire extinguisher.	No	1		
67	9kg DCP; dry powder chemical fire extinguisher with hook made of 120 x 20 x 2mm mild steel strip bent to form hook for extinguisher screwed twice to 520 x 100 x 22 hardwood. Hardwood screwed and plugged with 6 screws and plugs, including 190 x 190mm ABS plastic symbol safety signs - type FB2 plugged and screwed to wall at each fire extinguisher.	No	1		
	WATER SUPPLY TO FIRE APPLIANCES				
	Galvanised mild steel pipes				
68	25mm Pipes	m	10		
	Extra over galvanised mild steel pipes for fittings				
69	25mm Fittings	No	1		
		Carried to Collection			
	Section No. 2 Building Facilities Bill No. 14 Plumbing and drainage (provisional)				
	98				
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			Bu	ilding Construct	ion
•			QUANTITY	RATE	AMOUNT
	TESTING				
70	Allow for testing water pipe system	ltem	1		
	BUILDERS WORK INCLUDING ALL MAKING GOOD				
71	Fair cutting and fitting face bricks around pipe not exceeding 100mm diameter				
		No	1		
					-
		Carried to Collection			
	Section No. 2 Building Facilities Bill No. 14				
	Plumbing and drainage (provisional)				
	99				

Section No. 2			
Bill No. 14			
Plumbing and drainage (provisional)			
COLLECTION			
Total Brought Forward from Page No.	Page No		AMOUNT
	92		
	93		
	94		
	95		
	96		
	97		
	98		
	99		
Carried Forward to Summary of Section No. 2			
Section No. 2 Building Facilities Bill No. 14 Blumbing and draining (amulainge)			
Plumbing and drainage (provisional)			
100	1		

		DU	lighting Construct	
item No		QUANTITY	RATE	AMOUNT
	BILL NO. 15			
	<u>GLAZING</u>			
	(CPAP WORK GROUP NO. 150 UNLESS OTHERWISE STATED)			
	For preambles see "Model Preambles for Trades"			
	GLAZING TO STEEL SCREWED ON BEADS (BEADS ELSEWHERE MEASURED)	4 4		
	4mm Clear float glass:			
1	Panes exceeding 0,1 m2 and not exceeding 0.5m2 m2	10		
	<u>GLAZING TO WOOD WITH PINNED ON BEADS (BEADS</u> ELSEWHERE):			
	6mm Clear safety glass:			
2	Panes exceeding 0,1m2 and not exceeding 0,5m2. m2	10		
	TOPS, SHELVES, DOORS, MIRRORS, ETC.:			
	6mm silvered float glass copper backed mirrors with polished edges holed for and fixed with chromium plated dome capped mirror screws with rubber buffers to plugs in brickwork or concrete;			
3	Mirror 450 x 600mm high No	1		
4	Mirror 600 x 900mm high No	1		
	Carried Forward to Summary of Section No. 2			
	Section No. 2 Building Facilities Bill No. 15 Glazing			
	101			

		punding construction			
ltem No			QUANTITY	RATE	AMOUNT
NO	BILL NO 16				
	PAINTWORK				
	(CPAP WORK GROUP NO. 152 UNLESS OTHERWISE STATED)				
	For preambles see "Model Preambles for Trades"				
	SUPPLEMENTARY PREAMBLES				
	Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items, materials or methods of similar quality may be used with prior approval from the architect				
	DESCRIPTIONS				
	Descriptions of paintwork shall be deemed to include for all cutting in				
	PAINTWORK, ETC. TO NEW WORK:				
	ON FACE BRICKS:				
	Two coats brick dressing on:				
1	Recessed pointed faced external walls.	m2	10		
2	Window cills and reveals not exceeding 300mm girth.	m	10	n	
	ON FLOATED PLASTER:				
	One coat "Plascon UC 56 Merit" plaster primer and two coats "150 V Plastic PVA" coating on:	P		,	
3	3 Ceilings	m2	10		
	One undercoat and two coats "Plascon" double velvet on:				
4	Internal walls.	m2	10		
	Carried	to Collection			
	Section No. 2 Building Facilities Bill No. 16 Paintwork				
	102				
	1				l

		<u></u>		
ltem No		QUANTITY	RATE	AMOUNT
	One coat alkaline resistant plaster primer, one universal undercoat and two coats eggshell enamel paint on: Internal walls.	10		
	m2	10		
	ON EXTERNAL FLOATED PLASTER SURFACES			
	Prepare and apply one coat plaster primer, one coat universal undercoat and two coats of PVA exterior quality enamel paint			
6	On walls m2	10		
	ON FIBRE-CEMENT:			
	<u>One coat "Plascon UC.56 Merit" plaster primer and two coats "Semi - Gloss" PVA of colour to comply with SABS 634 'Co-polymer' or equivalent standard on:</u>			
7	Ceilings and comices m2	10		
	ON METAL:			
	Spot priming defects in pre-primed surfaces with "Plascon Galvogrip (GIP1) metal primer, one coat "UC-1 Merit" universal undercoat and two coats "Plascon" velvagio gloss enamel paint, or other equal and approved on:			r.
8	Door frames. m2	10		
	One coat "Plascon UC.53 Namelcote" zinc chromate primer and two coats gloss "VLO Velvaglo Polyurethane Velvet Enamel" or other equal and approved on:		:	
9	Gates, grilles, burglar screens, balustrades, etc. (both sides			
	measured over the full flat area). m2	10		
10	Rails, bars, pipes, etc. not exceeding 300mm girth. m	10		
	ON WOOD:			
	Prepare and apply three coats clear polyurethane matt varnish			
11	Doors.			
	m2	10		
	Carried to Collection			
	Section No. 2			
	Building Facilities			
	Bill No. 16			
	Paintwork			
	103			

Item     QUANTITY     RATE     AMOUNT       12     Skirlings, nalis, etc. not exceeding 300mm girth.     m     10     11       13     Skirlings, nalis, etc. exceeding 300mm girth.     m2     10     10       14     Dors.     m2     10     11       14     Dors.     m2     10     10       14     Dors.     m2     10     10       15     Skritings, nalis, etc. sceeding 300mm girth.     m2     10       14     Dors.     m2     10     10       15     Section No. 2     Section No. 2     Section No. 2     Section No. 2       Section No. 2     Section No. 4     Section No. 4     Section No. 5     104						<u>ion</u>
12       Skirtings, rails, etc. not exceeding 300mm girth.       m       10         13       Skirtings, rails, etc. exceeding 300mm girth.       m2       10         One cost "Plescon UC.2" pink oil based wood primer, one cost "UC.1       m2       10         Mert" universal undercoat and two costs "Plascon" veivagio gloss       enamel paint on:         14       Doors.       m2       10         Garried to Collection         Section No. 2         Building Facilities       Bill No. 16         Plantwork       I       I	tem No			QUANTITY	RATE	AMOUNT
m2       10         One cost "Plascon UC.2" pink oil based wood primer, one cost "UC.1       Image: Control of the cost of		Skirtings, rails, etc. not exceeding 300mm girth.	m	10		
Vert* universal underceat and two coats "Plascon" velvagio gloss 14 Doors. m2 10 m2 10 Carried to Collection Section No. 2 Building Facilities Bill No. 16 Paintwork	13	Skirtings, rails, etc. exceeding 300mm girth.	m2	10		
Carried to Collection Section No. 2 Building Facilities Bill No. 16 Paintwork		Merit" universal undercoat and two coats "Plascon" velvagio gloss	.1			
Section No. 2 Building Facilities Bill No. 16 Paintwork	14	Doors.	m2	10		
Section No. 2 Building Facilities Bill No. 16 Paintwork						
Section No. 2 Building Facilities Bill No. 16 Paintwork						
Section No. 2 Building Facilities Bill No. 16 Paintwork						
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Section No. 2 Building Facilities Bill No. 16 Paintwork						
Building Facilities Bill No. 16 Paintwork		Carried	to Collection			
		Section No. 2 Building Facilities Bill No. 16				

Section No. 2 Bill No. 16 Paintwork COLLECTION Totel Brought Forward from Page No. 102 103 104 AMOUNT 104 Section No. 2 Section No. 2 Bill No. 16 Paintwork 105		Bu	ilding Construct	ion
Paintwork COLLECTION Total Brought Forward from Page No. Total Bro	Section No. 2			
COLLECTION Total Brought Forward from Page No. Total Brought Forwa	Bill No. 16			
Total Brought Forward from Page No.  Page No 102 103 104 104 104 104 104 104 104 104 104 104	Paintwork			
Carried Forward to Summary of Section No. 2 Building Facilities Bill No. 16 Paintwork	COLLECTION			
Carried Forward to Summary of Section No. 2 Section No. 2 Building Facilities Bill No. 16 Paintwork	Total Brought Forward from Page No.	Page No		AMOUNT
Carried Forward to Summary of Section No. 2 Section No. 2 Sudding Facilities Bill No. 16 Paintwork		102		
Carried Forward to Summary of Section No. 2 Section No. 2 Building Facilities Bill No. 16 Paintwork		103		
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Section No. 2 Building Facilities Bill No. 16 Paintwork				
Section No. 2 Building Facilities Bill No. 16 Paintwork				
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Building Facilities Bill No. 16 Paintwork				
	Building Facilities Bill No. 16			
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Bill No					
	Description		Page No	Page No	Tender Amount
1	Foundations (All trades) (Provisional)	Page	35	44	
2	Concrete, Formwork and Reinforcement	Page	45	50	
3	Precast Concrete	Page	51	51	
4	Brickwork	Page	52	55	
5	Waterproofing	Page	56	56	
6	Roof coverings, etc	Page	57	59	
7	Carpentry and Joinery	Page	60	64	· <u>·</u> ··································
8	Ceilings, Partitions and Access Flooring	Page	65	67	
9	Floor Coverings, Plastic Linings, etc	Page	68	68	
10	Ironmongery	Page	69	77	
11	Metalwork	Page	78	84	
12	Plastering	Page	85	88	n <u> </u>
13	Tiling	Page	89	91	
14	Plumbing and Drainage (Provisional)	Page	92	100	
15	Glazing	Page	101	101	
16	Paintwork	Page	102	105	
	Carried to Final Summary				

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BILL NO. 1         EARTHWORKS (PROVISIONAL):         NOTE: Unless otherwise stated all items in this bill shall be deemed to fall into Work Group No. 104 for Haydet Formula purposes.         NOTE: All excavations are measured as being in "earth" and/or filing compacted to 98% modified AASHTO density.         Descriptions of excavations shall be deemed to include for setting aside surplus excavated material in spoil heaps for use as stilling or for depositing within 150m of the perimeter of the excavations and spreading and noughly levelling as directed, as well as for increase in bulk and multiple handling of excavated material shall be deemed to include loading excavated material shall be deemed to include loading excavated material shall be deemed to include of operation.         Descriptions of carting away of excavated material shall be deemed to include so removing nubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc (NB: This item includes removing nubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc (NB: This item includes removing notes and fill hole with clean dry earth filling, watered and rammed       no       1         3 Take out and remove tree with trunk exceeding 1000mm and not excavating and removing roots and fill hole with clean dry earth filling, watered and rammed       No       1         4 Take out and remove tree with trunk exceeding 1500mm and not excavating and menoving roots and fill hole with clean dry earth filling, watered and rammed       No       1         4 Take out and remove tree with trunk exceeding 1500mm and not excavating and menoving roots and fill hole with clean dry earch filling, watered and rammed	tem			QUANTITY	RATE	AMOUNT
NOTE: Unless otherwise stated all items in this bill shall be deemed to fall into Work Group No. 104 for Haylett Formula purposes.       NOTE: All excavations are measured as being in "earth" and/or filling compacted to 98% modified AASHTO density.         Descriptions of excavations shall be deemed to include for setting aside surplus excavated material in spoil heaps for use as filling or for depositing within 150m of the perimter of the excavations and spreading and roughly leveling as directed, as well as for increase in built and multiple handing of excavated material shall be deemed to include loading excavated material on stock piles situated on the building site and for buiking.         SITE CLEARANCE ETC         Site clearance       1         1 Digging up and removing nubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc (NE: This item including excavating and removing nots and fill hole with clean true exceeding 1000m girth measured 1 m above ground level including excavating and removing nots and fill hole with clean true exceeding 1000m girth measured 1 m above ground level including excavating and removing nots and fill hole with clean true exceeding 200mm girth measured 1 m above ground level including excavating and removing ro	No	BILL NO. 1				
deemed to fail into Work Group No. 104 for Haylett Formula         purposes.         NOTE: All excavations are measured as being in "earth"         and/or filling compacted to 98% modified AASHTO density.         Descriptions of excavations shall be deemed to include for setting aside surplus excavated material in spoil heaps for use as filling or for depositing within 150m of the perimeter of the excavations and spreading and roughly levelling as directed, as well as for increase in bulk and multiple handling of excavated material shall be deemed to include lo ading excavated material askall be deemed to include lo ading excavated material ashall be deemed to include lo ading excavated material askall be deemed to include lo ading excavated material askall be deemed to include lo ading excavated material askall be deemed to include ading excavated material askall be deemed to include lo ading excavated material askall be deemed to include lo ading excavated material askall be deemed to include ading excavated material askall be deemed to include lo ading excavated material askall be deemed to include ading excavated material askall be deemed to include lo ading excavated material askall be deemed to include ading excavated material askall be deemed to include loading excavated material askall be deemed to include ading excavated material askall be deemed to include loading excavated material askall be deemed to include ading excavated material and thouse the set in the excavations or, atternatively, from stock piles situated on the building site and for builking.         StrE CLEARANCE ETC       Site clearance         1       Digging up and removing rubbish, debris, vegetation, hedges, shrubs and thress not exceeding 500mm and not exceeding 1000mm grith measured 11 mabove ground level including excavating and		EARTHWORKS (PROVISIONAL):				
and/or filling compacted to 98% modified AASHTO density. Descriptions of excavations shall be deemed to include for setting aside surplus excavated material in spoil heaps for use as filling or for depositing within 150m of the perimeter of the excavated on file or increase in toulk and multiple handling of excavated material and the perimeter of the excavations or, alternatively, from stock piles situated on the building site and for builking. SITE CLEARANCE ETC Site clearance 1 Digging up and removing nubbish, debris, vegetation, hedges, thubs and trees not exceeding 200mm girth, bush, ted (NB: This item includes removing multiple, ted (NB: This item includes removing any refuse dumped on site) m2 10 REMOVAL OF TREES ETC 2 Take out and remove the with trunk exceeding 500mm and not exceeding 1000mm girth measured 1m above ground level including excavating and removing roots and fill hole with clean dry earth filling, watered and rammed 1m above ground level including excavating and removing roots and fill hole with clean dry earth filling, watered and rammed 1m above ground level including excavating and removing roots and fill hole with clean dry earth filling, watered and rammed 1m above ground level including excavating and removing roots and fill hole with clean dry earth filling, watered and rammed 1m above ground level including excavating and removing roots and fill hole with clean dry earth filling, watered and rammed 1m above ground level including excavating and removing roots and fill hole with clean dry earth filling, watered and rammed 1m above ground level includin		deemed to fall into Work Group No. 104 for Haylett Formula				
setting aside surplus excavated material in spoil heaps for use as filling or for depositing within 150m of the perimeter of the excavations and spreading and roughly leveling as directed, as well as for increase in bulk and multiple handling of excavated material caused by the Contractor's method of operation. Descriptions of carting away of excavated material shall be deemed to include loading excavated material onto trucks directly from the excavations or, alternatively, from stock piles situated on the building site and for bulking. SITE CLEARANCE ETC Site clearance 1 Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc (NE: This item includes removing any refuse dumped on site) m2 10 REMOVAL OF TREES ETC 2 Take out and remove tree with trunk exceeding 500mm and not exceeding 1000mm girth measured 1m above ground level including excavating and removing roots and fill hole with clean dry earth filling, watered and rammed No 1 at the out and remove tree with trunk exceeding 1000mm and not exceeding softm girth measured 1 mabove ground level including excavating and removing roots and fill hole with clean dry earth filling, watered and rammed No 1 4 Take out and remove tree with trunk exceeding 1500mm and not exceeding 500mm girth measured 1 mabove ground level including excavating and removing roots and fill hole with clean dry earth filling, watered and rammed No 1 4 Take out and remove tree with trunk exceeding 1500mm and not exceeding 2000mm girth measured 1 mabove ground level including excavating and removing roots and fill hole with clean dry earth filling, watered and rammed No 1 Carried to Collection Section No. 3						
deemed to include loading excavated material onto trucks         directly from the excavations or, alternatively, from stock piles         situated on the building site and for bulking.         SITE CLEARANCE ETC         Site clearance         1       Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc (NB: This item includes removing rup fuse dumped on site)       m2       10         REMOVAL OF TREES ETC       2       Take out and remove tree with trunk exceeding 500mm and not exceeding 1000mm girth measured 1m above ground level including excavating and removing roots and fill hole with clean dry earth filling, watered and rammed       No       1         33       Take out and remove tree with trunk exceeding 1000mm and not exceeding 1500mm girth measured 1m above ground level including excavating and removing roots and fill hole with clean dry earth filling, watered and rammed       No       1         4       Take out and remove tree with trunk exceeding 1000mm and not exceeding 1500mm girth measured 1m above ground level including excavating and removing roots and fill hole with clean dry earth filling, watered and rammed       No       1         4       4 Take out and remove tree with trunk exceeding 1500mm and not exceeding 2000mm girth measured 1m above ground level including excavating and removing roots and fill hole with clean dry earth filling, watered and rammed       No       1         Carried to Collection         Section No. 3		setting aside surplus excavated material in spoil heaps for use as filling or for depositing within 150m of the perimeter of the excavations and spreading and roughly levelling as directed, as well as for increase in bulk and multiple handling of excavated				
Site clearance         1       Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc (NB: This item includes removing any refuse dumped on site)       m2       10         REMOVAL OF TREES ETC       2       Take out and remove tree with trunk exceeding 500mm and not exceeding 1000mm girth measured 1m above ground level including excavating and removing roots and fill hole with clean dry earth filling, watered and rammed       No       1         3       Take out and remove tree with trunk exceeding 1000mm and not exceeding 1500mm girth measured 1m above ground level including excavating and removing roots and fill hole with clean dry earth filling, watered and rammed       No       1         3       Take out and remove tree with trunk exceeding 1000mm and not exceeding 1500mm girth measured 1m above ground level including excavating and removing roots and fill hole with clean dry earth filling, watered and rammed       No       1         4       Take out and remove tree with trunk exceeding 1500mm and not exceeding 2000mm girth measured 1m above ground level including excavating and removing roots and fill hole with clean dry earth filling, watered and rammed       No       1         Levende to Collection         Section No. 3		deemed to include loading excavated material onto trucks directly from the excavations or, alternatively, from stock piles				
1       Digging up and removing nubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc (NB: This item includes removing any refuse dumped on site)       m2       10         REMOVAL OF TREES ETC       10         2       Take out and remove tree with trunk exceeding 500mm and not exceeding 1000mm girth measured 1m above ground level including excavating and removing roots and fill hole with clean dry earth filling, watered and rammed       No       1         3       Take out and remove tree with trunk exceeding 1000mm and not exceeding 1500mm girth measured 1m above ground level including excavating and removing roots and fill hole with clean dry earth filling, watered and rammed       No       1         3       Take out and remove tree with trunk exceeding 1000mm and not exceeding 1500mm girth measured 1m above ground level including excavating and removing roots and fill hole with clean dry earth filling, watered and rammed       No       1         4       4 Take out and remove tree with trunk exceeding 1500mm and not exceeding 2000mm girth measured 1m above ground level including excavating and removing roots and fill hole with clean dry earth filling, watered and rammed       No       1         Learned to Collection         Section No. 3		SITE CLEARANCE ETC				
shrubs and trees not exceeding 200mm girth, bush, etc (NB:       m2       10         This item includes removing any refuse dumped on site)       m2       10         REMOVAL OF TREES ETC       10         2 Take out and remove tree with trunk exceeding 500mm and not exceeding 1000mm girth measured 1m above ground level including excavating and removing roots and fill hole with clean dry earth filling, watered and rammed       No       1         3 Take out and remove tree with trunk exceeding 1000mm and not exceeding 1500mm girth measured 1m above ground level including excavating and removing roots and fill hole with clean dry earth filling, watered and rammed       No       1         4 Take out and remove tree with trunk exceeding 1500mm and not exceeding 2000mm girth measured 1m above ground level including excavating and removing roots and fill hole with clean dry earth filling, watered and rammed       No       1         4 Take out and remove tree with trunk exceeding 1500mm and not exceeding 2000mm girth measured 1m above ground level including excavating and removing roots and fill hole with clean dry earth filling, watered and rammed       No       1         Carried to Collection         Section No. 3		Site clearance				
<ul> <li>2 Take out and remove tree with trunk exceeding 500mm and not exceeding 1000mm girth measured 1m above ground level including excavating and removing roots and fill hole with clean dry earth filling, watered and rammed</li> <li>3 Take out and remove tree with trunk exceeding 1000mm and not exceeding 1500mm girth measured 1m above ground level including excavating and removing roots and fill hole with clean dry earth filling, watered and rammed</li> <li>4 Take out and remove tree with trunk exceeding 1500mm and not exceeding 2000mm girth measured 1m above ground level including excavating and removing roots and fill hole with clean dry earth filling, watered and rammed</li> <li>4 Take out and remove tree with trunk exceeding 1500mm and not exceeding 2000mm girth measured 1m above ground level including excavating and removing roots and fill hole with clean dry earth filling, watered and rammed</li> <li>5 A Take out and remove tree with trunk exceeding 1500mm and not exceeding 2000mm girth measured 1m above ground level including excavating and removing roots and fill hole with clean dry earth filling, watered and rammed</li> <li>6 A Take out and remove tree with trunk exceeding 1500mm and not exceeding 2000mm girth measured 1m above ground level including excavating and removing roots and fill hole with clean dry earth filling, watered and rammed</li> <li>6 A Take out and removing roots and fill hole with clean dry earth filling, watered and rammed</li> <li>7 A Take out and removing roots and fill hole with clean dry earth filling.</li> </ul>	1	shrubs and trees not exceeding 200mm girth, bush, etc (NB:	m2	10		
exceeding 1000mm girth measured 1m above ground level including excavating and removing roots and fill hole with clean dry earth filling, watered and rammed No 1 3 Take out and remove tree with trunk exceeding 1000mm and not exceeding 1500mm girth measured 1m above ground level including excavating and removing roots and fill hole with clean dry earth filling, watered and rammed No 1 4 Take out and remove tree with trunk exceeding 1500mm and not exceeding 2000mm girth measured 1m above ground level including excavating and removing roots and fill hole with clean dry earth filling, watered and rammed No 1 Section No. 3		REMOVAL OF TREES ETC				
not exceeding 1500mm girth measured 1m above ground level including excavating and removing roots and fill hole with clean dry earth filling, watered and rammed No 1 4 Take out and remove tree with trunk exceeding 1500mm and not exceeding 2000mm girth measured 1m above ground level including excavating and removing roots and fill hole with clean dry earth filling, watered and rammed No 1 Carried to Collection Section No. 3	2	exceeding 1000mm girth measured 1m above ground level including excavating and removing roots and fill hole with clean	No	1		
4 Take out and remove tree with trunk exceeding 1500mm and not exceeding 2000mm girth measured 1m above ground level including excavating and removing roots and fill hole with clean dry earth filling, watered and rammed No 1 Carried to Collection Section No. 3	3	not exceeding 1500mm girth measured 1m above ground level including excavating and removing roots and fill hole with clean				
not exceeding 2000mm girth measured 1m above ground level including excavating and removing roots and fill hole with clean dry earth filling, watered and rammed No 1 Carried to Collection Section No. 3			No	1		
Section No. 3	4	not exceeding 2000mm girth measured 1m above ground level including excavating and removing roots and fill hole with clean	No	1		
		c	Carried to Collection			
Bill No. 1		Building Facilities Bill No. 1			Ĩ	
General Site Works						
107		107				

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				Dullui	ig construction
ltem No			QUANTITY	RATE	AMOUNT
No	BULK EXCAVATION, FILLING, ETC				
5	Open face excavation over sloping site and deposit in spoil heaps on site where directed.	m3	10		
6	Extra over open face excavation in earth for excavation in soft rock	m3	10		
7	Extra over open face excavation in earth for excavation in hard rock	m3	10		
8	Allow for keeping excavations free of all water and mud other than subterranean water	Item	1		
	mported G6 filling material supplied by the contractor to make up levels to platforms compacted in 150mm layers to 93% Mod AASHTO density	m3	10		
	Imported G6 filling material supplied by the contractor to make up levels to platforms compacted in 150mm layers to 95% Mod AASHTO density	m3	10		
	Imported G5 filling material supplied by the contractor to make up levels to platforms compacted in 150mm layers to 97% Mod AASHTO density	m3	10		
	Compaction of ground surface under platforms including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% modified AASHTO density	m2	10		
13	Prescribed density tests on filling	No	1		
	Section No. 3 Building Facilities Bill No. 1	Carried to Collection			
	Bill No. 1 General Site Works				
	108				
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Section No. 2			
Bill No. 13			
Tiling			
COLLECTION			
Total Brought Forward from Page No.	Page No		AMOUNT
	107		
	108		
Carried Forward to Summary of Section No. 3			
Section No. 3 Building Facilities			
Bill No. 1 General Site Works			
109			
I	1	1	ll

ltern No	BILL NO. 2		QUANTITY	RATE
	STORMWATER DRAINAGE, SOIL DRAINAGE AND WATER SUPPLY			
	<b>NOTE:</b> Unless otherwise stated herein all items in this bill shall be deemed to fall into Work Group No. 146 for Haylett Formula purposes.			
	<b>NOTE:</b> All excavations are measured as being in "earth" and/or filling compacted to 95% modified AASHTO density			
	Movement joints			
1	Movement joint not exceeding 300mm high formed of 12mm bitumen impregnated softboard placed vertical in position between concrete stormwater channel and brickwalls or concrete aprons, etc. including raking out top section 10mm deep and filling with bituminous compound	m	10	
	STORMWATER DRAINAGE			
	Precast concrete stormwater channels laid to falls			
	U-shaped channels 600mm wide x 120mm thick jointed with 2:1 cement mortar including all necessary excavations and formwork	m	10	
3	Extra for fair open end	No	1	
4	Extra for angle intersection	No	1	
5	Extra for T-intersection	No	1	
	Funnel shaped spill basin at end of rainwater channel size 2000mm wide (extreme) x 1000mm long overall x 400mm high comprising 200mm thick reinforced 20MPa/19 concrete base with mesh reinforcement ref. 617 and 200mm thick concrete sides 200mm high with 8No. hard burned bricks embedded in concrete base and evenly spaced and with 150-200mm diameter loose stones neatly packed at the basin mouth. No piece and overflow connection, no flush grated waste included, for under mounting installation. Provide CP waste overflow tube, CP waste connection, plug and chain, etc. (Basin). (7.30)	No	1	
	Carried	to Collection		
	Section No. 3 Building Facilities Bill No. 2 Stormwater drainage, Soil Drainage and Water Supply			
	110			

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item No			QUANTITY	RATE
	Precast piping laid to falls			
7	450mm diameter class 75D precast stormwater pipe laid in ground not exceeding 1000mm deep including all excavation; 100mm bedding of well compacted selected bedding 600mm wide for pipe; selected filling material compacted to 90% MOD AASHTO density on both top and sides of pipe 600 x 1000mm deep, and remove surplus excavated material	m	10	
0	450mm diameter class 75D precast stormwater pipe laid in		10	
0	ground exceeding 1000 but not exceeding 2000mm deep including all excavation; 100mm bedding of well compacted selected bedding 600mm wide for pipe; selected filling material compacted to 90% MOD AASHTO density on both top and sides of pipe 600 x 2000mm deep, and remove surplus excavated material			
		m	10	
9	450mm diameter class 75D precast stormwater pipe laid in ground exceeding 1000 but not exceeding 2000mm deep including all excavation; 100mm bedding of well compacted selected bedding 600mm wide for pipe; soilcrete 1:5 approved gravel cement mixture to underside of roadworks compacted to 90% MOD AASHTO density on top of pipe, and remove surplus excavated material			
		m	10	
10	600mm diameter class 75D precast stormwater pipe laid in ground exceeding 1000 but not exceeding 2000mm deep including all excavation; 100mm bedding of well compacted selected bedding 600mm wide for pipe; selected filling material compacted to 90% MOD AASHTO density on both top and sides of pipe 600 x 2000mm deep, and remove surplus excavated material			
		m	10	
11	600mm diameter class 75D precast stormwater pipe laid in ground exceeding 2000 but not exceeding 3000mm deep including all excavation; 100mm bedding of well compacted selected bedding 600mm wide for pipe; selected filling material compacted to 90% MOD AASHTO density on both top and sides of pipe 600 x 2000mm deep, and remove surplus excavated material			
		m	10	
	MANHOLES			
		Carried to Collection		
	Section No. 3 Building Facilities Bill No. 2 Stormwater drainage, Soil Drainage and Water Supply			
	111			

ltem No		QUANTITY	RATE
12	1,000 x 1,000 x 1,000mm deep internally, 230mm brick surface water drain manhole with 150mm concrete grade 20 slab and 750 x 750 x 50mm thick iron grating cover No	1	
	13 1,000 x 1,000 x 3,000mm deep internally, 230mm brick surface water drain manhole with 150mm concrete grade 20 slab and 750 x 750 x 50mm thick iron grating cover No	1	
	Excavate for and construct manhole chamber having reinforced concrete class 20/19mm. 150mm base with mesh ref 193 and precast concrete rings 150mm thick with chamfered edges. 230mm thick brickwalls in English bond rendered internally with 13mm thick 1:3 cement plaster floated smooth. the base having mass concrete class 20/20 benching trowelled smooth with manhole cover (measured elsewhere) cast into concrete cover slab: all as per Engineer's drawing		
14	14 Manhole chamber size 600mm x 450mm internally, поt exceeding 1000mm deep No	1	
15	15 Manhole chamber size 600mm x 450mm internally, exceeding 1000mm and not exceeding 1250mm deep No	1	
16	16 Manhole chamber size 600mm x 450mm internally, exceeding 1250mm and not exceeding 2000mm deep No	1	
17	17 Manhole chamber size 600mm x 450mm internally, exceeding 2000mm and not exceeding 3000mm deep No	1	
	Standard cast iron manhole cover and frame		
	Coated cast iron manhole cover and frame, including bedding frame in 1:3 cement mortar and sealing cover with grease.		
18	18 Heavy duty single seal rectangular manhole cover and frame to SABS 558 to suit opening size 600 x 450mm internally No	1	
	Sundries		
19	19 Hole through 230mm brickwork wall in manholes for pipe 45 0mm diameter and make good all works disturbed No	1	
20	20 Hole through 230mm brickwork wall in manholes for pipe 60 0mm diameter and make good all works disturbed No	1	
21	21 Galvanised chicken mesh on the outlet pipe 600mm diameter to trap debris No	1	
	DRAINS		
	Carried to Collecti	on	
	Section No. 3 Building Facilities Bill No. 2		
	Stormwater drainage, Soil Drainage and Water Supply		
	112		

ltem No			QUANTITY	RATE
	'V' drain composed of 125mm slabs and slab thickening on the edges all reinforced with mesh fabric S193 laid to falls including all exacavation. 150mm imported G5 material compacted to 93% Mod AASHTO at ±1% OMC and disposal of surplus material etc.			
22	Drain size 2,000mm average width x 1,500mm/750mm high	m	10	
	PORTAL CULVERT			
	Site clearance			
23	Stripping average 150mm thick layer of top soil and stockpiling on site	m2	10	
	Excavation			
	Excavate in earth not exceeding 2m deep			
24	Reduce levels under floors and stockpile on site	m3	10	
	Extra over all excavations for carting away			
25	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the Contractor	m3	10	
26	Surplus material from top stock soil piles on site to a dumping site to be located by the contractor	m3	10	
	Risk of collapse of excavations			
27	Sides of trench excavations not exceeding 1.5m deep	m2	10	
	Keeping excavations free of water			
28	Keeping excavations free of water	Item	1	
	Filling			
	Earth filling obtained from the excavations and/or prescribed stockpiles on site compacted to 95% Mod AASHTO density			
29	Backfilling to trenches, etc	m3	10	
	Imported filling supplied by the Contractor under floors			
30	Approved "G5" material compacted to 95% Mod AASHTO	m3	10	
	Generally			
	Carried to Co	ollection		
	Section No. 3 Building Facilities			
	Bill No. 2 Stormwater drainage, Soil Drainage and Water Supply			
	113			

ltern No			QUANTITY	RATE
	Rip and scarify the exposed subgrade to 150mm deep under floors, etc and recompacted to 93% Mod AASHTO	m2	10	
	Soil poisoning			1
	Soil insecticide			
	"Chlodane" (SABS 1165) soil insecticide type in accordance with SABS 0124-1977 or other equal and approved			
32	Under floors etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming	m2	10	
	Concrete			
	Vibrated reinforced concrete (Class 25/20) in:			
33	Culvert headwall and base	m3	10	
	Vibrated reinforced concrete (Class 35/20) in:			
34	Slabs	m2	10	
	Formwork			
	Rough formwork, including propping not exceeding 3.5mm high, to:			
35	Sides of wall	m2	10	
36	Edge not exceeding 300mm high	m	10	
	Reinforcement			
	Fabric reinforcement including minimum 300mm laps			
37	Mesh Ref. 395 in concrete beds	m2	10	
38	Mesh Ref. 395 in slab, top and bottom	m2	10	
	Testing			1
39	Allow for testing the stormwater drainage system as the work proceeds and on completion to the entire satisfaction of the Architect	ltem	1	
	Carried	to Collection		
	Section No. 3 Building Facilities Bill No. 2 Stormwater drainage, Soil Drainage and Water Supply			
	114			
	114			

ltem   No			QUANTITY	RATE
	Portal culverts jointed strictly in accordance to the manufacturer's instructions under road including all necessary excavation, backfilling compacted to 95% Mod AASHTO disposal of surplus excavated material, 75mm sand bed and 150mm sub-grade			
40	900mm Diameter precast culvert	m	10	
	SOIL DRAINAGE			
	uPVC class 9 sewer pipes			
41	110mm Pipes vertically or ramped to cleaning eyes etc (no excavation)	m	10	
	110mm Pipes laid in and including trenches not exceeding 1m deep	m	10	
43	110mm Pipes laid in and including trenches exceeding 1m and not exceeding 2m deep	m	10	
44	110mm Pipes laid in and including trenches exceeding 2m and not exceeding 3m deep	m	10	
	160mm Pipes laid in and including trenches not exceeding 1m deep	m	10	
46	160mm Pipes laid in and including trenches exceeding 1m and not exceeding 2m deep	m	10	
	Extra over uPVC pipes for fittings			
47	110mm Bend	No	1	
48	110mm Y Junction	No	1	
49	110mm Tee Junction	No	1	
50	160mm Bend	No	1	
51	160mm Y Junction	No	1	
52	160mm Tee Junction	No	1	
53	160mm to 110mm Y Junction	No	1	
		Carried to Collection		
	Section No. 3 Building Facilities Bill No. 2			
	Stormwater drainage, Soil Drainage and Water Supply			
	115			

ltem No		QUANTITY	RATE
	Sundries		
54	15MPa/19mm mass concrete encasing around 100mm horizontal drain pipe including all necessary formwork and extra excavation, etc m	10	
	15MPa/19mm mass concrete encasing around 100mm vertical or raking drain pipe to cleaning eye including all necessary formwork m	10	
	15MPa/19mm mass concrete encasing around 160mm horizontal drain pipe including all necessary formwork and extra excavation, etc m	10	
	Gulley not exceeding 1m deep to invert comprising 100mm diameter uPVC gulley trap and head, grating, etc. including excanating for , bedding on and encasing in 15MPa/19mm mass concrete and fitted with and including precast concrete gulley top bedded in cement mortar No	1	
	ABC cast iron straight or bent cleaning eye with removable cover jointed to 110mm uPVC pipe and set in and including 15MPa/19mm mass concrete surround with exposed surfaces trowelled smooth No	1	
	Precast concrete circular inspection chambers (covers elsewhere)		
	Inspection chamber 1020mm diameter, exceeding 750mm and not exceeding1000mm deep internally No	1	
60	Inspection chamber 1020mm diameter, exceeding 1000mm and not exceeding 2000mm deep internally No	1	
61	Inspection chamber 1020mm diameter, exceeding 2000mm and not exceeding 3250mm deep internally No	1	
	Covers etc		
	1130mm Diameter x 100mm thick precast concrete removable cover with 560mm diameter opening for cast iron cover and frame (elsewhere) No	1	
63	550mm Diameter x 82kg cast iron pavement manhole cover and frame No	1	
64	Lifting key for manhole cover No	1	
	Carried to Collection		
	Section No. 3 Building Facilities Bill No. 2 Stormwater drainage, Soil Drainage and Water Supply		
	116		
	110		ļ

ltem No			QUANTITY	RATE
	Septic tank			
	Allow the amount of Eighty Thousand Rand (80,000.00) for a septic tank including soakaways	Item	1	
	Sundries			
	Hole through side of precast concrete manhole for pipe exceeding 100mm and not exceeding 200mm diameter and make good	No	1	
	Prescribed density tests on filling			
67	"Modified AASHTO Density" test	No	1	
	GENERALLY			
	Allow for keeping all excavation free from surface water, stormwater or mud	Item	1	
	CONNECTIONS			
69	Allow for connection to existing Council Manhole	Item	1	
	TESTING			
70	Provide all necessary apparatus, water etc., and allow for testing the whole of the drainage work to the satisfaction of the Architect and the Local Authority. All defective work is to be removed and replaced and the whole re-tested until found perfect.	ltem	1	
	WATER SUPPLIES			
	Water Storage Tanks			
71	Supply and install 5000Litres "Jojo" or equal and approved plastic water storage tanks complete with 50 x 20mm galvanised steel reducing sockets, 20mm brass lockable tap, etc., including diverting rainwater down pipes into tank	No	1	
	Class 6 uPVC pressure pipes			
72	25mm Pipes laid in and including trenches	m	10	
73	50mm Pipes laid in and including trenches	m	10	
		Carried to Collection		
	Section No. 3 Building Facilities Bill No. 2 Stormwater drainage, Soil Drainage and Water Supply			
	117			

item No			QUANTITY	RATE
no	Extra over uPVC class 6 pipes for fittings			
74	25mm Fittings	No	1	
75	50mm End cap	No	1	
76	50 x 25mm Reducer	No	1	
77	50mm x 45 degrees bend	No	1	
78	50mm x 90 degrees bend	No	1	
79	50mm Tee	No	1	
80	50 x 50 x 25mm Reducing tee	No	1	
	Extra over uPVC class 6 pipes for cast iron fittings			
81	80mm Hydrant tee drilled to table 10 including connecting bolts, gaskets, etc	No	1	
	Valves, etc including joints to pipes and/or fittings			
82	25mm Brass fullway wheel valve	No	1	
83	50mm Brass fullway wheel valve	No	1	
84	110mm Brass fullway wheel valve	No	1	
85	80 x 65mm Brass right angle hydrant valve as SABS 1128 Part	No	1	
	Fire hydrant pedestals			
86	Unreinforced concrete 20MPa/19mm hydrant connection pedestal 1400mm high cast around vertical pipe with bottom 600mm below ground, 300 x 300mm square at base and tapering to square shaped top 250 x 250mm including necessary excavation, formwork and two coats of paint to exposed surfaces	No	1	
	Galvanised steel pipes			
87	20mm Pipes	m	10	
88	20mm Pipes laid in and including trenches	m	10	
89	25mm Pipes laid in and including trenches	m	10	
90	50mm Pipes	m Carried to Collection	10	
	Section No. 3 Building Facilities Bill No. 2 Stormwater drainage, Soil Drainage and Water Supply			
	118			

item No			QUANTITY	RATE
	Extra over uPVC class 6 pipes for fittings			
74	25mm Fittings	No	1	
75	50mm End cap	No	1	
76	50 x 25mm Reducer	No	1	
77	50mm x 45 degrees bend	No	1	
78	50mm x 90 degrees bend	No	1	
79	50mm Tee	No	1	
80	50 x 50 x 25mm Reducing tee	No	1	
	Extra over uPVC class 6 pipes for cast iron fittings			
81	80mm Hydrant tee drilled to table 10 including connecting bolts, gaskets, etc	No	1	
	Valves, etc including joints to pipes and/or fittings			
82	25mm Brass fullway wheel valve	No	1	
83	50mm Brass fullway wheel valve	No	1	
84	110mm Brass fullway wheel valve	No	1	
85	80 x 65mm Brass right angle hydrant valve as SABS 1128 Part	No	1	
	Fire hydrant pedestals			
	Unreinforced concrete 20MPa/19mm hydrant connection pedestal 1400mm high cast around vertical pipe with bottom 600mm below ground, 300 x 300mm square at base and tapering to square shaped top 250 x 250mm including necessary excavation, formwork and two coats of paint to exposed surfaces	No	1	
	Galvanised steel pipes			
87	20mm Pipes	m	10	
88	20mm Pipes laid in and including trenches	m	10	
89	25mm Pipes laid in and including trenches	m	10	
90	50mm Pipes	m Carried to Collection	10	
	Section No. 3 Building Facilities Bill No. 2 Stormwater drainage, Soil Drainage and Water Supply			
	119			

ltem No			QUANTITY	RATE
	80mm Pipes	m	10	
	Extra over galvanised steel pipes for steel fittings			
92	20mm Fittings	No	1	
93	25mm Fittings	No	1	
94	50mm Bend	No	1	
95	50mm Flanged adapter	No	1	
96	50mm Tee	No	1	
97	80mm Flange adaptor drilled to table 10	No	1	
	Sundries			
98	225 x 225mm Cast iron stopcock box including brick chamber below not exceeding 600mm deep internally	No	1	
99	225 x 225mm Meter or valve box including brick chamber below not exceeding 600mm deep internally	No	1	
100	Extra over excavations in earth for pipe trenches, etc. for excavations in soft rock	m3	10	
101	Extra over excavations in earth for pipe trenches, etc. for excavations in hard rock	m3	10	
102	15MPa/19mm Mass concrete in thrust blocks around fittings including necessary additional excavations, formwork, etc	m3	10	
103	Drinking fountain comprising 100 x 50 x 11mm mild steel channel section frame 3,3m long with two mitred and welded corners, two 200 x 200 x 4mm base plates cast into and including 300 x 300 x 300mm 20MPa/38mm mass concrete footings including necessary excavation, 100mm thick 20MPa/38mm mass concrete slab 2,25m long x 1m wide graded to falls with wood float finish, the channel frame painted with two coats of high gloss enamel paint and fitted with and including 20mm diameter galvanised mild steel pipe 2,3m long including three bends, three tees, three 15mm "Cobra 534" or other approved pushbutton pillar cocks, one 20mm in line brass strainer No. 1050, one 20mm brass fullway gate valve as "Cobra No. 1002/125" or other approved and one 20mm brass bibcock with lockshield and hose union as "Cobra No. 108LK" or other approved	No	1	
		Carried to Collection		
	Section No. 3 Building Facilities Bill No. 2 Stormwater drainage, Soil Drainage and Water Supply			
	120			

I			Buile	ding Constru
n	Borehole Provision		QUANTITY	RATE
04	Provide the provisional sum of Sixty Thousand Rands (R60,000.00) net for a Borehole	Item	1	
	TESTING			
)5	Testing soil drainage and water supply systems	Item	1	
	Section No. 3 Building Facilities	Carried to Collection		
	Bill No. 2 Stormwater drainage, Soil Drainage and Water Supply			
	121			
Section No. 2	1 1	ng Constr		
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3ill No. 14				
Plumbing and drainage (provisional)				
COLLECTION				
Total Brought Forward from Page No.	Page No			
	110			
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	112			
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	118			
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	121			
Carried Forward to	Summarv of Section No. 3			
Section No. 3 Building Facilities Bill No. 2				

				Dunan	ig oonstitution
ltem No			QUANTITY	RATE	AMOUNT
	BILL NO. 3				
	ROADS, PAVING AND PARKING				
	EARTHWORKS				
	(HAYLETT FORMULA WORK GROUP NO. 104)				
	Open face excavation				
1	Open face excavation to form platform under parking areas etc and depositing excavated material over site including haulage not exceeding 1km from perimeter of excavations	m3	10		
	Extra over bulk excavation in earth for excavation in				
2	Soft rock	m3	10		
3	Hard rock	m3	10		
	Extra over all excavations for carting away				
4	Surplus material from stock piles on site to a dumping site to be located by the contractor	m3	10		
	Keeping excavations free of water				
5	Keeping excavations free of all water other than subterranean water	Item	1		
	Earth filling obtained from the excavations and/or prescribed stockpiles on site compacted to 93% Mod AASHTO density				
6	150mm layer thick selected gravel material compacted to 93% Mod ASHTO	m3	10		
	Earth filling of stabilized natural gravel material obtained from commercial sources and brought to site by the contractor	n			
7	150mm Thick imported G5 material compacted to 95% Mod AASHTO density River sand filling supplied by the contractor	m3	10		
8	20mm Thick dry, clean, seived, washed river sand layer over filling (elsewhere), levelled watered and rammed under pavers	m2	10		
	c	Carried to Collection			
	Section No. 3 Building Facilities Bill No. 3				
	Roads, Paving & Parking				
	123				
				-	

				Buildi	ng Construction
item No			QUANTITY	RATE	AMOUNT
	Compaction of surfaces				
	Compaction of ground surface under pavings etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density	m2	10		
	Prescribed density tests on filling				
	Tests to determine the degree of compaction, etc of ground or filling	No	1		
	"HYVAR-X" or similar and approved weed killer				
	Under roads, paving, etc in sprayed over previously wetted ground	m2	10		
	PRECAST CONCRETE				
	(HAYLETT FORMULA WORK GROUP NO. 112)				
	Standard grey double zig-zag type S-A class 25 interlocking precast concrete paving blocks laid to pattern, on 25mm riversand bed to comply with SABS 1200 MJ-1984, with sand swept into joints				
12	80mm Paving to falls (parking, driveway, walkways, etc)	m2	10		
13	80mm Paving to falls (laundry yard, etc)	m2	10		
14	Circular cutting and waste	m	10		
	Precast concrete finished smooth on exposed surfaces including bedding, jointing and pointing				
	Kerb (SABS 927 fig 7) 180 x 280mm high with 150 x 150 x 300mm unreinforced concrete haunching at back of each joint including excavation, backfilling, etc	m	10		
	Kerb (SABS 927 fig 7) 180 x 280mm high circular on plan, with 150 x 150 x 300mm unreinforced concrete haunching at back of each joint including excavation, backfilling, etc	m	10		
	Combined Kerb (SABS 927 fig 7) 180 x 280mm high with tappered gutter kerb, 150 x 150 x 300mm unreinforced concrete haunching at back of each joint including excavation,				
	backfilling, etc	m	10		
	Carried to Co	llection			
	Section No. 3 Building Facilities Bill No. 3 Roads, Paving & Parking				
	124				

ltem No			QUANTITY	RATE	AMOUNT
18	2no. Tappered gutter kerbs, each 300 x 150mm high to form a 'V' drain with 150 x 150 x 600mm unreinforced concrete haunching at back of each joint including excavation, backfilling, etc	m	10		
	Kerb (SABS 927 fig 8) 300 x 150mm high with 150 x 150 x 300mm unreinforced concrete haunching at back of each joint including excavation, backfilling, etc	m	10		
	PAINTING				
	HAYLETT FORMULA WORK GROUP NO. 152)				
	Prepare and paint one coat white reflective road marking paint o precast concrete paving blocks	on		:	
20	100mm Wide line	m	10		
	Car	ried to Collection			
	Section No. 3 Building Facilities Bill No. 3 Roads, Paving & Parking				
	125				
					li i

			8
Section No. 2			
Bill No. 3			
Roads, Paving	a & Parking		
COLLECTION	l l		
Total Brought	Forward from Page No.	Page No	AMOUNT
		85	
		86	
		87	
	Carried Forward to Summary of Section No. 3		
Section No. 3 Building Facil			
Bill No. 3			
Roads, Pavin			
	126		
		•	

Bill No				
	Description		Page No	Amount
1	General Site Works	Page	-109	
2	Stormwater Drainage, Soil Drainage and Water Supply	Page	-122	
3	Roads, Parking & Paving	Page	-126	
	Carried to Final Summary			

ltem No			QUANTITY	RATE	AMOUNT
	BILL NO 1				
	PROVISIONAL SUMS				
	WORK BY CONTRACTOR				
	<b>BUDGETARY ALLOWANCES</b> under this heading are for work to be executed by the contractor or a specialist sub-contractor and are to be used at the discretion of the Principal Agent and deducted in whole or in part if not required.				
	COMMUNITY LIAISON OFFICER (CLO)				
1	Allow the amount of R57,750.00 (Fifty Seven Thousand Seven Hundred and Fifty Rand) for a CLO	Item	1		
2	Allow for profit on preceding item if required	ltem	1		
	STEERING COMMITTEE		r		
3	Allow the amount of R67,500.00 (Sixty Seven and Five Hundred Rand) for Steering Committe Sitting	Item	1		
4	Allow for profit on preceding item if required	ltem	1		
	HIGH LEVEL WATER TANK AND STAND				
5	Allow the amount of R600 000-00 (Six Hundred Thousand Rand ) for a sectional steel high level water storage tank and 10m stand	ltem	1		
6	Allow for profit on preceding item if required	Item	1		
7	Allow for general attendance	ltem	1		
	SIGNAGE				
8	Allow the amount of R80 000-00 (Eighty Thousand Rand ) for Signage	Item	. 1		
9	Allow for profit on preceding item if required Item 8 000.00	ltem	1		
10	Allow for general attendance	ltem	1		
	WATER TANK PLATFORMS				
	Allow the amount of R175 000-00 (One Hundred and Seventy Five Thousand Rand ) for water tank platforms to be measured and valued at bill rates Carried Forward to Final Su	ltem	1		
		aiy			
	Section No. 4 Building Facilities Bill No. 1 Provisional Sums				
	128				I

#### CONTRACT No. FOR BUILDING CONSTRUCTION

SCHEDULE	SCHEDULE A : COMMUNITY HALL CONSTRUCTION		Tender Amount
		L	
Section 1	Preliminaries	R	
1			
Section 2	Building Work	R	
Section 3	External Works	R	
1			
Section 4	Provisional Sums	R	
TOTAL SCH	EDULE A : COMMUNITY HALL CONSTRUCTION	R	

CALCULATION OF TENDER SUM		
TOTAL SCHEDULE A : BUILDING CONSTRUCTION	R	
TOTAL OF SCHEDULE OF QUANTITIES	R	
SUBTOTAL (1)	R	
CONTINGENCIES The sum provided here is under the sole control of the Engineer and may be deducted in whole or in part. (The Tenderer must add 10% of the total of schedule of quantities)	R	
SUBTOTAL (2)	R	
VALUE-ADDED TAX (VAT) The tenderer shall add 15% of subtotal (2) for VAT	R	
	⊢	
TENDER SUM CARRIED TO FORM OF TENDER	R	



.

## SUMMARY FOR BID OPENING PURPOSES

NAME OF BIDDING ENTITY:....

.....

PHYSICAL STREET ADDRESS:	POSTAL ADDRESS:

TELEPHONE NUMBE	ER:
FAX NUMBER	:
E-mail ADDRESS	:
	. D

CONTRACT PRICE	: R
(Amount brought forwa	ard from the Summary Page)*

Signed by authorised representative of the Bidding Entity: .....

DATE: .....

• Should any discrepancy occur between this figure and the figure stated in the Summary Page, the latter should take precedence and apply.



# **ELECTRICAL INSTALLATION**

Employer



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1 SCOPE OF WORK

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# **SCOPE OF WORKS**

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## DETAIL SPECIFICATION: ELECTRICAL

## 1. GENERAL

These Standard Specifications cover the general technical requirements for the equipment, materials, installation, testing, commissioning and maintenance of electrical installations for the Contractors for the Building Construction for a Period of 36 Months in the Northern Cape Province.

The electrical contractor should take into account his programme and interruptions of the electrical services so as to minimise any disruptions.

"Contractor" Should mean the person, partnership, company or firm appointed for the supply, installation, testing, commissioning and maintenance of the Electrical Installation. In the case of the Electrical Installation being a sub-contract, nominated in terms of the Main Contract or otherwise, the word "Contractor" should also mean "Sub-Contractor" in terms of the Sub-Contract Conditions for the specific installation. Where applicable the Builder or Principal Contractor should be referred to as "Main Contractor".

All work should be scheduled in liaison with the Main Contractor to suit his master program.

## 2. SCOPE OF WORKS

The scope of works for the project involves the installation of electrical services in the buildings as defined in the detailed specification and drawings.

The scope of the installation should comprise of:

## **MV Section**

- (i) New Miniature Substation
- (ii) MV Cable

## LV Section

- (i) LV Cable Installation
- (ii) Kiosk
- (iii) New distribution board installation
- (iv) Wireways and Wiring
- (v) Small Power Installation
- (vi) Lighting Installation
- (vii) Earthing and Bonding

## **Earthing and Lightning Protection**



## General

- (i) Labelling
- (ii) Site supervision
- (iii) Production of "as-built" drawings
- (iv) Testing and issuing COC's
- (v) Contract management as specified by the engineer

## 3. STANDARD SPECIFICATIONS, REGULATIONS AND CODES

3.1 The latest edition, including all amendments up to date of tender of the following specifications, publications and codes of practice Should be read in conjunction with this specification and Should be deemed to form part thereof:

- 3.1.1 Occupational Health and Safety Act of 1993
- 3.1.2 SANS 10142-1 Wiring of premises 2012
- 3.1.3 SANS 10142 2 Wiring of premises (Medium Voltage)
- 3.1.4 SANS 0400 National Building Regulations
- 3.1.5 SANS 0313 Protection of Structures against Lightning
- 3.1.6 SANS 10114-1 Artifiicial Lighting of Interior 2005
- 3.1.7 The standard specification as Part I of this document
- 3.1.8 Equipment manufacturer's specifications and installation instructions
  - 3.2 The Contractor should ensure that all safety regulations and measures are applied and enforced during construction.
  - 3.3 The Contractor should ensure that he is registered to execute work in the Local Municipal area.

## 4. CONSTRUCTION PROGRAMME

The Contractor's programme should be co-ordinated with the programme of the Principal Contractor and should include allowance for adverse weather conditions, builders holidays and public holidays as specified in the Principal Contractor's conditions of contract.

## 5. STORAGE

The Contractor should provide adequate and safe storage for all materials. All materials should be stored or stacked in positions that will not interfere with other work in progress in the area.



## 6. QUALITY OF MATERIALS

6.1 All materials supplied or utilised under this should be new and unused. Only materials of first class quality and finish should be utilised. All materials should be subject to prior approval by the Engineer.

6.2 All materials should comply with the relevant SABS specifications.

6.3 All materials should be unconditionally guaranteed for a period of 12 months from the date of practical completion, which is first hand over. Where Supplier's guarantees are of a shorter duration than 12 months, the Contractor Should unreservedly agree to the extension and cession of all warranties and guarantees.

6.4 The Contractor should replace any materials that are found to be defective during the 12 months defects liability period.

## 7. COMPETENCE OF PERSONNEL, WORKMANSHIP AND STAFF

7.1 All work should be executed and supervised by suitably qualified staff. Only "ACCREDITED PERSONS" Should be permitted to carry out and supervise work.

7.2 The Contractor should at all times have an adequate number of employees available during the construction period to ensure that the work does not delay the construction programme.

7.3 The works should be supervised by a full time registered "MASTER ELECTRICIAN".

## 8. CO-ORDINATION OF SERVICES

The Contractor s hould be responsible for the on-site co-ordination with the Principal Contractor and other subcontractors. Due allowance should be made for this liaison and on-site co-ordination in the tender price.

## 9. FINISHING AND TIDYING

9.1 In view of the concentration of construction and other activities likely to be experienced during the contract period, progressive and systematic finishing and tidying will form an essential part of this contract. On no account will soil, rubble, materials, equipment or unfinished operations be allowed to accumulate in such a manner as to unnecessarily impede the activities of others. In the event of this occurring the Employer will have the right to withhold payment for as long as may be necessary in respect of the relevant Works in the area(s) concerned, without thereby prejudicing the rights of others to institute claims against the Contractor on the ground of unnecessary obstruction.

9.2 Finishing and tidying should therefore not be left to the end of the Contract, but should be a continuous operation.

## 10. EXISTING WORKS

The Contractor is responsible for obtaining information regarding services and the existing works which may be affected by the new works. Before the Contractor commences operations, he must discuss with and have the approval of the Project Manager concerned regarding the method he proposes to use for the safeguarding of any services and existing works he may encounter during construction. The cost of all precautionary measures, which may be necessary to ensure the safety of such services and existing works, as well as the protection of all persons, Should be borne by the Contractor. Any alteration to services, which may be required, Should be carried out

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by the Authority concerned at the expense of the Contractor. The Contractor Should be held responsible for any damage, injury or accident caused as a result of his failure to take the necessary precautionary measures..

## 11. WORK UNDERTAKEN BY OTHER TRADES

## 11.1 Principal Contractor

- 11.1.1 The whole works will be undertaken under the guidance of the Principal Contractor. Such works as bricklaying, plastering, dry-walling/partitioning and plumbing on sections to be refurbished or newly created will under that scope.
- 11.1.2 The electrical contractor should exercise caution when installing services in the ceiling void so as not to damage other services already installed. To avoid this electrical contractor should liaise with the Principal Contractor to arrange removal of portions of the ceiling to allow the electrical con should tractor to install services as may be required in the ceiling void e.g. wiring channel, conduit, light fittings, etc.

## 11.2 Air conditioning contractor

11.2.1 An air-conditioning contractor will be appointed. The extent of his work will be advised to the electrical contractor at a later stage. The electrical contractor should liaise and coordinate his work with that contractor to avoid clashing of services.

## 12. SUPERVISION

12.1 Work should at all times be subject to full time supervision by a qualified and experienced Site Agent. This representative must be authorised and competent to receive instructions on behalf of the Contractor.

12.2 The contractor should, with the electrical engineer's input, formulate a construction management plan to ensure that the process of works, variations, instructions, problems, incidence or accidence is recorded.

The following is the minimum documentation that should be provided for site and project management:

- Site diary
- Staff on site
- Schedule of equipment
- Schedule of material
- Programme
- Site instruction / record book.
- Full set of the latest project drawings and as built (of all services)
- Communication schedule

Further, the contractor should ensure that the assigned contract manager should be compliant to liaise with the engineer and other members of the project team to ensure the smooth running of the project.



## 13. PROTECTION OF OTHER SERVICES AND STRUCTURES

13.1 The Contractor Should take all the necessary precautions to protect existing services, finishes and structures during the execution of the Contract, and Should be fully responsible for all repairs and damages thereto. The costs for any repairs of damages should be recovered from the Contractor.

13.2 The Contractor should also exercise extreme care when excavations are made, to avoid damage to existing or newly installed services. Any damages to other services should be rectified forthwith and the costs for the rectification will therefore be recovered from the Contractor.

## 14. **MV INSTALLATION**

The client reserves the right to undertake this matter directly with the relevant power utility; however the electrical sub-contractor will be expected to facility everything.

**NB!!** The electrical sub-contractor should made necessary application for electrical connection to the power utilities eg ;( Eskom).

## 14.1 MINIATURE SUBSTATION

## GENERAL

This specification covers the supply, delivery, installation, testing and commissioning of a non-extensible outdoor three-compartment fully automated miniature substation, complete with HV switchgear, transformer and LV compartment.

The Miniature Substation Should be in accordance with the following specifications:

- NRS 004
- NRS 006
- SANS 780

All doors should be hinged properly and should have felt packing to prevent the entry of dust. The doors should be equipped with a suitable latch to accept a standard padlock. All doors should be marked according to the applicable Regulations of the Occupational Health Safety Act.

The metalwork of the substation should be well treated and all rust and scale should be removed before a suitable metal primer is applied. A final coat of AVOCADO GREEN oil based paint should be applied.

#### TRANSFORMER

The transformer compartment should be rated at <u>50kVA/11kV/400V</u> and in accordance with the relevant standard specification for DISTRIBUTION TRANSFORMERS and MINIATURE SUBSTATION which are SANS 780 and SANS 1029.

Voltage rating at no-load should be: HV = 11 000V

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## LV = 400/240V

The transformer must be provided with an off-load tap switch so arranged to give a plus minus 2.5% variation in the voltage ratio per tap. The tappings must be symmetrically arranged and the transformers must be capable of giving the full rated output continuously with any tapping in use.

The transformer will operate into a mixed load.

The transformer must be furnished with an earthing terminal so arranged that the core and all external metal work can be earthed.

The lifting lugs must provided sufficiently strong to support the weight of the transformer complete with oil and all accessories.

## 15. LV INSTALLATION

## 15.1 LV CABLES

Various distribution boards should be supplied with LV cables.

All LV power cables should have stranded copper conductors, Should be of the 600/1000V PVC/SWA/PVC type comply with SANS 15047-3 standard.

Where sleeves are not specified, cables should be laid directly in the ground. Minimum laying depths should be 650 mm below final ground level unless otherwise specified, and routes should be as indicated on the drawings.

All trenching, including excavations, bedding layers, shoring and prevention of waterlogging, drainage of excavations, backfilling and compaction of trenches form part of this contract. The Contractor should be deemed to have allowed for the laying of cables, the installation of terminal boxes, glands and termination of cables. Trenches should be compacted to a minimum of 93% of modified AASHTO density during backfilling.

Tenderers should take cognisance of the fact that other services might be installed along the same routes as the cables. The Contractor should, before commencing with any excavations, peg out the proposed cable route and confirm it with the Engineer.

Positions of cable markers should be pegged on site in collaboration with the Engineer. The wording of the labels should be provided by the Engineer.

Tenderers are to note that some cables will be installed underneath paved areas. The Contractor should be required to provide appropriate machinery for this type of installation and should allow in his tender price for hiring of such machinery and the remedial civil work associated with this installation.

## 15.2 DISTRIBUTION KIOSK

Distribution kiosk should comply with the requirements of SANS 60439-1 and should be mounted on a plinth on ground.

The colour of distribution kiosk should be sand stone.

## 15.3 DISTRIBUTION BOARDS

All distribution boards should be supplied by a specialist manufacturer who should install and fit the switchgear and equipment and carry out all internal wiring. All phase, neutral and earth busbars should be adequately sized to accept all circuits and connections plus 40% spare space for future. REFER TO THE ATTACHED SINGLE LINE DIAGRAM.

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Distribution boards should comply with the requirements of SANS 60439-1 and should be either flush or surface mounted (will be specified on the drawings). All distribution boards should be vermin proof and moisture proof and should be adequately ventilated.

The distribution board requirements are as shown on the schematic drawings. Note 5 kA minimum fault level. Contractors should draw the attention of their board manufacturers to this aspect, and proper labelling installed.

Shop drawings should be submitted to the Engineer for formal approval before any manufacture commences.

It should further be noted that late approval of drawings and distribution boards due to non-compliance with the specification will not relieve the Electrical Contractor from his obligations to complete the installation according to the programme. No claims for delays or extension of time in this regard, will be entertained.

The load should be balanced as equal as possible across multiphase system.

Only M & G or CBI circuit breakers should be used.

## 15.4 WIRING AND WIREWAYS

## 15.4.1 CONDUITS

Conduits and accessories should comply applicable standards, SANS 1065 for metallic conduit and SANS 950 for non-metallic conduit.

Internal conduits should be PVC and installed flush inside walls, slabs and surface mounted in ceiling voids. No conduit installation on the wall surfaces should be permitted in the building.

Conduit work under open roof structures and inside ceilings should be done in a rectangular grid pattern. Steel saddles should be used inside ceilings. Caddy clamps should be used on roof purlins; maximum spacing of saddles and clamps should be 750 mm.

All external conduits exposed to sunlight, rain or corrosive environments should be Bosal-type galvanised steel. External draw box covers should be sealed with white silicone after the installation has been completed. Galvanised conduit should be hot-dipped inside and outside in accordance with SANS 32 & 121

Chasing where applicable, Should only be done with a twin-blade chasing angle grinder or approved methods. Prior approval must first be obtained from the Architect or Engineer before any chasing work is carried out.

## 15.4.2 POWERSKIRTING

The channel and cover should be manufactured of 1mm thick rolled sheet steel and epoxy coated after manufacture.

Powerskirting, finished in baked enamel, the colour of which will be specified, Should consist of a sheetmetal wiring trunking with two separate wiring channels for power, intercom and telephone services. Unless otherwise specified, the powerskirting should be mounted at skirting height and installed to the Engineer's approval.

#### 15.4.3 WIRING TRUNKING

Galvanised sheetmetal or plastic wiring trunking, the types and sizes of which will be specified, Should be supplied and installed by the Electrical Contractor in the position indicated on the drawings. The wiring channels should generally be 2500mm long complete with junction pieces, end pieces, corners, T-pieces, brackets and supports

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and snap-in covers etc. Wiring channels should unless otherwise specified, be installed level and parallel to or

Perpendicular to finished surfaces. Covers should be accurately cut to fit squarely and neatly at joints, corners, partitions, etc., and should not be installed prematurely. Conduit feeders to and links between wiring channels Should

Terminate directly into the channel at accessible outlets using screwed or bushed entries. Care should be taken to ensure that wiring does not pass over any rough edges.

#### 15.4.4 WIRING

Surfix or Norse cable should not be accepted on this site, unless specified and indicated for specific services, e.g. air-conditioning installation.

All circuits should be wired from fresh unused coils of red, white, blue and black conductors. The colours of conductors should correspond to the phase from which that circuit is fed. An alternative colour may be used for the switched conductor between the light switch and the light fitting. The use of insulation tape to indicate phases will not be accepted.

Wiring should not be drawn into conduit until the conduit installation has been completed, fitted with bushes and all moisture and debris have been removed.

Joints of any kind will not be permitted in wiring. No more than 2 single or 1 three phase circuit may be drawn into any conduit.

All conductors should be marked by suitable cable markers indicating the circuit (e.g. L1 on both line and neutral conductors) at either end.

Circuit	Minimum conductor (size)					
Circuit	Phase (mm <sup>2</sup> )	Earth (mm <sup>2</sup> )				
Lighting power supply	1,5	1,5 insulated				
16A Switched socket outlets	2,5	2,5 insulated				
Geysers	4,0	2,5 insulated				
Console air-conditioner	4,0	4,0 insulated 4,0 insulated				
Stoves	4,0					



## 15.5 SMALL POWER (Switch Socket Outlet and Isolator)

For small power installation, the Contractor Should be responsible for: -

- Supply and installation of 16A switch socket outlets.
- Supply and installation of isolators for fixed equipment, appliances, geysers and air-conditioning.
- Wiring of all circuits back to the DB's.
- Labelling of all outlets as specified.
- Testing of all circuits.

## 15.5.1 SOCKETS OUTLETS

Unless otherwise specified, single phase SSO's should consist of 15A, 250V, 3-pin shuttered sockets to the latest SABS Specification.

Wall-mounted socket outlets should be similar or approved equal to 16A **Crabtree** type complete with cradle and white socket outlet cover plates for normal power.

Single and double socket outlets should each be flush-mounted in a horizontal 100 x 100mm wall box.

Where flush-mounted, the switch sockets should be installed in  $100 \times 100 \times 50$ mm pressed steel, galvanised boxes with oversized coverplates.

Surface-mounted SSO's should be of the metal clad type.

Where SSO's are exposed to the atmosphere or situated in damp, moist conditions, then weather-proof sockets should be used, eg "York" type or similar and approved.

Where not specified or indicated on the drawings, SSO's Should be mounted at 300mm above the finished floor level in offices, shops and bedrooms, at 1400mm in factories, workshops and garages and at 1200mm in kitchens and laundries, all measured from finished floor level, to centre of outlet

## 15.5.2 ISOLATORS

Isolators should be 20A DP flush or surface mounted similar and equal to Crabtree range.

Stove Isolators Should be 50A flush mounted, similar and equal to Crabtree.

Where ISOALTOR's are exposed to the atmosphere or situated in damp, moist conditions, then weather-proof sockets should be used, eg "York" type or similar and approved. The current ratings of the isolators are shown on the layout drawings.

Surface-mounted ISOLATOR's should be of the metal clad type.

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## 15.6 LIGHTING INSTALLATION

## 15.6.1 GENERAL

Light fittings should be delivered to site in boxes as packed by the Manufacturer. When the installation is handed over, all light fittings should be in a working condition, new and unused.

The permanent light fittings intended for installation should not be used for temporary lighting during construction. The certificate of completion for the installation will not be finalised, unless all light fittings and lamps are in working order.

All light fittings and light fitting components should be of the specified approved type and capacitors and ballasts should bear the SABS mark of approval. Compliance with SABS 1464 is essential.

Ballasts should be of the electronic **OSRAM 100 000 hours/Quicktronic** type and should be power factor corrected to ensure a power factor better than 0, 9.

All luminaires including all control gear and all or any other components excluding lamps should be guaranteed for a period of twelve calendar months from the date of putting into service.

All luminaires will be fitted with power factor correction components.

All luminaires supplied, Should comply with SANS 60598.

## 15.6.2 LAMPS

Fluorescent lamps should have bi-pin end cap arrangements and should fit with twist lock lamp holders to ensure that the lamps are always secure.

All fluorescent and gas discharge lamps should be guaranteed for a period of six calendar months from the date of putting into service. This should be recorded in the project site minutes.

## 15.6.3 LIGHT SWITCHES

Light switches should be rated at 16A, 250V similar or approved equal to **Crabtree** manufacture, complete with white cover plates. They should be mounted at 1400mm above the finished floor level, measured to centre. Where flush mounted, the switches should be installed in 100 x 50 x50mm pressed steel galvanised boxes with oversized coverplates white in colour.

Occupancy sensor will be installed in offices, corridors, classrooms and in the ablutions. The occupancy sensor should be similar or approved equal to **Legrand** type. Exterior lights will be controlled via a day light switch.

## 15.6.4 SCHEDULES OF LUMINAIRES

All light fittings should be supplied complete with lamps.

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TYPE	DESCRIPTION
D1	Recessed Down lighter, steel body with anodised aluminium reflector with toughened glass diffuser, complete with 1 x 23W cool white Enesaver CFL.
D2	Recessed Down lighter, steel body with anodised aluminium reflector with toughened glass diffuser, complete with 1 x 23W cool white Enesaver CFL.
F1	Recessed 1200 x 600 luminaire, body made of 0,6mm mild steel powder coated white between 80 and 120 micron with double parabolic louvre. Complete with LED driver and 1 53W LED lamp.
K1 & K	Surface mounted decorative bulkheads made of Die Cast Aluminium with prismatic diffuser and 3 x 18W cool white CFL

## 15.7 EARTHING AND LIGHTNING PROTECTION

Main earthing and lightning protection of the building Should be done by the specialist.

## 15.8 EARTHING AND BONDING

The Electrical Contractor is to ensure that the installations covered in this document are effectively earthed and bonded in accordance with the requirements of SANS 10142-1 and SANS 10313 and Local supply authority.

Separate copper earth continuity conductors should be run with the feeders, from the main board to all distribution boards, between distribution boards, from distribution boards to sub-circuits and with final sub-circuits.

## 15.9 TELECOMMUNICATIONS PROVISIONS - BUILDING CONTRACT

This will be done by others, however the Electrical Subcontractor should provide the necessary attendance, eg in identifying conduits and wireways.

The Electrical Subcontractor Should supply and install all conduits as shown on the drawings, complete with galvanised draw-wire. Unless otherwise indicated, all conduits should be minimum 25mm.

## 15.9.1 MAIN TELEPHONE AND DATA SLEEVES

The electrical contractor will supply and install 110mm PVC entry sleeves as shown on the drawings. The Electrical Subcontractor should supply and install draw-wire and allow for the necessary attendance.

## 15.9.2 TELEPHONE AND DATA DISTRIBUTION POINTS

The telecommunication distribution points will consist of a riser with a 20mm thick timber backing board. Wire basket Should be fixed to the riser wall from ground floor to the last floor on unistrut.

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## 15.9.3 TELEPHONE AND DATA OUTLETS

This will be by others; however the Electrical Subcontractor should provide the necessary attendance, eg in identifying conduits and wireways.

The Tenderer should allow for 100 x 100 boxes with blank coverplates for all tel outlets as shown on the drawings. The quantities are provisional and are subject to remeasurement.

The Tenderer should allow for 100 x 100 boxes with blank coverplates for all data outlets as shown on the drawings. The quantities are provisional and are subject to remeasurement.

## 15.9.4 CABLE TRAYS AND BASKETS

Cable trays and baskets should be supplied and installed along the routes as indicated on the drawings where applicable.

All cable trays should be medium duty type.

Unless specified otherwise all communications cabling wire basket should be of type O Line Gridspan GS50.

## 15.9.5 DATA RETICULATION

This will be by others, however the Electrical Subcontractor Should provide the necessary attendance, eg in identifying conduits and wireways.

The Tenderer should allow for 100 x 100 boxes with blank coverplates for all data outlets. All conduits should be a minimum of 25mm  $\emptyset$  unless otherwise indicated.

## 16 LABELLING OF CIRCUITS

All outlets, isolators and light switches Should be labelled with engraved labels on the cover plate. The label should indicate the supply DB and circuit number (e.g. DB-GC-L5). Wiring inside the DB Should bear Gravoplast labels.

## **17 INSPECTIONS**

The Electrical Engineer's or Client's representative will inspect the installation at any time.

All inferior, unsuitable, unacceptable or rejected work should, if indicated by the inspecting officers or the Engineer, be removed and should be rectified by the Electrical Contractor at his own expense. Under no circumstances will these inspections relieve the Electrical Contractor of his obligations in terms of the document nor will these inspections be regarded as final approval of the works or portions thereof.

Where, inspections are requested by the Contractor, the Electrical Engineer's or Client's inspection should only be carried out after the Contractor has carried out his own preliminary inspection to ensure that the Works are completed and comply with the documents. The Electrical Engineer's or Client's inspection should therefore not be regarded as supervision, fault listing, quality assurance or site management.

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## 18 SITE TESTS AND COMMISSIONING

The following minimum site tests should be carried out by the Contractor and the results presented to the Engineer:

- insulation resistance between all conductors and earth
- insulation resistance between all conductors and neutral
- insulation resistance between all 3 phase conductors
- polarity of light switches
- earth leakage protection

After submission of the test results, the Contractor should notify that the installation is complete, tested and in working order. The Client or the Engineer will witness the re-testing of the installation.

## **19 AS-BUILT DRAWINGS AND DOCUMENTATION**

The Contractor should prepare as-built drawings for the installation, showing earthing layout, conduit routes as well as any modification carried out on site.

As built drawings to be submitted 1 week before practical completion

## 20 12-MONTH DEFECTS LIABILITY PERIOD

The equipment and installation supplied under this contract should be guaranteed for a period of twelve months from date of acceptance by the Engineer in all respects and commissioned for continuous service. The tender price should include for the above.

The defects liability will be for a period of twelve months, calculated from the date of issue of the Certificate of completion by the Engineer. Retention funds will be reduced to 5% upon the commencement of the defects liability period. The balance of the retention money will be paid out after the lapse of the defects liability, provided the installation has in the opinion of the Engineer, and been in satisfactory working order during this period.

The Contractor Should be responsible for the replacement of all materials that become defective during the defects liability period.

## 21 DIVISION OF WORK

Extensive on-site liaison will be required as this is a multi-disciplinary project.

Various equipment will be provided by others. The electrical sub-contractor should provide electrical supply to this equipment terminating in an isolator. It should also be the responsibility of the electrical contractor to connect this equipment.

## 22 DATA SHEETS

The Contractor should complete the following sheet and submit them together with a tender document.

The schedules will be scrutinised by the Representative/Agent and should any material offered not comply with the requirements contained in the specification, the Contractor will be required to supply material in accordance with the contract at no additional cost.

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ltem	Material	Manufacture name	Model
1.	LV Cables		
2.	Circuit breakers 1P, 2P, 3P		
3.	On load isolators without trips		
4.	Contactors 1P, 2P, 3P		
5.	Earth leakage relays 1 phase		
6.	Voltmeter		
7.	Photocell sensitive switch		
8.	Conduit		
9.	Conduit boxes		
10.	Power skirting		
11.	Light switches		
12.	16A flush socket outlets		
13.	16A surface socket outlets		
14.	16A power skirting socket outlets		
15	5A Unswitched socket outlets		
15.	Luminaires		
15.1	Type D1- (2 x 18w CFL Downlight with ECG)		
15.2	Type D2- (1 x 18w CFL Downlight with ECG)		
15.3	Type E- (2 x 36w Open channel fluorescent with ECG)		
15.4	Type F- (3 x 28w LBR with ECG)		
15.5	Type G- (2 x 28w LBR with ECG)	· · · · · · · · · · · · · · · · · · ·	
15.6	Type K-(1 x15w LED Bulkhead with ECG)		
15.7	Type K1-(1 x15w LED Bulkhead with ECG)		
15.8	Type PL-(26W CFL Post top on 3m pole)		
15.9	Type C2-(1 x 9w CFL Bulkhead)		



# **ELECTRICAL BILL OF QUANTITIES**

Employer

#### BILL NO 1 : GENERAL REQUIREMENTS

.

ITEM	DESCRIPTION	UNIT	QTY	RATE	TOTAL
1.1	Site Establishment Costs				
	Establish sub-contractor's yard, site offices, workshops, stores, etc. including all necessary water and electricity supplies, drainage and waste disposal systems, telecoms/telephonefacilities, stationery for Client Site Personnel etc.	Sum	1		
1.1.2	Site De-Establishment				
1.1.2.1	Removal of ALL site establishment facilities and equipment and rubbish and waste and debris on completion and making good.	Sum	1		
1.3	Storage				
1.3.1	Carefully withdraw and remove all existing wiring, socket outlets, lights, light switches, etc and make good existing wireways to receive new wiring.	Sum	1		
1.3.2	Proper storage and disposal of all Unenviromentally friendly material and products eg. Mercury filled lamp, etc (By an accredited waste removal company).	Sum	1		
1.4	Contractual requirements				
1.4.1	Tools and equipment.	Sum	1		
1.4.2	Operation and Maintenance of ALL Facilities on Site, for Duration of Construction (unless otherwise stated.)	Sum	1		
1.4.3	Water supplies, electrical power, compressed air supply and communications (all to be available from beginning of contract and for the entire duration of the contract)	Sum	1		
1.5	Security				
1.5.1	The Contractor is to note that all Security and Access Control requirements must be in acordance with and conform to	Sum	1		
1.6	Environmental				
1.6.1	The Sub contractor is to take cognizance of the Environmental Management Programme Act, The Sub contractor is to allow a lump-sum price which he deems sufficient to enable him to meet any costs he will encounter in the application of the various clauses in the Environmental Management Programme, for the entire duration of the contract.	Sum	1		
1.7	Occupational Health and Safety				
1.7.1	Supply and replacement of all items of Personal Protective Clothing/Equipment & ensure use thereof for full compliance PPE including safety boots, Hardhats complete with double chinstraps, ear protection, eye protection, gloves Luminuos high visibility safety vests and clothing.	Sum	1		
1.7.2	Safety and Medical Induction	Sum	1		
1.7.3	Compliance with the latest revision of Construction regulations & any other regulations to the work to be performed.	Sum	1		
1.8	Test, Commission Handover of site in good working conditions Including relevant test and issuing of CoC.	Sum	1		
1.9	Other Other (Contrcator to specify) 1) 2) 3) 4)	Sum Sum Sum Sum	1 1 1 1		
	TOTAL BILL 1 EXCL. VAT. CARRIED FORWARD TO FINAL TENDER SUMMARY				

#### BILL NO 2 : LOW VOLTAGE CABLE INSTALLATION

ITEM	DESCRIPTION	UNIT	QTY	RATE	TOTAL
	NB!! All quantities				
21	are subjected to Construct cable tranches:				
711	Excavate in all materials for trenches, backfill compact and dispose surplus materials	m	80		
212	Extra over item 2.1.1 for excavating in hard material	m•	1		Rate Only
	Supply, delivery and installation of PVC/SWA/PVC Cu low-voltage cable: Cables to have stranded copper conductors. (Installation rate to include for installation of cable within wireways, trays, ducts, sleeves, trenches, etc)				
2.2.1	16 mm², 4 Core PVC Material Labour	m m	85 85		
2.2.1	16 mm², 3 Core PVC Material Labour	m m	75 75		
	Supply, deliver and installation of Insulated copper earth conductors: Cables to have stranded copper conductors. (Installation rate to include for installation of cable within wireways, trays, ducts, sleeves, trenches, etc)				
2.3.1	10 mm² Material Labour	m m	85 85		
	Terminate low voltage cable: Supply, delivery and installation of cable terminations including all fastening materials, glands, shrouds lugs and the connection of the cable lugs to the specified terminal equipment and connectors.				
2.4.1	16 mm², 4 Core PVC Materiai Labour	No No	2 2		
2.4.1	16 mm². 3 Core PVC Material Labour	No No	2 2		
	Terminate Insulated copper earth conductors: Supply, delivery and installation of cable terminations including all fastening materials, glands, shrouds, lugs and the connection of the cable lugs to the specified terminating equipment and connectors.				
2.5.1	10 mm² Material Labour	No No	2 2		
2.6	Cable marking with Gravoplast at both end and below termination shroud	Lump Sum	1		
	TOTAL BILL 2 EXCL. VAT. CARRIED FORWARD TO FINAL TENDER SUMMARY				

#### BILL NO 3 : DISTRIBUTION BOARDS AND POWER FACTOR CORRECTION UNIT

ТЕМ	DESCRIPTION		UNIT	QTY	RATE	TOTAL
	NB!! All quantities are subjected to remeasure					
3.1	Supply, delivery an distribution board: drawings. Note: MDB shall ha	nd installation of a complete Surface mounted s with lockable doors as specified on the ve two compartment for normal power and or future generator installation.				
1	DB - H1	Material Labour	No No	1		
12	DB - GH	Material				
.1.2	08-00	Labour	No No	1		
-	TOTAL BILL 3 EXC SUMMARY	L. VAT. CARRIED FORWARD TO FINAL TENDER				

#### BILL NO 4 : LIGHTING INSTALLATION

TEM	DESCRIPTION	UNIT	QTY	RATE	TOTAL
	NB!! All quantities are subjected to remeasure				
4.1	Supply, deliver to site, storage and installation of SABS approved 16A flush and surface type light switches complete with all accessories to make installation operational. All switches shall be of Crabtree type and white in color.				
4.1.1	16A single lever one Material Labour	No No	12 12		
1.1.2	16A Two lever one v Material Labour	No No	4		
1.1.3	16A Two way light si Material Labour	No No	2 2		
4.1.4	Photocell complete i Material bulkhead luminaire e Labour	No No	2 2		
4.2	Supply, deliver to site, storage and installation of the below specified SANS approved light fittings complete with lamps and electronic control gear. All lamps shall be Osram type and of high efficiency. All light fitting shall bear SANS/SABS mark. Allowance shall be made in the rate for all the required fixing materials and other accessories				
4.3.1	Type D1 Material Recessed Downlight Labour reflector with toughened glass diffuser, complete with 1 x 23W cool white Enesaver CFL. Similar or Equal to Radiant Lighting "AD30#"	No No	27 27		
1.3.2	Type D2 Material Recessed Downlight Labour reflector, complete with 1 x 23W cool white Enesaver CFL. Similar or Equal to Radiant Lighting "AC22"	No No	16 16		
4.3.5	Type F1 Material Recessed 1200 x 6( Labour powder coated white between 80 and 120 micron with double parabolic louvre. Complete with LED Driver and 1 x 53W LED	No No	48 48		
	Similar or Equal to Lighting Innovations "Fiero RDFe 53W12"				
1.3.0	Type K1 & K Material Surface mounted de Labour Aluminium with prismatic diffuser and 3 x 18W cool white CFL Similar or Equal to Lighting Innovations "Flatback 310-318"	No No	20 20		
4.3.7	Emergency Lights or Material Labour	No No	8 8		
	TOTAL BILL 4 EXCL. VAT. CARRIED FORWARD TO FINAL TENDER SUMMARY	-			

#### BILL NO 5 : POWER OUTLETS

ITEM	DESCRIPTION	UNIT	QTY	RATE	TOTAL
	NB!! All quantities are subjected to remeasure				
	Supply, deliver and install flush mounted socket outlets. The rate shall include all other accessories that shall make an installation operational. All sockets shall be of Crabtree type and white in color.				
5.1.1	16A 3-pin double sw Material Labour	No No	14 14		
5.1.2	16A 3-pin single swil Material Labour	No No	8 8		
5.1.3	5A 3-pin unswitched Material Labour	No No	150 150		
5.2	Supply, deliver and install isolators for fixed equipment The rate shall include all other accessories that shall make an installation operational				
5.2.1	20A Double pole flu: Material Labour	No No	2 2		
5.2.2	40A Double pole flus Material Labour	No No	7 7		
	Connect fixed equipment (including 1m kopex spraque and connectors)				
5.3.1	Single phase plus earth wire	No	6		
	TOTAL BILL 5 EXCL. VAT. CARRIED FORWARD TO FINAL TENDER SUMMARY				

#### BILL NO 6 : WIRING: WIRE WAYS AND ACCESSORIES

ITEM	DESCRIPTION		UNIT	QTY	RATE	TOTAL
- I	NB!! All quantities are subjected to remeasure					
		install PVC insulated inductors drawn into wireways				
6.1.1	1,5mm²	Material Labour	m m	4600 4600		
6.1.2	2,5mm²	Material Labour	m m	2800 2800		
6.1.3	4mm²	Material Labour	m	900 900		
	Supply, deliver and conductors drawn	l install bare stranded copper earth into wireways				
6.2.1	2,5mm²	Material Labour	m m	400 400		
6.2.2	4mm²	Material Labour	m	300 300		
	cast in concrete or cutting, bending, r The rate shall inclu	ore and installation of conduits into brickwork fixed on trusses in ceiling void including saming, setting, joining and fixing material de all other accessories installation complete and operational				
	20mm Ø galvanized hospital saddles	Material Labour	m m	80 80		
6.3.2	25mm Ø PVC (SAN	Material Labour	m m	100 100		
6.3.3	20mm Ø PVC (SAN	Material Labour	m m	600 600		
6.4.1	Conduit Boxes Round box for 20mm surface mounted on roof trusses includin materials		No No	150 150		
	Galvanised steel, 10 concrete, fixed onto		No No	19 19		
	Galvanised steel, 10 concrete. (Cover pla		No No	43 43		
	TOTAL BILL 6 EXC	L. VAT. CARRIED FORWARD TO FINAL TENDER				

#### BILL NO 7 : EARTHING AND BONDING

Image: Same statistics shall comply with all relevant code of standard SAMS 1919 Image: Same statistics of the statistic statistic statistic statistics of standard statistics of the statistic statistic statistics of the statistic statistics of the statistic statistics of the statistic statistic statistics of the statisti	ITEM	DESCRIPTION	UNIT	QTY	RATE	TOTAL
image be boarded together and earthed. A bare 16mm? conductors that be instanded over the full english the collary odd, fixed to the top purity of the conductor at the Distribution Board. The root guines and keel planting plants also board. The root guines and keel planting plants also board.     11   Lighting Protection Status     12.   Lighting Protection Status     13.   Boarding     14.   Boarding     15.   Boarding     16.   The root guine for protection status and earthing status     17.12   Boarding     17.2   Boarding     17.3   Stropp: Instanting in balding and keinsten and and kickens and water and keinsten and and kickens all water and keinsten and and kickens all water and keinsten and keinsten and keinsten and keinsten and and kickens all water and keinsten and keinsten and keinsten and keinsten and keinsten and keinsten and and kickens all water and keinsten and keinsten and keinsten and and kickens all water and keinsten and and keinsten and keinste		SANS 10313 and				
11   Measuring of a region?   1     7.1.2   Design, supply and install lighting protection and earthing   Lipmp   1     7.1.2   Design, supply and install lighting protection and earthing   Lipmp   1     7.1.2   Design, supply and install lighting protection and earthing   Lipmp   1     7.1.2   Design, supply and install lighting protection and earthing   Lipmp   1     7.1.3   Conset for converse memory times canadary water and mathematic stall be borded.   1   1     7.3.3   Conset for converse memory times canadary water and mathematic stall be borded.   1   1     7.3.1   Conset for converse times and kitchens   Mathematic stall be borded.   1     7.3.1   Conset for converse times and kitchens   m   200     7.3.1   Conset for converse times and water and mathematic stall be borded.   m   200     7.3.4   Exemption and timeset and commission of earthing system   m   120     7.3.2   Conset for the Mathematic stall be borded.   m   120     7.3.4   Exemption and lineatenists for tranches, backfill, compact and dispose surplus materials and make good.   m <sup>3</sup> 40     1   TOTAL BILL T EXCL. VAT. CARRIED FOR		shall be bonded together and earthed. A bare 16mm <sup>2</sup> conductor shall be installed over the full length of the ceiling void, fixed to the top purlin and connected to the main earth conductor at the Distribution Board. The roof, gutters and steel plumbing pipe shall be connected at 15mm X				
Tube Sum   1.12 Design, supply and install lighting protection and earthing system 1   2.2 Bonding 1   2.3 Bonding and bonding in abulations and kitchens 1   3.4 Torows foot earth Sum 1   3.5 Crows foot earth Sum 1   3.1 Crows foot earth Supply, install, test and commission of earthing system 200   3.1 12mord mm 200   3.1 12mord mm 200   3.2 Remains install, test and commission of earthing system 200   3.3 Coroper Starthing m 120   3.4 Remainstall, test and commission of earthing system 100   3.3 Coroper Starthy Material m 120   3.4 Excavate in all materials for trenches, backfill, m 120   3.5 Compact and dispose surplus materials and make good. m <sup>3</sup> 40	7.1	Lightning Protection Ststem				
system   Sum     7.2   Bonding     7.2   Bonding in bolding in sublations and kitchens     7.3   Crows foot earth     Suppl, Install, lest and commission of earthing system   1     7.3.1   2.70 Cooper faint / Material   No     7.3.2   1emm <sup>2</sup> insulated Co. Material   m     7.3.3   12.70 Cooper faint / Material   m     7.3.4   12.70 Cooper faint / Material   m     7.3.5   1.70.70 Status   m     7.3.6   Cooper faint / Material   m     7.3.7   1.70.70 Status   m     7.3.8   Cooper faint / Material   m     7.3.9   Cooper faint / Material   m     7.3.1   Cooper stapping co Material   m     1   m <sup>3</sup> 40     7.3.4   Excervate in all materials for tenches, bactilit, contained good.   m <sup>3</sup> 7.3.4   Excervate in all materials and make good.   m     7.3.9   Compact and dispose surplus materials and make good.   m     9   Intervational and make good.   Intervational and make good.     9   Intervatine   Intervational and make goo	/11	Measuring of earth resistance by an earthing specialist and issueing of a report		1		
721   Wriver a nonline for onvisor, means task santary wate and wate pipe earthing and bonding in ablutions and kitchens   1     73   Crows foot earth   1     73.1   12:0 Cooper Earth Halerial Letterial   No     73.2   Term <sup>2</sup> insulate Commission of earthing system   m     73.3   Cooper Earth Halerial Letterial   m     73.4   Term <sup>2</sup> insulate Commission of earthing system   m     73.3   Cooper Earth Halerial Letterial Letterial Letterial   m     73.4   Term <sup>2</sup> insulate Commission of earthing system   m     73.3   Cooper Earth Halerial Letterial Letterial Letterial   m     73.4   Cooper strapping combandial (tifterial Letterial Let	7.1.2			1		
wate pipe earthing and bonding in ablutions and kitchens Sum   7.3 Crows foot earth Supply, install, lest and commission of earthing system complete with:- No 8   7.3.1 1.2m Copper Earth Material I minur No 8   7.3.2 termm <sup>2</sup> insulated Co Material I shour m 200   7.3.3 Copper farthy Labour m 120   7.3.4 Excavate I and Install so for tenches, backfill, compact and dispose surplus materials and make good. m <sup>3</sup> 40	7.2	Bonding				
Supply, Install, Ustand, Commission of earthing system   Image: Complete with:     7.3.1   12m Copper Earthr 1r Material Instrint   No   8     7.3.2   16mm <sup>2</sup> insulated Co Material Labour   m   200     7.3.3   Copper strapping co Material Labour   m   120     7.3.4   Copper strapping co Material Co Material Composition of the strapping contact and dispose surplus materials and make good.   m <sup>3</sup> 40     7.3.4   Excavate in all materials for trenches, backfill, compact and dispose surplus materials and make good.   m <sup>3</sup> 40     7.3.4   Excavate in all materials for trenches, backfill, compact and dispose surplus materials and make good.   m <sup>3</sup> 40     7.3.4   Excavate in all materials for trenches, backfill, compact and dispose surplus materials and make good.   m <sup>3</sup> 40     7.3.5   Excavate in all insterials and make good.   m <sup>3</sup> 40     7.3.6   Excavate in all materials for trenches, backfill, compact and dispose surplus materials and make good.   m <sup>3</sup> 40     8   Image: compact and dispose surplus dis	791	waste pipe earthing and bonding in ablutions and kitchens		1		
Labour No #   7.3.2 Iffirmm <sup>3</sup> Insulated Co Material Labour m 200 m   7.3.3 Cooper strapping co Material (1fmm X08mm Labour m 120   7.3.4 Excavate in all materials for trenches, backfill, compact and dispose surplus materials and make good. m <sup>3</sup> 40	7.3	Supply, install, test and commission of earthing system				
Labour m 200   7.3.3 Coperstapping co Material (15mm X 0.5mm) m 120   7.3.4 Excavate in all materials for trenches, backfill, compact and dispose surplus materials and make good. m <sup>3</sup> 40	7.3.1	1,2m Copper Earth r Material Labour	No No	8 ਸ		
(15mm X 0.8mm)   Labour   m   120     7.3.4   Eccavate in all materials for trenches, backfill, compact and dispose surplus materials and make good.   m <sup>3</sup> 40     7.3.4   Eccavate in all materials for trenches, backfill, compact and dispose surplus materials and make good.   m <sup>3</sup> 40     7.3.4   Eccavate in all materials for trenches, backfill, compact and dispose surplus materials and make good.   m <sup>3</sup> 40     7.3.4   Eccavate in all materials and make good.   m <sup>3</sup> 40     7.3.4   Eccavate in all materials and make good.   m <sup>3</sup> 40     7.3.4   Eccavate in all materials and make good.   m <sup>3</sup> 40     7.3.4   Eccavate in all materials and make good.   m <sup>3</sup> 40     7.3.4   Eccavate in all materials and make good.   m <sup>3</sup> 40     7.3.4   Eccavate in all materials and make good.   m <sup>3</sup> 40     7.3.4   Eccavate in all materials and make good.   m <sup>3</sup> 40     7.3.4   Eccavate in all materials and make good.   m <sup>3</sup> 40     7.3.5   Eccavate in all materials and make good.   m <sup>3</sup> 40     7.3.6   Eccavate in all materials and make good.   m <sup>3</sup> 40		Labour				
TOTAL BILL 7 EXCL. VAT. CARRIED FORWARD TO FINAL TENDER	7.3.3					
	7.3.4		m <sup>3</sup>	40		

#### BILL NO 8 : SOLAR INSTALLATIONS AND BULK POWER SUPPLY

ITEM	DESCRIPTION	UNIT	QTY	RATE	TOTAL
	Any provisional sum shall be allowed for the design, supply, install, test and commission by the specialist. All builders work shall be done by the main contractor, however the specialist shall be held responsible for all the costs.				
8.1	Bulk Power Subolv				
8.1.1	Provide a provisional sum of R 100 000.00 (One hundred Thousand rand ) for eskom bulk power supply	Sum	1	R 100 000.00	R 100 000.00
8.1.2	Profit	%	100000		
8.2	Solar Installations				
8.2.1	Provide a provisional sum of R 150 000.00 (Two hundred Thousand rand ) for Complete Solar Power supply	Sum	1	R 150 000.00	R 150 000.00
8.2.2	Profit	%	150000		
	TOTAL BILL & EXCL. VAT. CARRIED FORWARD TO FINAL TENDER SUMMARY				

#### FINAL TENDER SUMMARY

BILL	DESCRIPTION	TOTAL
1	GENERAL REQUIREMENTS	
2	LOW VOLTAGE CABLE INSTALLATION	
3	DISTRIBUTION BOARDS AND POWER FACTOR CORRECTION UNITS	
4	LIGHTING INSTALLATION	
5	WIRING: WIRE WAYS AND ACCESSORIES AND TERMINALS	
6	POWER OUTLETS	
7	EARTHING, BONDING AND LIGHTNING PROTECTION SYSTEM	
8	SOLAR INSTALLATION AND BULK POWER SUPPLY	
	SUB TOTAL	
	PLUS 15% VAT	
	TOTAL	


# **VOLUME 3**

# **CONTRACT INFORMATION**

This section contains information pertaining to contractual issues such as Project Specifications, Particular Specifications and the drawings outlining the Works to be constructed.

Volume 3 Consists Of The Following Sections:

- C1 Applicable Conditions of Contract
  - A List of Contract Documents
  - B Bid Drawings
  - **C**-Finishing Schedules
- C2 Occupational Health and Safety Act
- C3 Scope of Works and Project Specifications (PS)

C3.1 – The Works

C3.2 – Variation and Additions to the Standard Specifications and SANS (SABS) 1200

C4 - Site Information



# C1 APPLICABLE CONDITIONS OF CONTRACT

This section contains the applicable conditions of contract and associated contract specifics data, which collectively describe the risk, liabilities and obligations of the contracting party and the process for the administration of the contract.

The following forms part of this section of the bid document:

- A. List of Contract Documents
- B. Bid Drawings
- C. Finishing schedules



# A. LIST OF CONTRACT DOCUMENTS

The following documents form part of the contract data:

- (a) This contract will be governed by the "JBCC Series 2000 Principal Building Agreement- Edition 5.0 Of July 2007."
- (b) "Standard specifications for civil engineering construction 'SANS 1200'. This document is obtainable separately, and bidders should obtain their of the applicable sections.
- (c) "General conditions of contract for electrical and mechanical engineering works 91985)'. This document has been prepared under the auspices of the South African association of consulting engineers. the association of municipality electricity undertaking of south Africa, the steel engineers industries federation of south Africa, specialist engineering bidder's committee, and the council of scientific and industrial research (CSIR) and published by the south African association of consulting engineers.
- (d) "Guidelines for the implementation of labour –intensive infrastructure projects –second edition –July 2005" is obtainable from the department of public work
- (e) "The occupational health and safety act no 85 and amendment act no 181 of 1993, and the construction regulations 2003(government no 25207 of 18 July 2003, notice no R1010") this document is obtainable separately and bidders should obtain their own copies.
- (f) The "bid" document"

this document containing the conditions of bid, conditions of contract specifications, bill of quantities, form of offer of acceptance of bid and other schedule and forms.

(g) Bid drawings

the drawings issued with the bid document " issued for bid PURPOSE ONLY " is for bid purposes only and may be scaled or used for any other purpose drawings " issued for construction" will be issued to the successful contractor for implementation purposes.

- (h) In addition bidders are advised , in their own interest , to obtain their own copies of the following act, regulations and standards referred to in this document as they are essentials for the bidder to get acquainted procurement policies and participations
  - The construction industry development board act no 38 of 2000 and the regulations in terms of the CIDB act 38/2000, government notice no 33239 of 28 may 2010,
  - Sans 1921:2004 construction and management
    - Part 1 : general engineering and construction works;
    - Part 2 : accommodation of traffic on public occupied by the contractor;
    - Part 3 : structural steelwork
    - Part4 : earthworks activities which are to be performed by hand.
  - Sans 10396:2033 implementing preferential construction procurement policies using targeted procurement procedures



- Sans 1914:2003 targeted construction procurement parts 1 to 6, dealing with participation of targeted enterprises, joint venture, target labour etc.
- Preferential procurement policy framework (act no. 5 of 2000) and its regulations as published in the government gazette no. 34350 of 8 June 2011

# (i) Other documents

All addenda issued during the bid should also form part of this bid.

#### **B. BID DRAWINGS**

The following drawings are being issued for bid purpose only and may not be scaled for any purpose.

Drawing no.	Drawings reference
Gc/18/stgov/01/01	Site Layout And List Of Drawings
Gc/18/stgov/01/02	Contract Name Board
Gc/18/stgov/01/03	Floor Layout And Roof Plan
Gc/18/stgov/01/04	Foundation Layout , Surface Bed And Rebar Details
Gc/18/stgov/01/05	Elevations And Sections
Gc/18/stgov/01/06	Concrete Rood Slab With Columns-Detail And Rebar
Gc/18/stgov/01/07	Stormwater And Paving
Gc/18/stgov/01/08	Water Tank And Stand Details
Gc/18/stgov/01/09	Conservancy Tank Details
Gc/18/stgov/01/10	Steel Fence

Bidders to inform the **Principal Agent/ Engineer** of any drawing listed or omitted from the list below which have not been issues for Bid Purpose either referred to in the Project Data, Specifications or Bills Of Quantities for clarity.

Employer



# **C FINISHING SCHEDULES**

The contractor should confirm with the engineer prior to ordering of material or commencing with any part of the works. The items and finishing being that as specified and clearly marked on the "construction drawings."

# C 1.1 General Building Finishing Schedules

Section	Description	specification	Location
	Termite poison	Treat ground under all footings and surface beds with poison of the CHLORDANE or ALDRIN	Footings and surface beds
	Ceramic floor tiles	400mm x 400mm x 19mm SLIP FREE TERRAZZO TILES as approved on 3.1 cement mortar.	Office, kitchen, storage. Ablutions tick shop & change rooms
	100mm concrete floor slab	Wood float finish	Walk ways
	Pre-cast sheeting	200 x 100x 60 pre-cast paving blocks	Parking area
ishing	Rubber floor sheeting	Norplan eco runner floor sheeting	Community Buildings and stage
Floor finishing	Skirting -PVC	PVC skirting	Office, kitchen, storage and tuck shop
НG	Skirting meranti		
	Face brick stretcher bond	All joints and to be perpends to 6mm square deep recessed with a SOLID BOND	External walls
	Plaster and paint (PVC)	All internal walls as indicated on drawings, provide 7 coat acrylic PVA suitable for washing with a mild detergent with mat finish	Internal walls
	Paint-final coat	All plastered walls finished with one coat alkaline resistant primer, one universal undercoat and two coats of egg shell paint	Internal walls
Walls	Wall tiles	White glazed tiles, from window level downwards	Ablutions and change rooms
	Suspended ceiling boards	NUTECC Vinyl clad suspended ceilings- 1200mm x 600mm	All rooms
Ceilings	Ceiling insulation	40mm celling insulation laid according to manufacturer's specifications approved by engineer	All rooms

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C 1.2 Window And Door Finishing Schedules



# C 1.3 Sanitary Schedules

Images	Specification	Disable	toilet	Female	rollets	Male toilets	Change	rooms	Kitchen
	Star: 111-20: pillar tap with hot and cold indices .3/4" BSP male inlet to SANS 226 type 1								
	Kitchen classic-star : 266/041/10								
	Shower set: 3328SB026-065								
	Stella bright: 3311sb-15								
	Junior flush master flush wash valves: FJ2-100		╡						
	Medical elbow actions: 503-21R								
	Lavatera wall hung bowl-705426/705427			_	╈				
	Cameo vanity basin-70283								
	Hibiscus basin -702303				1				
	Afsan low level pan -750600				$\top$				
	Protea paraplegic low level suite-751610				-				
	Tr3 3 roll toilet holder/dispenser- square –white								



#### C2 OCCUPATIONAL HEALTH AND SAFETY

#### POHS 10.1- INTERPRETATIONS

#### E1 INTRODUCTION

In terms of the Construction Regulation4(1) (a) of the occupational health and safety Act No.85 of 1993, the employer is required to compile a Health and Safety Specification for any intended project and provide such specification to any prospective Bidder.

This specification has as objective to ensure that Principal Contractor entering into a Contract with the (Employer) achieve an acceptable level of OH&S performance. This document forms an integral part of the Contractor and Principle and other Contractors should make it part of any Contracts that they may have with Contractors and /or Suppliers.

Compliance with his document does not absolve the Principle contractor from complying with minimum legal requirement and the Principle Contractor remains responsible for the health and safety of his employees and those of his Mandatories.

#### E2 SCOPE

Development of a health and safety specification that addresses all aspects of occupational health and safety as affected with in order to reduce this risk associated with the above-mentioned contract work that may lead incidents causing injury and /or ill health, to a level as low as reasonably practicable.

# E3 GENERAL OCCUPATIONAL HEALTH AND SAFETY PROVISIONS

# 3.1 Hazard Identifications & Risk Assessment (Construction Regulation 7)

#### 3.1.1 Risk Assessment

The Contractor to ascertain himself with the Site and all conditions in order to access all risks to addressed in the Contract Health and Safety Plan to be completed by the Contractor and submitted to the Employer for approval.

#### 3.1.2 Development Of Risk Assessments

Every Principle Contractor performing Construction work, should before the commencement of any Construction work or work associated with the aforesaid Construction work and during such work, cause a Risk Assessment to be performed by a competent person, appointed in writing and the Risk Assessment form part of the OH&S Plan and be implemented and maintained as contemplated in Construction regulation 5 (1).



The Risk Assessment should include, at least:

- The Identification Of The Risks And Hazards To Which Persons May Be Exposed To
- The Analysis And Evaluation Of The Risks And Hazards Identified
- A Documented Plan Of Safe Work Procedures To Mitigate, Reduce Or Control The Risks And Hazard That Have Been Identified
- A monitoring plan and
- a review plan
- 3.1.2.1 Based on the Risk Assessments, the Principal Contractor must develop set of site-specific OH&S rules that will be applied to regulate the OH&S aspects of the construction.
- 3.1.3 Review of Risk Assessment
- 3.1.3.1 The Principle Contractor is to review the Hazard Identification, Risk Assessment and SWP's at each Production Planning and Progress Report meeting as the Contract work develops and progresses and each change are made to the designs, plans and construction methods and processes.

# **E3.2 LEGAL REQUIREMENTS**

All Contractors entering into a Contact with the EMPLOYER, as a minimum, comply with the:

- Occupational Health & Safety Act and Regulations (Act 85 of 1993). A current up-to-date copy of the OHS Act must be available on site at all times.
- Compensation for Occupational Injuries & diseases Act (Act 130 of 1993). The principle Contractor will be required to submit a letter of Registration and "good –standing "from the Compensation Insurer before being awarded the Contract. a current, up-to-date copy of the COIDA Act must be available on site at all times
- Where work is being carried out on mines' premises the Contractor will have to comply with the Mine Health & Safety Act and Regulation (Act. 29 of 1996 and any other OH&S requirements that the mine may specify. A current, up-to-date copy of the OHSA Act must be available on site at all times.

# E 3.3 STRUCTURE AND RESPONSIBILITIES

# 3.1.1 Overall Supervision and Responsibility for OH&S

- It Is a requirement that the Principle Contractor , when he appoints Contractors (Sub-contractors ) in terms of Construction 5 (3), (5), (9), (10) and (12) he includes an OHS Act Section 37 (2) agreement : ' Agreement with Mandatory " in his agreement with such Contractors .

- Any OH&S (Act (85/1993). Section appointee/s as detailed in his/her /their respective appointment forms.

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# 3.3.2 Further (specific) supervision Responsibilities for OH&S

The Contractor should appoint designed competent employees and/or competent persons as required by the Act and Regulations. Below is a list of identified appointments and may be used to select the appropriate appointments for the current contract:

Batch Plant Supervisor Construction Vehicles/ Mobile Plant/Machinery
Supervisor
Demolition Supervisor
Drivers/operators of Construction Vehicles/Plant
Electrical Installation and Appliances Inspector
Emergency /Security /Fire Coordinator
Excavation supervisor
Explosive Powered Tool supervisor
Fall Protection Supervisor
First Aider
Fire Equipment Inspector
Formwork & Support Work Supervisor
Hazardous Chemical Substances Supervisor
Incident Investigator
Ladder Inspector
Lifting Equipment inspector
Materials Hoist inspector
OH&S Committee
OH&S Officer
OH&S Representatives
Person Responsible for Machinery
Scaffolding Supervisor
Stacking & Storage Supervisor
Structures Supervisor
Suspended Platform Supervisor
Tunnelling supervisor
Vessels under Pressure Supervisor
Working on/next to Water Supervisor

(Construction Regulation 6(1)

(Construction Regulation 21) (Construction Regulation 12) (Construction Regulation 21) (Construction Regulation 22) (Construction Regulation 27) (Construction Regulation 11) (Construction Regulation 19) (Construction Regulation 8) (General Safety Regulation 3) (Construction Regulation 28) (Construction Regulation 10) (HCS Regulations) (General Admin Regulation 29) (General Safety Regulation 13A) (Construction Regulation 20) (Construction Regulation 17) (OHS Act Section 17) (Construction Regulation 6(6) (OHS Act Section 17) (General Machinery Regulation 2) (Construction Regulation 14) (Construction Regulation 26) (Construction Regulation9) (Construction Regulation15) (Construction Regulation 13) (Vessels under Pressure Regulations) (Construction Regulation 24)

#### Welding Supervisor

(General Safety Regulation 9)

The appointment must be in writing and the responsibilities clearly stated together with the period for which the appointment is made. This information must be communicating and agreed with the appointees.

Copies of appointment must be submitted to the EMPLOYER together with concise CV's of the appointees. All appointments must be officially approved by the EMPLOYER. Any changes in appointees or appointment must be communicates to the EMPLOYER forthwith.

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The Principal Contractor must furthermore, provide the EMPLOYER with an organogram of all Contractors that he/she has appointed or intends to appoint and keep this list updates on a weekly basis.

Where necessary, or when instructed by the EMPLOYER or an Inspector of the Department of Labour, the Principal Contractor must appoint a competent OH&S Officer subject to the approval of the EMPLOYER.

In addition the EMPLOYER may require that a Traffic Safety Officer be appointed for any project.

# 3.3.3 Designation of OH&S Representative (Section 18 of the OHS Act)

3.3.3.1 Where the principal Contractor employs more 20 persons (including the employees of other Contractors (sub-contractors) he has to appoint one OH&S Representative for every 50 employees or part thereof.

General Administrative Regulation 6 requires that the appointment OR election and subsequent designation of the OH&S Representative are executed in consultation with Employee Representatives or Employees. (Section 17 of the Act and General Administrative Regulation 6&7.)

3.3.3.2 OH&S Representative have to be designed in writing and the designation must include the area of responsibility of the person and term of the designation.

3.3.4 Duties and Functions of the OH&S Representative (Section 19 of the OHS Act)

3.3.4.1 The Principal Contractor must ensure that the designated OH&S Representatives conduct minimum monthly inspection of their areas of responsibility using a checklist and report thereon to the Principle Contractor

3.3.4.2 OH&S representative must be included in accident/incident investigation

3.3.4.3 OH&S representative must attend all OH&S committee meetings

# 3.3.5 Appointment of OH&S Committee (Section 20 of the OHS Act)

3.3.5.1 The Principal Contractor must establish an OH&S Committee consisting of all the designated OH&S Representatives with a number of management representatives that are not allowed to exceed the number of OH&S representatives on the committee and a representative of the Employer who act as the chairman without a vote. The members of the OH&S committee must be appointed in writing.

3.3.5.2 The OH&S Committee Must Meet Minimum Monthly And Consider, At Least the Following Agenda.

1. Opening & Welcome

- 2. Present/Apologies-Absent
- 3. Minutes of previous Meeting

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- 4. Matters Arising from the previous Meeting'
- 5. OH&S Reps Reports
- 6. Incident Reports & Investigation
- 7. Incident / Injury Statistics
- 8. Other

9. Endorsement of Registers and other statutory documents by a representative of the Principal Contractor

# 10. Close/ Next Meeting

# E3.4 ADMINISTRATIVE CONTROLS AND THE OCCUPATIONAL HEALTH AND SAFETY FILE

# 3.4.1 The OH&S File (Construction Regulations 5(7)

As required by construction regulation 5(7), the principal contractor and other contractors will be each keep an OH&S on site containing the following documents as a minimum:

- Notifications of construction work (construction regulation 3)
- Copy of OH&S Act (updated) (general administrative regulations 4)
- Proof of registration and good standing with COIDA Insure (construction regulation 4)
- OH&S programme agreed with the Employer including the underpinning Risk assessment & method statements (construction Regulation 5(1)
- Copies of OH&S Committee and other relevant minutes
- Designs /drawings (construction regulations 5 (8)
- A list of contractors (sub-contractors) including copies of the agreement between the parties and the type of work being done by each contractor (construction regulation 9)
- Appointment /designation forms as per 3.1.1 and 3.1.2 above.

Registers as follows:

- Accident/incident register (annexure 1 of general administrative regulations)
- OH&S representative Inspection register
- Asbestos Demolition & Stripping Register
- Batch plant inspection
- Construction vehicles and mobile plant inspections by contractor
- Daily inspection of vehicles, plant and other equipment by the operator/driver/user
- Demolition inspection register
- Designer's inspection register
- Electrical installation equipment & appliances (including portable electrical tools)
- Excavations inspection

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- Explosive powered tool inspection , maintenance , issue & return register (incl. cartridges & nails)
- Fall protection inspection register'
- First aid box contents
- Fire equipment inspection & maintenance
- Formwork & support work inspection
- Hazardous chemical substances record
- Ladder inspections
- Lifting equipment register
- Materials hoist inspection register
- Machinery safety inspection register (incl. machine guards, lock/outs etc)
- Scaffolding inspections
- Stacking & storage inspection
- Inspection of structure
- Inspection of suspended platform
- Inspection of tunnelling operation s
- Inspection of vessels under pressure
- Welding equipment conducted on or Near water
- All other applicable records

The EMPLOYER will conduct an audit on the OH&S file of the Principle Contractor from time-to –time.

Occupational Health and Safety Act, Act 85 of 1993 should apply to this contract. The Construction Regulations promulgated on 18 July 2003 and incorporated into the said Act by Government Notice R. 1010, published in Government Gazette 25207 apply to any person involved in construction work. These regulations are hereinafter referred to as" the Construction Regulations" and the said Act as "the Act".

# Construction work is defined as:

: Any work in connection with:-

- a) The erection, maintenance, alteration, renovation, repair , demolition or dismantling of or addition to a building or any similar structure
- b) The installation, erection, dismantling of or maintenance of a fixed plant where such work includes the risk of a person falling;
- c) The construction, maintenance, demolition or dismantling of any bridge , dam, canal, road, railway, runway ,sewer or water reticulation system or any similar civil engineering structure;
- d) The moving of earth, clearing of land, the making of an excavation, piling, or similar type of work'



#### POHS 10.2 GENERAL

The contractor should ensure that all employees and visitors are informed, instructed and trained regarding safety conditions on site. All employees will carry proof of this induction on their persons while employed on site in the form of identification cards. These identification cards also serve as proof of induction training received.

#### POHS 10.2.1 VISITORS

The contractor should ensure that all employees and visitors are informed, instructed and trained regarding safety conditions on site. All employees will carry proof of employment on their persons while employed on site in the form of identification cards. The identification cards serve also proof of induction training received.

POHS 10.2.2 should contractor at any stage in execution of the works-

- a) Fail to implement or maintain his health and safety plan;
- b) Execute construction work which is not in accordance with his health and safety plan or;
- c) Act in any way which may pose a threat to the health and safety of persons, the employer will stop the contractor AT HIS/HER OWN COSTS from executing construction work.

POHS 10.2.3 the contractor provides proof of this registration and good standing with the compensation fund or with a licensed compensation insurer when submitting a Bid. Bids without this will be regarded as non-responsive.

POHS 10.2.4 the contractor, in submitting his Bid, demonstrate that he has made provision for the cost of compliance with the specified health and safety requirements, the Act and the Construction Regulations.

# POHS 10.3 INDEMNITY OF EMPLOYER AND HIS AGNETS

- a) Annexure "A" to this Contract Document contains a "Mandatory Form of Authority and Agreement in terms of Section 37 (2) of the occupational Health and Safety Act no.85 of 1993" which agreement should be entered into and duly signed by both the Employer and Contractor prior to commencement with work. A copy of the signed agreement should be included in the Contractor's health and safety plan.
- b) Any acceptance, approval, check , certificate, consent , examination , inspection , instruction , notice, observation , proposal , request , test or similar act by either the Employer , any of his agents or the Engineer (including absence of disapproval ) should not relieve the Contractor from any responsibility he has under the Contract, the Act and the Construction regulations, including responsibility for errors, omissions, discrepancies and non-compliances.



#### POHS 10.4 SCOPE

POHS 10.4.1 the specification as set out in this portion is known as the health and safety specification for the construction work to be carried out by the principle contractor as per regulations of the construction regulations July 2003.

Information herein addressed might affect the Health and Safety of employee's or persons carrying out the construction work as per this Bid document. The contractor should ensure that it is fully conversant with the requirements of this specification.

This specification is not intended to supersede the Act nor the Construction regulations. Those sections of the ac and the construction regulations, which apply to the scope of work to be performed by the contractor in terms of this contract, continue to be legal requirements of the contractor. The principle contractor will be appointed in writing to be overall control of the construction site.

POHS 10.4.2 A Health and Safety Plan must be submitted by the Principle Contractor to the Employer or the employer's agent containing the entire relevant documentation ad required by this specification and terms of the provisions of these specifications, the Act and the Construction regulations.

The OH&S Plan must be submitted before commencement of any work on site. The OH&S plan should contain the following items where applicable:

- 1. Description of contract
- 2. Construction site address/ Building site address
- 3. Construction period
- 4. Name and details of Employer- telephone, fax, address
- 5. Name and details of consultants- telephone, fax, address
- 6. Name and details of principal contractor- telephone, fax, address
- 7. Name and details for sub-contractors-telephone, fax, address
- 8. Company's policy towards health and safety
- 9. Company's policy towards drug and alcohol abuse
- 10. Company's policy towards disciplinary procedures
- 11. Company's policy towards environment
- 12. Workmen compensation-number and expire date
- 13. Scope of works- describe type
- 14. Sequence and phase of the work to be performed describe stages involved in project
- 15. List of all equipment to be used on the specific site-tools , construction vehicles , mobile plant
- 16. Company's approach toward hygienic facilities on the construction site (toilets, eating areas, drinking water, showers, refuge removal)
- 17. Company's approach towards other facilities as required by law ( the transport act, the smoking act, PPE)
- 18. Subcontractors agreements and requirements and super positioning

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- 19. Local labour agreements, requirements, policies
- 20. Signs and symbols to be displayed
- 21. Public safety , hoarding and fencing
- 22. First Aid Kit
- 23. Incident/accident reporting procedures
- 24. Management and supervisor rules
- 25. Risk assessment methods
- 26. Company's monitoring plan
- 27. Company's review plan
- 28. Identification of risks and hazards
- 29. Appointments of personnel to be made (safety reps. Supervisors, first aiders, fire equipment inspectors.
- 30. Registers to be completed by appointed employees (checklist)
- 31. List of training material to be used for educational purposes of construction workers (induction , firefighting , first aid, etc)
- 32. List of safe work procedures to be explained to workers
- 33. Company's policy on
- 34. House keeping
- 35. Stacking and storage on sites
- 36. Construction welfare facilities
- 37. Explosive power tools
- 38. Ladders
- 39. Welding flame cutting and soldering
- 40. Electrical installation and machinery
- 41. Boatswain chairs
- 42. Suspended platforms
- 43. Material hoists/Builders hoists
- 44. Batch plants
- 45. Water environment
- 46. List of plans to be used:
  - i) Fall protection plan
  - ii) Tunnelling plan
  - iii) Pile driving plan
  - iv) Steel assembling and placing plan
  - v) Emergency /evacuation plan
  - vi) Demolition
  - vii) Scaffold erection procedures plan
  - viii) Erection of structural steel plan
  - ix) Electrical installations plan
  - x) Excavation plan



xi) Form work and support work plan

- 47. Material Hoist rules
- 48. Lifting machines and tackle rules
- 49. Rules on construction vehicle and mobile plant procedures
- 50. Rules on mobile and tower cranes
- 51. Fire precautions on the construction site]rules on Hazardous chemicals on the site,
- 52. Rules on Hazardous chemicals on the . storage and use
- 53. rules on storage and use of flammable liquids and substance on site
- 54. rules on compressed gas cylinders
- 55. Rules on hand tools
- 56. Rules on portable electrical equipment

# LIST OF RISK ASSESSMENT

- Clearing And Grubbing Of The Area/Site
- Site Establishment Including:
- Office/s
- Secure/Safe Storage For Materials, Plant Equipment
- Ablutions
- Sheltered Eating Area
- Maintenance Workshop
- Vehicle Access To The Site
- Dealing With Existing Structures
- Location Of Exiting Services
- Installation And Maintenance Of Temporary Construction Electrical Supply, Lighting And Equipment
- Adjacent Land Uses/ Surrounding Property Exposures
- Boundary and access control/public liability exposures(NB: the Employer is also responsible for the OH&S of non-employees affected by his work activities)
- Health Risks Arising From Neighbouring As Well As Own Activities And From The Environment E.G Threats By Dogs, Bee, Snakes, Lightning Etc.
- Exposure To Noise
- Exposure To Vibration
- Protection Against Dehydration And Heat Exhaustion
- Dealing with HIV/Aids and other diseases
- Use Of Portable Electrical Equipment
- Angle Grinder
- Electrical Drilling Machine
- Skill Saw

Employer



- Excavation Including:
- Ground/Soil Conditions
- Trenching
- Shoring
- Drainage of trench
- Welding Including :
- Arc Welding
- Gas Welding
- Flame Welding
- Use of LP gas torches and appliances
- Loading And Offloading Of Trucks
- Aggregate /S And Other Materials Delivery
- Manual And Mechanical Handing
- Lifting And Lowering Operations
- Driving and operation of construction vehicles and mobile plant including :
- Trenching Machine
- Excavator
- Bomag Roller
- Plate Compacter
- Front End Loader
- Mobile Cranes And The Ancillary Lifting Tackle
- Parking Of Vehicles And Mobile Plant
- Towing of vehicles and mobile plant
- Use And Storage Of Flammable Liquids And Other Hazardous Substances
- Layering And Bedding
- Installation Of Pipes In Trenches
- Pressure Testing Of Pipelines
- Backfilling Of Trenches
- Protection Against Flooding
- Gabion Work
- Use Of Explosives
- Protection From Overhead Power Lines
- As Discovered By The Principal Contractor's Hazard Identification Exercise
- As Discovered From Any Inspections And Audits Conducted By The Employer Or By The Principal Contractor Or Any Other Contractor On Site
- As Discovered from any accident/incident investigation

The health and safety plan provided for by the Principal Contractor may be adjusted by the employer to suit the requirements. The approved health and safety will be implemented on the construction site.



#### Ga-Segonyana Local Municipality Bid No. 25/2020-21 Appointment of Contractors For The Building Construction for a Period of 36 Months

The health and safety plan of the principal contractor include all relevant health and safety plans of contractors (sub-contractors.) the contractor, throughout execution of the contract, ensure that all sub-contractors have similar health and safety plans in place which must be available on site.

The execution of the H&S plan should be documented in the form of a H7S which should contain items as described elsewhere in this specification. a lever arch file be used with a cleat index and dividers. Numbering of items should be done clearly with numbers as specified elsewhere.

POHS 10.4.3 provision for costs in respect to health and safety in the Bid be allowed for in the Schedule of Quantities

POHS 10.4.4 the following paragraphs summarize the health and safety activities to be performed by the contractor (terms and definitions in the following paragraphs are explained elsewhere in this specification.

POHA 10.4.4.1 the following activities should be strictly performed by the contractor on acceptance of the bid and before commencement of any work on the construction site. (Terms and definitions in the following paragraphs are explained elsewhere in these specifications.)

The contractor will only be allowed to star working once the submitted health and safety plan are approved by the employer or the employer's agent. The prior risk assessment should be done on site before the commencement t of work by a competent Risk assessor. The risk assessment:

Address Hazards On Site and Hazards Related To The Type Of Work Performed , Possible Consequences Of These Hazards,

- Refer To Legislative Requirements Cornering These Hazards On The Construction Site.
- Calculate The Value Of The Risk Associated With The Hazard By N Approved Method Taking Into Consideration The Probability Of Occurrence, The Degree Of Injury, Lost Time, Production Costs And Influence on the environment and frequency of occurrence The Outcome Of The Risk Assessment Will Determine:
- Protective Equipment to Be Issued.
- Type Of Training To Be Issued
- Type and number of safe work procedures to be introduced to workers in the form of toolbox talks

Protective clothing as determined by the risk assessment should be issued and the employees should sign the issue register to indicate the type and number of equipment received by each employee.

No work should commence on the construction site prior to induction of all employees intended to work on site.

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Training should be done by a competent health and safety induction trainer. Proof of training in the form of a register signed by the trained employees should be kept in the H&S file. The contents of the training should also be displayed in the H&S file.

Appointments of people/workers related to health and safety as required by law and the risk assessment to be done prior to the commencement of any work. Letters of appointment should be kept also be displayed in the H&S file.

Medical fitness certificates be obtained for the workers/operators as determined by the risk assessment.

POHS 10.4.4.2 during the construction period the contractor should ensure that all employees and visitors are informed instructed ad trained regarding safety conditions on site. all employees will carry proof of this induction of their persons while employed on site in the form of identification cards. the type of add training required on thus project will be described elsewhere.

Notification of construction work should be done to the department of labour within 7 days from commencement of the construction work. Follow-up risk assessments should be done during the construction period as and when the scope of work changes indicating new introduced hazards. Additional appointments should follow as required by the risk assessment.

# POHS 10.4.4.3 Should The Contractor At A Any Stage In Execution Of The Works Fail To Implement Or Maintain His Health And Safety Plan:

- 1. execute construction work which is not in accordance with his health and safety plan; or
- 2. act in any way which may pose a threat to the health and safety of persons, the employer will stop the contractor AT HIS/HER OWN COSTS from executing construction work.

POHS 10.4.5 the employer will take reasonable steps to ensure that the contractor's health and safety plan is implemented and maintained. The steps taken will include period audits at intervals once every month.

POHS 10.4.6 Upon Completion Of The Works, The Contractor Hand Over A Consolidate Health And Safety File To The Employer.

# POHS 10.5 HEALTH AND SAFETY FILE

The following documentation should be in the health and safety file:

- 1) Copy Of The Occupational Health And Safety Act No.85 Of 1993 Including The Construction Regulations- July 2003
- 2) Health And Safety Plan
- 3) Copy Of All Drawings Schematics, Detail Drawings, As-Build Drawings Etc.
- 4) Copy Of Notifications Of Construction Work To The Department Of Labour
- 5) Company Safety Policy- To Be Signed By The Chief Executive Officer Of The Company



- 6) Organ Gram Indicating Site Specific Organizational Structure With Reference To Requirements Of The Construction Regulations
- 7) Notice In Respect Of Machinery
- 8) Ten Commandments Of Safety
- 9) emergency telephone numbers to be displayed on the back of the file
- 10) letter of appointment

The following appointments are required for the project. Deviations will only be allowed with the approval of the agent. Appointment of any employee for more than one responsibility will be allowed and be approved by the agent.

# **Basic Appointments:**

- Appointment Of Principal Contractor By Employer
- Appointment Of Contractors (Sub-Contractors ) By Principal Contractor (Where Applicable)
- Appointment Of Construction Work Supervisor (Full Tie Employee On Site)
- Appointment Of Assistant Construction Work Supervisor (Full Time Employee On Site If Require)
- Appointment Of Specialists ( Refer To A Specialist Company)
- Appointment Of Risk Assessment Officer
- Appointment Of A She Coordinator
- Appointment Of A Health And Safety Induction Trainer
- Appointments of full time employees on site
- Appointment Of A SHE Representative (Competent Employee To Control/Monitor All H&S Activities)
- Appointment Of An Accident And Incident Investigator
- Appointment Of Safety Committee Members (Employees Actively Involves In H&S Appointment Of An Excavation Inspector
- Appointment Of Construction Vehicle And Mobile Plant Inspector
- Appointment Of Construction Vehicle And Mobile Plant Operators
- Appointment Of Concrete Mixer Operator ( If Required0
- Appointment Of Hand Tool Inspector
- Appointment of a Portable Electrical Equipment Inspector.
- Appointment Of A Ladder Inspector ( If Ladders Are Used
- Appointment Of A Hygiene And Facility Inspector (Ablutions And Eating Places)
- Appointment Of Fire Equipment Inspector
- Appointment Of Fire Team Members (Employees Trained In Firefighting Awareness)
- Appointment Of First Aid Equipment Inspector
- Appointment of first aid team members ( employees trained in first aid awareness)
- 11) list of contractors ( sub-contractors)

12) proof of Register with Compensation fund of Principal Contractor and Contractors



- 13) the contents of all training materials used on sited
  - eg. Formal training Informal training Toolbox talks
- 14) risk assessment –All risk assessments done before and during the construction period
- 15) Registers as required
- 16) Safe Work procedures

# POHS 10.6 Notification of Construction Work-Regulations 3 of the Construction Regulation – July 2003

The employer will appoint the contractor in writing for execution of the works. The contractor should accept its appointment under the terms and conditions of contract. The contractor should sign and agree to those terms and conditions, , before commencing work, notify the department of labour of the intended construction work in terms of regulations 3 of the construction regulations. The contractor should submit the notification in writing prior to commencement with work.

the annexures to this contract document contain a "mandatory notification of construction work in terms of regulations 3 of the construction regulations (2003) of the occupational health and safety act no.85 of 1993" which should be filled in by the contractor and forwarded to the department of labour . A copy of this notification should be included in the contractors health and safety file.

The principal contractor must notify the provincial director of:

- Construction work on a form similar to annexure a in the construction regulations 2003 of the occupational health and safety and regulations.
- A copy of the notification from must be available on site for inspection by an inspector.

# POHS 10.7 Contractor's SHE Representative

Before commencing work, the contractor should designate a competent safe, health and environment representative (SHE Rep) who should be acceptable to the agent, to represent and act for the contractor.

the contractor shall inform the agent in writing of the name and address of the contractor's SHE Rep and of any subsequent changes in the name and address of the SHE Rep, together with the scope and limitations of the SHE Rep's authority to act the contractor.

The contractor's SHE Rep should make available to the employer an all-hours telephone number at which the SHE Rep can be contacted at any time in the event of an emergency involving any of the contractor's employees, or other persons at the works.

Employer

Witness

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#### POHS 10.8 Supervision of Construction Work-Regulation 6

The principal contractor as well as his contractors (sub-contractors) to appoint full time employees in writing as the construction supervisors

#### POHS10.9 Risk Assessment – Regulation 7

The contractors should appoint a competent person in writing to carry out a risk assessment before any construction work is started.

The risk assessment should form part of the health and safety plan and include:

- Identification Of Risks And Hazards
- Possible Consequences
- A Documented Plan Safe Procedures To Mitigate, Reduce Or Control Risks And Hazards. (Safe Work Procedures And Protective Clothing)
- A Monitoring Plan
- A Review Plan

Copies of the risk assessment should be available on each site for inspection

All employees should be informed, instructed and trained by an appointed competent person regarding all hazards and work related procedures. No employee should enter the premises without induction training.

All employees on site must be in the possession of a certificate of health and safety induction training. The contents of the induction training should be in writing and kept in the safety file.

#### POHS 10.11 LOCAL SERVICE

Contractor must establish all local services in areas of excavations. Plan of local services should be documented in the health and safety file. Local services include:

Telkom, Gas, water, electricity supplies and other similar services.

# POHS 10.11 SAFE WORKING LOADS

The contractor should ensure that-

- a) The safe working loads of hoists, load-bearing beams and cranes are prominently displayed at all times.
- b) the safe working loads are not exceeded under any circumstances
- c) all lifting gear is marked with a unique identity number and recorded in a register



#### POHS 10.12 MACHINE GUARDING

All power tools and machinery driven by belts, gears, ropes, chains, coupling and similar drives Should be adequately guarded. The contractor should prohibit the use of any equipment with a damages, missing or inadequate guard.

#### POHS 10.13 CONSTRUCTION VEHICLES AND MOBILE PLANT-REGULATIONS 21

The contractor should ensure that drivers of motor vehicles are in possession n of driver's licence, valid for the class of vehicle which they are required to drive, and produce the licence on request.

The contractor should not permit any driver to be in control of a vehicle at the works while under the influence of alcohol, drugs and other substance

All vehicles of the contractor should display a name board bearing contractor's name. Hired vehicles shall bear an identifying sticker. a register should be kept of workers operating construction vehicles and mobile plant.

The register should contain proof of training of operator's construction vehicles and mobile plant certificates of competency and authorization of operators to operate machinery, vehicles or plant.

Names of operators and their relevant training with date and time stamps with name of course instructor be kept health and safety file on site.

Physical and psychological fitness be proved by way of medical certificate of fitness of the said operators before allowing operators to operate machinery, vehicles or plant.

The health and safety file should include the written training material offered to operators for the different construction vehicles and mobile plant. All construction vehicles and mobile plant must be of acceptable design and construction and used according to their design. All construction vehicles and mobile plant must be maintained in good working order.

A register of all vehicles and plant be kept on site together with names of the operators responsible for each.

The register all maintenance activities performed on these vehicles and plant as well as signature certifying the conditions of the vehicles as in a good working order.

All requirements on the vehicles and mobile plant with regard to safety and health should be inspected and certified.

These requirements include: a portable fire extinguishers mounted in specified positions on construction vehices-9kg dry powder fire extinguisher



#### Safety belts and harnesses

Inspection for leaking fuel or gasses which can cause fire hazard safe and suitable means of access

Adequate signalling or other control arrangements to guard against the dangers relating to movement of vehicles and plant.

Attention must be paid to:

- a) Turn Indicators
- b) Stop Lightsx2- Where Poor Visibility Conditions Warrant
- c) Reverse Siren Or Acoustic Device
- d) Tail Light
- e) Head Lights X2-Where Poor Visibility Conditions Warrant
- f) Rotating Amber Flashing Light With Lens Heights Of At Least 200mm And An Output Of At Least 100watt On Roof Or Other Visible Position
- g) Warning Boards Mounted At Least 1.5m Above Ground Level To Be Clearly Visible
- h) Inspections Of Appropriate Structures Fitted To Protect The Operator From Falling Material Or From Being Crushed Should The Vehicle Or Mobile Plant Overturn
- i) Appropriate Seats Must Be Firmly Secured And Adequate In Number On Vehicles Used To Transport Employees.

During use of construction vehicles or mobile plant the following rules should be adhere to:

- a) Construction vehicles or mobile plant must be prevented from falling into excavations, water or any other area lower than the working surface. These protections must consist of adequate edge protection eg. guard rails and/ or crash bares
- b) No person should be allowed to or require to ride on any construction vehicle or mobile plant in a position otherwise than a safe place provided for on the construction vehicle or mobile plant as designed for that purpose.
- c) The construction site must be organized is such a wat that as far as is reasonable practical, pedestrians and vehicles can move safely and without risks to health and safety.
- d) Traffic routes should be of sufficient size, sufficient in number and in suitable positions to be used safely by construction vehicles, mobile plant or pedestrians.
- e) Each and every traffic route should be indicated by suitable signs for reasons of safety and health.
- f) No tools and /or material should be transported in the same compartment as the operators/drivers/employees unless the said are secured against movement during transportation.
- g) all construction vehicles and mobiles plant left unattended at night adjacent to a freeway in normal use or adjacent to construction areas where work is in progress, Should have

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appropriate lights or reflectors, or barricades equipped with appropriate lights or reflectors, in other to identify the location of vehicles or plant

- h) 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.
- i) Reflective indicators must be provided to workers in the form of reflective yellow jackets or vests as specified and worn by workers working on/or adjacent to public roads.

# POHA 10.14 SIGNS AND NOTES

The use of colour code, symbolic signs and notices are means of communication whereby information is visually conveyed to people and also provides early warning of dangers.

Safety signs provide for immediate recognition of danger, information, actions allowed or not allowed and procedures that have to be done:

There are 5 types of safety signs:

1.	Black Triangle On Yellow Background	=>	WARNING
2.	Red (Round) On White Background	=>	PROHIBITORY
3.	White On Blue Background	=>	MANDATORY
4.	White on green background	=>	INFORMATION
5.	Red (Square) On White Background	=>	FIRE

5. Red (Square) On White Background =>

The following signs should be provided for on the site:

Traffic control signs	- ROAD CLOSE DETOUR DIRECTION ARROWS
Warning signs	- DANGER-MEN AT WORK
Prohibitory signs	- NO ENTRY
Fire	- POSITION OF EQUIPMENT AROWS
First aid	- INFORMATION SIGNS

All signs should be new or in good condition and approved by the engineer. All temporary signs should be mounted on portable supports to facilities moving. Defective or missing items should be replaced immediately. All signs should be inspected at least twice a day.

- Prohibited Area TR208
- Men at work TW 336



#### POHS 10.15 EXCAVATION WORK- REGULATION 11

Excavation: (definition: space made by digging)

- 1. An excavation could be a hole or trench of any size and shape.
- 2. A risk assessment must be done prior to making excavation.
- 3. the following must be taken in consideration when doing the risk assessment
- depth of the excavation
- length of the excavation
- existing services
- barricading and demarcation

# Depth of excavation:

- 1. Should an excavation be more than chest deep (1.5m) it must be adequately shored or braced.
- 2. Slopes or trenches should be flat as possible, 1x vertical to 2 x horizontal must BBE Considered maximum for dry conditions. In wet conditions either a much lower slope should be used, or if space is a constant, shoring an de-watering should be applied.
- 3. A competent person should be appointed to supervise excavation work.
- 4. Stability evaluation of ground must be one and a certificate should be issued.
- 5. A plan for prevention of persons being trap due to collapse should be provided by contractor.
- 6. the design of shoring should be documented by contractor in the health and safety file as provided by the competent designer of shoring
- 7. The maximum loading of sides of an excavation must be documented in a usable format.
- 8. If adjacent structures and building are present and can be affected a design and construction of supporting details should be represented.
- 9. Provision should be for access routes to the excavating. Routes not are more than 6 meters way from worker.
- 10. Contractor must establish all local services in area of excavations.
- 11. Plan of local services should be documented in the health and safety file.

Local services include:

Telkom, gas, water, electricity supplies and other similar services.

Inspection should be done on all bracing and shoring on a

- Daily Basis
- Prior To Each Shift
- After Every Blasting Operation
- After An Unexpected Fall Of Ground
- After Substantial Damage To Supports

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#### - After Rain

An inspection register should be completed by the excavation inspector during each and every inspection.

# Barricading and demarcation:

Excavation should be fenced at least 1 meter high and as close to the excavation as possible, when accessible by public or other employees, or adjacent to public roads or thoroughfares. Protection around excavations must be in the form of a physical barrier, to prevent persons from falling into the excavation.

Excavations must be provided with clearly visible boundary indications and illuminated at night or where/when visibility is poor. Precautionary measures in terms of confined spaces must be met and employees must be declared fit and not claustrophobic.

Explosives regulations must be adhere to if explosives are required to carry out the excavation. Competent persons with blasting certificates must be charge. Warning signs must be posted next to an excavation in which persons are working or carrying out inspection to tests.

# POHS 10.16 BARRICADING AND DEMARCATION

The construction site should be barricaded completely to prevent pedestrians and vehicles to enter the construction area. Protection around the site must be in the form of a physical barrier and appropriate signage, to prevent public from entering the area. it is advised to use 1.2m high Day-Glo mesh (barrier netting) to prevent pedestrians on pavements enter the construction area.

# POHS 10.17 LADDERS

You are only use ladders that are undamaged and are of sound construction.

Ladders must be placed on a register and inspected on a monthly basis by an appointed person.

Ladders are to be secured during use. If it is necessary to use a ladder before it can be secured, a second person must hold it steady at all times. Place the ladder's feet on a level base (wooden block or bricks are not to be used.)

Ladders are not used as scaffolds or work platforms.

When used as access to trenches and work areas, the ladder must extend one meter above the step off point and be placed at an angel where the base of the ladder is one quarter of the ladder height away from the base of the structure, and must be fitted with non-skid devices.

Ladders must not be used nearer than 3 meters to any exposed electrical power source and never in substations or on electrical installation work.

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Ladders are not to be used in a horizontal position. Maintain 3-point contact by keeping two hands and one foot or two feet and one hand on the ladder at all times.

Do not carry objects in your hands while on a ladder.

Ladders must be fitted with non-skid devices at the bottom ends and hooks or similar devices at the upper end.

Ladders with damages stiles, or damaged or missing runs should never be used. Ladders must never be fastened together to increase the reach. Wooden ladders must be painted.

# POHS 10.18 CONCRETE MIXERS-REGULATION 18

The contractor should ensure that all concrete mixers are operated and supervised by a competent person who has been appointed in writing.

The contractor should ensure that all devices to start and stop the concrete mixers as provided and that these devices are:

- 1. placed in an easily accessible position; and
- 2. constructed in such a manner to prevent accidental starting

All dangerous moving parts of a mixer must be placed beyond the reach of person by means of covers. No person should be permitted to remover or modify any guard or safety component unless authorized to do so by the appointed person.

A contractor should ensure that all persons authorized to operate the concrete mixers are fully:

- 1. aware of all dangers involved in the operation thereof
- 2. conversant with the precautionary measures to be taken in the interest of the health and safety

No person supervising or operating a concrete mixer should authorize any other person to operate the plant, unless such a person is competent to operate such machinery.

# POHS 10.19 SCAFFOLDING -REGULATION 14

All scaffolding must be in compliance with SANS 085.

A competent person should be appointed in writing to supervision the erection of all scaffolding operations. The scaffolding erecter should have the required accredited qualifications for scaffold erecting.

A competent scaffold inspector should be appointed in writing to inspect the erected scaffolds and Should not be the same person as the erector.

An inspection register on scaffolding should be kept in the health and safety file. A copy of SANS 085 as amended should be available on site and kept in the health and safety file.

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#### POHS 10.20 HOUSE KEEPING AND CONSTRUCTION SITES-REGULATION 25

The contractor should at all-time carry out the works in a manner to avoid the risk of bodily harm to persons or risk of damage to any property. The contractor should take all precautions, which are necessary and adequate to eliminate any conditions, which contribute to the risk a of injury to persons or damage to property. The contractor should continuously inspect all work, materials and equipment to discover and determine any such conditions and should be solely responsible for the discovery, determination and elimination of such conditions.

During the period of this contract the contractor should be responsible for the safe storage of all materials and equipment required for, execution of the contract, and for disposal of all non-usable waste material in an orderly manner.

All materials, whether stored on the construction site or within the contractor's designated area, should be stored neatly and safely to prevent possible injury to any personnel. The material should be stored to facilitate safe access to, and removal of the material from the storage area.

Any flammable material, such as paint, diesel fuel and oil, should be stored in lockable noncombustible structures, which should be clearly marked to indicate the hazardous nature of the materials stored within. The flammable materials stores should be located in safe areas away from hazardous surroundings and adequate and suitable fire-fighting equipment should be provided within easy reach of the materials stores.

Loose material need for use should not accumulate as to obstruct means of access to egress from the workplace. Scrap and waste should not be allowed on site and must be removed daily.

The construction sites adjacent to build up area or public way should be effectively fenced and controlled with access points.

# POHS 10.21 STACKING AND STORAGE ON CONSTUCTION SITES

A competent person should be appointed in writing with duty of supervising all stacking and storage of material on site.

Adequate storage areas should be provided which includes demarcated areas. All storage area should be kept neat and under control.

# POHS 10.22 FALL PROTECTION-REGULATION 8

A contractor should cause:

- a) the designation of a competent person, responsible for the preparation of fall protection plan;
- b) the fall protection plan contemplated in paragraph (a) to be implemented , amended where and when necessary and maintained as required;
- c) Steps to be taken in order to ensure the continued adherence to the fall protection plan.



The fall protection plan contemplated in sub regulations 10, should include

- a) a risk assessment of all work carried out from an elevated position which Should include the procedures and methods used to address all the risks identified per location;
- b) The processes for evaluation of the employee's physical and psychological fitness necessary to work at elevated heights.

#### Safety harness:

The wearing of an approved type of safety harness fitted with a shock absorber and correctly secured to any approved anchorage is compulsory for personnel working at heights.

Safety harnesses must be worn where a leaning bar cannot be installed, where handrails are not available in instances where there is a risk of injury due to falling and generally whenever work is undertaken at a height of more than "a person's height'

Where roof work is undertaken, harnesses must be attached to lifeline or other substantial SUPPORT.

The single support waist type safety belt should be used; therefore a full parachute type harness of an approved type us required.

It is the contractor's responsibility to train his employees on the correct use of harnesses.

Safety belts may only be used as a fall restraint and not as a fall protection device.

Identify risks:

Lanyards must be used to attach tools and equipment used in elevated positions.

Scaffolding, where possible, must be provided. On windy/rain days, special precautions are to be taken especially when working with loose roof sheets, walking on asbestos roofs is prohibited unless supporting ladders or crawl boards are placed thereupon.

Consult your supervisor in that area if in any doubt.

# POHS 10.23 STRUCTURES – REGULATIONS 9

1. A contractor Should ensure that-

(i) All reasonable practicable steps are taken to prevent the uncontrolled collapse of any new or existing structure or any part thereof, which may become unstable or is in a temporary state of weakness or instability due to the carrying out of construction work:

(ii) No structure or part of a structure is loaded in a manner which would render it unsafe.

2. The designer of a structure :-



(j) Before the contractor is put out on bid, make available to the employer all relevant information about the design of the relevant that may affect the pricing of the construction work

(ii) inform the contractor 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 hen the design is subsequently altered;

(iii)Subject to the provisions of paragraph (a) and (b) ensure that the following information is included in a report and made available to the contractor-

- (iv) A geo-science technical report where appropriate;
- (v) The loading of the structure is designed to withstand ; and
- (vi) The methods and sequence of construction process;
- (vii) Not 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 could br avoided by modifying the design or by substituting materials
- (viii) Take into account the hazards relating to any subsequent maintenance of the relevant structure and should make provision in the design for that work to be performed to minimize the risk;
- (ix) Carry out sufficient inspections at appropriate times of the construction work involving the design of the relevant structure in order to ensure compliance with the design and a record of those inspections is to be kept on site;
- (x) Stop any contractor from executing any construction work which is not accordance with the relevant design ;
- (xi) Conduct a final inspection of the completed structure prior to its commissioning to render it safe for commissioning , cognisance is taken of ergonomic design principles in order to minimize ergonomic related hazards in all phases of the life cycle of a structure .
- 3. A contractor should ensure that all drawings pertaining to the design of the relevant structure are kept on site and are available on request by an inspector, contractors, employer, employer's agent or employee.
- 4. Any owner of a structure should ensure that inspection of that structure upon completion are carried out periodically by competent persons in order to render the structure safe for continued use; provided that the inspections are carried out at least once every six months for the first two years and thereafter yearly and records of such inspections are kept and made available to any inspector upon request.
- 5. Any owner of a structure should ensure that the upon completion is maintained in such a manner that the structure remains safe for continued use and such maintenance records should be kept and made available to an inspector upon request.



#### POHS 10.24 FORMWOKR & SUPPORT WORK – REGUALTION 10

A competent person should be appointed in writing to supervise all formwork and support work, the name and address of such person should be included in the health and safety plan of the principal contractor.

The contractor must ensure that all formwork and support work structures are adequately designed, erected, supported, braced and maintained to that they will be to support all anticipated loads.

All drawings pertaining to formwork and support work must be kept on site and available for inspection by an inspector, contractor, employer, employer's agent or employee. All formwork and support work must be inspected and checked for suitability by a competent person under the following conditions:

- 1. Before use
- 2. During placement of concrete or any other imposed load
- 3. After placement of concrete or any other imposed load
- 4. On a daily basis after placement of concrete until the structure is removed
- 5. Ensure that concrete gains sufficient strength before the support work is removed.
- Record must be kept od these inspections
- Weakened formwork or support work must be immediately reinforced
- Deck panels must be secured against displacement
- Persons must be prevented from slipping on support work
- Persons must not be affected by the use of solvents or any other similar substances
- Safe access must be provided for all support work
- Employees involved must be adequately trained and instructed to perform the work in a safe manner.

#### POHS 10.25 FIRST AID

#### POHS 10.5.1 Safety Notice Board

The contractor should provide a safety notice board where safety notices, site regulations concerning safe working practices and information on the location of the nearest first aid station, can be conspicuously displayed at all staff. The size of the notice board should be at least 600 mm x 800mm.

# POHS 10.25.2 First aid equipment

The contractor should provide for its employees a stretcher for emergencies and an approved first aid box. The first box should be checked weekly by a responsible person, who should be appointed by the contractor, and a record should be kept of the contents. Any deficient medical supplies should be promptly replenished by the contractor.



#### POHS 10.25.3 Hazard notice

The contractor should display hazard notices in all areas where hazardous conditions prevail or may occur.

#### POHS 10.25.4 reporting of incidents and /or injuries

All incidents in respect of damage to works, property or machinery or injury to persons , should be reported by the contractor's SHE Rep by the quickest means possible .

A mandatory incident report form, containing full details of the incident should be completed and submitted to the site agent and the department of labour within twenty four (24) hours of the occurrence of the incident.

#### POHS 10.26 Fire Precautions On Construction Site-Regulation 27

A register should be kept on all acetylene and oxygen cylinders used on the site.

Condition of components, sub-components and safety components (e.g flame back arrestors) should be listed in the register and signed by the construction supervisor at regular intervals as required with time and date stamp.

Acetylene, oxygen and LP gas cylinders should be stored in suitable places to minimize the risk of fire.

Suitable storage to be provided for flammable liquids e.g petrol, diesel, paint, thinners, smoking should be prohibited in the workplace and notices posted according.

Suitable and sufficient firefighting equipment should be placed in strategic position in the work place. ( on vehicles and other positions as deemed necessary) . a register should be kept on type and number of equipment for each site in the health and safety file

A sufficient number of employees should be trained in the of freighting equipment. A register should be kept in the health and safety file on site with names of employees and type of firefighting training completed with date.

Suitable signs should be erected in work places indicating escape routes.

Escape routes should be kept clear. Evacuation plans be in health and safety file as part of induction training. Combustible materials should not accumulate on site.

#### POHS 10.27 Construction Welfare Facilities – Regulations 28

On each site where exiting facilities are not present, at least one sanitary facility Should be erected for every 10 workers, one shower for every 15 workers m a changing facility for each sex and sheltered eating areas.

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Mobile toilets with bucket system should be installed at the site. Cleaning of buckets should be arranged with the city council, for site in remote areas, transport should be made.

#### POHS 10.28 Toxic Materials

The contractor should exercise all necessary care in the handling of toxic compounds and Should be able to identify the major chemical components in the event of medical treatment being required.

#### POHS 10.29 Hazardous Chemical and Martials

The contractors should provide suitable and adequate protective equipment when working in an area where hazardous chemicals and materials are being used.

The contractor Should ensure that its employees have familiarised themselves with the hazardous material data sheets applicable to the specific site as well as the location of firefighting equipment, safety showers/baths and other washing facilities, prior to commencement of work.

#### **POHS 10.30 Commissioning Safety Precautions**

The contractor should ensure that wherever repairs, adjustments or any other work are undertaken on any plant or machinery. The power supply is switched off, disconnected or the plant / machinery disengaged until the work or repairs have been completed.

# POHS 10.31 Electrical Installations and Machinery on Construction Sites- Regulations 22

Before construction commences or any other related works and during the progress thereof adequate steps must be taken to establish the presence of and guard against any danger to the workers in respect to electrical cables or apparatus.

In areas where is cannot be established where electrical devices are, the employees must use tools of which the handles are insulated or rubber insulated gloves.

Any temporary electrical installation set up by the principal contractor or contractor must be inspected at least once a week by a competent person. The inspections should be recorded in a recorded in are register and kept in the health and safety file.

When working on or next to live electrical machinery, the principal contractor or contractor must provide insulated stands, trestles and mats.

When distribution boards are removed the incoming power supplies should be cut by the employer's authorized electrician. The incomer electricity supply feeder should be earthed by a suitable earth wire or spike to prevent cable of becoming live during the installation of new distribution boards.

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No person should continue with wiring of premises unless the supply to the premises has been rendered dead and the above effective measured has been taken to ensure that such cables remains dead. When rewiring of premises is done the feeder breakers at the other end of the supply cables should be locked out and the cable earthed to prevent any injury to workers by electrical shock.

A register should be kept on site in the health and safety indicating all signatures of competent persons switching electricity supply on or off with time and date stamps.

No persons Should use or permit to use a portable electric load operating at a voltage exceeding 50V to earth unless it is connected to a source of electrical energy incorporating an earth leakage protection device.

A register should be kept on site in which all daily checks of portable electric tools are performed and signed by the responsible person. Checks should include conditions of plug top, power cord, on-off switch and insulation conditions of electric tools. All tools should be numbered and entered according into the supervisor at regular intervals as required by the nature of the equipment.

# POHS 10.32 REGISTER REQUIRED ON SITE

PPE

• Personal protective clothing and equipment issued

# Machinery

- Daily checklist Compactions Machinery –Bomag
- Daily Construction Vehicles Pre-Ignition Checklist –Tractors
- Daily Construction Vehicles Pre-Ignition Checklist –TLB
- Operators On Construction Vehicles And Mobile Plant
- Training and fitness register

# Equipment

- Monthly checklist on hand tools
- Monthly checklist on portable electrical equipment

# House keeping

- Stacking inspection register
- Excavation inspection register
- Monthly environmental checklist and deviation
- Monthly hygiene facility inspection register-mobile ablution and eating areas


#### Incident

- Incident register ( injury / occupational disease record book recording and investigation of incidents)
- Motor vehicle accident report

#### Fire

- Fire extinguishing equipment register
- Register of trained employees in fire fighting
- Fire awareness attendance training register

#### First aid

- First aid box and equipment checklist
- Register of trained employees in basic first aid
- First aid awareness attendance training register

#### Training

- Induction training attendance registers
- Toolbox talks training attendance registers
- Community training attendance registers

## Permits

- Look-out request form ( water and electricity )
- Look-out safety committee monthly meetings

## Inspections

- SHE Coordinator Inspections Register Monthly Checklist And Deviations
- Minutes Of Safety Committee Monthly Meetings

## POHS 10.33 SAFE WORK PROCUDRES REQUIRED IN HEALTH AND SAFETY FILE

- 1. Stacking of materials
- 2. Working with angle grinders
- 3. Excavating of trenches
- 4. Loading and transport of materials
- 5. Working with cement and concrete mixers
- 6. Driving company vehicles
- 7. Approaching construction vehicles
- 8. Maintaining scaffolding
- 9. Form work repair guide



- 10. Roof work
- 11. Correct use of fire extinguishers
- 12. Engaging and working with contractors
- 13. Heat stress
- 14. Electrical safety
- 15. Maintenance of ladders
- 16. Silica
- 17. Trenches and open excavation

## POHS 10.34 WRITTEN TRAINING COURSE MATERIAL TO BE FILED IN HEALTH AND SAFETY FILE

- 1. Induction training ( workplace awareness-site specific)
- 2. Training of operators on construction vehicles and mobile plant
- 3. First awareness
- 4. Firefighting awareness
- 5. Toolbox talks on hand tools
- 6. Toolbox talks on machine guarding
- 7. Toolbox talks on hand tool accidents
- 8. Toolbox talks on ten commandments of safety
- 9. Toolbox talks on fire prevention
- 10. Toolbox talks on lifting materials by hand
- 11. Toolbox talks on safe loading
- 12. HIV training Unit 1- the nature f HIV/Aids
- 13. HIV training unit 2- transmission of the h1 virus
- 14. HIV training unit 3- HIV/aids preventative measures
- 15. HIV training unit 4- voluntary HIV/aids counselling and testing
- 16. HIV training unit 5 -living with HIV /aids
- 17. HIV training unit 6- treatment options for people with HIV/aids
- 18. HIV training unit7 the right and responsibilities for workers in the work place with regards to HIV/aids
- 19. Toolbox talks on environmental influences

# POHS 10.35 TRAINING COURSES TOBE PRESENTED

## Phase 1

- Toolbox talks on the functions of the SHE representative
- Induction training ( workplace awareness ) -ten commandments of safety
- Training of the community on construction workplace hazards
- HIV training unit 1 the nature of HIV/aids
- Toolbox talks of environmental awareness



#### Phase 2

- Training of operators on construction vehicles and mobile plant
- First aid awareness
- Firefighting awareness
- Toolbox talks on hand tool accidents
- Toolbox talks on ten commandments of safety
- Toolbox talks on fire prevention
- Toolbox talks on lifting materials by hand
- Toolbox talks on safe loading
- HIV training Unit 1- the nature f HIV/Aids
- HIV training unit 2- transmission of the h1 virus
- HIV training unit 3- HIV/aids preventative measures
- HIV training unit 4- voluntary HIV/aids counselling and testing
- HIV training unit 5 -living with HIV /aids
- HIV training unit 6- treatment options for people with HIV/aids
- HIV training unit7 the right and responsibilities for workers in the work place with regards to HIV/aids
- Toolbox talks on environmental influences

## POHS 10.36 EQUIPMENT ON SITE

First aid kit (basic)

Fire extinguishers

## POHS 10.37 PERSONAL PROTECTIVE CLOTHING (PPE)

The contractor should provide the necessary personal protective clothing for its employee in hazardous areas, appropriate to the nature of the hazard.

## POHS 10.37.1 Hard Hat

All employees of the contractor should wear hard hats in area where appropriate hazard notices are displayed. The engineer should have the right to ban certain colours if they are similar to the employer's identifying colour. Hard hats should not be painted or otherwise defaced.

## POHS 10.37.2 Eye Protection

Suitable eye protection Should be worn I areas where appropriate hazard notices are displayed, or when grinding, chipping, breaking, drilling, arc-welding, cutting with oxy-acetylene equipment or similar activities are taking place.

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#### POHS 10.37.3 Hearing Protection

Suitable hearing protection should be worn in areas where appropriate hazard notices displayed.

#### POHS 10.37.4 Foot Wear

All employees of the contractor should wear undamaged, laced-up safety boots shoes, suitable for the intended purpose, in prescribed areas where appropriate hazard notices are displayed.

#### POHS 10.37.5 Gloves

All employees of the contractor should wear suitable protective gloves in areas where appropriate hazard notices are displayed, or when handling hot or hazardous materials or chemicals.

#### POHS 10.37.6 Clothing

All employees of the contractor Should wear suitable protective clothing when working in proximity of machinery, power tools, hazardous materials or chemicals.

NO.	ТҮРЕ	WHERE TO WEAR	
1	Hard hats	Always	
2	40mm shoulder length PVC gloves	Working with cement	
3	Plastic trousers	Working with cement	
4	Safety goggles	Grinding, cutting cement	
5	Gumboots	Working in water	
6	Welding helmet	Welding	
7	Gas welding safety goggles	Gas welding	
8	Safety shoes	Off-loading and positioning of	
		materials	
9	Dust masks	Grinding	
10	Ear muff	Grinding	
11	Leather apron	Welding/gas welding	

Proposed Personal Protective Equipment required oh this project;

#### C3 SCOPE OF WORKS AND PROJECT SPECIFICATIONS

This section contains information relevant to the execution of the Works required and described the engineering and construction works to be provided and all other requirements and constraints relating to the manner I which the contract is to be performed.

In the event of any discrepancy between the project specifications and part or parts of the SANS 1200, standards specifications additional specifications JBCC 200 series technical and particular specifications, the bills of quantities a or the drawings, the engineers Should be notified in writing in and the engineer's decision will be final.

Employer



#### STARNARD SPECIFICATION

The specification in general use will be the standard specification of the south African bureau of standards 1200 (SABS 1200 and SANS 1200) as approved by the council of the south African bureau of standards, whichever latest version has been published and released at the time of this bid.

This section provides the specifications for the project. The description of the works, nature of work, and general requirements of the project are specified.

The project specifications form an integral part of the contract documents and supplement the standard specifications. In event of any discrepancy with any part of the standard specifications, the bill of quantities or drawings, the project specifications should takes precedence.

The standard specifications which form part of this contact have been written to cover all phases of work normally required for routine road maintenance contracts and they may therefore cover items not applicable to this particular contract.

This description of the work is not necessarily complete and should not limit the work to be carried out by the contractor under this contract.

Approximate quantities of each type of work are given in the applicable sections schedule of quantities.



#### STANDARD SPECIFICATIONS

The following SANS 1200 standardized specification should form part of the contract but are not bound in these documents:

- A General
- AB Engineer's Office
- C -Site Clearance
- D -Earthworks
- DB -Earthworks (Pipe Trenches)
- **DK**-Gabions and Pitching
- DM -Earthworks (Roads, Subgrade)
- G Concrete (structural)
- GA Concrete (Small Works)
- HA -Structural Steel (Sundry Items)
- HB -Cladding and Sheeting (1985)
- L Medium Pressure Pipelines
- LB Bedding (pipes)
- LD -Sewers
- LE -Stormwater
- **MJ**-Segmented paving
- MK Kerbing and Channelling
- Roof trusses- Part "A" and "L" of the national building regulations



# **PROJECT SPECIFICATIONS (PS)**

# Applicable standardized specifications

For the purpose of this contract, the following SABS 1200 standardized specifications should apply:

SABS 1200 A	:	General (1986)
SABS 1200 C	:	Site clearance (1980)
SABS 1200 DA	:	Earthworks (small works) (1988)
SABS 1200 DB	:	Earthworks (pipe Trenches) (1989)
SABS 1200 GA	:	Concrete (Small Works) (1982)
SABS 1200 H	:	Structural Steel (1900)
SABS 1200 HB	:	Cladding and Sheeting (1985)
SABS 1200 L	:	Medium pressure pipeline (1983)
SABS LD	:	Sewers (1988)



## **C3.1 SCOPE OF WORKS**

# PS 1.1 General Descriptions of Works

The work will entail for the construction of buildings which will consists of earthworks, reinforced concrete, segmented paving, formwork, masonry, water proofing, roof covering, carpentry and joinery ironmongery, ceiling, parities, floor coverings, structural steelwork, metal work, plastering, plumbing and drainage, glazing, electrical works, perimeter, fencing, paving, storm water provision and general paintwork.

# PS 1.2 Descriptions of Site and Access

The term" site" as defined in the JBCC 2000 SERIES , will comprise of all the building works as identified by the employer to be attended too under this contract.

# PS 1.3 Natures of Ground, Subsoil Conditions and Materials on Site

The bidder must ascertain himself with all conditions on site. Therefore the site brief inspection is compulsory and a bid will not be accepted without site inspection certificate singed by the employer or the engineer. The bidder must ascertain himself with the following conditions on site before submitting a bid.

- Positioning (alignment and depth as well as type of service) existing services
- Existing underground services in the area include; Telkom, electrical ( both municipal and eskom)

Potable water reticulation mains, effluent drainage mains as well as storm water drainage systems.

• Existing underground services in the area include; Telkom, electrical ( both municipal and eskom)

Potable water reticulation mains, effluent drainage mains as well as storm water drainage systems.

## PS 1.4 Details of Contract

The description of the works contained in this section is merely an outline of the contract works and should not limit the work to be carried out by the contractor under this contract. Approximate quantities of each type of work to be carried out in accordance with the contract documents are listed in the bill of quantities bound in this volume.

The nature of work to be carried out under this contract includes:

- (i) Establishments of contractor's and engineer's camp and facilities
- (ii) Site clearance where necessary
- (iii) Supply of all materials and equipment necessary for construction of the following:



- Mass earthworks
- Structural and small concrete works
- Supply and laying of segmented paving
- Stormwater concrete channels and aprons
- Formwork to concrete works
- Masonry
- Water proofing
- Roof covering
- Carpentry and joinery ironmongery
- Ceilings
- Parities
- Floor covering
- Structural steelwork
- Metal work
- Plastering and Paintworks
- Plumbing and drainage
- Glazing
- Electrical works
- Perimeter fencing
- Water and Sewer reticulation and municipal connections
- (iv) Maintenance of the work for a period of 12 months

#### PS 1.1.4 Labour Intensive Construction

The intentions are to undertake as much work as possible using labour intensive construction methods and local labour. It is an express requirement of this projects that local sub-contractor be employed, trained and empowered to approval of the engineer. The possibility exists for local sub-contractors – with the necessary skills-to perform the following tasks:

- (a) Locate and expose existing services
- (b) Excavating of foundation and pipe trenches
- (c) Small concrete works
- (d) Backfilling of excavation and site clearing
- (e) Replacing of topsoil, and grassing
- (f) Bricklaying
- (g) Painting
- (h) Paving

Employer

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The contractor should submit a local sub-contractor employment list to the engineer not later than 14 days after he has been notified of the acceptance of his bid and only after discussions with the local community assisted by the CLO

The list should not be in the form of a list of local sub-contractors and tasks only, but should show clearly the experience of the sub-contractor and his available resources, designated quantities of work to be performed, a construction programme as well as the anticipated earnings for the various sections of work.

# PS 1.4.2 Provision of the Temporary Workforce

The workforce that is to be employed on site should consist of local residents, except for approved key staff to the extent that is compatible with the project requirements.

A contract of employment must be signed between the contractor and each of his employees and subcontractors and between such sub-contractor and each of the subs –contractor's employees with clear reference to the following conditions:

- The minimum agreed wage rate per hour in respect of labourers
- The agreed production pay rate per unit of production where applicable
- UIF and WCA payments
- Minimum working hours per day
- Start and end times hours per day
- Lunch break times
- Rain time-no work no pay --sick absent
- Disciplinary policy
- Grievance policy
- Methods of payment
- Work clothes and safety equipment issued as required

# **PS 1.5 Construction Management Requirements**

a) The contractor is referred to SANS 1921:2004- construction and management requirements for works contracts, part 1: general engineering and construction works and part 2: accommodation of traffic on public roads. These specifications Should be applicable to the contract under consideration and the contractor Should comply with all requirements relevant to the project.

Certain aspects however require further attention as described hereafter

b) Quality assurance (QA) (read with SANS 1921-1:2004 Clause 4.4)

The contractor will be solely responsible for the production of work that complies with the specifications to the satisfaction of the engineer. To this end it will be the full responsibility of the contractor to institute an appropriate Quality Assurance (AQ) system on site.



The engineer will audit the contractor's quality assurance (QA) system on a regular basis to verify that adequate independent checks and tests are being carried out and to ensure that the contractor's own control is sufficient to identify any possible quality problems which could cause a delay or failure.

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

c) Management and disposal of water (Read with SANS 1921-1:2004 clause 4.6)

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

- d) Disposal of spoil or surplus material (Read SANS 1921-1:2004 Clause 4.10) The contractor should dispose all surplus and unsuitable material in legal spoil areas of his own choices, or as directed by the engineer. He should be responsible for all arrangement necessary to obtain such spoil sites.
- e) Testing (Read with SANS 1921-1: 2004 Clause 4:11)

## i) Process control

The contractor should arrange for all tests required for process control to be done by a laboratory acceptable to and approved by the engineer.

The contractor may establish his own laboratory on site or he may employ the services of any independent commercial laboratory. Whatever method is used, the contractor must submit the results of tests carried out on materials and workmanship when submitting work for acceptance by the engineer. The costs for these tests should be deemed to be included in the relevant rates and no additional payments will be made for testing as required.

The contractor should make suitable arrangement s for process control prior to commencement with the works. Should he intend using site personnel for this purpose he Should ensure that suitably trained and competent personnel take charge of the necessary test work , and the necessary equipment is at their disposal prior to commencement of the works. Failure to comply with these requirements should be just cause for the engineer to order the suspension of the works without additional remuneration in terms of the conditions of contract (JBCC 2000 SERIES) for him to recommend determined to the employer in terms of the contract.

Employer



The contractor should deliver to the engineer, for his consideration, quality assurance programmes (as obtained from all the contractor's proposed suppliers of pipes, valves and specials) prior to the contractor's appointment of nay suppliers.

ii) Acceptance control

The process control test results by the contractor for approval of materials and workmanship may be used by the engineer for acceptance control. However, before accepting any work, the engineer may have further control tests carried out by a laboratory of his choice.

## PS 1.6 Construction Programme and Methods

The contractor should apply a suitable and realistic construction programme that is based on the drawings issued by the engineer for construction and upon the specific construction phases. If necessary, the engineer may instruct the contractor to adjust his programme to suit other activities.

The programme should not be in the form of a GANT chart only preferably in "Microsoft Projects" but should show clearly the anticipated quantities of work to be performed each month, together with the manner in which the listed plant is to be used, as well as the anticipated earnings for the various sections of work.

Failure to comply with these requirements will entitle the engineer to use a programme based on his own assumptions for the purpose of evaluating claims for extension of time or additional payments.

If, during the progress of the work, the quantities of work performed per month fall below those shown on the programme, or if the sequence of operation is altered, or if the programme is deviated from in any other way, the contractor should, within one week after being notified by the engineer, submit a revised programme and network.

Failure on the part of the contractor to submit or to work according to programme or revised programmes should be sufficient reason for the engineer to take steps as provided for in of the general conditions of contract.

The approval by the engineer of any programme should have no contractual significance other than that the engineer will be satisfied if the work is carried out according to such programme and that the contractor undertakes to carry out the work in accordance with the programme. It should not limit the right of the engineer to instruct the contractor to vary the programme should circumstances make this necessary.



The clause covers matters relating to the programme of work, restriction on certain maintenance activities completion and responding time of specified activities, compliance with the specifications and related delay damages and penalties.

The programme should show the proposed scheduling and methods of execution of the works, as well as the resources that will be allocated to each item or phases of the works. Quantities proposed for execution during each month must be shown. In addition, anticipated cash flow for the contract, based upon these quantities , Should be shown following the prescribed format.

The contractor will be expected to progress with the works in accordance with the approved programme and should not deviate from the other of execution shown in the programme without the prior approval of the engineer or his Representative. Should such approval be given an adjusted programme should be produced within seven (7) days and submitted to the engineer for evaluation.

## PS 1.7 Site Facilities Available

## 1. Contractor's camp, offices and storage area

A site will be made available for the contractor's camp, office or depth to be located adjacent to the works. The contractor should be entirely responsible for ensuring that his establishment meets the requirements of the Municipal regulations or by-laws, which may be applicable and should include therefore in his bid rates.

The contractor should also be responsible for ensuring that unauthorized persons do not have access to the site or any construction material stockpiles.

The contractor must provide within 5 days after appointment, a detailed layout of the site indicating positions of all plant, equipment, stores and offices, for approval of the engineer, failing to comply to this condition, the engineer may request the site to be arranged as per the engineer's instruction at the contractor's cost.

2. Source Of Water Supply

Potable water may be available on the site. The contractor should make all arrangements with the operating authorities for a water connection and include for the payment of water used for human consumption in his bid. Water for construction purpose needs to be limited from the domestic water reticulation and other means of obtaining water for construction needs to be discussed and agreed with the Local Authorities and include in his bid rates.

Electric power is available near site. The contractor will however be entirely responsible for arranging a power connection and for payment for all electric power required for



construction purpose. The costs of electric power are to be included in the contractors' bid rates.

# 3. Accommodation Of Employees

The contractor should be permitted to house key personnel only within his camp site(s). at the commencement of the contract, the contractors Should inform the engineer of his intentions regarding the housing of key personnel on site ad he should thereafter ensure that all such accommodation is kept neat and tidy, hygienic and properly controlled at all times.

Should at any stage of the contractor the employer and/or the engineer ne of the opinion that the housing of key personnel within the camp site(s) of the contractor is causing disturbance or inconvenience to the landowner or to nearby residents then the authority granted by this clause for the contractor to house key personnel on site may be withdrawn, either partially or entirely. The contractor Should at all times confirm with all requirements contained in law or bylaw , as well any other requirements set by the controlling local authority.

## 4. Ablution Facilities

Ablution facilities will not be available at the camp or depot site and the contractor should make his own arrangements in this regard.

## 5. Site Correspondence-Instruction By The Engineer

Site instruction by the engineer, addressed to the contractor at his office on the site, will be numbered consecutively and will be deemed to have been received by the contractor's representative unless a break in the sequence of numbers in brought to the notice of the engineer in writing immediately.

## 6. Site Diary

A site diary, which will be supplied by the engineer, must be filled in on a daily basis and submitted to the engineer on a monthly basis. No claims will be considered without the site diary's schedule properly completed 9on a daily basis) and submitted.

## PS 1.8 Site Facilities Required

1. For the contractor

Whatever may be required for the satisfactory execution of the contract?

- 2. For the Engineer:
  - a) One Name Board

F) Site Instruction Book( Engineer To Provide)

Employer



b)	One Furnished Office On Site	G) Protect	ive Clothing (PPE)		
c)	Latrine And Ablution Facilities	H) Safety E	Equipment		
d)	Survey Equipment	I) Medical-	-First-Aid-Kit		
j)	Survey Assistant	К)	Computer	And	Printer

#### 3. Sanitary facilities

Water bome sewerage is not available on site. Chemicals or flush toilets with on-site disposals should be provided and maintained for the use of the contractor's personnel, the engineer and representatives of the employer at all camp sites that the contractor may establish for construction of the works. In addition, the contractor should at all times during construction of the works provide adequate sanitary facilities.

#### **PS 1.69 FEATURES REQUIRING SPECIAL ATTENTION**

#### 1. Existing services

Existing underground services on the site will be pointed out by the engineer. The contractor should in addition, determine whether telephone cables, electric cables and underground pipelines are present that are not shown on the layout drawings, prior to commencements of excavations operations, by contacting the relevant authorities.

Care should be taken that none of these underground services are damaged in any way. Care should be taken that no visual overhead or overhead pipelines on their supporting structures are damaged in any way. Any damage to underground or visual overhead services or pipelines or supporting structures should be repaired at the contractors cost. The contractor should expose all services before working in the vicinity.

#### 2. Work On Private Properties

Where work is to be done near private properties, the contractor should inform the owners in writing that such work is to be done, giving the approximate date of commencement and duration of construction work.

Any reasonable request by the owner for work to be done at a different time with a view to minimizing inconvenience to him and damage to his property should be considered in construction with the engineer.

The contractor should make every effort to speed up the work and to avoid any damage to gardens, walls, paving, underground pipes and cables, fencing and the like or injury to persons and animals to the satisfaction of the engineer. Reinstatement should be done immediately upon completion of the work.

Employer

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## 3. Preservation Of Trees

Special care should be taken that only designated trees are removed and that no damage is caused to other trees during construction.

#### 4. Setting Out Of The Works/Surveying

Setting out of the works is the contractor's responsibility and should not be schedules separately for payment purpose and the cost of setting out should be deemed to be included in the various items included in the contractor. The engineer will provide a reference peg at site handover, at which stage responsibility for the protection of all reference and site boundary pegs reverts to the contractor.

Before the contractor may start any construction work, he should check all reference pegs and beacons and accept their accuracy in writing.

#### 5. Construction Within Limited And Confined Areas

It may be necessary for the contractor to work within confined areas. Except where provided for in the specifications, no additional payment will be made for work done in such confined areas. In certain instances the width of the work to be undertaken may decrease to zero and the working space may be confined. The work method in such confined areas will be determined by the contractor's constructional equipment.

However, the contractor must note that measurements and payment will only be made in accordance with the authorised dimensions, irrespective of the method used for achieving these dimensions, and that no extra payment will be made nor will any claim for additional payment be considered in such cases.

#### 6. Safeguard Reference Beacons

The contractor should take special care to safeguard any permanent survey beacons such as erf corner pegs, reference beacons and level beacons. Should such pegs or beacons be disturbed, the contractor should have them replaced by a registered land surveyor at his own cost. The surveyor should submit the necessary documentation regarding the replacement of pegs and beacons to the engineer for approval.

The contractor's attention is drawn to article 35 (1) of the and survey act no. 9 of 1927, 9 as amended) in this regard.

## 7. Injury By Pegs

All survey and staking out pegs Should be knocked deep enough into the ground so as not to stand proud the surrounding ground or Should be set in a 450 mm minimum diameter concrete collar sloping to the surrounding with a maximum slope of 15<sup>®</sup> to the horizontal and the top of the peg not more than 5 mm proud of the concrete surface.

Employer

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Injuries as a result of the contractor's pegs standing proud of its surround, either during the course of the contract or after its completion should be deemed to be due to the contractor's negligence and he should be held liable for any claims arising out of such injuries.

The contractor should inform the engineer immediately if any pegs are not found on site. The engineer should make notes of all missing pegs and on completion of the work the contractor should expose pegs to the satisfaction of the engineer and any pegs found to be missing and not recorded, Should be replaced at the cost of the contractor.

## 8. Reinstatement Of Walkways And Roads

Wherever the new works cross regular public pedestrian walkways and traffic roadways such works should be fully covered up and completely reinstated to their original condition without any delay.

# 9. Survey Beacons

Whereas excess excavation material will be dumped and spread on even, the contractor should take special care to locate all survey beacons and erf pegs prior to commencing dumping of soil and to ensure that they should not be disturbed by any of his operations. A registered land survey at the contractor's expense should replace any disturbed beacons.

## 10. Site Maintenance

During the progress of the work and at the completion thereof, the site should be kept and left in a clean and orderly conditions to the satisfaction of the engineer. The contractor should at all times store materials and equipment for which he is responsible in an orderly manner, and Should keep the premises free from debris and obstruction.

## 11. Dealing With Existing Services

Existing underground services will have to be located by the contractor at his own cost. Special care should be taken by the contractor not to damage any of the existing services. All exiting services on the drawings are to be verified by the Local Authority before construction commences.

# 12. Training Of Local Labour

The contractor should provide in-service training for labourers recruited from the local community. The training should cover semi-skilled labour activities such as laying of segmented kerbing, etc, and in particular, the laying of interlocking concrete blocks.

Employer

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#### 13. Continuance Of Operation Of Existing Services

All existing services should be maintained in operation, unless prior arrangements have been made with relevant authority and written permission for an interruption of the service has been granted and adequate notice has been given to the affected residents.

#### 14. Sanitary Conditions

Unhygienic habits and other behaviour that may cause contamination of nay part of the works or the surrounding area are strictly prohibited. The contractor should ensure that sanitary conditions prevail throughout the site and that all his workmen are aware of, and company with this rule.

#### 15. Notification Of Night Work And Lighting

If the contractor is given permission, in terms of conditions of contract to work outside the working hours, he Should arrange with the Engineer, in good time, for watching and supervision of the works, he Should be responsible for paying the additional costs of watching and supervising incurred by the engineer and he Should provide adequate lighting for the construction area and access (es) as necessary.

Should the contractor wish to work when the natural daylight is inadequate for the type of work to be undertaken he should at his own expense, provide and maintain in good condition. Adequate high powered flood lighting for all portions of the work over which he is operating.

If, in the opinion of the engineer the resulting illumination is not adequate for the safe and deficient execution of the work, additional lighting plant should be provided at the contractor's expense. Failing this, night works will be prohibited.

#### 16. Dealing With Water

The contractor should take special care in terms of sub clause 5.5 of SANS 1200 A and sub Clause 5.1.3 of SANS 1200 D. a limited Provisional Sum has been provided in the Schedule of quantities, however, the contractor to ensure that dealing of water is excavations or heavy rainfall is covered in all other rates for the execution of the works.

## 17. Community Liaison Officer

A community liaison officer (CLO) from the beneficiary community will be nominated before commencement of construction.

The CLO will be employed by the contractor and remunerated per month for the duration of the construction period, which starts on the date of site handover to the contractor and ends on the date of signing of the completion certificate. The payment of the CLO will be calculated pro-rata and no bonuses or overtime will be paid.

Employer

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A provisional cost allowance has been made in the Bills of Quantities for such remuneration of the CLO. The CLO will attend all site meetings and will be closely involved in the managing and handling of the project to ensure complete co-operation from the community. All hiring, retrenching and disputing of labour is to be referred for his/her attention.

# 18. Project Steering Committee

The contractor should be introduced to the Project Steering Committee (PSC). This will be managed by the municipality. The recruitment and training of local labour and with regard to any aspect of the work which affects the local community will be liaised between the CLO and the engineer. The contractor any not employs any local labourers or sub-contractors without approval of the engineer.

## 19. Health And Safety

In addition of sub clause 5.7 of SANS 1200 A and the Occupational health and safety specification, the contractor Should comply with the Occupational Health and Safety Act( Act no. 85 of 1993) (OHS Act) and in particular it construction regulations 2003. The contractor should apply suitable, proven methods for construction so that his activities will not constitutes a hazard to the public or any adjacent properties.

#### 20. Instruction By Manufacturers

Only when the engineer issues written instructions will any deviations from the prescribed use, mixing application, fixing etc, by the manufacturer of patented materials be acceptable.

## 21. <u>Samples</u>

The Contractor should provide all samples of materials prescribed by the contract documents or the engineer to then engineer without delay. Materials or work that does not comply with the approved samples be rejected.

The engineer is entitled to subject material samples to any test he may deem necessary to ensure compliance with the relevant specifications.

The engineer should keep the approved samples as a reference standard for the duration of the contract. No materials of inferior quality should be used by the by the contractor. All costs incurred in the provision of samples to the engineer should be for the contractor's account.

## 22. Testing And Quality Control

The contractor should employ the services of any approved independent laboratory for testing of materials and workmanship to compliance with the specification.

No extra payment should be made for such tests and the costs incurred in the provision of samples to the engineer should be for the contractor's account

Employer

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## 23. Testing and Quality Control

The contractor should employ the services of an approved independent laboratory for testing of materials and workmanship to compliance with the specification.

## PS 1.10 ABNORMAL RAINFALL- EXTENSION OF TIME DUE TO ADVERSE WEATHER CONDITIONS.

The numbers of days per months on which work is expected not to be possible as a result of normal rainfall, for which the contractor should make provision, is given in table PS 1.10. In his entered rates, prices and programmes the contractor should allow at least for the number of lost working days listed for each month.

Month	Nn(days)	Rn(mm)
January	1.4	89.9
February	1.3	62.3
March	1.8	64.6
April	0.6	28.0
May	0.7	28.8
June	0.3	8.1
July	0	2.8
August	0.1	5.1
September	0.3	12.3
October	0.6	25.3
November	1	53.2
December	1.4	63.7
TOTAL	9.5	444.1

Table PS 1.10- Rainfall

(Based on information obtained from rainfall records available at the Weather Bureau, Department of Environment Affair, Pretoria, the average monthly rainfall figures quoted for Kuruman Weather Station (Station no.\_\_\_\_\_) are included for information only, and Should be taken into consideration for calculation of extension of time. the number of working days lost for December and January allows for builder's holiday from 16 December to 5 January)

During the execution of the Works, the engineer's representative will certify a day lost due to abnormal rainfall and adverse weather conditions only:

- if no work was possible on the relevant working out on any item which is on the critical path according to the latest approved construction programme; or



- If less than 30% of the work force and plant on Site could work during that pacific working day.

Extension of time as a result of abnormal rainfall and adverse weather conditions should be calculated

monthly being equal to the number of working days certified by the engineer's representative as

Lost due to rainfall and adverse weather conditions, less the number of days allowed for as in table PS 1.10, which could result in a negative figure for certain months.

The total extension of time as a result of abnormal climatic conditions, for which the contractor may apply, Should be the cumulative algebraic sum of the monthly extensions. Should the sum thus obtained be negative, the extension of time should be taken as nil.

No extension of time for completion will be granted on account of normal inclement with the formula given below, separately for each calendar month or part thereof. It should be calculated for the full period for the completion for the contract including any extension thereof:

If V is negative and it is absolute value exceeds Nn than V be taken as equal to minus Nn. the symbols have the following meanings:

v = extension of time in calendar days in respect of the calendar month under consideration.

Nw = actual number of days during calendar month on which a rainfall of 5 mm or more has been recorded.

Rw = actual rainfall in m for the month under construction.

Nn = average number of days, as derived from existing rainfall records provided in the table above on which a rainfall of 10.1 mm of more has been recorded for the calendar month.

Rn = average rainfall in mm for the calendar month, as derived from the rainfall records supplied in the table above.

The total extension of times should be the algebraic sum of the monthly totals for the period of construction, but if the grand total is negative the time for completion not be reduced due the abnormal rainfall. Extensions of time for part of a month should be calculated using or rata values of Nn and Rn.

Employer

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#### PS 1.11 REQUIREMENTS FOR ACCOMMODATION OF TRAFFIC

#### a) <u>General</u>

the contractor will be responsible for the safe and easy passage of public traffic past and on sections of roads of which he has occupation or where work has to be done near traffic. Accommodation of traffic, where applicable should comply with SANS 1921-2:2004

#### b) Basic Requirements

The travelling public should have the right of way on public roads and the contractor should make us of approved methods to control the movement of his equipment and vehicles so as not to constitute a hazard on the road.

The contractor should ensure that all road signs, barricades, delineators, flagmen and speed controls are effective and that courtesy is extended to the public at times. Failure to maintain road signs, warning signs or flicker lights, etc. in a good condition constitution ample reason for the engineer to suspend the work until the road signs, etc have been repaired to his satisfaction.

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

The contractor should construct and maintain all temporary drainage works for temporary deviations. The contractor should provide and grant to persons whose properties fall within adjoin the area in which he is working.

#### c) Payment

The Contractor's Bided rates for the relevant items in the Bills of Quantities include full compensation for all possible additional costs which may arise from this and of claims for extra payment due to inconvenience as a result of the modus operandi will be considered. Items that may be considered for payment are specified in SABS 1200 Standardized Specifications and the related project specification.

Employer



#### C3.2 VARIATIONS AND ADDITION TO THE SABS /SANS 1200 STANDARDIZED SPECIFICATIONS.

The following variations and additions to the SABS/SANS 1200 Standardized Specifications apply to this Contract. The letters and numbers following this prefix respectively indicate the relevant Standardized Specifications and clause numbers in SABS/SANS 1200. The following SABS/SANS 1200 specifications should apply for the construction of the Works.

- A General
- AB Engineer's Office
- C Site Clearance
- D Earthworks
- DB Earthworks (Pipe Trenches)
- DK Gabions and Pitching
- DM Earthworks (Roads, Subgrade)
- G Concrete (Structural)
- GA Concrete (small works)
- HA Structural Steel 9sundry items)
- HB Cladding and Sheeting (1985)
- L Medium Pressure Pipelines

In certain clauses in the Standard Standardized and Particular Specifications allow a choice to be specified in the Project Specifications between alternative materials or methods of Construction and for additional requirements to be specified applicable to this contract are contained in this part of the Project Specifications.

The number of each clause and each payment in this part of the Project Specifications consists of the prefix PS followed by a number corresponding to the number of the relevant clause or payment item in the Standard Specifications.

The number of the new clause or payment item, which does not form part of a clause of a payment item in the Standard Specifications and which is included here, is also prefixed by PS but followed by a new number which follows on the new last clause or item number used in the relevant action of the Standard Specifications.



# AMENDMENTS AND ADDITIONS TO SABS/SANS 1200A- GENERAL

	3 3.1	Materials Quality Only SABS approved materials will be accepted to be in incorporated in the Works. Where there is standardization mark of any material, all such supplied bear the official standardization mark. Alternative materials or equipment proposed by the Contractor should be tested.
1	3.1	Only SABS approved materials will be accepted to be in incorporated in the Works. Where there is standardization mark of any material, all such supplied bear the official standardization mark. Alternative materials or
		the Works. Where there is standardization mark of any material, all such supplied bear the official standardization mark. Alternative materials or
		supplied bear the official standardization mark. Alternative materials or
		supplied bear the official standardization mark. Alternative materials or
		-1
		The test, as well as the materials or equipment , must be approved by
		the Engineer prior to any such materials built into the Works.
PSA	5	Construction
	5.1.1	Setting out of the Works.
-	0.11	Special attention is drawn to the need for accurate setting out the
		Works. The Engineer has placed reference pegs on the Site. It is
		contractor's duty establish the correct lines and level and submit them to
		the Engineer for approval. The contractor should employ a competent
		surveyor to set the Works out accurately.
		The permissible deviation from designed lines and location dimensions
		nowhere exceed 50mm in respect of all services constructed under this
		contract. The permissible deviation in levels not exceed 10 mm from the
		levels indicated on the drawings.
		No separate payment will be done for the setting out the Works and the
		rates offered in the execution of the Works must include all activities
		needed for the duration of the Contractor for setting out and the
		protection of the Works.
PSA	New	Quality control by engineer
	Clause	A Provisional Sum has been provided for in the Bill of Quantities for the
5	ciuuse	sole use of the Engineer in order to do quality control on the setting out
		and final levels of the works in progress and /or completed.
		The contractor may not cover up or close any works or part thereof,
		especially related to concrete foundations, strip footings, pipeline
		trenches and manholes, before dimensions, levels or quantities has been
		checked and approval obtained from the Engineer.
PSA	5.4	Protecting of overhead and underground services
4		The contractor must take special care and notice of all existing overhead
7		and underground services and will be held responsible for any damage of
		these services as indicated to him on site by the Engineer. No additional
		payment will be made for the repair or relocation of existing services
		without the instruction of the Engineer.



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Clause	SABS 1200 A	Action Required
PSA 5	8.2 8.2.3	Payments Contract Price Adjustment (CPA)
PSA 6	8.5	Contract Price Adjustment t is NOT applicable to this Bid         Additional Tests         (i) Additional tests required by the Engineer         Unit : Pro Sum         (ii) Charges and profit
		An amount has been allowed in the Schedule of Quantities to cover the co additional tests required by the Engineer. The Engineer will have the authority to use the amount or part thereof under sun item (i).
		The Bided percentage, not more than 10 %, under sub item (ii) will be pa the Contractor on the value of each payment made to the testing authority
PSA 7	New Clause	On-site training
		On-site training is an important element of the Project. The Contractor mist take note of this Clause and give assistance where required in writing by the Engineer.
		<ul><li>(j) Training required by the Engineer Unit : Pro Sum</li><li>(ii) Charges and profit unit : %</li></ul>
PSA 8	New Clause	Electrical Installation
0		A nominated sub-Contractor will be appointed to conduct all electrical installations as required including the application for an Eskom connection, all C.O.C's, testing and completion of the works.
		The appointed Contractor take note of this Clause and make provision to accommodate this nominated sub-contractor on site as instructed by the Engineer.



## AMENDMENTS AND ADDITIONS TO SANS /SANZ 1200AB- ENGINEER'S OFFICER

Clause	SABS 1200 AB	Action Required
PSAB	5	Plant
РЗАВ 1	5.1	The layout of the required Project Name board should be as detailed on the sketch bound into this document at the end of this section. A name board is to be installed at place determined by the Engineer according to drawing. No GC/18/STGov/01/02.
	5.2	Office building and car port
		Office facilities be provided for and furnished for the engineer's representative and maintained for the duration of the contract. The site office facility proposed Should be a mobile container of 6m long, or other approved by the Engineer, and consists of the following minimum requirements :
		<ul> <li>1 x steel door</li> <li>Electrical power supply</li> <li>Insulation and air conditioner</li> <li>Tuff Flooring</li> <li>2 x NC2 windows with burglar bar</li> </ul>
		The mobile office need to be furnished including the following:
	5.5	<ul> <li>a) Office corner table with chair and 4 x visitor's chairs</li> <li>b) One white board mounted to the wall with marker pens</li> <li>c) Racks for hanging contract drawings</li> </ul>
		Survey Assistant and Equipment
		The contractor should make available to the Engineer a survey assistant and provide the following survey equipment on the site for the full duration of the contract :
		<ul> <li>(i) 1 (one) 1 automatic level and levelling staff and</li> <li>(ii) 1 (one) x steel tape of length 30m</li> </ul>
		All equipment will be for the sole use of the Engineer and the Contractor should ensure equipment against any loss, damage or theft and he Should indemnify the engineer against any claims in this regards
PSAB 2	New Clause	Computer and printer
_		The contractor should provide a portable comport to the engineer for the



	duration of the contract. The licensed Microsoft Office 2013 (or attest thereafter) must be installed on the computer. A black/white laser Jet printer is also required on site for the use by the engineer only
ew lause	Accommodation of Engineer's Personnel The engineer will appoint a representative to monitor and devalue the progress of construction and to be on site for at least four (4) days a week. Accommodation for the Engineer's Representative or any personnel appointed by the Engineer will arranged by the engineer paid by the contractor for the duration of the construction period



# AMENDMENTS AND ADDITIONS TO SABS/SANS 1200 C- SITE CLERANCE

Clause	SABS 1200 C	Action Required
PSC 1	3.1	Disposal of Material The Engineer designate the disposal areas within 5km of the Works
1		The Engineer designate the disposal areas within skin of the works
PSC	4	Plant
2		Add the following to clause :
		Labour intensive construction
		The following provision apply in respect of those portions of the Works
		covered by the specification which are required in terms of the contract, to
		be executed utilizing Labour intensive construction methods:
		(a) The contractor should utilize only hand tools such as saws, picks,
		shovels, rakes tampers, sledgehammers etc.
		(b) The use of trucks and other motor vehicles in the disposal of the
		cleared materials will only are permissible in cases where the
		distance over which the materials are to be transported exceeds
		200 meters, provided that no mechanical plant or equipment
		should be utilized in the loading of such vehicles.
PSC 3	5.2.3.2	Individual trees
-		The contractor should pay a penalty of R 2,000-00 for each designated tree
		removed or damaged by him. Trees so designated will be marked with
		danger tape to be supplied by the contractor. Upon completion of the works, the tape should be removed.
PSC	5.3	Clearing
2		Add the following to this clause :
		After completion of the contract the Site should be completely cleared of all building rubble and all loose boulders, tree stumps etc. unearthed
		during the construction period and disposed of in the designated disposal areas.

Employer



# AMENDMENT AND ADDITIONS TO SABS/SANS 1200D -EARTHWORKS (SMALL WORKS)

Clause	SABS 1200 D	Action Required
PSD 1	2.3	Definitions Replace the definition "Borrow" with the following" "Borrow material: Material other than the material obtained from excavation required for the works, obtained from sources such as borrow pits or the authorized of the excavations. "Borrow" have a corresponding meaning."
		Replace the definition " specified density" with the following:
		"Specified density" the specified dry density expressed as a percentage of modified AASHTO dry density.
		Replace the definition "Stockpile" with the following:
		"Stockpile (Verb); the process of selecting and, as may be necessary, loading transporting and off- loading material in a designated area for later use and a specific purpose."
		The term "dispose' and the term "spoil" should be synonymous. Add the following definition"
		"Fill": an embankment soil raft or terrace constructed from natural material obtained from excavations or borrow. In roads it included the earthworks up to the underside of the selected sub grade level.
		Fill (material): material used for the construction of an embankment or soil raft.
PSD 2	3.1.2	Classes of Excavation For this contract classes of excavation will be subdivided as follows:
		<ul> <li>(i) Soft excavation-labour intensive construction Soft excavation should be excavation in material that can be efficiently removed and loaded with picks, shovels and other hand tools.</li> <li>(ii) Soft excavation – machine excavations This type of excavation will only be permitted on instruction by the engineer</li> </ul>
PSD 3	3.2	Classification for placing purposes Add to Sub clause 3.2: "All backfill material should be material having a CBR of at least 3% at 30% of Mod AASHTO density. All backfill should be placed in layers not exceeding 150 mm of thickness and compacted to a minimum of 90% of Mod AASHTO density at optimum moisture content. Maximum particle size not exceed two-thirds of the thickness of the layer being compacted.



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1200 D         PSD       3.3         4       Add the following to the sub clause:         "Selection in borrow pits and excavations         The approval of a borrow area for a cer		
necessarily mean that all material within t the specified purpose. What it does mean, contains some suitable material. The one ensure that only material that is indeed su used for the specified purpose.	nat area s that th s is on	is suitable for e borrow area contractor to
Where the contractor is required to excavations for a specific purpose, the above borrow areas apply mutatis mutandis to exc	e provisi	ons relating to
PSD 5 Construction		
6 5.1.1.1 Barricading and lighting		
Re-word Sub-clause 5.1.1.1 as follow:		
" in terms of sub clause 13 (h) of the Gener the Machinery and Occupational Safety Ac as published in the Government Gazette dated 30 May 1986, every excavation whi public , or which is adjacent to public road whereby the safety of persons may be enda (a) Adequately protected by a barrier or	t 1983 (A No. 102) th is acc s or tho ngered S	Act 6 of 1983) 52 Volume 51 cessible to the roughfares, or hould be:
(a) Adequately protected by a barrier of metre high and a s close to the excav and		
(b) Provided with red warning lights, boundary indicators at night or when poor.		
The contractor employ watchmen to and lights are effective at all times.	ensure t	hat barricades
PSD 5.1.4 Nuisance		
7 Add the following to the sub clause:		
The contractor take all necessary precauti		
water and noise disturbances occurring as a		_
works and will obtain special permission	from th	e engineer to
work after hours and on weekends       PSD     5.2.5       Transport		
PSD5.2.5Transport85.2.5.1Free haul		
Amend Sub clause 5.2.5.1 to read:		
"The free haul distance within which t	ne cont	ractor will be
required to move material without separat		
be within a radius of 5, 0 km of the centre of		
Employer Witness 181 Contractor		Witness



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		This will not be restricted to the site may include the hauling of
		fill/selected material from the nearby quarry or designated borrow
		site and all haul within this radius will be regarded as free haul."
PSD		Tolerance
9	6	Position dimensions, level etc
	6.1	The work Should be prepared and finished to degree of accuracy II
		and the permissible deviations (PD) Should, subject to sub clause
		6.3 of SABS 120 A, be within the limit as set out in the table
		contained under this sub clause
		All excavation horizontal surfaces intended to serve as foundation
		areas for blinding and concrete work must be cleaned from loos
		material, levelled and compacted to the tolerance required under
		SABS 1200G Item 6.2.3
PSD	New Clause	Rip and re-compact bottom of excavations
10	New Clause	hip and re-compact bottom of excavations
10		
		Rip 150mm deep into bottom of excavations as indicated by the
		Engineer, re-compact to 93% MOD AASTHO density to optimum
-		moist



# AMENDMENTS AND ADDITIONS TO SABS /SANS 1200DB-EARTHWORKS (PIPE TRENCHES)

Clause	SABS 1200 DB	Action Required
PSDB 1	3.1	Classes of excavation The excavation of material will for purposes of measurements be classified
PSDB 2	5.1.2.1	as specified in PSD-Earthwork Throughout the Works Delete the words" and seepage" from the last line and replace with the following:
		"Seepage. Or from any other source The contractor is to take every precaution to prevent water from any source entering the trench. Where the trench crosses or runs adjacent to a stream or watercourse, the contractor should take all measures necessary to prevent the entry of water into the trench, and Should design and construct any temporary embankments, diversion channel or overpass, and supply and operate such pumping plant as may be necessary for this purpose.
		The proposed plan of the de-watering system should be submitted to the Engineer for approval prior to the installation of the system. The contractor will remove any water, including seepage, entering the trench immediately. If required by the engineer, the contractor Should leave unexcavated blocks at least 1 m thick and not more than 100m apart in the trench to prevent the flow of storm water down the trench. The unit rate for excavation Should cover costs of storm water diversion and protection, and the de-watering."
PSDB 3	5.1.3	Accommodation of traffic and access of properties Add to Sub clause 5.1.3 " in addition to the requirements of sub clause 5.1.3 the contractor be held responsible for the efficient barricading, lighting and watching of all open trenches and mounds of stockpiled material, and Should be required to make the necessary precautions in accordance with the OH&S Act.
PSDB 4	5.2	Minimum Base widths specified Add to sub clause 5.2: " trenches sided Should be as near vertical as possible in order to avoid possible difficulties where pipeline have to be installed parallel to existing services fences, hedges etc. Where trenches are excavated adjacent t boundary pegs a TLB with offset bucket Should be used to minimise the disturbance of pegs. The re-location of any pegs disturbed Should remain the responsibility of the contractor.
PSDB 5	5.6.1	Backfill-General Add the following to sub clause 5.6.1 "Notwithstanding the requirements of sub clause 5.6.1 and 5.6.6 no pipe joint or pipe filing Should be covered by either the blanket fill or the main prior to the successful completion of the visual inspection, and the pressure testing of the relevant section of the pipeline."



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Clause	SABS	Action required
	1200DB	
PSDB	5.6.2	Materials and Backfill
6		Amend second sentence f Sub clause 5.6.2 to read:
		"Hand and rock material Should not be used for, or incorporated in, the backfill material used in the main fill above the bedding layers without the engineer's approval. This material may however be sifted to obtain suitable backfill quality material. Only soft material, with no rock fragments or pebbles larger than 19mm will be allowed to be spread along the pipe route."
PSDB	5.6.3	Disposal of surplus material
7		Add to sub clause 5.6.3 and 5.6.4
		" all surplus material from trenches excavation Should be spoiled in the spoil
PSDB	5.6.4	Disposal of intermediate and hard rock
8		Surplus and /or unsuitable excavated material must be disposed of at a site



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		found by the contractor and approved by the engineer.
PSDB	5.6.5	Deficiency in backfill material
9		Any deficiency in backfill material from trench excavations because of removal of excavation quantities of organic material, unsuitable parts of the trench bottom, intermediate or hard rock, Should be made up from suitable surplus material from other excavations on the site or borrow pits as approved by the engineer
PSDB 10	5.6.8	Transport for earthworks for trenches For this contract all haul will be regarded as free haul and the cost of transportation of all materials will be deemed to be included in the rates and prices Bided in the schedules of quantities. No overhaul will be payable on this contract.



# AMENDMENTS AND ADDITONS TO SABS/SANS 1200G-STRUCTURAL CONCRETE

Clause	SABS 1200G	Action required
PSG 1	3.2 3.2.1	Cement Cement Should be ordinary Portland cement complying under the requirements of SABS 471 specifications.
PSG 2	3.4	Aggregates The fine aggregates Should comply with the requirements of SABS specification 1083. Samples of the fine aggregate intended for use on site Should be submitted to b=the engineer for approval at least 14 days before concrete work commences. A concrete mix design must be submitted to the engineer at least 14 days prior to any concrete works, for approval. The contractor will be solely responsible to ensure the required proportions of the ingredients and the size for the course aggregate for the class of concrete for all concrete work is strictly adhered to.
		Concrete cubes must be prepared as per the condition of an accredited laboratory and SABS provisions to be prepared and submitted to the engineer of results as on 7days, 14days and 28days after concrete has been poured. The minimum volume of uncompact freshly mixed concrete required in terms of SABS methods 861 for a designated test. 16dm <sup>3</sup> for the compressive strength test for 3 cubes of 150mm x 150mm x150mm. At least three(3) sets of sample Should be taken from each day's casting and from at least every 50m <sup>3</sup> of each grade placed. For more than 50m <sup>3</sup> , 6 sets of samples Should be taken
PSG 3	4.5 4.5.2	Formwork Finish Add the following to this sub clause Formwork Should include shuttering and cantering od material required for the installation of the foundation floor and ground beams and Should embrace all clears, batters, wedges and braces and other material for keeping all in correct positions. All materials used for formwork must be suitable and substantial and all joints must be tight enough to prevent leakage of liquid matrix. Where smooth timber formwork is used as shutters, the formwork
		surfaces in contact with the concrete Should be properly cleaned and shutter oil applied to these surfaces. Care should be taken to ensure that all formwork is wedged up correctly and that the specified heights and positioning is maintained before concreting commences and after completion of the concrete.



Clause	SABS	Action Required
	1200 G	In normal weather conditions) +15°Cto 32°C) the formwork to the sides
		of the surface bed and ground beams may be removed after 18 hours and in cold conditions (5 <sup>®</sup> C to -15 <sup>®</sup> C) after 36 hours.
		The formwork Should be any material approved by the engineer, which is to be used to leave concrete surfaces smooth when removed, and no other finished is to be applied. The contractor Should allow in his bided price include for rubbing off all projections at seams, etc after removal of the formwork, making good any defects with 2:1 cement/water mix and leaving a smooth surface with all arises slightly rounded, all to the satisfaction of the engineer.
PSG	5	Construction
4	5.1	Reinforcement Notwithstanding the specifications under this sub clause, the contractor must take special note regarding the following:
		Reinforcement must be of the specified grade, dimensions and bending codes as provided on the needing schedules and drawings. Concrete cover must be in accordance with the dimensions on the drawings and spacer blocks, as approved by the engineer , must be placed and will be inspected before placing of concrete
		a) Mild steel Mild steel Should comply with the requirements o SANS920:2005 (250MPS)
		<ul> <li>b) High tensile steel</li> <li>High tensile steel Should comply with the requirements of SANS 920:2005 (450MPa)</li> </ul>
		c) Reference mesh Reference mesh to be per engineer's specifications and according to the drawings and welded steel fabric reinforcement Should comply with the requirements of SABS specification 1024 and include 200mm overlaps
		<ul> <li>d) Binding wire</li> <li>e) ]reinforcement steel Should be firmly fixed in lace with 1.6mm galvanised steel binding wire as per bending schedules and inspected by the engineer before any concrete is poured.</li> </ul>
		<ul> <li>The contractor Should be responsible :</li> <li>To keep all reinforcing steel free from rust, scale and othe foreign matter before and after installation up to the placing o the concrete</li> </ul>
		<ul> <li>For the correct placing of reinforcing steel and all othe materials, stools wedges, steel clips, stirrups. Splice bars etc, to</li> </ul>


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		<ul> <li>keep the reinforcing in the correct heights and positioning</li> <li>To maintain all the minimum concrete cover measurements of the concrete to reinforcing as per the drawings</li> <li>The concrete cover Should be measured from the face of the concrete to the outside of the reinforcement nearest the face of the concrete and Should exclude plaster and similar finishing materials.</li> <li>The contractor Should allow is his bided prices for all steel reinforcement to include for cutting and waste , bending, hooked ends, biding at lapping and intersection with annealed wire, hoisting and maintaining in position whilst the concrete is being deposited and cover blocks and spacers in accordance with the relevant SABS Codes of Practices.</li> </ul>	
PSG	5.1.3	Cover	
5		Unless otherwise stated o the drawings , concrete cover Should be according to Table 1 as given under this sub clause	
PSG	5.5	Concrete	
6	5.5.1	Quality	
		Add the following to this sub clause:	
		The contractor is to ensure that his personnel responsible for the	
		construction of all concrete works Should be skilled in this class of work	
		and Should personally supervise the whole construction, paying special	
		regard to:	
		The quality, testing and mixing of the materials the placing and thorough compacting of the concrete to ensure solidity and free of void. The erection and removal of formwork. The sizes and he positioning of the reinforcement.	
		NO CASTING OF CONCRETE CAN COMMEMCE WHEN TEMPERTURE REACHES 5®C AND LOWER	
		Particular care Should be taken to working the concrete against the framework and around the reinforcement. Internal vibrator may be used only u[on approval by the engineer. External vibrators to be used on the framework will be not permitted.	
		The contractor should ensure that standby vibrator is on hand at all times during the placing of concrete. Concrete Should deposited in such qualities , as will be permit for the proper placing and compaction around the reinforcement before settling in of the concrete starts.	
		The placing of concrete Should be completed within half an hour after mixing or within one(1) hour after mixing in the case of ready concrete. On no account concrete be incorporated after it has attained its initial set. Care Should be taken to prevent the formation of laitance of scum.	
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Clause	SABS 1200G	Action Required	
PSG 7	5.5.1.7	Strength concrete The contractor Should be responsible for the design of strength concrete and the submission of test cube results to an approved laboratory, and the measurements of the constituent materials to produce concrete that complies with the requirements of the engineer. The grade and nominal aggregate will be specified by the engineer on all drawings and in specifications of the strength of concrete required, and where applicable, on different sections or parts of the works.	
PSG 8	5.5.7	Construction and expansion joints All joints must be sealed as per drawing strictly in accordance with the manufactures' instructions. A certificate of approval must be supplied by the manufacturer after installation. Payments will be made on a lineal meter basis only. The contractor is to allow for width and depth variations as well as the supply and installation of all materials required to maintaining and /or filling joint complete as per drawings in his rates.	
PSG 9	5.5.8	Curing of concrete Add the following to this sub clause : It is of utmost importance to ensure that the drying out of the concrete is done under controlled circumstances. it is important that the concrete is covered with plastic sheeting and constantly kept damp for not less than 4 days . After formwork has been removed and as soon as it is practicable in the opinion of the engineer., all concrete Should be protected from contamination and loss of moisture by one or more of the following methods:	
		<ul> <li>a) Ponding the exposed surfaces by means of water</li> <li>b) Covering the concrete with sand, or mats of moisture retaining materials, and keeping the covering continuously wet</li> <li>c) Continuously spraying the exposed surfaces with water</li> <li>d) Covering the concrete with waterproof of plastic sheeting firmly anchored at the edges.</li> </ul>	



# AMENDMENTS AND ADDITONS TO SBAS /SANS 1200H-STRUCTURAL STEEL WORK

Clause	SABS 1200 H	Action Required		
PSH 3 1 3.1		Materials Structural steel		
		Steel used in the fabrication of structural steelworks Should comply with the requirements of SABS 1431 for steel specified on the drawings and specifications'		
PSH	3.5	Welding consumables		
2	3.5.3	Quality Welding Should be such that end result with produce weld metal that when tested with the applicable methods given in BS 709, has a minimum yield stress and minimum tensile strength at least equal to those of the parent metal		
PSH 3	3.6	Bolts, nuts and washers All bolts , nuts and washers Should comply to SABS 135, SABS 136 and SABS 1143		
PSH	5	Construction		
4	5.1.1	Design ad shop drawings		
	5.1.2	The structural steel drawings together with the welding and fastening detail given on the drawings are for information only. The contractor Should submit to the engineer for approval shop drawings with detail on the welding and fastening members as per specifications from his supplier and manufacture, of which approval by the engineer Should not be withheld unreasonable		
		These drawings Should be submitted at least 14 days before manufacturing and the engineer Should be given opportunity to inspect the structural steel at the work shop of the suppliers/manufacture at least two (2) weeks before it is delivered to site		
PSH 5	5.2	Manufacturing No alterations, drilling of holes or welding on structural steel elements will be permitted on site without the approval of the engineer.		
PSH	5.3	Assembly		
6		The contractor Should take special care towards the assembly of the structural steel elements on site in order not to harm or be safety risk to construction workers		
PSH 7	5.4	Setting out Before the contractor commence with the erection of the steel works on site, he Should check that the setting out and the levels of the holding down bolts Of the concrete foundations, beam faces, columns etc, are in accordance with the specifications and drawings and Should report any discrepancy to the engineer.		
PSH	5.5	Erection		
8		The contractor Should present to the engineer , one week before commencing with erection, erection procedures and methods of erection.		

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6	Tolerances	
6.2	Tolerance on dimensions and accuracy if erection	
	A degree of accuracy II Should be maintained in accordance with the table	
]	given under sub clause 6.2.2	
7	Testing	
7.2	Inspections	
	The engineer should have access at all reasonable times to all places, including the site where the structural steel is manufactured and assembled and Should be provided with all necessary facilities to inspect and test all stages of manufacturing and construction of the structural steel elements	
	6.2	



# AMENDMENTS AND ADDITIONS TO SABS/SANS 1200HB- CLADDING AND SHEETING

Clause	SABS HB	1200	Action required	
PSHB 1	3.1 T		Materials Thickness of sheeting The roof should comprise 0.6mm corrugated chromadek roof fastened	
			to either light steel or timber portal frames as per the specifications and drawings and Table 1 for weathering sheeting.	
PSHB	3.2		Sheeting	
2			Unless otherwise specified profiled metal roofing sheets should be used and fitted all in accordance with SABS Code of Practice 0237	
PSHB	3.7		Fasteners	
3			Fasteners and washers should be of the required types as per the specifications and on the drawings and should be capable to resisting all stresses sue to temperature changes and when festering and used for securing the sheeting	
PSHB	5.2.2		Storage and maintenance	
4			The stacking of roof sheeting on the site should be done as per the engineer's instruction, in any area under roof. The sheets should be free from any damp or water and stored as such that any incidental damp can run off.	
			Any indication of "white rust" detected in its early stage Should be treated with solvents as per the engineer's instructions. No sheeting with evidence of serve "white rust" Should be allowed on site.	

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# AMENDENTS AND ADDITIONS TO SABS/SANZ 1200-MEDIUM PRESSURE PIPE

Clause	SABS 1200 HB	Action required	
PSL	3	Material	
1		Materials as specified in the schedule of quantities	
PSL	5	Construction	
2	5.1.4	Depth and cover	
		The minimum cover over prices Should be 600mm	
PSL	5.3	Setting of valves , specified and fittings	
3		Valves Should be locked as shown on drawings	
PSL	5.6	Valve and hydrants chambers	
4		In the case of valves on pipeline 90mm diameter and larger, as an alternative to the construction of valve chambers in brickwork, they may be formed may placing a suitable length of 150m diameter pipe, with both ends cut square over the valve top, so that it rests on the valve glad and capping and pipe with a CI box set in a 100mm thick square concrete collar with 450mm sides.	
PSL		Connecting to existing	
5		Where shown on the drawings, new mains Should be connected to existing mains around the town by cutting and lifting one or more existing pipes, cutting them to the correct length and finishing off the cut ends and relaying them together with the required tee-piece according to the specifications for new pipes, including jointing, bedding and backfilling, thrust blocks and the like.	
		Tee-piece should be supplied in a complete material of the pipe to be cut into. In the case of existing steel mains, cut pipe should be fitted with flanges and the tee-piece should be flanged as required.	
		Connecting to existing mains will be scheduled and measured for connection by the size of the pipes. The rates per item Should cover excavation and opening up of sufficient length of the existing main , cutting , lifting , finishing off and adapting cut ends , additional joints, laying bedding , extra payment will be made over and above the rates I respect of additional cutting, finishing off and joining required for the precise location of the tee-piece or for replacing pipes and joints damaged during the connecting operations ,	

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#### C3.2.1 PARTICULAR SPECIFICATIONS

#### WP WATERPROOFING

### WP-1.1 Damp – Proof Course

The horizontal and vertical damp-proof course should be of black polyethylene sheets complying with SABS 952: Type B having embossed surfaces, 375 microns and manufactured in widths less than 100mm under all walls and windows, USB Green Layer 170<sup>®</sup> or similar approved by the engineer.

The damp-proof course should be the full thickness of walls above the foundations and should be laid without longitudinal joints. At end joints angles and intermediate junctions the sheeting should be lapped for 150mm. where so required all laps should be sealed over the whole area of laps as recommend by the manufacturer. Care should be taken not to tea or otherwise damage the sheeting. Damp-proof course is unbroken lengths should be laid behind all window sills, sealed with an approved bituminous solution to the back of the sills and taken down within the wall thickness and under the first full course of external brickwork.

Note: no damp-proof course should be laid directly below the mortar or other bedding material under sills.

# WP-1.2 Damp-Proof Membrane

the damp-proof under the surface beds, Should, unless otherwise specified, be of green polyethylene sheeting complying with SABS 952: Type C- plain surface-250microns and manufactured in widths of 1000mm and greater, all laid in the widest practical widths to minimize joints, turned up and dressed to load bearing walls and if applicable, lapped with the damp-proof course in the walls, USB Green Layer 250° or similar approved by the Engineer.

All joints should be sealed with pressure sensitive applied over the leading edge of the joint.

Note: all cutting of plastic membrane should be carried out using sharp instruments.

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### **BW BRICKWORK**

# BW -1.1 Lining (Mortar 4:1)

Lining should be hydrated bedding mortar lining complying with the requirements of SABS 523.

### BW -1.2 Cement

As prescribed in CF -1.1

# <u>BW – 1.3 Sand</u>

Sand should comply with the requirements of SABS specifications 1090.

Masonry units should have an average and minimum individual compressive strength of not less than that contained in the table below:

Description	200mm wall	110mm wall
Foundation brick work	20 MPa	20 MPa
Outside all-Face brick	33 MPa	30 MPa
Inside wall- Stock brick	15 MPa	15 MPa

The supplier of the bricks must provide a test certificate issued by an accredited laboratory certifying the compressive strength of each delivery incurred for the tests be for the contractor's account.

# BW -1.5 Cement Mortar (4:1)

Mortar should be Class II mortar having a minimum compressive strength at 28 days, in accordance with SABS 1064-1 of:

- 18MPA is respect of preliminary (laboratory ) tests, and
- 11MPA is respect of works tested on site

Cement mortar should be composed of four (4) parts by volume of sand and one (1) part of cement by volume. The contractor should provide to the engineer regular test results of the mortar. The material should be mixed dry until uniform in colour and the water added and the mixture turned over until the ingredients are thoroughly incorporated.

Cement mortar should be produced in such quantities as can be used before commencing to set as no mortar that has started to set should be used in any way.

Care should be taken when mixing mortar to first remove any old mortar from the mixing machine or platform before preparing the new batch to be mixed, as not set mortar must be incorporated into any new batch.

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### <u> BW – 1.6 Brickwork</u>

Brickwork should throughout be laid by Stretcher Bond with no false headers. Brickwork should be built level and placed with cement mortar as specified in BW-1.5.

Bricks should be laid on a solid bed of mortar and joints thoroughly grouted up solid throughout the whole width of each course.

The brickwork should be carried up in a uniform manner, no one portion being raised more than 1m above another section of brickwork at any one time.

Bricks should be well saturated in water in the stack or clump +- 2 hours before being used. The tops of walls left finished should be well wetted before work starts the following day.

Note: all rough and fair cutting, raking cutting and cutting of splays, skewbacks chamfers, etc should be properly performed using angle grinders or similar cutting tools.

Form or leave all necessary openings for pipes etc. and make good after pipe, etc are fixed in position.

# BW -1.7 Mortar Joints

Mortar joints in brickwork are normally 15mm thick with level bedding joints and vertical joints. The joints in brickwork for this project will flush jointed as the walls are finished off in plaster bagging.

# BW – 1.8 Brick Walls- Reinforcement To Walls

brick walls Should be built in cement mortar as described in clause BBW-1.5 and reinforced with brick force, 1 row for 3 coursed in height, except over window frames where reinforcement or pre-cast lintels Should be built –in, in every row of brickwork with end laps extending 300mm either side of the daylight opening of the window.

The reinforcement should be lapped 150mm at corners. Brick force should be two 2,8mm diameter hard drawn wires joined with crosswire and placed at every course below plinth level and then every 3<sup>rd</sup> course. Internal walls should be bound to the external wall with brick force every 3<sup>rd</sup> course and the joints pointed.

# BW -1.9 Beam Filling

Beam filling should be built up in mortar, cut in between roof steel and carried hard up to the underside of the roof covering and flushed up with mortar. Where fair raking cutting was done at gable ends, brick in fills in cement mortar should be taken flush up to the underside of the roof covering and trimmed around the steel purlins and spaces between roof covering and top of walls properly grouted.

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# BW-1.10 Finishes To Brickwork

External and internal walls (Face brick) should be cleaned of all mortar and washed off to the engineer's satisfaction. All internal plastered walls, as indicated on the drawings, will be plastered and painted as per finishing schedules.

# BW-1.12 Pre-Stressed Lintels/Deformed Rebar over Openings

Pre-stressed, pre-cast concrete lintels over window frames and clear openings in Should be built in over the frames or openings in one or half brick walls.

BW-1.12 Builds In

### **Doors and windows**

Doors and window frames should be set up in position for building in and securely strutted to prevent distortion whilst the brickwork, lintels etc, are being build. Pressed steel doorframes should be grouted in solid between the frame and adjacent brickwork as the wall proceeds.

### BW-1.13 Bedding And Pointing

All door and windows frames should be bedded and pointed in 1:4 cement mortars. Steel doors and door frames should be carefully pointed all round and made perfectly watertight.

#### BW-1.14 Expansion Joints

Depending on the geotechnical investigation results, expansions joints will be introduced in the surface beds and walls. Construction will be according to the engineer's specifications and drawings and the rates offered must include for the supply, delivery and installation of such joints. Rates offered also include for all off-cuts and wastage.

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#### CJ CARPENTRY AND JOINERY

### CJ -1.1 Wooden Doors

All doors should be the type and size in accordance to SABS 545 and hung to steel door frames on steel butt hinges as indicated on the drawings and finishing schedules. Painting, sealing and treatment of doors to engineer are specifications.

All doors to be hung in such a way that the completed door functions smoothly and perfectly.

The clearance gap between door and frame after hanging should not exceed 2mm at sides and head of door.

Any doorframe found to be distorted or out of plumb should be reported to the engineer before any door is hung to such a frame. Failure to report the defect will result in the contractor being held liable for all rectification work at his own cost.

When hung, no strain on hinges should be detectable due to hinge binding. Depending upon the hinges supplied with pressed steel doorframes the hanging edge of the door may be angled back slightly from the hinge face of the door to obviate such binding.

any door too tall or wide to fit the frame should be reduced in side by removing material equally from both sides- removing material from one edge inly will not be permitted.

Mortice locks, where specified are to be fitted into the mortice with the face plate flush with the edge of the door. In flush doors the mortice is to be deep enough to accept the lock but must not penetrate through the core of the door.

# CJ-1.2 Timber Roof Trusses

Roof trusses should be designed, manufactured and installed in accordance with Part "A" and "L" of the National Building Regulations. the bills of qualities allows for both timber and light steel roof trussed to be priced, however, final decision remains with the employer.

# CJ -1.3 Facia boards and other roof finishes.

Specifications and requirements of the facials and other roof finishes as indicated on the engineer's drawings not to be deviated from and must be included rates offered in the bills of quantities.

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#### **IM IRONMONGERY**

All ironmongery should be of the best quality and SABS approved and as described in the Bid document. Articles should be fixed with the proper type and matching screws. No key should pass a second lock unless Master-key.

IM-1.1 Fixing

Ironmongery should be taken as fixed to wood/steel/brick surfaces unless otherwise described and per manufacturer's specifications.

All screws, nails, bolts etc. required for completion of the work should be supplied by the contractor.

External doors should be fitted with a 3-lever mortice lock with chromium-plated for furniture, with 2-keys tagged and numbered and handed to the Site Supervisor on Practical Completion.

Internal doors should be fitted with 2-lever mortice with chromium-plated door furniture, with 2- keys tagged and numbered and handed to the site supervisor on practical completion

Employer



#### **MW MENTAL WORK**

### MW-1.1 Door frames, window frames and security gates

All frames should be of 1.2mm thick standard pressed steel with 3 pair of hinges to suit type of door, complete with stiles and top rail. with proper bracing at bottom to prevent distortion and supplied with 6 x T-section ties fitted into the back of stiles and built into brickwork at evenly spaced centres from top to bottom. All frames to suit relevant wall windows as indicated on the drawings and contained in the schedules.

all pressed steel door frames should be delivered to site thoroughly cleaned of rust, scale, oil and grease, all in accordance with SABS code of Practice 064 and then be factory finished with 1 coat of red oxide zinc primer complying with SABS specification 909 before leaving the workshop.

All damaged primer coatings should be repaired with red oxide primer before being built in.

### MW-1.2 Roller Shutter Doors

Roller shutter doors are to be installed in the kitchen and tuck-shop areas as per engineer's instruction and finishing schedules.

#### MW-1.3 Steel Louvers In Roof

Steel louvers are to be installed in the roof tops as indicated on the drawings. These items to be supplied by specialists and the rates offered in the bills of quantities to include for manufacture, supply, install and any overhead costs to accommodate the specialist.

Samples of the louvers to be submitted to the engineer prior to ordering.

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### PL PLUMBING AND DRAINAGE

Water pipes to the main connection should be 25 m HDPE class 16 laid at a minimum depth of 600mm connecting to the local water supply network as per specifications and drawings.

Water meter secured inside a valve chamber should be supplied and installed in compliance with requirements of the operating authority.

All drain pipes should be 110 diameter uPVC laid to a minimum fall of 1:80 with minimum cover of 600mm. a vented gulley with precast concrete top should be provided.

All waste pipes to be 40 mm external diameter.

The bided price for the unit Should include for all plumbing fittings, waste fitting and pipes, all suitable taps, connectors, P- or S trap, copper water supply and fittings including fixing to wall, connecting up to main water and sewer lines and all other costs to complete the installation of the unit.



### **GL GLAZING**

GL1.1 Glazing Should is accordance with SABDS 0137-2000 code of practice.

The bided price for glazing Should be deemed to include putty, springs, pegs or clips, if any glass in panes up to and including 1.5.m<sup>2</sup> Should be clear float glass of "GG" quality and of 4mm thickness.

Obscure glass for glazing should be an approved figured rolled glass having a minimal thickness of not less than 4mm up to a surface area of up to 0.6m<sup>2</sup>.

All windows should be glazed in clear float glass except the bathroom window which Should be obscure glass.



### **PP PLASTER AND PAIN**

Internal walls, as indicated on the drawings and finishing schedules will be plastered and painted to the following minimum specifications.

Plaster - 15mm thick Class II mortar with smooth steel float finishing

Paint - As per finishing schedules



# **C4 SITE INFORMATION**

This section contains information that describes the site as at the time of Bid, to enable the Bidder to price his Bid to decide upon his method of working and programming.

Section C4 contains the following information:

- 1. Site Facilities available
- 2. Site Facilities required for the Engineer
- 3. Geotechnical Information



### 1. SITE FACILITIES AVAILABLE

### Water for construction purposes

The contractor must make his own arrangements with the water supply authority for the use of water for construction purposes. No additional payment will be made in this regard and the Contractor must allow in his rates therefore.

# Portable water

The contractor will be allowed to make use of the temporary connection on site to with \draw water for drinking purpose. The cost of the water actually used during the construction period will however be for the cost of the contractor. The contractor should make his ow arrangements with the water supply authority for the connection and should pay all the prescribed connection fees and charges for the contract and must allow in his rates for all such payments.

# Source of power supply

The contractor should make his own arrangements with the electricity supply authority for the connection and should pay all the prescribed connection fees and charges for the duration of the contract and must allow in his rates for all such payments.

Sanitation and public health on site-

No sanitation is available on site and the contractor should make his own arrangements for temporary facilities and further ensure that as for a practical, suitable arrangements are made on the site for the maintenance of health, the prevention and overcoming of outbreaks of disease and of adequate first aid and hygienic services.

For this purpose the contractor should provide and maintain a first aid post to suit the needs of his construction staff, as well as staff of the engineer.

# <u>Housing</u>

The contractor should not be allowed to house his personnel on the site and should make his own arrangements in this regard. Security personnel will however be allowed to stay at the campsite.

# 1. SITE FACILITIES REQUIRED FOR THE ENGINEER

Refer to Project Specifications (PS1)

# 2. GEOTECHNICAL INFORMATION

The Bidder must acquaint him/herself with the site and soil conditions. A Geotechnical investigation report available from the Engineer's office.

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