

JOUBERTINA POLICE COMPLEX: ERF 1200: REPAIRS & MAINTENANCE OF ELECTRICAL, CIVIL, MECHANICAL & STRUCTURAL ELEMENTS OF THE COMPLEX COMPLETION CONTRACT

BID NO. : PE25/2022

REFERENCE NO. : 19/2/4/2/2/6417/24

CONSISTING OF THREE VOLUMES

VOLUME 1 – TENDERING PROCEDURES

VOLUME 2 – RETURNABLE DOCUMENTS

VOLUME 3 – THE CONTRACT THIS DOCUMENT

Compiled by:

National Department of Public Works Eben Donges Building PORT ELIZABETH 6001 Issued by:

QAPELA QUANTITY SURVEYORS (PTY) LTD 16 Jarvis Road,

Berea

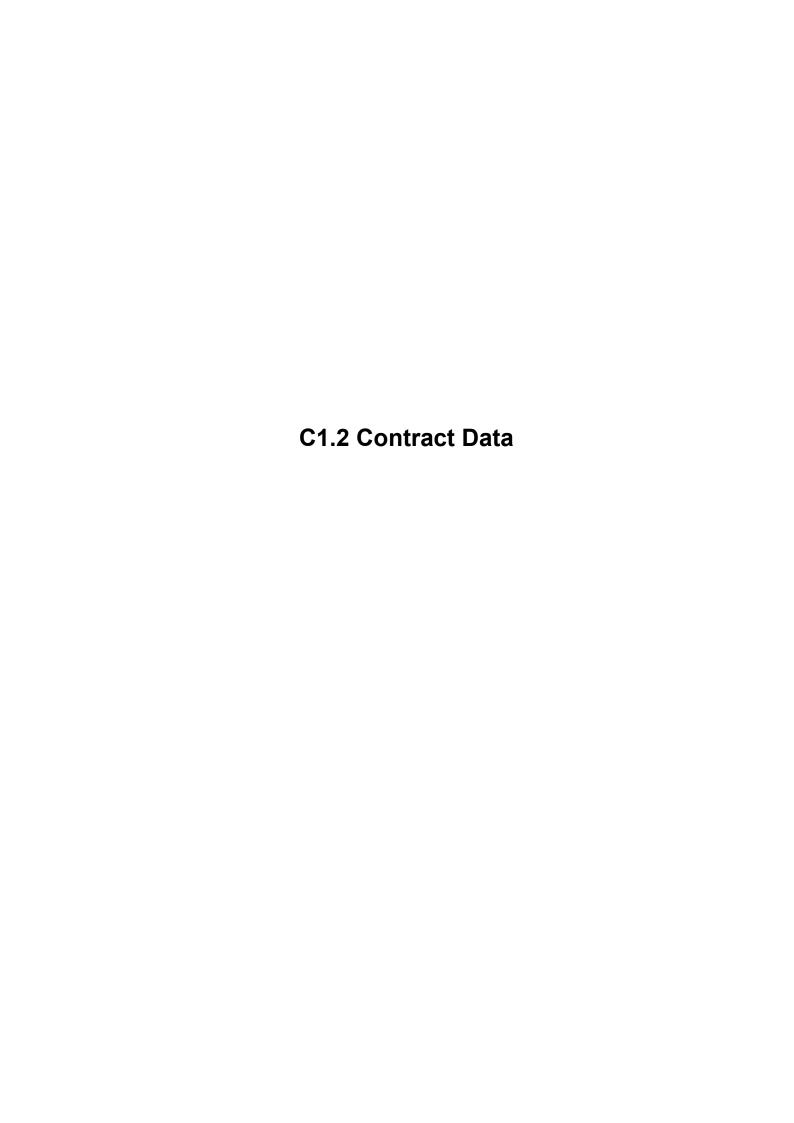
EAST LONDON

5241

NAME OF BIDDER:



Part C1: Agreement and Contract Data





DPW-04 (EC): CONTRACT DATA: JBCC PRINCIPAL BUILDING AGREEMENT (Edition 6.2 of May 2018)

Project title:

Joubertina Police Station ERF 1200: Repairs & Maintenance of Electrical, Mechanical, Civil & Structural Elements to the Complex: Completion of Contract 1.

Tender / Quotation no:	PE25/2022	WCS no:	051843	Reference no:	19/2/4/2/2/6417/24
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The Conditions of Contract are clauses 1 to 30 of the **JBCC**[®] Principal Building Agreement (Edition 6.2 of May 2018) prepared by the Joint Building Contracts Committee.

Contractors are cautioned to read the JBCC PBA and Contract Data (DPW-04 (EC)) together as some clauses in the JBCC PBA have been amended in the Contract Data (DPW-04 (EC)).

Copies of these conditions of contract may be obtained through most regional offices of the Association of South African Quantity Surveyors, Master Builders Association, South African Association of Consulting Engineers, South African Institute of Architects, Association of Construction Project Managers, Building Industries Federation South Africa, South African Property Owners Association or Specialist Engineering Contractors Committee.

Bidders to note that materials procured for the works should be from South African manufactures and suppliers. Imported materials shall only be considered under exceptional circumstances, based on compelling technical justifications, and subject to the approval by the NDPWI.

CONTRACT VARIABLES

THE SCHEDULE

The **schedule** is the listed variables in this agreement and contains all variables referred to in this document including specific changes made to JBCC® documentation. It is divided into part 1: contract data completed by the **employer** and part 2: contract data completed by the **tenderer**. Part 1 must be completed in full and included in the tender documents. Both the part 1 and part 2 form part of this **agreement**.

Spaces requiring information must be filled in, shown as 'not applicable' or deleted but 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**. Reference to clause numbers in the JBCC Principal Building Agreement are shown in [square brackets] in this contract data e.g. [3.1].

PART 1: CONTRACT DATA COMPLETED BY THE EMPLOYER:

A PROJECT INFORMATION

A 1.0 Works [1.1]

Works description Refer to document **PG01.2** (**EC**) – **Scope of Works** for detailed description

The works comprise of completion of renovations to the existing SAPS precinct at Joubertina SAPS and 2 x SAPS residences off site.

Existing buildings are constructed with brick and mortar, metal sheeted roofs, asbestos roofs and concrete roof slabs.

Completion of replacement of perimeter fencing, new bulk earthworks, paving and access roads, upgrade of the sewer reticulation, upgrade of storm water reticulation, upgrading of water storage facilities, etc

Any reference to words "Bid" or Bidder" herein and/or in any other documentation shall be construed to have the same meaning as the words "Tender" or "Tenderer". Page 1 of 32



A 2.0 Site [1.1]

Erf / stand number	1200
Site address	14 Olivier Street
Township / Suburb	
City / Town	Joubertina
Province	Eastern Cape
Local authority	Kou-Kamma Local Municipality
GPS Coordinates	-33.826117 S ; 23.855261 E

A 3.0 EMPLOYER AND ITS REPRESENTATIVE

A 3.1 Employer:

Official Name of Organ of State / Public Sector Body	Government of the Republic of South Africa in its Department of Public Works & Infrastructure			
Business registration number	Not applicable VAT number Not applicable			
E-mail	sizwe.fono@dpw.gov.za Telephone 041 408 2			
Postal address	Eben Donges Building, Private Bag X3913 Port Elizabeth 6056			
Physical address	Eben Donges Building, Corner Hancock & Robert Street North-End Port Elizabeth 6056			

A 3.2 Employer's representative:

Name	Sizwe Fono	Telephone number	041 408 2120	
E-mail	sizwe.fono@dpw.gov.za Mobile number 041 408 21			
Postal address	Eben Donges Building, Private Bag X3913 Port Elizabeth 6065			
Physical address	Eben Donges Building, Corner Hancock & Robert Street North-End Port Elizabeth 6056			

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A 4.0	Principal Agent [1.1; 6.2]	Discipline	Architecture	
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Name	MDA Architects		
Legal entity of above	Contact person Kirsty King		
Practice number		Telephone number	041 373 1549
Country	South Africa	Mobile number	
E-mail	kirsty@mdaarchitects.co.za		
Postal address	PO Box 6213 Walmer Port Elizabeth 6065		
Physical address	18 Park Lane Central Port Elizabeth 6001		

A 5.0	Agent [1.1; 6.2]	Discipline	Quantity Surveying	
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Name	Qapela Quantity Surveyors (Pty) Ltd				
Legal entity of above	Contact person Zet Ngxazisa				
Practice number		Telephone number	043 721 140		
Country	South Africa				
E-mail	zet@qapelaqs.co.za				
Postal address	16 Jarvis Road Berea East London 5241				
Physical address	i16 Jarvis Road Berea East London 5241				

A 6.0	Agent [1.1; 6.2]	Discipline	Civil and Structural Engineering
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Name	Calculus Engineering and Project Management				
Legal entity of above		Contact person Peter O'Kenndy			
Practice number		Telephone number	041 581 1451		
Country	South Africa	South Africa Mobile number			
E-mail	petero@calculuseng.com				
Postal address	281 Main Road Walmer Port Elizabeth 6001				
Physical address	281 Main Road Walmer Port Elizabeth 6001				



A 7.0	Agent [1.1; 6.2]	Discipline	Electrical and Mechanical Engineering
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Name	DFR Kwakudi (Pty) Ltd		
Legal entity of above		Contact person	Louw Brand
Practice number		Telephone number	041 581 1451
Country	South African	Mobile number	
E-mail	louw@dfreng.co.za		
Postal address	89 Villiers Road Walmer Port Elizabeth 6065		
Physical address	89 Villiers Road Walmer Port Elizabeth 6065		

A 8.0	Agent [1.1; 6.2]	Discipline	Occupational Health and Safety
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Name	SHESHAY Health and Safety Solutions		
Legal entity of above		Contact person	Tessa Jacobus
Practice number		Telephone number	
Country	South Africa	Mobile number	081 324 5147
E-mail	tessa@sheshay.com		
Postal address	4 Samson Road insert suburb East London 5201		
Physical address	4 Samson Road insert suburb East London 5201		

Name			
Legal entity of above		Contact person	
Practice number		Telephone number	
Country		Mobile number	
E-mail			
Postal address	insert postal address insert suburb insert town insert postal code		
Physical address	insert physical address insert suburb insert town insert postal code		

Any reference to words "Bid" or Bidder" herein and/or in any other documentation shall be construed to have the same meaning as the words "Tender" or "Tenderer". Page 4 of 32



Name			
Legal entity of above		Contact person	
Practice number		Telephone number	
Country		Mobile number	
E-mail			
Postal address	insert postal address insert suburb insert town insert postal code		
Physical address	insert physical address insert suburb insert town insert postal code		

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Name			
Legal entity of above		Contact person	
Practice number		Telephone number	
Country		Mobile number	
E-mail			
Postal address	insert postal address insert suburb insert town insert postal code		
Physical address	insert physical address insert suburb insert town insert postal code		

Name			
Legal entity of above		Contact person	
Practice number		Telephone number	
Country		Mobile number	
E-mail			
Postal address	insert postal address insert suburb insert town insert postal code		
Physical address	insert physical address insert suburb insert town insert postal code		

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B CONTRACT INFORMATION

B 1.0 Definitions [1.1]

Bills of quantities: System/Method of	Standard system of measurement of building
measurement	works 7 th edition

B 2.0 Law, regulations and notices [2.0]

Law applicable to the works, state country [2.1] Law of the Republic of South Africa
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B 3.0 Offer and acceptance [3.0]

Currency applicable to this agreement [3.2]	South African Rand
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B 4.0 Documents [5.0]

The original signed agreement is to be held by the principal agent [5.2], if not, indicate by whom	Employer
Number of copies of construction information issued to the contractor at no cost [5.6]	3

Documents comprising the agreement	Page numbers
The JBCC® Principal Building Agreement, Edition 6.2 May 2018	1 to 30
DPW-04 (EC): CONTRACT DATA: JBCC PRINCIPAL BUILDING AGREEMENT (Edition 6.2 of May 2018)	1 to 31
The JBCC® General Preliminaries for use with the JBCC® Principal Building Agreement, Edition 6.2 May 2018	
Drawings as per drawing register issued with the tender	
Specifications issued with the tender	
Schedules issued with the tender	
Bills of Quantities issued with the tender	1 to 227
Addenda as issued during tender stage, if applicable	As issued

B 5.0 Employer's agents [6.0]

Authority is delegated to the following agents to issue contract instructions and perform duties for specific aspects of the works [6.2] [6.7 [CD]]	Principal Agent
Principal agent's and agents' interest or involvement in the works other than a professional interest [6.3]	

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B 6.0 Insurances [10.0]

Insurances by contractor

NB: Insurances submitted must be issued by either an insurance company duly registered in terms of the Insurance Act [Long-Term Insurance Act, 1998 (Act 52 of 1998) or Short-Term Insurance Act, 1998 (Act 53 of 1998)] or by a bank duly registered in terms of the Banks Act, 1990 (Act 94 of 1990). **Insured amounts to include VAT.**

	New works [10.1.1] With a deductible not exceeding 5% of each and every claim	Contract sum plus 10%	Not Applicable
Or	Works with practical completion in sections [10.2] With a deductible not exceeding 5% of each and every claim	Contract sum plus 10%	Not Applicable
Or	Works with alterations and additions [10.3] (reinstatement value of existing structures with or including new works) With a deductible not exceeding 5% of each and every claim	Contract sum plus 10%	Applicable
	Direct contractors [10.1.1; 10.2] where applicable, to be included in the contract works insurance	RPQS to determine value	Not Applicable
	Free issue [10.1.1; 10.2] where applicable, to be included in the contract works insurance	RPQS to determine value	Not Applicable
	Escalation, professional fees and reinstatement costs must be included in the above respective insurances		Applicable
Supp	olementary insurance [10.1.2; 10.2]	Contract sum plus 10%	Applicable
Publi	ic liability insurance [10.1.3; 10.2]	R 5 000 000	Applicable
Removal of lateral support insurance [10.1.4; 10.2]		R PQS to determine value	Applicable
Othe	er insurances [10.1.5]		
Hi Risk Insurance Refer B18.0 [10.1.5.1]		R PQS to determine value	Not Applicable
Other insurances: If applicable, description 1:		R PQS to determine value	Not Applicable

Other insurances; If applicable, description 2:	determine value	Not Applicable



B 7.0 Obligations of the employer [12.1]

Existing premises will be in use and occupied [12.1.2]	Applicable
If applicable, description: The site is to be phased out into four phases to accommodate occupation of the	e police services.
Restriction of working hours [12.1.2]	Not Applicable
If applicable, description:	
Natural features and known services to be preserved by the contractor [12.1.3]	Not Applicable
If applicable, description:	
Restrictions to the site or areas that the contractor may not occupy [12.1.4]	Applicable
If applicable, description: Contractor may only work in a building once occupation thereof has been modern for the duration of the works at that specific building.	oved to an alternative
Supply of free issue of material and goods [12.1.10]	Not Applicable
If applicable, description:	

B 8.0 Appointment of Nominated Subcontractors [14.0]

Select	If applicable, description of specialisation
Specialisation 1	
Specialisation 2	
Specialisation 3	
Specialisation 4	
Specialisation 5	

B 9.0 Appointment of Selected Subcontractors [15.0]

Applicable	If applicable, description of specialisation
Specialisation 1	
Specialisation 2	
Specialisation 3	
Specialisation 4	
Specialisation 5	

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B 10.0 Appointment of Direct Contractors [16.0]

Select	If applicable, description of extent of work [12.1.11]
Extent of work	

B 11.0 Works to be completed in sections [20.1]

Applicable	If applicable, description of sections
Section 1	Phase 1 - Completion of SAPS Residences, Building D and Building E
Section 2	Phase 2 - Building A
Section 3	Phase 3 - Building C
Section 4	Phase 4 - Building B
Section 5	
Section 6	
Remainder of the works. All external works	

B 12.0 Contract period [B18: 1.2], Construction period [B18: 1.1], Possession of site [12.1.5], Practical Completion [19.0; 20.0], Works Completion Refer B18.0 [19.8], Final Completion [21] and Penalties [24.0]

B12.1 Contract Period

Contract period [B18: 1.2]: Period in months as indicated, include time for submitting contractual obligatory documents, submission of Health & Safety Plan and approval, period for obtaining the Construction Permit (if applicable), the Construction Period and the Defect Liability Period up to and including Final Completion

The contract period is determined as follows (Period/s indicated in months):

Period to submit contractual obligatory documents including submission and

Any reference to words "Bid" or Bidder" herein and/or in any other documentation shall be construed to have the same meaning as the words "Tender" or "Tenderer". Page 9 of 32

approval of health and safety plan by the appointed Health & Safety Agent



Period to obtain Construction Permit from Department of Labour upon approval of the Health & Safety Plan by the appointed Health & Safety Agent	
Total construction period for the Works as a whole up to and including Practical Completion, as indicated below [24.1]	
Period to achieve Works Completion Refer B18.0 [19.8]	
Defect liability period up to and including Final Completion	12
Total Contract period [B18: 1.2]	
Penalty amount per calendar day for late submission of contractual obligatory documents: Ten percent (10%) of the penalty amount per calendar day for late Practical Completion, excluding VAT. [24.1]	R

B12.2 Construction Period for completion of the Works as a whole

Construction period [B18: 1.2] and Practical Completion for the Works as a whole [19.0] The time for achieving Practical Completion of the whole of the Works is measured from the date of possession of the site by the contractor inclusive of all public holidays, special non-working days and builders' holiday shut down periods.	Applicable
The date for practical completion for the works as a whole shall be the period in months as indicated, starting from the date of possession of the site by the contractor inclusive of all special non-working days and builders' holiday shut down periods [12.2.7; 24.1]	15 Months
Period for inspection in working days by the principal agent [19.3]	
Penalty amount per calendar day for late Practical Completion , excluding VAT. [24.1]	R 5610
Penalty amount per calendar day for late Works Completion Refer B18.0 [19.8]: Thirty percent (30%) of penalty amount per calendar day for late Practical Completion, excluding VAT.	R 1680
Penalty amount per calendar day for late Final Completion [21]: Fifteen percent (15%) of penalty amount per calendar day for late Practical Completion, excluding VAT.	R 840

B12.3 Construction Period for completion of the Works in portions

Construction period [B18: 1.1] and Practical completion for portions of the Works [20.0]			Not Applicable			
Portions of the Works in sections:	1	2	3	4	5	6
Period for inspection by the principal agent in working days [19.3]						
The date for practical completion shall be the period in months as indicated from the date of possession of the site by the contractor [12.2.7; 24.1]						

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The date for practical completion for the whole of the Works, if applicable shall be the period in months as indicated from the date of possession of the site by the contractor inclusive of all public holidays , special non-working days and builders' holiday shut down periods [12.2.7; 24.1]	insert contract period as per B12.1 or N/A if Works as a whole is applicable
Penalty for late Practical Completion, <i>if completion in sections is required</i> , exclu	ding vai
The penalty amount per day for failing to complete section 1 of the Works is:	R
The penalty amount per day for failing to complete section 2 of the Works is:	R
The penalty amount per day for failing to complete section 3 of the Works is:	R
The penalty amount per day for failing to complete section 4 of the Works is:	R
The penalty amount per day for failing to complete section 5 of the Works is:	R
The penalty amount per day for failing to complete section 6 of the Works is:	R
The penalty amount per day for failing to complete the whole of the Works, if applicable, is:	R
Penalty amount per calendar day for late Works Completion Refer B18.0 [19.8]: To Thirty percent (30%) of penalty / calendar day to complete Select , excluding VAT	o be calculated at
Penalty amount per calendar day for late Final Completion [21]: To be calculated a (15%) of penalty / calendar day to complete Select , excluding VAT	at Fifteen percent

B 13.0 Criteria to achieve Practical Completion [19.0; 20.0]

Criteria	to achieve Practical Completion not covered in the definition of practical completion
13.1	Obtain Occupation Certificate from the relevant authority prior to issuing the Practical Completion certificate
13.2	All relevant CoCs
13.3	All guarantees
13.4	Training on electrical, security and mechanical installations if contractually required
13.5	Maintenance / operating manuals
13.6	CPG and cidb BUILD pprogramme achievement certificates submitted with substatiating documentation
13.7	
13.8	
13.9	
13.10	

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B 14.0 Defects liability period [21.0]

Extended defects liability period: Refer B18.0 [21.13]

Applicable	If applicable, description of applicable elements
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14.1	Emergency generator/s
14.2	Air conditioning system and plant
14.3	Security system/s (e.g. Access control, Intruder alarm, etc.)
14.4	Electrical equipment (e.g. Electric operated doors, Electric motors, etc.)
14.5	Lifts
14.6	Mechanical equipment (e.g. Fire detection, Fire suppression system, Kitchen equipment, etc.)
14.7	Civil works
14.8	Landscaping including automated systems (irrigation)
14.9	
14.10	

B 15.0 Payment [25.0]

Date of month for issue of regular payment certificates Refer B18.0 [25.2]	20
Contract price adjustment / Cost fluctuations Refer [25.3.4; 26.9.5]	Applicable
If applicable, method to calculate	CPAP
Employer shall pay the contractor within: Refer B18.0 [25.10]	Thirty (30) calendar days

B 16.0 Dispute resolution [30.0]

Mediation	Applicable
Name of nominating body	Association of Arbitrators (Southern Africa)
Appointment of Mediator	State Attorney
Litigation	Court with Jurisdiction



B 17.0 JBCC® General Preliminaries - selections

pus contract(s) [P3.1] [P3.2] 1] ments [P4.3] y contractor y employer	Applicable Applicable Applicable Not Applicable
[P3.2] 1] ments [P4.3] y contractor	Applicable Not Applicable Applicable Applicable Applicable Applicable Applicable Applicable
1] ments [P4.3] y contractor	Not Applicable Applicable Applicable Applicable Applicable Applicable Applicable
ments [P4.3] y contractor	Applicable Applicable Applicable Applicable Applicable
ments [P4.3] y contractor	Applicable Applicable Applicable Applicable
y contractor	Applicable Applicable Applicable
y contractor	Applicable Applicable
-	Applicable
-	
-	Annlicable
y employer	∠hhiicanie
	Not Applicable
y employer – metered	Not Applicable
y contractor	Applicable
y employer	Not Applicable
y employer – metered	Not Applicable
y contractor	Applicable
y employer	Not Applicable
	Not Applicable
	Applicable
Protection / isolation of existing works and works occupied in sections - specific requirements [P11.2]	
Disturbance - specific requirements [P11.5]	
Environmental disturbance - specific requirements [P11.6]	
i	y employer ed in sections - specific



B 18.0 SPECIFIC CHANGES MADE TO JBCC® DOCUMENTATION

[Details of changes made to the provisions of JBCC standard documentation]

1.2 Definitions

The following definitions replace corresponding definitions or are added to the definitions in the JBCC PRINCIPAL BUILDING AGREEMENT (Edition 6.2 of May 2018), whatever the case may be.

ADVERSE WEATHER CONDITIONS: Adverse weather and inclement weather has the same meaning and used interchangeably and means any weather conditions i.e.: Rain, wind, snow, frost, temperature (cold or heat) that are not in the norm for the area where the construction takes place and during which no work is possible on site.

AGREEMENT: The completed Form of Offer and Acceptance, the completed JBCC® Principal Building Agreement and contract data for organs of state and other public sector bodies, the contract drawings, the priced document and any other documents reduced to writing and signed by the authorised representative or representatives of the parties.

CONSTRUCTION PERIOD: The period commencing on the date of possession of the **site** by the **contractor** and ending on the date of **practical completion**.

CONTRACT PERIOD: The period commencing on the date of the letter of acceptance and ending on the date of final completion.

COST FLUCTUATION shall mean contract price adjustment provision (CPAP) for the adjustment of fluctuation in the cost of labour, plant, material and goods as stated in the schedule.

DEFAULT INTEREST: No clause.

GUARANTEE FOR CONSTRUCTION: A security in terms of the DPWI's Guarantee for Construction form/s, obtained by the contractor from an institution approved by the employer [CD].

INTEREST: The interest rates applicable on this contract, whether specifically indicated in the relevant clauses or not, will be the 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) as amended, calculated as simple interest, in respect of debts owing to the State, and will be the rate as published by the Minister of Justice and Correctional Services from time to time, in terms of section 1(2) of the Prescribed Rate of Interest Act, 1975 (Act No 55 of 1975) as amended, calculated as simple interest, in respect of debts owing by the State.

LETTER OF ACCEPTANCE: The letter of formal acceptance of the Contractor's or Service Provider's Tender / Bid, issued and signed by the Employer.

PAYMENT CERTIFICATE: A certificate issued at regular agreed intervals [CD] by the principal agent to the parties certifying the amount due and payable in terms of clause 25.3.

PRINCIPAL AGENT: The person or entity appointed by the **employer** and named in the **contract data for organs of state and other public sector bodies.** In the event of a **principal agent** not being appointed, then all the duties and obligations of a **principal agent** as detailed in the **agreement** shall be fulfilled by the employer's representative as named in the **contract data for organs of state and other public sector bodies.**

TARGETED SUBCONTRACTORS: Subcontractors that must be appointed to a total of 30% or more of the contract sum, by the contractor, projects with a contract sum of the amount determined by the Minister in terms of the latest Preferential Procurement regulations, as may be amended from time to time.



CONTRAC	T SPECIFIC DATA
	ng contract specific data, referring to the General Conditions of Contract for Construction Works, NCIPAL BUILDING AGREEMENT (Edition 6.2 of May 2018), are applicable to this Contract:
3.3	Replace clause with the following: This agreement shall come into force on the date of letter of acceptance and continue to be of force and effect until the end of the latent defects liability period [22.0] notwithstanding termination [29.0] or the certification of final completion [21.0] and final payment [25.0].
4.2	Refer to clause 6.7 [CD].
4.3	Replace clause with the following: Where a contractor cedes any right or any monies due to or to become due under this agreement as security in favour of a financial institution, the prior written consent of the employer, which consent shall not be unreasonably withheld, must be obtained.
5.2	Replace last sentence with the following: The original signed agreement shall be held by the Employer.
5.4	Replace clause with the following: The Bills of Quantities shall not be used as a specification of material and goods or methods unless so instructed by the Principal Agent. The contractor may not use the Bills of Quantities for purpose of ordering material. All dimensions and quantities must be determined on site before ordering. In the event of discrepancy between the drawings and Bills of Quantity, the drawings shall take preference.
5.5	Replace clause with the following: The parties may publish or disclose on any platform only the contract scope and contract amount.
6.5	Replace clause with the following: Where the principal agent and/or an agent fails to act or is unable to act or ceases to be the principal agent or an agent in terms of this agreement, the employer may appoint another principal agent and/or an agent, be it temporary or permanently.
6.7	Add the following as clause 6.7: In terms of the clauses listed hereunder, the employer has retained its authority and has not given a mandate to the principal agent, notwithstanding other provisions in the contract. The employer shall sign all documents in relation to clauses 4.2, 14.1.4, 14.4.1, 14.6, 15.1.4, 15.4.1, 23.1, 23.2, 23.3, 23.7, 23.8, 26.1, 26.7, 26.12.
7.2	Replace first sentence with the following: Any design responsibility undertaken by a subcontractor shall not devolve on the contractor except for items that require specific component design and or compatibility design and or shop drawings and or the assembly thereof.
8.4	Replace clause with the following: 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.
9.2.7	Add the following to the end of the first sentence: " due to no fault of the contractor".

Any reference to words "Bid" or Bidder" herein and/or in any other documentation shall be construed to have the same meaning as the words "Tender" or "Tenderer". Page 15 of 32



	No clause.
9.2.10	No clause.
9.3	Add the following as clause 9.3: The employer's rights to claim damages for the contractor's omissions and actions will not be affected.
10.1	Replace clause with the following: The party responsible shall effect and keep the respective insurances [CD] in force, in favour of the employer as beneficiary, from the date of possession of the site until the issue of the certificate of practical completion and with an extension to cover the contractor's obligations after the date of practical completion [8.2.2].
10.1.5.1	Add the following as clause 10.1.5.1: Hi 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 sub-surface conditions that might result in catastrophic ground movement evident by sinkhole or doline formation the following will apply:
10.1.5.1.1	Add the following as clause 10.1.5.1.1: Damage to the works The contractor shall, from the date of possession of the site 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. 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.
10.1.5.1.2	Add the following as clause 10.1.5.1.2: Injury to persons or loss of or damage to property The contractor shall be liable for and hereby indemnifies and holds harmless 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 above.
	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 property, 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.
10.1.5.1.3	Add the following as clause 10.1.5.1.3: It is the responsibility of the contractor to ensure that he has adequate insurance to cover his risk and liability as mentioned in 10.1.5.1.1 and 10.1.5.1.2. Without limiting the contractor's obligations in terms of the contract, the contractor shall, within twenty-one (21) calendar days of the date of letter of acceptance, but before commencement of the works, submit to the employer proof of such insurance policy.



10.1.5.1.4	Add the following as clause 10.1.5.1.4: The employer shall be entitled to recover any and all losses and/or damages of whatever nature suffered or incurred consequent upon the contractor's default of his obligations as set out in 10.1.5.1.1; 10.1.5.1.2 and 10.1.5.1.3. 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 considered one indivisible whole.
10.2	Replace clause with the following: Where practical completion in sections is required [20.0), or where the works is for alterations and additions, the contractor shall effect and keep in force contract works insurance [10.1.1], supplementary insurance [10.1.2], public liability insurance [10.1.3] and where applicable, removal of lateral support insurance [10.1.4] and other insurances [10.1.5) in favour of the employer as beneficiary.
10.6	No clause.
10.11	Add the following as clause 10.11 In the event that an insurer dispute the amount of the claim to be paid to the employer, the contractor shall be liable to the employer for the difference between the claim (as determined by the employers QS appointed on the project) made by the employer and the amount that the insurer is willing to pay.
11.1	Add the following to clause 11.1. In respect of contracts with a contract sum up to R1 million, the security to be provided by the contractor to the employer will be a payment reduction of five per cent (5%) of the value certified in the payment certificate (excluding VAT). 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 C 1.0 Securities, as stated in the schedule. Such security shall be provided to the employer within fifteen (15) working days from contract 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 fifteen (15) working days from the contract commencement date, the security in terms of C 1.0 Option C shall be deemed to have been selected. The payment reduction of the value certified in a payment certificate shall be <i>mutatis mutandis</i> in terms of 25.12.1 - 25.12.5.
11.1.1	No clause.
11.1.2	No clause.
11.2.2	No clause.
11.3	No clause.
11.4.1	Replace clause 11.4.1 with the following: Hand over the site to the contractor and withhold an amount equal to ten per cent (10%) of each interim payment certificate until practical completion is achieved. The value certified shall be subject to the adjustments in terms of 25.12.6 to 25.12.10.
11.5	No clause.
11.6	No clause.

Any reference to words "Bid" or Bidder" herein and/or in any other documentation shall be construed to have the same meaning as the words "Tender" or "Tenderer". Page 17 of 32



11.7	No clause.
11.8	No clause.
11.9	No clause.
11.10	No clause.
11.11	Add the following as clause 11.11 Where the security as a cash deposit of ten per cent (10%) of the contract sum (excluding VAT) has been selected:
11.11.1	Add the following as clause 11.11.1 The contractor shall furnish the employer with a cash deposit equal in value to ten percent (10%) of the contract sum (excluding VAT) within fifteen (15) working days from the contract commencement date. Failure to furnish the employer with a cash deposit within fifteen (15) working days clause 11.4 will apply <i>mutatis mutandis</i> .
11.11.2	Add the following as clause 11.11.2 The employer shall be entitled to recover expense and loss from the cash deposit in terms of 27.0 provided that the employer notifies the Contractor in which event the employer's entitlement shall take precedence over his obligations to refund the cash deposit security or portions thereof to the contractor.
11.11.3.	Add the following as clause 11.11.3 Within fifteen (15) working 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).
11.11.4	Add the following as clause 11.11.4 Within fifteen (15) working 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).
11.11.5	Add the following as clause 11.11.5 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.
11.11.6	Add the following as clause 11.11.6 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.
11.12	Add the following as clause 11.12 Where security as a variable construction guarantee of ten percent (10%) of the contract sum (excluding VAT) has been selected:
11.12.1	Add the following as clause 11.12.1 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 fifteen (15) working days after issuance of the letter of acceptance. Failure to submit an acceptable variable construction guarantee within fifteen (15) working days clause 11.4 will apply <i>mutatis mutandis</i> .
11.12.2	Add the following as clause 11.12.2 The variable construction guarantee shall reduce and expire in terms of the Variable Construction Guarantee form included in the invitation to tender.

Any reference to words "Bid" or Bidder" herein and/or in any other documentation shall be construed to have the same meaning as the words "Tender" or "Tenderer". Page 18 of 32



44.40.0	
11.12.3	Add the following as clause 11.12.3 The employer shall return the variable construction guarantee to the contractor within fourteen (14) calendar days of it expiring.
11.12.4	Add the following as clause 11.12.4 Where the employer has a right of recovery against the contractor in terms of 27.0, the employer shall issue a written demand in terms of the variable construction guarantee.
11.13	Add the following as clause 11.13 Where security is 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:
11.13.1	Add the following as clause 11.13.1 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).
11.13.2	Add the following as clause 11.13.2 The fixed construction guarantee shall come into force on the date of issue and shall expire on the date of the last certificate of practical completion.
11.13.3	Add the following as clause 11.13.3 The employer shall return the fixed construction guarantee to the contractor within fourteen (14) calendar days of it expiring.
11.13.4	Add the following as clause 11.13.4 The payment reduction of the value certified in a payment certificate shall be <i>mutatis mutandis</i> in terms of 25.12.1 - 25.12.5.
11.13.5	Add the following as clause 11.13.5 Where the employer has a right of recovery against the contractor in terms of 27.0, 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 from both.
11.14.1	Add the following as clause 11.14.1 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) has been selected:
11.14.2	Add the following as clause 11.14.2 The contractor shall furnish the employer with a cash deposit equal in value to five per cent (5%) of the contract sum (excluding VAT) within fifteen (15) working days from the contract commencement date. Failure to submit a cash deposit within fifteen (15) working days clause 11.4 will apply <i>mutatis mutandis</i> .
11.14.3	Add the following as clause 11.14.3 Within fifteen (15) working days of the date of practical completion of the works the employer shall refund the cash deposit in total to the contractor.
11.14.4	Add the following as clause 11.14.4 The payment reduction of the value certified in a payment certificate shall be <i>mutatis mutandis</i> in terms of 25.12.1 - 25.12.5.
11.14.5	Add the following as clause 11.14.5 Where the employer has a right of recovery against the contractor in terms of 27, the employer may recover from the payment reduction or cash deposit or from both.

Any reference to words "Bid" or Bidder" herein and/or in any other documentation shall be construed to have the same meaning as the words "Tender" or "Tenderer". Page 19 of 32



Where security as a payment reduction of ten per cent (10%) of the value certified in the payment certificate (excluding VAT) has been selected: 11.15.1 Add the following as clause 11.15.1 The payment reduction of the value certified in a payment certificate shall be <i>mutatis mutandi</i> in terms of 25.12.6 to 25.12.10. 11.15.2 Add the following as clause 11.15.2 The employer shall be entitled to recover expense and loss from the cash deposit in terms of 27.0 provided that the employer notifies the Contractor in which event the employer entitlement shall take precedence over his obligations to refund the cash deposit security of portions thereof to the contractor. 11.16 Add the following as clause 11.16 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 shall the contractor fail to furnish the security in terms of 11.2 the employer, in his sold discretion, and without notification to the contractor, is entitled to change the contractor selected form of security to that of a ten per cent (10%) payment reduction of the value certifies in the payment certificate (excluding VAT). 12.1.1 No Clause. 12.1.2 Replace clause with the following: Give possession of the site to the contractor within ten (10) working days after approval of the Health and Safety Plan or the issue of a construction permit by the Department of Labour, applicable, after the contractor compiled with the terms of 12.2.22. 12.1.6 No clause. 12.2.7 Replace clause with the following: The priced Bills must be submitted to the Employer within fourteen (14) calendar days from date of request. Where the pricod document contains errors or discrepancies and/or prices considered by the employer or principal agent to be imbalanced or unreasonable the employer or principal agent and the contractor shall adjust such prices without any change to the contract sum. 12.2.5 Replace clause with the following: Effect and		
The payment reduction of the value certified in a payment certificate shall be <i>mutatis mutandi</i> in terms of 25.12.6 to 25.12.10. 11.15.2 Add the following as clause 11.15.2 The employer shall be entitled to recover expense and loss from the cash deposit in terms of 27.0 provided that the employer notifies the Contractor in which event the employer entitlement shall take precedence over his obligations to refund the cash deposit security of portions thereof to the contractor. 11.16 Add the following as clause 11.16 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 of the contractor fall to furnish the security in terms of 11.2 the employer, in his sold discretion, and without notification to the contractor, is entitled to change the contractor selected form of security to that of a ten per cent (10%) payment reduction of the value certification in the payment certificate (excluding VAT). 12.1.1 No Clause. 12.1.2 Replace clause with the following: Give possession of the site to the contractor within ten (10) working days after approval of the Health and Safety Plan or the issue of a construction permit by the Department of Labour, applicable, after the contractor complied with the terms of 12.2.22. 12.1.8 No clause. 12.1.9 Replace clause with the following: The priced Bills must be submitted to the Employer within fourteen (14) calendar days from date of request. Where the priced document contains errors or discrepancies and/or prices considered by the employer or principal agent to be imbalanced or unreasonable the employer or principal agent and the contractor shall adjust such prices without any change to the contract sum. 12.2.5 Replace clause with the following: Effect and keep in force insurances in favour of the employer as beneficiary where the contractor is responsible for providing insurances [10.0) [CD]. 12.2.13 Replace clause with the following: Designa	11.15	Add the following as clause 11.15 Where security as a payment reduction of ten per cent (10%) of the value certified in the payment certificate (excluding VAT) has been selected:
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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. Add the following as clause 11.17 Should the contractor fail to furnish the security in terms of 11.2 the employer, in his sold discretion, and without notification to the contractor, is entitled to change the contractor selected form of security to that of a ten per cent (10%) payment reduction of the value certifier in the payment certificate (excluding VAT). No Clause. 12.1.5 Replace clause with the following: Give possession of the site to the contractor within ten (10) working days after approval of the Health and Safety Plan or the issue of a construction permit by the Department of Labour, applicable, after the contractor complied with the terms of 12.2.22. 12.1.6 No clause. 12.2.1 Replace clause with the following: The priced Bills must be submitted to the Employer within fourteen (14) calendar days from date of request. Where the priced document contains errors or discrepancies and/or prices considered by the employer or principal agent to be imbalanced or unreasonable the employer or principal agent and the contractor shall adjust such prices without any change to the contract sum. Replace clause with the following: Effect and keep in force insurances in favour of the employer as beneficiary where the contractor is responsible for providing insurances [10.0) [CD]. Replace clause with the following: Designate a competent person full time on site to continuously administer and control the works on site and to receive and implement notices and contract instructions on behalf of the contractor. Insert the following clause as 12.2.22: Within fourteen (14) working days of the date of the letter of acceptance submit to the principa agent an acceptable health and safety plan, required in terms of the Occupational Health and	11.15.2	The employer shall be entitled to recover expense and loss from the cash deposit in terms of 27.0 provided that the employer notifies the Contractor in which event the employer's entitlement shall take precedence over his obligations to refund the cash deposit security or
Should the contractor fail to furnish the security in terms of 11.2 the employer, in his sold discretion, and without notification to the contractor, is entitled to change the contractor's selected form of security to that of a ten per cent (10%) payment reduction of the value certifies in the payment certificate (excluding VAT). 12.1.1 No Clause. 12.1.2 Replace clause with the following: Give possession of the site to the contractor within ten (10) working days after approval of the Health and Safety Plan or the issue of a construction permit by the Department of Labour, applicable, after the contractor complied with the terms of 12.2.22. 12.1.6 No clause. 12.1.8 No clause. 12.2.1 Replace clause with the following: The priced Bills must be submitted to the Employer within fourteen (14) calendar days from date of request. Where the priced document contains errors or discrepancies and/or prices considered by the employer or principal agent to be imbalanced or unreasonable the employer or principal agent and the contractor shall adjust such prices without any change to the contract sum. 12.2.5 Replace clause with the following: Effect and keep in force insurances in favour of the employer as beneficiary where the contractor is responsible for providing insurances [10.0) [CD]. 12.2.13 Replace clause with the following: Designate a competent person full time on site to continuously administer and control the works on site and to receive and implement notices and contract instructions on behalf of the contractor. 12.2.22 Viithin fourteen (14) working days of the date of the letter of acceptance submit to the principal agent an acceptable health and safety plan, required in terms of the Occupational Health and	11.16	Add the following as clause 11.16 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.
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12.1.8 No clause. 12.2.2 Replace clause with the following: The priced Bills must be submitted to the Employer within fourteen (14) calendar days from date of request. Where the priced document contains errors or discrepancies and/or prices considered by the employer or principal agent to be imbalanced or unreasonable the employer or principal agent and the contractor shall adjust such prices without any change to the contract sum . 12.2.5 Replace clause with the following: Effect and keep in force insurances in favour of the employer as beneficiary where the contractor is responsible for providing insurances [10.0) [CD]. 12.2.13 Replace clause with the following: Designate a competent person full time on site to continuously administer and control the works on site and to receive and implement notices and contract instructions on behalf of the contractor. 12.2.22 Insert the following clause as 12.2.22: Within fourteen (14) working days of the date of the letter of acceptance submit to the principal agent an acceptable health and safety plan, required in terms of the Occupational Health and	12.1.5	Give possession of the site to the contractor within ten (10) working days after approval of the Health and Safety Plan or the issue of a construction permit by the Department of Labour, if
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The priced Bills must be submitted to the Employer within fourteen (14) calendar days from date of request. Where the priced document contains errors or discrepancies and/or prices considered by the employer or principal agent to be imbalanced or unreasonable the employer or principal agent and the contractor shall adjust such prices without any change to the contract sum . 12.2.5 Replace clause with the following: Effect and keep in force insurances in favour of the employer as beneficiary where the contractor is responsible for providing insurances [10.0) [CD]. Replace clause with the following: Designate a competent person full time on site to continuously administer and control the works on site and to receive and implement notices and contract instructions on behalf of the contractor. Insert the following clause as 12.2.22: Within fourteen (14) working days of the date of the letter of acceptance submit to the principal agent an acceptable health and safety plan, required in terms of the Occupational Health and	12.1.8	No clause.
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Within fourteen (14) working days of the date of the letter of acceptance submit to the principal agent an acceptable health and safety plan, required in terms of the Occupational Health and	12.2.13	Designate a competent person full time on site to continuously administer and control the works on site and to receive and implement notices and contract instructions on behalf of the
Salety Act, 1993 (Act No 85 of 1993).	12.2.22	Insert the following clause as 12.2.22: Within fourteen (14) working days of the date of the letter of acceptance submit to the principal agent an acceptable health and safety plan, required in terms of the Occupational Health and Safety Act, 1993 (Act No 85 of 1993).

Any reference to words "Bid" or Bidder" herein and/or in any other documentation shall be construed to have the same meaning as the words "Tender" or "Tenderer". Page 20 of 32



Insert the following clause as 12.2.23:	
The contractor shall within reasonable time inform the agents regarding inspection of the works before covering / closing [B 12.0].	
Refer to clause 6.7 [CD].	
No clause.	
Replace "principal agent" with "employer" [6.7 [CD]].	
Refer to clause 6.7 [CD].	
See clause 6.7 above for clauses, 15.5.	
Replace clause with the following: The principal agent shall call for tenders from a list of tenderers agreed between the contractor and the employer.	
Refer to clause 6.7 [CD].	
No clause.	
Replace "principal agent" with "employer" [6.7 [CD]].	
Replace clause with the following: The contractor shall comply with and duly execute all contract instructions except any contract instruction for additional work issued after the date of practical completion other than making good physical loss and repairing damage to the works in terms of 8.0 and 21.	
Add the following as clause 17.6: Minutes of meetings shall not constitute a site instruction unless reduced to a written contract instruction issued by the principal agent in terms of this contract / agreement.	
Replace clause with the following: On issue of the only or last certificate of practical completion the employer shall be entitled to possession of the works and the site. On issue of the certificate of practical completion for a section, the employer shall be entitled to possession of such section.	
Add the following as: 19.8	
 WORKS COMPLETION (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 outstanding work and defects apparent at the date of practical completion to be completed or rectified to achieve works completion. 	
(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 a notice. Where, in the opinion of the principal agent, the Works Completion list:	
(2)(a) Has been satisfactorily completed, the principal agent shall forthwith issue a certificate of Works Completion to the contractor with a copy to the employer	



19.8 Continued	(2)(b) Has not been satisfactorily completed, the principal agent shall forthwith identify the works completion list items that are not yet complete and inform the contractor thereof. The contractor shall repeat the procedure interms of 19.8(2)	
	(3) Should the principal agent not issue a works completion list, in terms of 19.8 (1) or 19.8 (2) (b), within seven (7) calendar days from 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 employer may within seven (7) calendar days issue to the contractor a Works Completion list. Should the employer:	
	(3)(a) Not issue such works completion list within seven (7) calendar days, then 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	
	(3b) Issue a works completion list and the work on Works Completion list not have been completed or where further defects have become apparent, the employer shall forthwith identify such items on the updated works completion list and notify the contractor. The contractor shall repeat the procedure in terms of 19.8 (2) (b) until such items have been completed to the satisfaction of the employer	
	(4) Should the works completion list not be completed to the satisfaction of the employer within a period of twenty (20) working days of the issue final works completion list the contractor shall be liable to a daily penalty as described in B13.	
	(5) The defects liability period in terms of 21.1 shall commence with the issue or deemed issue of the certificate of Works Completion in terms of 19.8(2)(a) or 19.8(3).	
20.2.1.A	Add the following as: 20.2.1.A A certificate of Works Completion [19.8]	
21.1	Replace clause 21.1 with the following: The defects liability period for the works shall commence on the calendar day following the date of works completion and end at midnight (00:00) ninety (90) calendar days from the date of works completion [CD] or when work on the list for completion has been satisfactorily attended to [21.6), whichever is the later (if we use works completion).	
21.6	Replace clause 21.6 with the following: On the expiry of the ninety (90) calendar days defects liability period [21.1] for items not indicated as items with an extended liability as indicated in B14 and on receipt of the contractor's notice to the principal agent.	
	And/or	
	On the expiry of the defects liability period as indicated in B14, for items indicated in B14 and on receipt of the contractor's notice to the principal agent, the principal agent shall:	
	 (1) inspect the works And within ten (10) working days either issue a list for final completion detailing all outstanding work or defects that must be attended to, or rectified to achieve final completion or (2) issue the certificate of final completion to the contractor with a copy to the employer 	
21.6.1.	for that part of the works where defects liability period has expired. Omit clause.	



21.6.2	Omit clause.
21.13	Add the following as clause 21.13 The ninety (90) calendar day defects liability period for the works [21.1] is replaced with an extended defects liability period of three hundred and sixty-five (365) calendar days in respect of the listed applicable elements in B14.
21.14	Add the following as clause 21.14 Penalties will be applied if the items on the completion list have not been attended to within a period of ninety (90) calendar days [21.1]. If additional defect items have being added to the list during this period, then the Principal Agent and Contractor will agree on a revised completion date. Failing in achieving the revised date will result in penalties being applied [B12.0].
22.3.2	No clause.
23.1	Refer to clause 6.7 [CD].
23.2	Refer to clause 6.7 [CD].
23.2.13	No clause.
23.3	Replace 23.3 with the following: Further circumstances that delays practical completion due to any other cause beyond the contractor's reasonable control that could not have reasonably been anticipated and provided for which the contractor may be entitled to a revision of the date for practical completion, with or without an adjustment of the contract value as determined by the Employer [6.7 CD].
23.7	Refer to clause 6.7 [CD].
23.8	Refer to clause 6.7 [CD].
24.1	Replace clause 24.1 with the following: Where the contractor fails to bring the works, or a section thereof, to practical-, works-, or final- completion by the applicable completion date [B10 CD], or the revised applicable completion date, the contractor shall be liable to the employer for the penalty [B10 CD].
24.2	Replace clause 24.2 with the following: Where the employer elects to levy such penalty the employer , or the principal agent on instruction from the employer , shall give notice thereof to the contractor . The principal agent shall determine the penalty due from the later of the date for practical- works- , or final- completion [B10 CD], or the revised date for practical- works- , or final- completion , up to and including the earlier of:
24.2.1	Replace clause 24.2.1 with the following: The actual or deemed date of practical- , works- or final- completion of the works , or a section thereof [23.7.1].
25.2	Replace clause 25.2 with the following: The principal agent shall issue at regular agreed intervals [CD] payment certificates, to the contractor with a copy to the employer, up to and including practical completion. Interim Payment certificates may be issued to the contractor between practical completion and the final payment certificate. A payment certificate may be for a nil or negative amount.



25.3	Add the	following to played 25.2:		
25.5		following to clause 25.3:		
	25.3.12	Monthly Local content report.		
		EPWP / NYS payment register, labour reports and certified ID document of EPWP/ NYS beneficiaries, Contract between Contractor and EPWP/ NYS beneficiaries, attendance register (if applicable).		
	25.3.14	Tax Invoice.		
	25.3.15 l	Labour intensive report.		
	25.3.16	Contract participation goal and cidb BUILD programme reports.		
25.5	No Claus	se.		
25.6	Materials payment contracto	Replace clause 25.6 with the following: Materials and goods will only be certified and paid for upon providing proof of full payment to the supplier and proof of transfer of ownership from the supplier to the contractor by the contractor. Once paid, material and goods shall become the property of the employer and shall not be removed from site without the written authority of the Employer.		
25.7.5	No claus	No clause.		
25.10	The emp correct ir payment	clause 25.10 with the following: bloyer shall pay the contractor the amount stipulated in an issued payment certificate, all material respects, within thirty (30) calendar days from the date of receiving the certificate and invoice including all other substantiating documentation for items in the payment certificate.		
25.12		clauses 25.12 to 25.12.3 with the following: e certified shall be subject to the following percentage adjustments:		
	of a cont	s 25.12.1 to 25.12.5 shall be applicable to a contract sum up to R1 million. In the event tract sum more than R1 million for Options D & E (C 1.0 Securities [11.0]) Clauses to 25.12.5 shall be applicable)		
	25.12.1	Where a security is selected in terms of C 1.0 Securities [11.0] the value of the works in terms of 25.1 and of the materials and goods in terms of 25.4 shall be certified in full. The value certified shall be subject to the following percentage adjustments:		
	25.12.2	Ninety-five per cent (95%) of such value in interim payment certificates issued up to the date of practical completion .		
	25.12.3	Ninety-seven per cent (97%) of such value in interim payment certificates issued on the date of works completion and up to but excluding the date of final completion .		
	25.12.4	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 26.		
	25.12.5	One hundred per cent (100%) of such value in the final payment certificate in terms of 26 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 .		

Any reference to words "Bid" or Bidder" herein and/or in any other documentation shall be construed to have the same meaning as the words "Tender" or "Tenderer". Page 24 of 32



25.12 Continued	(Clauses 25.12.6 to 25.12.10 shall be applicable to a contract sum more than R1 million f Option C (C 1.0 Securities [11.0])		
	25.12.6 Where security is a payment reduction in term of Option C, the value of the worl in terms of 25.1 and materials and goods in terms of 25.4 shall be certified in fu The value certified shall be subject to the following percentage adjustments:		
	25.12.7 Ninety per cent (90%) of such value in interim payment certificates issued up to the date of practical completion .		
	25.12.8 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 finacompletion .		
	25.12.9 Ninety-nine per cent (99%) of such value in interim payment certificates issued of the date of final completion and up to but excluding the final payment certificates in terms of 26.		
	25.12.10 One hundred per cent (100%) of such value in the final payment certificate in terms of 26 except were 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 .		
26.1	Refer to clause 6.7 [CD].		
26.4.3	Omit clause.		
26.7	Refer to clause 6.7 [CD].		
26.10	Replace 26.10 with the following: The principal agent shall prepare the final account in consultation with the employer and issue the final account , to the contractor within sixty (60) working days of the date of practical completion .		
26.12	Refer to clause 6.7 [CD].		
27.1. 2	Replace 27.1.2 with the following: Interest due to late payment only.		
27.1.4	Replace 27.1.4 with the following: Interest due to late payment only.		
27.1.5	No clause.		
27.5	Add the following as clause 27.5: Where the employer decides to recover an amount due in terms of 27.2 from a construction guarantee, cash deposit or retention money held as security, the employer shall issue a writter demand to the contractor before recovering the amount. Should such amount not be paid to the employer within fourteen (14) calendar days of the date-of notice by the employer, the employer may recover such an amount from the security.		



27.6	Add the following as clause 27.6: Where a provisional sequestration or provisional liquidation order has been granted or where			
	an order has been granted which commences sequestration, liquidation, bankruptcy, receivership, winding-up or any similar effect, against the contractor or this agreement is cancelled in terms of 29, the employer may issue a demand to the guarantor in terms of the construction guarantee or advance payment guarantee held as security.			
28.0	No clause.			
28.1	No clause.			
28.1.1	No clause.			
28.1.2	No clause.			
28.1.3	No clause.			
28.1.4	No clause.			
28.1.5	No clause.			
28.2	No clause.			
28.3	No clause.			
28.4	No clause.			
29.1.4	Add the following as clause 29.1.4: The contractor 's estate has been sequestrated, liquidated or surrendered in terms of the insolvency laws in force within the Republic of South Africa.			
29.1.5	Add the following as clause 29.1.5: The contractor has engaged in corrupt or fraudulent practices in competing for or in executing the contract.			
29.1.6	Add the following as clause 29.1.6: Honour his obligations in terms of clauses 10.1.5.1.3, 11.4.1 and 12.2. sub-clauses 5, 6, 8, 9, 10, 11, 12, 13, 15, 16, 19, 20, 22.			
29.7	Replace clause 29.7 with the following: The employer, on notice to the contractor, may recover damages from the contractor from the date of termination including, but not limited to, additional costs incurred in the completion, consultant cost, rental of alternative accommodation, invitation of completion tenders, salaries of officials and safeguarding the site, of the remaining work [25.3.7; 27.1.3].			
29.9	Replace clause 29.9 with the following: The employer has the right of recovery against the contractor , where applicable, [CD] from:			
	The guarantee for construction (variable) until the final payment has been made;			
	or The guarantee for construction (fixed) until the date of practical completion;			
	or The payment reduction until the final payment is made;			
	or The cash deposit made as security until the final payment is made.			
29.14.1	No clause.			
29.14.3	No clause.			

Any reference to words "Bid" or Bidder" herein and/or in any other documentation shall be construed to have the same meaning as the words "Tender" or "Tenderer". Page 26 of 32



29.14.4	No clause.
29.14.5	No clause.
29.14.6	No clause.
29.14.7	No clause.
29.15	No clause.
29.16	No clause.
29.17.3	No clause.
29.17.6	No clause.
29.21.5	No clause.
29.22	No clause.
29.23	No clause.
29.25.3	No clause.
29.25.4	No clause.
29.27	No clause.
30.2	Replace clause 30.2 with the following: Where such disagreement is not resolved within ten (10) working days of receipt of such notice it shall be deemed to be a dispute and shall be submitted to Mediation as a first method of dispute resolution failing which the parties will resort to Litigation.
30.3 to 30.7.7	No clauses.
30.8	Replace clause 30.8 with the following: The parties may, by agreement and at any time before Litigation, refer a dispute to mediation, in which event:
30.8.1	No clause.
30.8.2	Replace clause 30.8.2 with the following: The appointment of a mediator, the procedure, and the status of the outcome shall be agreed between the parties.
30.8.3	Replace clause 30.8.3 with the following: Regardless of the outcome of a mediation the parties shall bear their own costs concerning the Mediation and equally share the costs of the mediator and related expenses.
30.9	Replace clause 30.9 with the following: Institution of Litigation shall be commenced and process served within three (3) year from the date of existence of the dispute, failing which the dispute shall lapse.
30.10	No clause.
30.12	No clause.



B 19.0 CONTRACT PARTICIPATION GOAL TARGETS AND CIDB B.U.I.L.D. PROGRAMME

The contractor shall achieve in the performance of the contract the following Contract Participation Goals (CPGs) as described in PG-01.2 (EC): Scope of Work and PG-02.2 (EC): Pricing Assumptions and in accordance with the feasibility study, which forms part of the specifications in the CPG Section of the Specification of this contract.

(a)	Minimum 30% mandatory Subcontracting to SMMEs in accordance with the Preferential Procurement Policy Framework Act, 2000: Preferential Procurement Regulations, 2017 as published in the Government Gazette Notice No. 40553 of 20 January 2017 – Condition of Tender. (Applicable to all projects above R30 Mil for all class of works categories)	Not applicable
(b)	Minimum Targeted Local Manufacturers of Material Contract Participation Goal, in accordance with the cidb Standard for Contract Participation Goals for Targeting Enterprises and Labour through Construction Works Contracts as published in the Government Gazette Notice No. 41237 of 10 November 2017, as amended in cidb Best Practice Project Assessment Scheme Notice No. 43726 of 18 September 2020 – Condition of Contract. (Applicable to projects which require 7GB or 7CE cidb grading, i.e. R20 000 001 and above with minimum 6 month construction period)	Not applicable
(c)	Minimum Targeted Local Building Material Suppliers Contract Participation Goal in accordance with the cidb Standard for Contract Participation Goals for Targeting Enterprises and Labour through Construction Works Contracts as published in the Government Gazette Notice No. 41237 of 10 November 2017, as amended in cidb Best Practice Project Assessment Scheme Notice No. 43726 of 18 September 2020 – Condition of Contract. (Applicable to projects which require 7GB or 7CE cidb grading, i.e. R20 000 001 and above with minimum 6 month construction period)	Not applicable
(d)	Minimum Targeted Local Labour Skills Development Contract Participation Goal in accordance with the cidb Standard for Contract Participation Goals for Targeting Enterprises and Labour through Construction Works Contracts as published in the Government Gazette Notice No. 41237 of 10 November 2017, as amended in cidb Best Practice Project Assessment Scheme Notice No. 43726 of 18 September 2020 – Condition of Contract. (Applicable to projects which require Grade 7 to 9 cidb grading, i.e. R20 000 001 and above with minimum 12 month construction period)	Applicable
(e)	cidb BUILD Programme: Minimum Targeted Enterprise Development Contract Participation Goal in accordance with the cidb Standard for Indirect Targeting for Enterprise Development through Construction Works Contracts, No 36190 Government Gazette, 25 February 2013, as amended in cidb Best Practice Project Assessment Scheme Notice No. 43726 of 18 September 2020 — Condition of Contract. (Applicable to projects which require 7GB or 7CE cidb grading, i.e. R20 000 001 and above with minimum 6 month construction period)	Applicable
(f)	cidb BUILD Programme: Minimum Targeted Contract Skills Development Goal in accordance with the cidb Standard for Developing Skills through Infrastructure Contracts as published in the Government Gazette Notice No. 43495 of 3 July 2020, as amended in cidb Best Practice Project Assessment Scheme Notice No. 43726 of 18 September 2020 as amended in cidb Best Practice Project Assessment Scheme Notice No. 43726 of 18 September 2020 – Condition of Contract. (Applicable to projects which require cidb Grade 7 and above for all class of works categories, i.e. R20 000 001 and above with minimum 12 month construction period)	Not applicable
(g)	DPWI National Youth Service training and development programme (NYS) – Condition of Contract. (Applicable to projects with a minimum contract value R2 Mil and minimum 12 month construction period.	Applicable



(h)	Labour Intensive Works – Condition of Contract. (Applicable to all CE projects and all GB projects ≥ R30 million)	Not applicable
(i)	Minimum 25% mandatory sub-contracting to local SMMEs applicable to all class of works categories will be treated as the condition of contract where the appointed contractor will be expected to comply. Project Manager and Professional Team will be tasked to monitor the compliance of this mandatory sub-contracting.	Applicable
(j)		Select

PART 2: CONTRACT DATA COMPLETED BY THE TENDERER:

C TENDERER'S SELECTIONS

C 1.0 Securities [11.0]

In respect of contracts with a contract sum up to R1 million, the security to be provided by the contractor to the employer will be a payment reduction of five per cent (5%) of the value certified in the payment certificate (excluding VAT).

In respect of contracts with a contract sum more than R1 million, the security to be provided by the contractor to the employer will be selected by the Contractor as indicated below:

Guarantee for construction: Select Option A, B, C, D or E	

Option A	cash deposit of 10 % of the contract sum (excluding VAT)
Option B	variable construction guarantee of 10 % of the contract sum (excluding VAT) (DPW-10.3 EC)
Option C	payment reduction of 10% of the value certified in the payment certificate (excluding VAT)
Option D	cash deposit of 5% of the contract sum (excluding. VAT) and a payment reduction of 5% of the value certified in the payment certificate (excluding. VAT)
Option E	fixed construction guarantee of 5% of the contract sum (excluding VAT) and a payment reduction of 5% of the value certified in the payment certificate (excluding VAT) (DPW-10.1 EC)]

NB: Insurances submitted must be issued by either an insurance company duly registered in terms of the Insurance Act [Long-Term Insurance Act, 1998 (Act 52 of 1998) or Short-Term Insurance Act, 1998 (Act 53 of 1998)] or by a bank duly registered in terms of the Banks Act, 1990 (Act 94 of 1990) on the

Any reference to words "Bid" or Bidder" herein and/or in any other documentation shall be construed to have the same meaning as the words "Tender" or "Tenderer". Page 29 of 32

DPW-04 (EC) Contract Data: JBCC Principal Building Agreement (Edition 6.2 of May 2018)

pro-forma referred to above. No alterations or amendments of the wording of the pro-forma will be accepted.

Tender / Quotation no: PE25/2022

Guarantee for payment by employer [11.5.1; 11.10]	Not applicable
Advance payment, subject to a guarantee for advance payment [11.2.2; 11.3]	Not applicable

C 2.0 Payment of preliminaries [25.0]		
Contractor's selection		
Select Option A or B		

Where the contractor does not select an option, Option A shall apply

Payment methods

Option A	The preliminaries shall be paid in accordance with an amount prorated to the value of the works executed in the same ratio as the amount of the preliminaries to the contract sum , which contract sum shall exclude the amount of preliminaries . Contingency sum(s) and any provision for cost fluctuations shall be excluded for the calculation of the aforesaid ratio	
Option B	The preliminaries shall be paid in accordance with an amount agreed by the principal agent and the contractor in terms of the priced document to identify an initial establishment charge, a time-related charge and a final dis-establishment charge. Payment of the time-related charge shall be assessed by the principal agent and adjusted from time to time as may be necessary to take into account the rate of progress of the works	

Lump sum contract

Where the amount of **preliminaries** is not provided it shall be taken as 7.5% (seven and a half per cent) of the **contract sum**, excluding contingency sum(s) and any provision for cost fluctuations.

C 3.0 Adjustment of preliminaries [26.9.4]

Contractor's selection	1	
Select Option A or B		

Where the **contractor** does not select an option, Option A shall apply.

Provision of particulars

The **contractor** shall provide the particulars for the purpose of the adjustment of **preliminaries** in terms of his selection. Where completion in **sections** is required, the **contractor** shall provide an apportionment of **preliminaries** per **section**.

Any reference to words "Bid" or Bidder" herein and/or in any other documentation shall be construed to have the same meaning as the words "Tender" or "Tenderer". Page 30 of 32



Option A	An allocation of the preliminaries amounts into Fixed, Value-related and Time-related amounts as defined for adjustment method Option A below, within fifteen (15) working days of the date of acceptance of the tender
Option B	A detailed breakdown of the preliminaries amounts within fifteen (15) working days of possession of the site . Such breakdown shall include, inter alia, the administrative and supervisory staff, the use of construction equipment , establishment and dis-establishment charges, insurances and guarantees, all in terms of the programme

Adjustment methods

The amount of **preliminaries** shall be adjusted to take account of the effect which changes in time and/or value have on **preliminaries**. Such adjustment shall be based on the particulars provided by the **contractor** for this purpose in terms of Options A or B, shall preclude any further adjustment of the amount of **preliminaries** and shall apply notwithstanding the actual employment of resources by the **contractor** in the execution of the **works**.

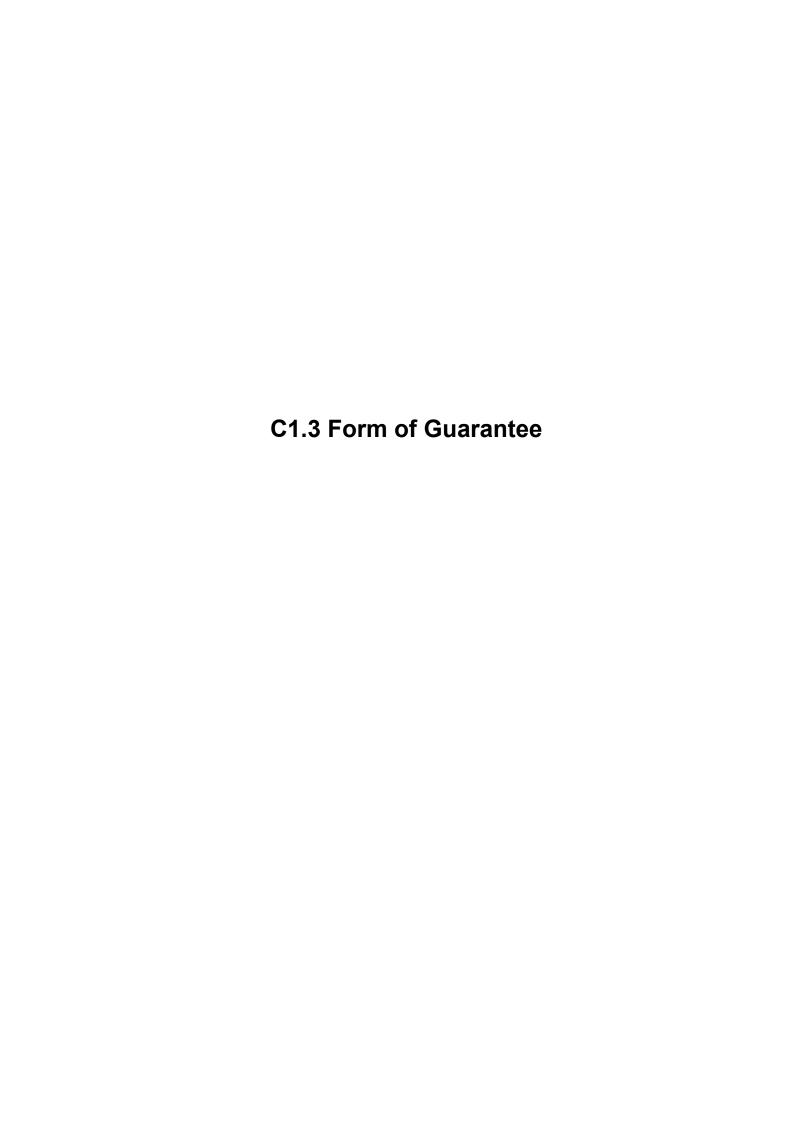
	The preliminaries shall be adjusted in accordance with the allocation of preliminaries amounts provided by the contractor , apportioned to sections where completion in sections is required
	Fixed - An amount which shall not be varied.
Option A	Value-related - An amount varied in proportion to the contract value as compared to the contract sum . Both the contract sum and the contract value shall exclude the amount of preliminaries , contingency sum(s) and any provision for cost fluctuations.
	Time-related - An amount varied in proportion to the number of calendar days extension to the date of practical completion to which the contractor is entitled with an adjustment of the contract value [23.2; 23.3] as compared to the number of calendar days in the initial construction period [26.9.4].
Option B	The adjustment of preliminaries shall be based on the number of calendar days extension to the date of practical completion to which the contractor is entitled with an adjustment of the contract value [23.2; 23.3] as compared to the number of calendar days in the initial construction period [26.9.4]. The adjustment shall take into account the resources as set out in the detailed breakdown of the preliminaries for the period of construction during which the delay occurred.

Failure to provide particulars within the period stated

Option A	Where the allocation of preliminaries amounts for Option A is not provided, the following allocation of preliminaries amounts shall apply: Fixed - Ten per cent (10%) Value-related - Fifteen per cent (15%) Time-related - Seventy-five per cent (75%) Where the apportionment of the preliminaries per section is not provided, the categorised amounts shall be prorated to the cost of each section within the contract sum as determined by the principal agent
Option B	Where the detailed breakdown of preliminaries amounts for Option B is not provided, Option A shall apply

Lump sum contract

Any reference to words "Bid" or Bidder" herein and/or in any other documentation shall be construed to have the same meaning as the words "Tender" or "Tenderer". Page 31 of 32





DPW-10.1 (EC): FIXED CONSTRUCTION GUARANTEE - JBCC 2000 PRINCIPAL BUILDING AGREEMENT (EDITION 6.2 OF MAY 2018)

Director-General
Department of Public Works and Infrastructure
Government of the Republic of South Africa

FOR ATTENTION

Private Bag

Sir,

1.

2.

3.

4.

FIXED CONSTRUCTION GUARANTEE FOR THE EXECUTION OF A CONTRACT IN TERMS OF JBCC 2000 (EDITION 6.2 OF MAY 2018)

With reference to the contract between	
referred to as the "contractor") and the Government of the Republic of South Africa	reinafter a in its Department
of Public Works and Infrastructure (hereinafter referred to as the "employer"), Cope25/2022, for the Joubertina Police Station ERF 1200: Repairs & Maintena Mechanical, Civil & Structural Elements to the Complex: Completion of Contract 1. (h	ontract/Tender No ince of Electrical
to as the "contract") in the amount of R	(hereinaftei
referred to as the contract sum),	(Horomano)
I / We,	
in my/our capacity asan	nd hereby
representing (hereinafter ref "guarantor") advise that the guarantor holds at the employer's disposal the sum of F	ferred to as the
	being 5% of the
The guarantor hereby renounces the benefits of the exceptions <i>non numeratae pe debiti; excussionis et divisionis;</i> and <i>de duobus vel pluribus reis debendi</i> which against the enforcement of this guarantee, with the meaning and effect whe myself/ourselves to be conversant, and undertake to pay the employer the amou receipt of a written demand from the employer to do so, stating that the employer has against the contractor in terms of 33.0 of the contract.	could be pleaded reof I/we declare nt guaranteed, or
Subject to the above, but without in any way detracting from the employer's rights t procedures provided for in the contract, the said demand can be made by the empl e prior to the expiry of this guarantee.	

The amount paid by the **guarantor** in terms of this guarantee may be retained by the **employer** on condition that upon the issue of the last final **payment certificate**, the **employer** shall account to the **guarantor** showing how this amount has been expended and refund any balance due to the **guarantor**.



Tender no: (Insert Tender Number)

- 5. The employer shall have the absolute right to arrange his affairs with the contractor in any manner which the employer deems fit and the guarantor shall not have the right to claim his release on account of any conduct alleged to be prejudicial to the guarantor. Without derogating from the aforegoing, any compromise, extension of the construction period, indulgence, release or variation of the contractor's obligation shall not affect the validity of this guarantee.
- The quarantor reserves the right to withdraw from this quarantee at any time by depositing the 6. guaranteed amount with the employer, whereupon the guarantor's liability ceases.
- 7. This guarantee is neither negotiable nor transferable, and
 - must be surrendered to the guarantor at the time when the employer accounts to the guarantor in terms of clause 4 above, or
 - shall lapse on the date of the last certificate of practical completion. (b)
- 8. This guarantee shall not be interpreted as extending the guarantor's liability to anything more than payment of the amount guaranteed.

SIGN	ED AT	ON THIS	DAY OF
		20	
	TITNESS		
1.			
2.			
		By and on behalf of	
		(insert the name and physical address	of the guarantor)
		NAME:	
		CAPACITY: (duly authorised thereto by resolution Annexure A)	n attached marked
		DATE:	
A.	No alterations and/or a	additions of the wording of this form will be accepted.	
В.		of the guarantor must be clearly indicated and will be citandiet executandi, for all purposes arising from t	_
C.	•	st be returned to:	_



DPW-10.3 (EC): VARIABLE CONSTRUCTION GUARANTEE - JBCC 2000 PRINCIPAL BUILDING AGREEMENT (EDITION 6.2 OF MAY 2018)

Director-General
Department of Public Works and Infrastructure
Government of the Republic of South Africa

FOR ATTENTION

Private Bag

Sir,

1.

VARIABLE CONSTRUCTION GUARANTEE FOR THE EXECUTION OF A CONTRACT IN TERMS OF JBCC 2000 (EDITION 6.2 OF MAY 2018)

With reference to the contract between	
(hereinafter	
referred to as the "contractor") and the Government of the Republic of South Africa, in its Department	
of Public Works and Infrastructure, (hereinafter referred to as the "employer"), Contract/Tender N	
PE25/2022, for the Joubertina Police Station ERF 1200: Repairs & Maintenance of Electric	
Mechanical, Civil & Structural Elements to the Complex: Completion of Contract 1. (hereinaf referred to as the "contract" in the amount of R	
() (hereinafter referred as the contra	 act
sum),	
I / We,	
in my/our capacity asand hereby	
representing (hereinafter referred to as t	the
"guarantor") advise that the guarantor holds at the employer's disposal the sum of R	
() being 10% of t	the
contract sum (excluding VAT), for the due fulfillment of the contract.	

- 2. I / We advise that the **guarantor's** liability in terms of this guarantee shall be as follows:
 - (a) From and including the date on which this guarantee is issued and up to and including the date of payment of the amount in the last final **payment certificate**, the **guarantor** will be liable in terms of this guarantee to the maximum amount of 10% of the **contract sum** (excluding VAT);
 - (b) The **guarantor's** liability shall reduce to 3 % of the **contract value** (excluding VAT) as determined at the date of the last **certificate of practical completion**, subject to such amount not exceeding 10% of the **contract sum** (excluding VAT).
 - (c) The **guarantor's** liability shall reduce to 1 % of the **contract value** (excluding VAT) as determined at the date of the last **certificate of final completion**, subject to such amount not exceeding 10 % of the **contract sum** (excluding VAT).
 - (d) This guarantee shall expire on the date of the last **final payment certificate**.
 - (e) The **practical completion certificate** and the **final completion certificate** referred to in this guarantee shall mean the certificates issued in terms of the contract.



Tender no: PE25/2022

- 3. The guarantor hereby renounces the benefits of the exceptions non numeratae pecunia; non causa debiti; excussionis et divisionis; and de duobus vel pluribus reis debendi which could be pleaded against the enforcement of this guarantee, with the meaning and effect whereof I/we declare myself/ourselves to be conversant, and undertake to pay the employer the amount guaranteed on receipt of a written demand from the employer to do so, stating that the employer has a right of recovery against the contractor in terms of 33.0 of the contract.
- 4. Subject to the above, but without in any way detracting from the employer's rights to adopt any of the procedures provided for in the contract, the said demand can be made by the employer at any stage prior to the expiry of this guarantee.
- 5. The amount paid by the quarantor in terms of this quarantee may be retained by the employer on condition that upon the issue of the last final payment certificate, the employer shall account to the guarantor showing how this amount has been expended and refund any balance due to the guarantor.
- 6. The employer shall have the absolute right to arrange his affairs with the contractor in any manner which the employer deems fit and the guarantor shall not have the right to claim his release on account of any conduct alleged to be prejudicial to the guarantor. Without derogating from the aforegoing, any compromise, extension of the construction period, indulgence, release or variation of the contractor's obligation shall not affect the validity of this guarantee.
- 7. The guarantor reserves the right to withdraw from this guarantee at any time by depositing the amount guaranteed with the employer, whereupon the guarantor's liability ceases.
- 8. This guarantee is neither negotiable nor transferable, and
 - (a) must be surrendered to the guarantor at the time when the employer accounts to the guarantor in terms of clause 5 above, or
 - (b) shall lapse in accordance with clause 2(d) above.
- 9. This guarantee shall not be interpreted as extending the guarantor's liability to anything more than the payment of the amount guaranteed.

SIGNED AT	ON THIS	DAY OF	20
AS WITNESS			
1.			
2.			

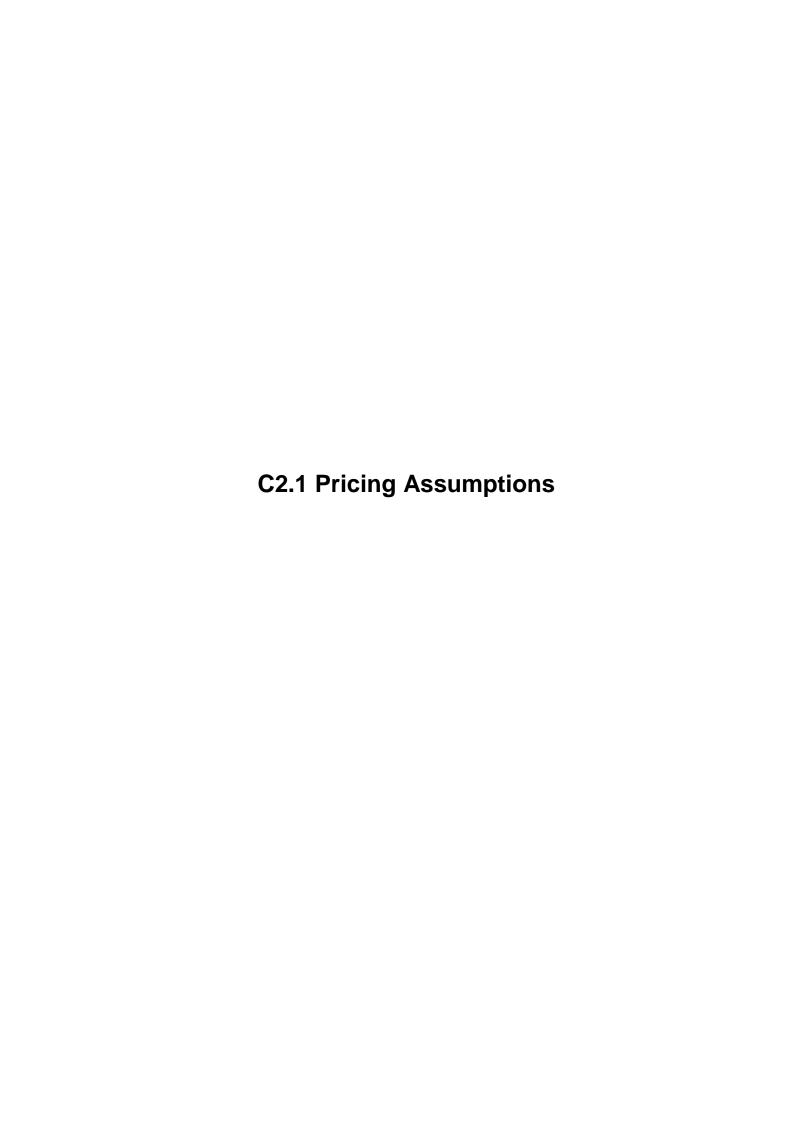
Effective date June 2022



Tender no: PE25/2022

	By and on behalf of
	(insert the name and physical address of the guarantor)
	NAME:
	CAPACITY: (duly authorised thereto by resolution attached marked Annexure A)
	DATE:
A.	No alterations and/or additions of the wording of this form will be accepted.
В.	The physical address of the guarantor must be clearly indicated and will be regarded as the
	guarantor's domicilium citandi et executandi, for all purposes arising from this guarantee.
C.	This guarantee must be returned to:
	







PG-02.2 (EC) PRICING ASSUMPTIONS - JBCC 2000 PRINCIPAL BUILDING AGREEMENT (Edition 6.2 of May 2018)

Project title:	Joubertina Police Station ERF 1200: Repairs & Maintenance of Electrical, Mechanical, Civil & Structural Elements to the Complex: Completion of Contract 1.				
Tender / Quotation no:	PE25/2022	WCS no:	051843	Reference no:	19/2/4/2/2/6417/24

C2.1 Pricing Assumptions

C2.1.1 BILLS OF QUANTITIES / LUMP SUM DOCUMENT

The **bills of quantities** / **lump sum document** forms part of and must be read and priced in conjunction with all the other documents forming part of the **contract documents**, the Standard Conditions of Tender, Conditions of Contract, Specifications, Drawings and all other relevant documentation.

The prices and rates to be inserted by the Tenderer in the Bill of Quantities shall be the full inclusive prices to be paid by the Employer for the work described under the several items, and shall include full compensation for all cost and expenses that may be required in and for the completion and maintenance during the defects liability period of all the work described and as shown on the drawings as well as all overheads, profits, incidentals and the cost of all general risks, liabilities and obligations set forth or implied in the documents on which the Tender is based.

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

No alterations, erasures, omissions or additions is to be made in the text and/or conditions of these Bills of Quantities. Should any such alterations, amendments, note/s or addition be made, the same will not be recognized, but reading of these Bills of Quantities as originally prepared by the Quantity Surveyor will be adhered to.

The contractor is cautioned that the use of any quantities appearing in these Bills of Quantities for the purpose of ordering material, it is done at own risk and no liability whatsoever will be admitted by the Employer or Quantity Surveyor for the correctness of such Quantities. Unless otherwise stated, items are measured net in accordance with the drawings, and no allowance is made for waste.

The prices and rates to be inserted by the Tenderer in the Bills of Quantities shall be the full inclusive prices to be paid by the Employer for the work described. Such prices and rates shall cover all costs and expenses that may be required in and for the execution of the work described, and shall cover the cost of all general risks, liabilities, and obligations set forth or implied in the documents on which the tender is based, as well as overhead charges and profit. Market related prices shall be inserted as these will be used as a basis for assessment of payment for additional work that may have to be carried out. The Employer reserves the right to balance the Bill rates where deemed necessary within the Tendered Amount.

A price or rate is to be entered against each item in the Bills of Quantities, whether the quantities are stated or not. An item against which no rate is/are entered, or if anything other than a rate or a nil rate (for example, a zero, a dash or the word "included" or abbreviations thereof) is entered against an item, it will also be regarded as a nil rate having been entered against that item, i.e. that there is no charge for that item. The Tenderer may be requested to clarify nil rates, or items regarded as having nil rates; and the Employer may also perform a risk analysis with regard to the reasonableness of such rates



PG-02.2 (EC) PRICING ASSUMPTIONS - JBCC 2000 PRINCIPAL BUILDING AGREEMENT (Edition 6.2 of May 2018)

Should the full intent and meaning of any description not be clear, the bidder shall, before submission of his tender, call for a written directive from the principal agent, failing which it shall be assumed that the contractor has allowed in his pricing for materials and workmanship in terms of National Best Practice.

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

The Tenderer is required to check the Bills of Quantities and the numbers of the pages and should any be found to be missing or in duplicate, or should any of the typing be indistinct, or any doubt of obscurity arise as to the meaning of any description or particulars of any item, or if this Tender Enquiry contains any obvious errors, then the Tenderer must immediately inform the Principal Agent and have them rectified or explained in writing as the case may be. No liability whatsoever will be admitted by reason of the Contractor having failed to comply with the foregoing instruction.

The contractor is cautioned that the use of any quantities appearing in these Bills of Quantities for the purpose of ordering material, it is done at own risk and no liability whatsoever will be admitted by the Employer or Quantity Surveyor for the correctness of such Quantities. Unless otherwise stated, items are measured net in accordance with the drawings, and no allowance is made for waste.

No alterations, erasures, omissions, or additions are allowed to be made to the text and/or conditions contained in these Bills of Quantities. If any such alteration, amendment, note or addition is made, it will not be recognised and the Bills of Quantities will be deemed to be as originally drawn up by the Quantity Surveyor.

A price or rate is to be entered against each item in the Bills of Quantities, whether the quantities are stated or not. An item against which no rate is/are entered, or if anything other than a rate or a nil rate (for example, a zero, a dash or the word "included" or abbreviations thereof) is entered against an item, it will also be regarded as a nil rate having been entered against that item, i.e. that there is no charge for that item. The Tenderer may be requested to clarify nil rates, or items regarded as having nil rates; and the Employer may also perform a risk analysis with regard to the reasonableness of such rates.

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

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

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

For 'Rate Only" items no quantities are given in the "Quantity" column but the quoted rate shall apply in the event of work under this item being required. The Tenderer shall however note that in terms of the Tender Data the Tenderer may be asked to reconsider any such rates which the Employer may regard as unbalanced.

Descriptions in the Bills of Quantities are abbreviated and comply generally with those in the "PW 371" and the principles contained in the latest version of the Standard System for Measuring Builders' Work in South Africa. It is the intention that the abbreviated descriptions be fully described when read with the applicable measuring system and the relevant preambles and/or specifications. However, should the full intent and meaning of any description not be clear, the bidder shall, before submission of his tender, call for a written directive from the principal agent, failing which it shall be assumed that the contractor has allowed in his pricing for materials and workmanship in terms of National Best Practice.



PG-02.2 (EC) PRICING ASSUMPTIONS - JBCC 2000 PRINCIPAL BUILDING AGREEMENT (Edition 6.2 of May 2018)

The price quoted against each item of this Bills of Quantities shall cover the full inclusive cost of the complete work to which it refers, as described in the Conditions of Contract and Specifications and as shown on the Drawings and shall allow for labour, material, transporting, loading, storage, supervision, commissioning, wastage, as well as the builders profit and attendance.

The Tenderer must ensure that he fully completes all columns of the Bill of Quantities including the Final Summary. The fully priced bill of quantities must be submitted with the tender or The Final Summary and the Section Summary pages MUST be returned with the tender document as indicated the PA-03 Notice and Invitation to Tender / PA-04 Notice and Invitation for quotation.

The tenderers are to ensure that they have read and understood the project specifications included in C3: Scope of Work. All the information provided in the Scope of Works form part of the work and must be included in the rates.

"The Contractor shall be deemed to have inspected and examined the Site and its surroundings and information available in connection therewith and to have satisfied himself before submitting his tender (as far as is practicable) as to:

- (a) the form and nature of the Site and its surroundings, including subsurface conditions,
- (b) the hydrological and climatic conditions,
- (c) the extent and nature of work and materials necessary for the execution and completion of the Works.
- (d) the means of access to the Site and the accommodation he may require

and, in general, shall be deemed to have obtained all information (as far as is practicable) as to risks, contingencies and all other circumstances which may influence or affect his Tender"

C2.1.2 VALUE ADDED TAX

The contract sum must include for Value Added Tax (VAT). All rates, provisional sums, etc. in the bills of quantities / lump sum document shall be in Rands and cents and shall include all levies and taxes (other than VAT). VAT will be added in the summary of the Bill of Quantities. The rates must however be net (exclusive of VAT) with VAT calculated and added to the total value thereof in the Final Summary. All rates and amounts quoted in the Bill of Quantities

C2.1.3 CORRECTION OF ENTRIES

Incorrect entries shall 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 Tenderer.

C2.1.4 ARITHMETICAL ERRORS

Arithmetical errors found in the Bill of Quantities as a result of faulty multiplication of addition, will be corrected by the Engineer at the tender evaluation stage, as set out in the Tender Data.

C2.1.5 TRADE NAMES

Tenderers attention is drawn to the fact that wherever trade names or references to any catalogue have been made in these Bills of Quantities, it is purely to establish a standard for the required material. If use is made of any other equally approved material in lieu of the prescribed trade name or catalogue, the necessary price adjustments will be made.



PG-02.2 (EC) PRICING ASSUMPTIONS - JBCC 2000 PRINCIPAL BUILDING AGREEMENT (Edition 6.2 of May 2018)

C2.1.6 CONTRACT DOCUMENTS

The Tenderers are advised to examine the bills of quantities, drawings and specifications including all other contract documents and make themselves thoroughly acquainted with the nature and requirements of the work, as no claim for extra payment in this regard will be entertained. Should any parts of the drawings not be clearly intelligible to the Tender, he must, before submitting his tender, obtain clarification from the Principal Agent.

C2.1.7 FIXED PRICE CONTRACT

The Bills of Quantities document is not a fixed price contract and the Tenderers are to take note that contract price adjustments (CPAP) are applicable to this contract.

C2.1.8 PAYMENTS

Interim valuations and payments will be prepared on a monthly basis, all in terms of the conditions of contract.

The contractor is to note that no payment will be made for materials stored off site and in the case of materials being stored on site, payment will only be made for such materials on condition that they have not been delivered to the site prematurely, a tax invoice and proof of payment (ownership) is submitted by the Contractor.

C2.1.9 ACCOMMODATION ON SITE

It is imperative to note that no living quarters for construction workers on site will not be permitted for the full duration of the contract unless otherwise stated in the contract data or permission be granted by the Employer.

C2.1.10 LOCAL MATERIAL UTILISATION REPORT (LOCAL CONTENT)

Bidders to note that materials procured for the works should be from South African manufactures and suppliers. Imported materials shall only be considered under exceptional circumstances, based on compelling technical justifications, and subject to the approval by the NDPWI.

The contractor shall achieve in the performance of this contract the prescribed local content deliverables as listed in PA36 and annexures C thereto in the respective designated sectors as published by Department Trade Industry and Competition (DTIC). The Service Provider shall submit an accumulative monthly report to the Employer's representative indicating the percentage targets achieved which must be reconciled upon completion of the project and to form part of the final account.

The contractor shall be responsible for record keeping, documenting and submission of monthly local material utilization report with supporting documentation to the Employer's representative within 7 working days of the beginning of the successive month, in terms of DTI&C designated industry/sector/sub-sector schedule as per the PA36 and Annexures C attached to the tender document. The final percentage achievement to be reconciled upon completion of the project and form part of the final account.

Failure by the contractors to achieve the specified percentage of local content per designated industry/sector/sub-sector as listed will result in a thirty percent thirty percent (30%) penalty of the value not achieved, excluding VAT, unless the contractor can prove to the Employer's satisfaction that the non-achievement was beyond his/her control. Allowance must be made for submitting monthly reports illustrating the value of local material utilisation report.



PG-02.2 (EC) PRICING ASSUMPTIONS - JBCC 2000 PRINCIPAL BUILDING AGREEMENT (Edition 6.2 of May 2018)

C2.1.11 CONTRACT PARTICIPATION GOALS AND CIDB BUILD PROGRAMME

The contractor shall achieve in the performance of this contract the following Contract Participation Goals (CPGs) as indicated below:

Provision for pricing of compliance with the achieving the CPGs is made in the Contract Participation Goal Section of the Bills of Quantities and it is explicitly pointed out that all requirements in respect of the aforementioned are deemed to be priced thereunder and no additional claims in this regard shall be entertained

Monthly progressive reports to be submitted to the Employer's representative indicating the percentage targets achieved which must be reconciled upon completion of the project and to form part of the final account.

C2.1.11.1 MINIMUM THIRTY PERCENT 25% SUB-CONTRACTING CONTRACT PARTICIPATION GOAL

MINIMUM THIRTY PERCENT (25%) MANDATORY SUBCONTRACTING TO SMMES: IMPLEMENTATION OF PREFERENCIAL PROCUREMENT RGULATIONS 2017

25% Mandatory subcontracting is "appliacble" to this project.

Provision is made within the Contract Participation Goal section in the Bill of Quantities for thirty percent (30%) subcontracting to SMMEs in the execution of this project as described in PG-01.2 (EC) SCOPE OF WORKS C3.6.1. The contractor shall price his Profit and Attendance, all inclusive of associated costs to the contractor for implementation. Allowance must be made for submitting reports to the Employer's Representative on a monthly basis in terms of monthly and accumulative targets achieved with audited supporting documentation.

C2.1.11.2 MINIMUM TARGETED LOCAL BUILDING MATERIAL MANUFACTURERS CONTRACT PARTICIPATION GOAL

The Minimum Targeted Local Building Material Manufacturers CPG is "not applicable" to this project.

Provision is made within the Contract Participation Goal section in the Bill of Quantities for the Minimum Targeted Local Building Material Manufacturers CPG in the execution of this project as described in PG-01.2 (EC) SCOPE OF WORKS C3.6.2. The contractor shall price his Profit and Attendance, all inclusive of associated costs to the contractor for implementation. Allowance must be made for submitting reports to the Employer's Representative on a monthly basis in terms of monthly and accumulative targets achieved with audited supporting documentation.

C2.1.11.3 MINIMUM TARGETED LOCAL BUILDING MATERIAL SUPPLIERS CONTRACT PARTICIPATION GOAL

The Minimum Targeted Local Building Material Suppliers CPG is "not applicable" to this project.

Provision is made within the Contract Participation Goal section in the Bill of Quantities for the Minimum Targeted Local Building Material Suppliers CPG in the execution of this project as described in PG-01.2 (EC) SCOPE OF WORKS C3.6.3. The contractor shall price his Profit and Attendance, all inclusive of associated costs to the contractor for implementation. Allowance must be made for submitting reports to the Employer's Representative on a monthly basis in terms of monthly and accumulative targets achieved with audited supporting documentation.



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C2.1.11.4 MINIMUM TARGETED LOCAL LABOUR SKILLS DEVELOPMENT CONTRACT PARTICIPATION GOAL

The Minimum Targeted Local Labour Skills Development CPG is "appliacble" to this project.

Provision is made within the Contract Participation Goal section in the Bill of Quantities for the Minimum Targeted Local Labour Skills Development CPG in the execution of this project as described in PG-01.2 (EC) SCOPE OF WORKS C3.6.4. The contractor shall price his Profit and Attendance, all inclusive of associated costs to the contractor for implementation. Allowance must be made for submitting reports to the Employer's Representative on a monthly basis in terms of monthly and accumulative targets achieved with audited supporting documentation.

C2.1.11.5 CIDB BUILD PROGRAMME: MINIMUM TARGETED ENTERPRISE DEVELOPMENT: CONTRACT PARTICIPATION GOALS (CPG)

The Minimum Targeted Enterprise Development CPG is "appliacble" to this project.

A provisional amount has been allowed for within the Contract Participation Goal section in the Bill of Quantities for the Minimum Targeted Enterprise Development CPG in the execution of this project as described in PG-01.2 (EC) SCOPE OF WORKS C3.6.5. The provisional amount allowed is for the appointment of training coordinator, mentor, training service providers and training of the beneficiary enterprises.

The contractor shall price his Profit and Attendance, all inclusive of associated costs to the contractor for implementation. Allowance must be made for submitting reports to the Employer's Representative on a monthly basis in terms of monthly and accumulative targets achieved with audited supporting documentation.

The contractor shall complete a separate bill of quantities upon the award of the project and identification of the respective beneficiaries and the appointment of the training coordinator, mentor, training service providers of which the cost will be offset against the provisional amount allowed in the Bills of Quantities.

C2.1.11.6 CIDB BUILD PROGRAMME: MINIMUM TARGETED CONTRACT SKILLS DEVELOPMENT GOALS (CSDG)

The Minimum Targeted Contract Skills Development CPG is "appliacble" to this project.

A provisional amount has been allowed for within the Contract Participation Goal section in the Bill of Quantities for the Minimum Targeted Skills Development CPG in the execution of this project as described in PG-01.2 (EC) SCOPE OF WORKS C3.6.6. The provisional amount allowed is for:

- stipends payable to the beneficiaries
- appointment of training coordinator
- appointment of mentor (where applicable)
- appointment of training service providers
- other additional costs as per table 3 of the Standard



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The contractor shall price his Profit and Attendance (all inclusive of associated costs to the contractor for implementation and reporting), based on the provisional amount in the Contract Participation Goal section in the Bill of Quantities. The contractor shall complete a separate bill of quantities upon the award of the project and identification of the respective beneficiaries. The CPG value to be achieved will be based on the actual contract amount which will be offset against the provisional amount allowed for within the Contract Participation Goal section in the Bill of Quantities.

Allowance must be made for submitting reports to the Employer's Representative on a monthly basis in terms of monthly and accumulative targets achieved with audited supporting documentation.

Payment

The contractor shall upon the appointment of beneficiaries, provide a breakdown of all the associated costs. The contractor shall provide a payment schedule as to how the CPG costs will be claimed against for inclusion in the monthly payment certificates.

(a) Payment to the contractor to accommodate Part/Full Occupational qualification and Trade qualifications;

Should the contractor select Part/Full Occupational qualification and Trade qualifications learners, then the employer shall make provision for payment to the contractor as indicated in Table 3 of the Standard.

The contract skills participation goal, expressed in Rand, shall not be less than the contract amount multiplied by a percentage (%) factor given in Table 2 in the Standard for the applicable class of construction works. Should the contractor select Part/Full Occupational qualification and Trade qualifications learners, then the employer shall make provision for payment to the contractor as indicated in Table 3 of the Standard.

No provision for an additional payment item for the payment of the supervisor and/or mentors for the provision of training as provided for in the Contract Participation Goal section in the Bill of Quantities for the training of part/full time occupational learners and/or trade qualification learners. The associated cost is deemed to be included in general supervision on site.

The contractor shall complete a separate bill of quantities upon award, indicating the type and number of beneficiaries as well as the associated Notional Cost of Training to be provided, on which payment will be based.

(b) Payment to the contractor to accommodate Work Integrated Learners and Candidates for professional registration;

Should the contractor select Work Integrated Learners and/or Candidates for professional registration, then the employer shall make provision for payment to the contractor as indicated in Table 3 of the Standard.

Provisional amounts have been included in the Contract Participation Goal section in the Bill of Quantities for the training of Work Integrated Learners and Candidates for professional registration. The contractor shall price his Profit and Attendance (all inclusive of associated costs to the contractor for implementation and reporting), based on the provisional amount in the Contract Participation Goal section in the Bill of Quantities.

The contractor shall complete a separate bill of quantities upon award, indicating the type and number of beneficiaries as well as the associated Notional Cost of Training to be provided, on which payment will be based.

The CPG value to be achieved will be based on the contract amount as defined by the Standard, which will be offset against the provisional amount allowed for within the Contract Participation Goal section in the Bill of Quantities.

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The contractor shall apportion the cost of accommodating work integrated learners (P1 and P2 learners) and candidates for professional registration by using Table 3 in the Standard and this cost will be used to determine the Rand value and will be used in determining the contract participation goal in the Bills of Quantities.

Table 3: Notional Cost of Training; Headcount

Source: cidb Standard for Skills Development

Type of Training	Provision for stipends	Provisions	Provisions for additional costs*	Total costs	
Opportunity	(Unemployed learners only)	for mentorship		Unemployed learners	Employed learners
Method 1					
Occupational qualification	R7 000	R0	R9 000	R16 000	R9 000
Method 2					
TVET College graduates	R14 000	R0	R9 000	R23 000	N/A
Apprenticeship	R14 000	R0	R12 000	R26 000	R12 000
Method 3					
P1 and P2 learners	R24 000	R20 000	R4 500	R48 500	N/A
Method 4					
Candidates with a 3 year diploma	R37 000	R20 000	R4 500	R61 500	R20 000
Candidates with 4 year qualification	R47 000	R20 000	R4 500	R71 500	R20 000

Note: the required CPG will be recalculated based on the awarded tender amount and "Contract amount" once the beneficiaries have been appointed and actual costs are known. The notional cost of providing training opportunities will increase by CPI on an annual basis based on April CPI. Should the rates increase after bid award or during construction the rates will be adjusted as a remeasuarble item.

Example: Training Target Calculation for a R65,7m GB contract

Contract amount R65 700 000
Contract duration 12 Months
CSDG factor 0,50%

Minimum CSDG target 0,50% x R65 700 000 = R328 500 (Minimum requirement)

Table 4: Notional cost recalculation upon appointment of beneficiaries

Skills Types	Number of learners	Notional Cost / Learner / Quarter	Notional cost/learner/year	Total Notional Cost over 12 months Contract
Method 2: Workplace learning opportunities, with unemployed TVET graduates	1	R23 000	R92 000	R92 000
Method 3: Candidacy for an unemployed learner with a 3-year qualification	1	R61 500	R246 000	R246 000
Total	2			R338 000

C2.1.11.7 NATIONAL YOUTH SERVICE TRAINING AND DEVELOPMENT PROGRAMME

The National Youth Service Training and Development Programme is "appliacble" to this project.



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The programme shall be implemented in terms of the Implementation of the National Youth Service Programme under the Expanded Public Works (EPWP) and shall be priced in the CPG section of the Bills of Quantities.

Provision has been made within the Contract Participation Goal section in the Bill of Quantities for the National Youth Service Training and Development Programme CPG in the execution of this project as described in PG-01.2 (EC) SCOPE OF WORKS C3.6.7. The contractor to price all elements of this section and allowance must be made for submitting monthly reports in the prescribed manner as per examples of reports bound in the specification document.

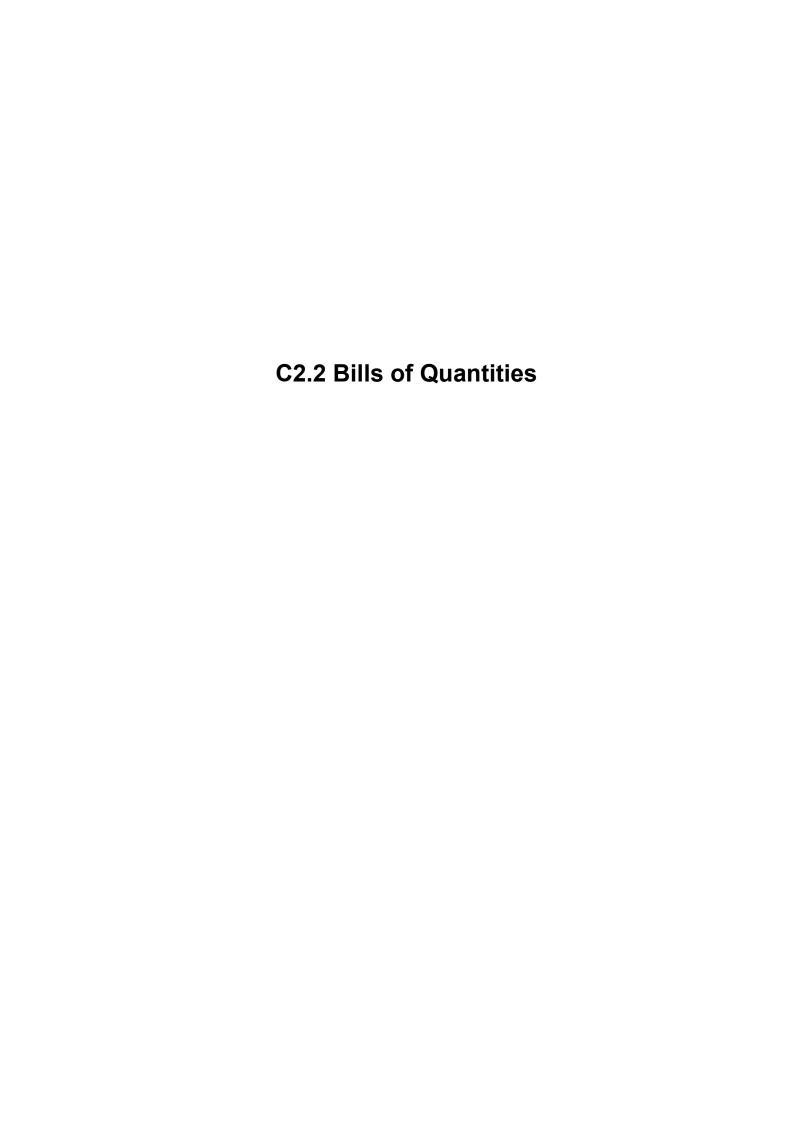
C2.1.11.8 LABOUR-INTENSIVE WORKS

Labour Intensive Works is "appliacble" to this project.

Where labour intensive work is specified in the Bill of Qualities and indicated by "LI" the contractor must price for and include in rates. Contractors are expected to use their initiative to identify additional activities that can be done labour-intensively to comply with the set minimum labour intensity target. Allowance must be made for submitting monthly reports illustrating the value of the works executed under Labour Intensive Works.

C2.2 Submission of Accrual Reports

The Contractor shall submit accrual reports to the client representative at the end of March and September each year for the duration of the Service Contract period from the date of appointment up to and including project closeout. This is to ensure that PMTE complies with the accounting framework GRAP, which requires that PMTE disclose all its accruals as at the end of each reporting date. Allowance must be made for submitting reports to the Employer's Representative on a monthly basis in terms of monthly and accumulative targets achieved with audited supporting documentation.





BILL OF QUANTITIES

FOR

JOUBERTINA POLICE COMPLEX: ERF 1200: REPAIRS & MAINTENANCE OF ELECTRICAL, CIVIL, MECHANICAL & STRUCTURAL ELEMENTS OF THE COMPLEX: COMPLETION OF CONTRACT 1

BID NO. : PE25/2022

REFERENCE NO. : 19/2/4/2/2/6417/24

Compiled for:

National Department of Public Works Eben Donges Building PORT ELIZABETH 6001 Compiled by:

QAPELA QUANTITY SURVEYORS (PTY) LTD 16 Jarvis Road,

Berea

EAST LONDON

5241



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SECTION NO. 1 PRELIMINARIES



SECTION	NO. 1	
PRELIMIN	ARIES	
DDE! IMIN	ADIEO	
PRELIMIN		
	OF TERMS "TENDER / TENDERER"	
	nce to the words "Tender" or "Tenderer" herein and/or in any other tion shall be construed to have the same meaning as the words dder"	
BUILDING	AGREEMENT AND PRELIMINARIES	
by the Join agreement	Principal Building Agreement (Edition 6.2 - May 2018) prepared Building Contracts Committee shall be the applicable building amended as hereinafter described to be read in conjunction with ct Data issued with the tender.	
Contracts ((Edition 6.2	General Preliminaries (May 2018) published by the Joint Building Committee for use with the JBCC Principal Building Agreement - May 2018) shall be deemed to be incorporated in these bills of amended as hereinafter described	:
	ctor is deemed to have referred to the abovementioned for the full intent and meaning of each clause	
	s in the abovementioned documents are hereinafter referred to by ber and heading only	/
	item is not relevant to this agreement such item is marked N/A not applicable'	
agreemen will apply a amendmer precedence	ndard clauses or alternatives are not entirely applicable to this such amendments, modifications, corrections or supplements as re given under each relevant clause heading and such its, modifications, corrections or supplements shall take in notwithstanding anything to the contrary contained in the ioned documents	
TENDERE	R'S SELECTIONS	
	mission of his tender the contractor is to complete the tenderer's n the contract data for organs of state and other public sector	
STRUCTU	RE OF THIS PRELIMINARIES BILL	
	A recital of the headings of the individual clauses in the oned JBCC Principal Building Agreement	

Carried To Section Summary

R

Section No. 1 Bill No. 1 Preliminaries

project

Section B : A recital of the headings of the individual clauses in the

Section C : Any special clauses to meet the particular circumstances of the

aforementioned **JBCC** General Preliminaries



PRICING OF PRELIMINARIES

Should the contractor select Option A in the contract data for the adjustment of **preliminaries**, the amounts entered against the relevant items in these preliminaries are to be divided into one or more of the three categories provided namely fixed (F), value related (V) and time related (T)

PRICING OF BILLS OF QUANTITIES

The contractor is to allow opposite each item for all costs in connection therewith. All prices to include, unless otherwise stated, for all materials, fabrication, conveyance and delivery, unloading, storing, unpacking, hoisting, labour, setting, fitting and fixing in position, cutting and waste (except where to be measured in accordance with the standard system of measurement), patterns, models and templates, plant, temporary works, returning of packaging, duties, taxes (other than Value Added Tax), imposts, establishment charges, overheads, profit and all other obligations arising out of this agreement.

Items left unpriced will be deemed to be covered in prices against other items throughout these bills of quantities and no claim for any extras arising out of the contractor's omission to price any item will be entertained

Prices for all construction equipment, temporary works, services and other items shall include for the supply, maintenance, operating cost and subsequent removal and making good as necessary

VALUE ADDED TAX

Provision is made in the summary page of these bills of quantities / lump sum document for the inclusion of Value Added Tax (VAT)

SECTION A: PRINCIPAL BUILDING AGREEMENT

INTERPRETATIONS (A1-A7)

A1.0 DEFINITIONS AND INTERPRETATIONS

Clause 1.0

The following definitions replace corresponding definitions or are added to the definitions in the JBCC PRINCIPAL BUILDING AGREEMENT (Edition 6.2 of May 2018), whatever the case may be

ADVERSE WEATHER CONDITIONS: Adverse weather and inclement weather has the same meaning and used interchangeably and means any weather conditions i.e.: Rain, wind, snow, frost, temperature (cold or heat) that are not in the norm for the area where the construction takes place and during which no work is possible on site

AGREEMENT: The completed Form of Offer and Acceptance, the completed а a re

JBCC® Principal Building Agreement and cor and other public sector bodies, the contract d and any other documents reduced to writing a representative or representatives of the partie	rawings, the priced document and signed by the authorised		
CONSTRUCTION PERIOD: The period common possession of the site by the contractor and ecompletion			
Section No. 1	Carried To Section Summary	R	
Bill No. 1			
Preliminaries			
	3		



	CONTRACT PERIOD: The period commencing on the date of the letter of acceptance and ending on the date of final completion		
	COST FLUCTUATION shall mean contract price adjustment provision (CPAP) for the adjustment of fluctuation in the cost of labour, plant, material and goods as stated in the schedule		
	DEFAULT INTEREST: No Clause		
	GUARANTEE FOR CONSTRUCTION: A security in terms of the DPWI's Guarantee for Construction form/s, obtained by the contractor from an institution approved by the employer [CD]		
	INTEREST: The interest rates applicable on this contract, whether specifically indicated in the relevant clauses or not, will be the 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) as amended, calculated as simple interest, in respect of debts owing to the State, and will be the rate as published by the Minister of Justice and Correctional Services from time to time, in terms of section 1(2) of the Prescribed Rate of Interest Act, 1975 (Act No 55 of 1975) as amended, calculated as simple interest, in respect of debts owing by the State		
	LETTER OF ACCEPTANCE: The letter of formal acceptance of the Contractor's or Service Provider's Tender / Bid, issued and signed by the Employer		
	PAYMENT CERTIFICATE: A certificate issued at regular agreed intervals [CD] by the principal agent to the parties certifying the amount due and payable in terms of Clause 25.3		
	PRINCIPAL AGENT: The person or entity appointed by the employer and named in the contract data for organs of state and other public sector bodies. In the event of a principal agent not being appointed, then all the duties and obligations of a principal agent as detailed in the agreement shall be fulfilled by the employer's representative as named in the contract data for organs of state and other public sector bodies		
	TARGETED SUBCONTRACTORS: Subcontractors that must be appointed to a total of 30% or more of the contract sum, by the contractor, projects with a contract sum of the amount determined by the Minister in terms of the latest Preferential Procurement regulations, as may be amended from time to time.	ltem	
	F:		
2	Clause 2.0	Item	
	F: V: T:		
	A3.0 OFFER AND ACCEPTANCE		
3	Replace Clause 3.3 with the following:		
	This agreement shall come into force on the date of letter of acceptance and continue to be of force and effect until the end of the latent defects liability period [22.0] notwithstanding termination [29.0] or the certification of final completion [21.0] and final payment [25.0]	ltem	
	F: V: T:		
	Carried To Section Summary	R	
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	Bill No. 1		
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	4		



	A4.0 CESSION AND ASSIGNMENT		
4	Clause 4.0		
	Ref Clause 6.7 [CD] - Clause 4.2		
	Replace Clause 4.3 with the following:		
	Where a contractor cedes any right or any monies due to or to become due under this agreement as security in favour of a financial institution, the prior written consent of the employer, which consent shall not be unreasonably withheld, must be obtained	Item	
	F: V: T:		
5	Clause 5.0		
	Replace last sentence of Clause 5.2 with the following:		
	The original signed agreement shall be held by the Employer		
	Replace Clause 5.4 with the following:		
	The Bills of Quantities shall not be used as a specification of material and goods or methods unless so instructed by the Principal Agent. The contractor may not use the Bills of Quantities for purpose of ordering material. All dimensions and quantities must be determined on site before ordering. In the event of discrepancy between the drawings and Bills of Quantity, the drawings shall take preference		
	Replace Clause 5.5 with the following:		
	The parties may publish or disclose on any platform only the contract scope and contract amount	Item	
	F: V: T:		
6	Clause 6.0		
	Replace Clause 6.5 with the following:		
	Where the principal agent and/or an agent fails to act or is unable to act or ceases to be the principal agent or an agent in terms of this agreement, the employer shall appoint another principal agent and/or an agent		
	Add the following as Clause 6.7:		
	In terms of the clauses listed hereunder, the employer has retained its authority and has not given a mandate to the principal agent, notwithstanding other provisions in the contract. The employer shall sign all documents in relation to clauses 4.2, 14.1.4, 14.4.1, 14.6, 15.1.4, , 15.4.1, 23.1, 23.2, 23.3, 23.7, 23.8, 26.1, 26.7, 26.12	ltem	
	F:		
7	Clause 7.0		
	Replace first sentence of Clause 7.2 with the following:		
	Carried To Section Summary	R	
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	Preliminaries		
	5		



	Any design responsibility undertaken by a subcontractor shall not devolve on the contractor except for items that require specific component design and or compatibility design and or shop drawings and or the assembly thereof	ltem		
	F:			
	INSURANCES AND SECURITIES (A8-A11)			
	A8.0 WORKS RISK Clause 8.0			
8				
	Replace Clause 8.4 with the following:			
	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			
	F: V: T:			
	A9.0 INDEMNITIES			
9	Clause 9.0			
	Add the following to the end of the first sentence of Clause 9.2.7:			
	" due to no fault of the contractor			
	9.2.9 No Clause			
	9.2.10 No Clause			
	Add the following as clause 9.3:			
	The employer's rights to claim damages for the contractor's omissions and actions will not be affected.	Item		
	F: V: T:			
	A10.0 INSURANCES			
10	Clause 10.0			
	Replace Clause 10.1 with the following:			
	The party responsible shall effect and keep the respective insurances [CD] in force, in favour of the employer as beneficiary, from the date of possession of the site until the issue of the certificate of practical completion and with an extension to cover the contractors obligations after the date of practical completion [8.2.2]			
	Add the following as Clause 10.1.5.1:			
	Hi 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			
	Add the following as Clause 10.1.5.1.1 Damage to the works			
	Carried To Section Summary	R		
	Section No. 1 Bill No. 1			
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	6			
- 1	-	I	ı l	



The contractor shall, from the date of possession of the site 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

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

10.1.5.1.2 Injury to persons or loss of or damage to property

The contractor shall be liable for and hereby indemnifies and holds harmless 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 above

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 property, 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

10.1.5.1.3 Replace Clause with the following:

It is the responsibility of the contractor to ensure that he has adequate insurance to cover his risk and liability as mentioned in 10.1.5.1.1 and 10.1.5.1.2. Without limiting the contractor's obligations in terms of the contract, the contractor shall, within twenty-one (21) calendar days of the date of letter of acceptance, but before commencement of the works, submit to the employer proof of such insurance policy.

10.1.5.1.4 Replace Clause with the following:

The employer shall be entitled to recover any and all losses and/or damages of whatever nature suffered or incurred consequent upon the contractor's default of his obligations as set out in 10.1.5.1.1; 10.1.5.1.2 and 10.1.5.1.3. 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 considered one indivisible whole

10.2 Replace Clause with the following:

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Where practical completion in sections is required [20.0), or where the works is for alterations and additions, the contractor shall effect and keep in force contract works insurance [10.1.1], supplementary insurance [10.1.2], public liability insurance [10.1.3] and where applicable, removal of lateral support insurance [10.1.4] and other insurances [10.1.5) in favour of the employer as beneficiary

10.1.1], supplementa and where applicable	ry insurance [10.1.2], public , removal of lateral support) in favour of the employer as		
	Carried To Section Summary	R	
	7		



			1
10.6 No Clause			
			ı
In the event that an insurer dispute the amount of the claim to be paid to the employer, the contractor shall be liable to the employer for the difference between the claim (as determined by the employers QS appointed on the project) made by the employer and the amount that the insurer is willing to pay F:	Item		
			1
			1
In respect of contracts with a contract sum up to R1 million, the security to be provided by the contractor to the employer will be a payment reduction of five per cent (5%) of the value certified in the payment certificate (excluding			Ì
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 C 1.0 Securities, as stated in the schedule. Such security shall be provided to the employer within fifteen (15) working 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 fifteen (15) working days from commencement date, the security in terms of C 1.0 Option C shall be deemed to have been selected.			
The payment reduction of the value certified in a payment certificate shall be mutatis mutandis in terms of 25.12.1 - 25.12.5			
11.1.1 No Clause			1
11.1.2 No Clause			
11.2.2 No Clause			l
11.3 No Clause			l
Replace Clause 11.4.1 with the following:			ĺ
Hand over the site to the contractor and withhold an amount equal to ten per cent (10%) of each interim payment certificate until practical completion is achieved. The value certified shall be subject to the adjustments in terms of 25.12.6 to 25.12.10.			
11.5 No Clause			l
11.6 No Clause			İ
11.7 No Clause			İ
11.8 No Clause			İ
11.9 No Clause			i i
11.10 No Clause			İ
Add the following as Clause 11.11:			Ì
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- 111 111 111 111 111 111 111 111 111 1			i i
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	employer, the contractor shall be liable to the employer OS appointed on the project) made by the employer and the amount that the insurer is willing to pay F:	Add the following as Clause 10.11 In the event that an insurer dispute the amount of the claim to be paid to the employer, the contractor shall be liable to the employer for the difference between the claim (as determined by the employers QS appointed on the project) made by the employer and the amount that the insurer is willing to pay F:	Add the following as Clause 10.11 In the event that an insurer dispute the amount of the claim to be paid to the employer, the contractor shall be liable to the employer for the difference between the claim (as determined by the employers QS appointed on the project) made by the employer and the amount that the insurer is willing to pay Item **T



Where the security as a cash deposit of ten per cent (10%) of the contract sum (excluding VAT) has been selected:

Add the following as Clause 11.11.1:

The contractor shall furnish the employer with a cash deposit equal in value to ten percent (10%) of the contract sum (excluding VAT) within fifteen (15) working days from commencement date. Failure to furnish the employer with a cash deposit within fifteen (15) working days Clause 11.4 will apply mutatis mutandis.

Add the following as Clause 11.11.2:

The employer shall be entitled to recover expense and loss from the cash deposit in terms of Clause 27.0 provided that the employer notifies the Contractor in which event the employer's entitlement shall take precedence over his obligations to refund the cash deposit security or portions thereof to the contractor.

Add the following as Clause 11.11.3:

Within fifteen (15) working 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

Add the following as Clause 11.11.4:

Within fifteen (15) working 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.

Add the following as Clause 11.11.5:

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.

Add the following as Clause 11.11.6:

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.

Add the following as Clause 11.12:

Where security as a variable construction guarantee of ten percent (10%) of the contract sum (excluding VAT) has been selected:

Add the following as Clause 11.12.1:

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 fifteen (15) working days after issuance of the let gı m

etter of acceptance. Failure to submit an acceptable variable construction guarantee within fifteen (15) working days Clause 11.4 will apply mutatis mutandis.		
Add the following as Clause 11.12.2:		
The variable construction guarantee shall reduce and expire in terms of the Variable Construction Guarantee form included in the invitation to tender.		
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Add the following as Clause 11.12.3: The employer shall return the variable construction guarantee to the contractor within fourteen (14) calendar days of it expiring. Add the following as Clause 11.12.4: Where the employer has a right of recovery against the contractor in terms of 27.0, the employer shall issue a written demand in terms of the variable construction guarantee. Add the following as Clause 11.13: 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: Add the following as Clause 11.13.1: 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). Add the following as Clause 11.13.2: The fixed construction guarantee shall come into force on the date of issue and shall expire on the date of the last certificate of practical completion. Add the following as Clause 11.13.3: The employer shall return the fixed construction guarantee to the contractor within fourteen (14) calendar days of it expiring. Add the following as Clause 11.13.4: The payment reduction of the value certified in a payment certificate shall be mutatis mutandis in terms of 25.12.1 - 25.12.5. Add the following as Clause 11.13.5: Where the employer has a right of recovery against the contractor in terms of 27.0, 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 from both. Add the following as Clause 11.14.1: 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) has been selected: Add the following as Clause 11.14.2: The contractor shall furnish the employer with a cash deposit equal in value to five per cent (5%) of the contract sum (excluding VAT) within fifteen (15) working days from commencement date. Failure to submit a cash deposit within fifteen (15) working days Clause 11.4 will apply mutatis mutandis. Add the following as Clause 11.14.3: Within fifteen (15) working days of the date of practical completion of the works the employer shall refund the cash deposit in total to the contractor. Add the following as Clause 11.14.4: Carried To Section Summary R Section No. 1 Bill No. 1

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The payment reduction of the value certified in a payment certificate shall be mutatis mutandis in terms of 25.12.1 - 25.12.5. Add the following as Clause 11.14.5: Where the employer has a right of recovery against the contractor in terms of 27, the employer may recover from the payment reduction or cash deposit or from both. Add the following as Clause 11.15: Where security as a payment reduction of ten per cent (10%) of the value certified in the payment certificate (excluding VAT) has been selected. Add the following as Clause 11.15.1: The payment reduction of the value certified in a payment certificate shall be mutatis mutandis in terms of 25.12.6 to 25.12.10. Add the following as Clause 11.15.2: The employer shall be entitled to recover expense and loss from the cash deposit in terms of 27.0 provided that the employer notifies the Contractor in which event the employer's entitlement shall take precedence over his obligations to refund the cash deposit security or portions thereof to the contractor. Add the following as Clause 11.16: 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. Add the following as Clause 11.17: Should the contractor fail to furnish the security in terms of 11.2 the employer, in his sole discretion, and without notification to the contractor, is entitled to change the contractor's selected form of security to that of a ten per cent (10%) payment reduction of the value certified in the payment certificate (excluding VAT). Item F: V: T: **EXECUTION (A12 - A17) } A12.0 OBLIGATIONS OF PARTIES** Clause 12.0 12.1.1 No Clause Replace Clause 12.1.5 with the following: Give possession of the site to the contractor within ten (10) working days after approval of the Health and Safety Plan or the issue of a construction permit by the Department of Labour, if applicable, after the contractor complied with the terms of 12.2.22 12.1.6 No Clause 12.1.8 No Clause Replace Clause 12.2.2 with the following: Carried To Section Summary R Section No. 1 Bill No. 1 **Preliminaries**



	The priced Bills must be submitted to the Employer within fourteen (14) calendar days from date of request. Where the priced document contains errors or discrepancies and/or prices considered by the employer or principal agent to be imbalanced or unreasonable the employer or principal agent and the contractor shall adjust such prices without any change to the contract sum			
	Replace Clause 12.2.5 with the following :			
	Effect and keep in force insurances in favour of the employer as beneficiary where the contractor is responsible for providing insurances [10.0) [CD]			
	Replace Clause 12.2.13 with the following:			
	Designate a competent person full time on site to continuously administer and control the works on site and to receive and implement notices and contract instructions on behalf of the contractor			
	Add the following as Clause 12.2.22:			
	Within fourteen (14) working days of the date of the letter of acceptance submit to the principal agent an acceptable health and safety plan, required in terms of the Occupational Health and Safety Act, 1993 (Act No 85 of 1993)			
	Add the following as Clause 12.2.23:			
	The contractor shall within reasonable time inform the agents regarding inspection of the works before covering / closing [B 12.0]			
12	Offices			
	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 [12.2.18]	Item		
	F: V: T:			
13	Main notice board			
	The contractor shall provide, erect where directed, maintain and remove on completion of the works a notice board size 3 x 3m as type Drawing GEN 063, 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 [12.2.18]	ltem		
	F: V: T:			
	A13.0 SETTING OUT			
14	Clause 13.0	Item		
	F: V: T:			
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	A14.0 NOMINATED SUBCONTRACTORS		
15	Clause 14.0		
	Ref Clause 6.7 [CD] - Clause 14.1.4		
	14.1.5 No Clause		
	Replace "principal agent" with "employer" [6.7 [CD]] in Clause 14.4.1		
	Ref Clause 6.7 [CD] - Clause 14.6	Item	
	F: V: T:		
	A15.0 SELECTED SUBCONTRACTORS		
16	Clause 15.0		
	Ref Clause 6.7 [CD] - Clause 15.1.4 & Clause 15.5		
	15.1.5 No Clause		
	Replace Clause 15.1.2 with the following:		
	The principal agent shall call for tenders from a list of tenderers agreed between the contractor and the employer		
	Replace "principal agent" with "employer" [6.7 [CD]] in Clause 15.4.1	Item	
	F: V: T:		
	A16.0 DIRECT CONTRACTORS		
17	Clause 16.0	Item	
	F:		
	Clause 47.0		
18	Clause 17.0		
	Replace Clause 17.4 with the following:		
	The contractor shall comply with and duly execute all contract instructions except any contract instruction for additional work issued after the date of practical completion other than making good physical loss and repairing damage to the works in terms of 8.0 and 21		
	Add the following clause as Clause 17.6:		
	Minutes of meetings shall not constitute a site instruction unless reduced to a		
	written contract instruction issued by the principal agent in terms of this contract / agreement.	Item	
	F: V: T:	itteriii	
	COMPLETION (A18 - A24)		
	A18.0 INTERIM COMPLETION		
19	Clause 18.0	Item	
	F: V: T:		
	A19.0 PRACTICAL COMPLETION		
20	Clause 19.0		
	Replace Clause 19.5 with the following:		
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On issue of the only or last certificate of practical completion the employer shall be entitled to possession of the works and the site. On issue of the certificate of practical completion for a section, the employer shall be entitled to possession of such section		
Add the following as Clause 19.8:		
WORKS COMPLETION		
(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 outstanding work and defects apparent at the date of practical completion to be completed or rectified to achieve works completion.		
(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 a notice. Where, in the opinion of the principal agent, the Works Completion list:		
(2)(a) Has been satisfactorily completed, the principal agent shall forthwith issue a certificate of Works Completion to the contractor with a copy to the employer		
(2)(b) Has not been satisfactorily completed, the principal agent shall forthwith identify the works completion list items that are not yet complete and inform the contractor thereof. The contractor shall repeat the procedure in terms of 19.8(2)		
(3) Should the principal agent not issue a works completion list, in terms of 19.8 (1) or 19.8 (2)(b), within seven (7) calendar days from 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 employer may within seven (7) calendar days issue to the contractor a Works Completion list. Should the employer:		
(3)(a) Not issue such works completion list within seven (7) calendar days, then 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		
(3b) Issue a works completion list and the work on Works Completion list not have been completed or where further defects have become apparent, the employer shall forthwith identify such items on the updated works completion list and notify the contractor. The contractor shall repeat the procedure in terms of 19.8(2)(b) until such items have been completed to the satisfaction of the employer		
(4) Should the works completion list not be completed to the satisfaction of the employer within a period of twenty one (21) working days of the issue first works completion list the contractor shall be liable to a daily penalty as described in B12.0		
(5) The defects liability period in terms of 21.1 shall commence with the issue or deemed issue of the certificate of Works Completion in terms of 19.8(2)(a) or 19.8(3).	ltem	
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	A20.0 COMPLETION IN SECTIONS			
21	Clause 20.0			
	Add the following as Clause 20.2.1.A			
	A certificate of Works Completion [19.8]	Item		
	F: V: T:			
22	Clause 21.0			
	Replace Clause 21.1 with the following:			
	The defects liability period for the works shall commence on the calendar day following the date of works completion and end at midnight (00:00) ninety (90) calendar days from the date of works completion [CD] or when work on the list for completion has been satisfactorily attended to [21.6), whichever is the later (if we use works completion)			
	Replace Clause 21.6 with the following:			
	On the expiry of the ninety (90) calendar days defects liability period [21.1] for items not indicated as items with an extended liability as indicated in B14 and on receipt of the contractor's notice to the principal agent			
	And/or			
	On the expiry of the defects liability period as indicated in B14, for items indicated in B14 and on receipt of the contractor's notice to the principal agent, the principal agent shall:			
	(1) inspect the works And within ten (10) working days either issue a list for final completion detailing all outstanding work or defects that must be attended to, or rectified to achieve final completion or			
	(2) issue the certificate of final completion to the contractor with a copy to the employer for that part of the works where defects liability period has expired			
	21.6.1 Omit Clause			
	21.6.2 Omit Clause			
	Add the following as Clause 21.13:			
	The ninety (90) calendar days defects liability period for the works [21.1] is replaced with an extended defects liability period of three hundred and sixty-five (365) calendar days in respect of the listed applicable elements in B14			
	Add the following as Clause 21.14:			
	Penalties will be applied if the items on the completion list have not been attended to within a period of ninety (90) calendar days [21.1]. If additional defect items have being added to the list during this period, then the Principal Agent and Contractor will agree on a revised completion date. Failing in achieving the revised date will result in penalties being applied.[B12.0]	Item		
	F:			
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22	A22.0 LATENT DEFECTS LIABILITY PERIOD Clause 22.0	Itom		
23	F: V: T:	Item		
24	Clause 22.0			
	22.3.2 No Clause	Item		
	F: V: T:			
25	Clause 23.0			
	Ref Clause 6.7 [CD] – Clause 23.1			
	Ref Clause 6.7 [CD] – Clause 23.2			
	23.2.13 No Clause			
	Replace Clause 23.3 with the following:			
	Further circumstances that delays practical completion due to any other cause beyond the contractor's reasonable control that could not have reasonably been anticipated and provided for which the contractor may be entitled to a revision of the date for practical completion, with or without an adjustment of the contract value as determined by the Employer [6.7 CD]			
	Ref Clause 6.7 [CD] - Clause 23.7			
	Ref Clause 6.7 [CD] - Clause 23.8	Item		
	F: V: T:			
26	Clause 24.0			
	Replace Clause 24.1 with the following:			
	Where the contractor fails to bring the works, or a section thereof, to practical-, works-, or final- completion by the applicable completion date [CD], or the revised applicable completion date, the contractor shall be liable to the employer for the penalty [CD]			
	Replace Clause 24.2 with the following:			
	Where the employer elects to levy such penalty the employer, or the principal agent on instruction from the employer, shall give notice thereof to the contractor. The principal agent shall determine the penalty due from the later of the date for practical- works-, or final- completion [CD], or the revised date for practical- works-, or final- completion, up to and including the earlier of:			
	Replace Clause 24.2.1 with the following:			
	The actual or deemed date of practical- works-, or final- completion, of the works, or a section thereof [23.7.1]	Item		
	F: V: T:			
	A25.0 PAYMENT			
27	Clause 25.0			
	Carried To Section Summary	R		
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Replace Clause 25.2 with the following:

The principal agent shall issue at regular agreed intervals [CD] payment certificates, to the contractor with a copy to the employer, up to and including practical completion. Interim Payment certificates may be issued to the contractor between practical completion and the final payment certificate. A payment certificate may be for a nil or negative amount

Add the following to Clause 25.3:

25.3.12 Monthly Local content report,

25.3.13 EPWP / NYS payment register, labour reports and certified ID document of EPWP/ NYS beneficiaries, Contract between Contractor and EPWP/ NYS beneficiaries, attendance register. (if applicable)

25.3.14 Tax Invoice

25.3.15 Labour intensive report

25.3.16 Contract participation goal reports

25.5 No Clause

Replace Clause 25.6 with the following:

Materials and goods will only be certified and paid for upon providing proof of full payment to the supplier and proof of transfer of ownership from the supplier to the contractor by the contractor. Once paid, material and goods shall become the property of the employer and shall not be removed from site without the written authority of the Employer.

25.7.5 No clause.

Replace Clause 25.10 with the following:

The employer shall pay the contractor the amount stipulated in an issued payment certificate, correct in all material respects, within thirty (30) calendar days from the date of receiving the payment certificate, invoice and all other substantiating documentation for items certified in the payment certificate

Replace Clauses 25.12 to 25.12.3 with the following:

The value certified shall be subject to the following percentage adjustments:

(Clauses 25.12.1 to 25.12.5 shall be applicable to a contract sum up to R1 million. In the event of a contract sum more than R1 million for Options D & E (C 1.0 Securities [11.0]) Clauses 25.12.1 to 25.12.5 shall be applicable)

- 25.12.1 Where a security is selected in terms of C 1.0 Securities [11.0], the value of the works in terms of 25.1 and of the materials and goods in terms of 25.4 shall be certified in full. The value certified shall be subject to the following percentage adjustments:
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- 25 CE th

25.12.2 Ninety-five per cent (95%) of such value certificates issued up to the date of practical co			
25.12.3 Ninety-seven per cent (97%) of such v certificates issued on the date of practical com the date of final completion			
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	25.12.4 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 26		
	25.12.5 One hundred per cent (100%) of such value in the final payment certificate in terms of 26 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.		
	(Clauses 25.12.6 to 25.12.10 shall be applicable to a contract sum more than R1 million for Option C (C 1.0 Securities [11.0])		
	25.12.6 Where security is a payment reduction in term of C 1.0 Option C, value of the works in terms of 25.1 and materials and goods in terms of 25.4 shall be certified in full. The value certified shall be subject to the following percentage adjustments:		
	25.12.7 Ninety per cent (90%) of such value in interim payment certificates issued up to the date of practical completion		
	25.12.8 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		
	25.12.9 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 26		
	25.12.10 One hundred per cent (100%) of such value in the final payment certificate in terms of 26 except were 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	Item	
	F:		
28	Clause 26.0		
	Ref Clause 6.7 [CD] – Clause 26.1		
	Omit Clause 26.4.3		
	Ref Clause 6.7 [CD] – Clause 26.7		
	Replace Clause 26.10 with the following:		
	The principal agent shall prepare the final account in consultation with the employer and issue the final account, to the contractor within sixty (60) working days of the date of practical completion		
	Ref Clause 6.7 [CD] – Clause 26.12	Item	
	F: V: T:		
	A27.0 RECOVERY OF EXPENSE AND/OR LOSS		
29	Clause 27.0		
	Replace Clause 27.1.2 with the following:		
	Interest due to late payment only		
	Replace Clause 27.1.4 with the following:		
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	Interest due to late payment only		
	27.1.5 No Clause		
	Replace Clause 27.5 with the following:		
	Where the employer decides to recover an amount due in terms of 27.2 from a construction guarantee, cash deposit or retention money held as security, the employer shall issue a written demand to the contractor before recovering the amount. Should such amount not be paid to the employer within fourteen (14) calendar days of the date-of notice by the employer, the employer may recover such an amount from the security		
	Add the following as Clause 27.6:		
	Where a provisional sequestration or provisional liquidation order has been granted or where an order has been granted which commences sequestration, liquidation, bankruptcy, receivership, winding-up or any similar effect, against the contractor or this agreement is cancelled in terms of 29, the employer may issue a demand to the guarantor in terms of the construction guarantee or advance payment guarantee held as security	ltem	
	F: V: T:		
	SUSPENSION AND TERMINATION (A28 - A29)		
	A28.0 SUSPENSION BY THE CONTRACTOR		
30	Clause 28.0		
	28 No Clause		
	28.1 No Clause		
	28.1.1 No Clause		
	28.1.2 No Clause		
	28.1.3 No Clause		
	28.1.4 No Clause		
	28.1.5 No Clause		
	28.2 No Clause		
	28.3 No Clause		
	28.4 No Clause	Item	
	F:		
31	Clause 29.0		
	Add the following as Clause 29.1.4:		
	The contractor's estate has been sequestrated, liquidated or surrendered in terms of the insolvency laws in force within the Republic of South Africa		
	Add the following as Clause 29.1.5:		
	The contractor has engaged in corrupt or fraudulent practices in competing		
	for or in executing the contract		
	Add the following as Clause 29.1.6:		
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Honour his obligations in terms of Clauses 10.1.5.1.3, 11.4.1 and 12.2. sub Clauses 5, 6, 8, 9, 10, 11, 12, 13, 15, 16, 19, 20, 22.			
Replace Clause 29.7 with the following:			
The employer, on notice to the contractor, may recover damages from the contractor from the date of termination including, but not limited to, additional costs incurred in the completion, consultant cost, rental of alternative accommodation, invitation of completion tenders, salaries of officials and safeguarding the site, of the remaining work [25.3.7; 27.1.3]			
Replace Clause 29.9 with the following:			
The employer has the right of recovery against the contractor, where applicable, [CD] from:			
The guarantee for construction (variable) until the final payment has been made;			
or			
The guarantee for construction (fixed) until the date of practical completion;			
or			
The payment reduction until the final payment is made;			
or			
The cash deposit made as security until the final payment is made			
29.14.1 No Clause			
29.14.3 No Clause			
29.14.4 No Clause			
29.14.5 No Clause			
29.14.6 No Clause			
29.14.7 No Clause			
29.15 No Clause			
29.16 No Clause			
29.17.3 No Clause			
29.17.6 No Clause			
29.21.5 No Clause			
29.22 No Clause			
29.23 No Clause			
29.25.3 No Clause			
29.25.4 No Clause			
29.27 No Clause	Item		
F: V: T:			
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	DISPUTE RESOLUTION (A30)			
	A30.0 DISPUTE RESOLUTION			
32	Clause 30.0			
02	Replace Clause 30.2 with the following:			
	Where such disagreement is not resolved within ten (10) working days of			
	receipt of such notice it shall be deemed to be a dispute and shall be submitted to Mediation as a first method of dispute resolution failing which the parties will resort to Litigation			
	30.3 to 30.7.7 No Clauses			
	Replace Clause 30.8 with the following:			
	The parties may, by agreement and at any time before Litigation, refer a dispute to mediation, in which event:			
	30.8.1 No Clause			
	Replace Clause 30.8.2 with the following:			
	The appointment of a mediator, the procedure, and the status of the outcome shall be agreed between the parties			
	Replace Clause 30.8.3 with the following:			
	Regardless of the outcome of a mediation the parties shall bear their own costs concerning the Mediation and equally share the costs of the mediator and related expenses			
	Replace Clause 30.9 with the following:			
	Institution of Litigation shall be commenced and process served within three (3) year from the date of existence of the dispute, failing which the dispute shall lapse			
	30.10 No Clause			
	30.12 No Clause	Item		
	F: V: T:			
	SECTION B: GENERAL PRELIMINARIES			
	DEFINITIONS AND INTERPRETATIONS (B1)			
33	B1.1 Definitions	Item		
24	F:	lt a va		
34	B1.2 Interpretation F:	Item		
	DOCUMENTS (B2)			
35	B2.1 Checking of documents	Item		
	F: V: T:			
36	B2.2 Provisional bills of quantities	Item		
	F: V: T: T:	_		
37	B2.3 Availability of construction information	Item		
	F: V: T:			
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38	B2.4 Ordering of materials and goods	Item	
	F: V: T:		
	PREVIOUS WORK AND ADJOINING PROPERTIES (B3)		
39	B3.1 Previous work - dimensional accuracy	Item	
	F: V: T:		
40	B3.2 Previous work - defects	Item	
	F: V: T:		
41	B3.3 Inspection of adjoining properties	Item	
	F: V: T:		
	THE SITE (B4)		
42	B4.1 Handover of site in stages	Item	
	F: V: T:		
43	B4.2 Enclosure of the works	Item	
	F: V: T:		
44	B4.3 Geotechnical and other investigations	Item	
	F: V: T:		
45	B4.4 Encroachments	Item	
	F: V: T:		
46	B4.5 Existing premises occupied	Item	
	F: V: T:		
47	B4.6 Services - known	Item	
	F: V: T:		
	MANAGEMENT OF CONTRACT (B5)		
48	B5.1 Management of the works	Item	
	F: V: T:		
49	B5.2 Progress meetings	Item	
	F: V: T:		
50	B5.3 Technical meetings	Item	
	F:		
	SAMPLES, SHOP DRAWINGS AND MANUFACTURER'S INSTRUCTIONS (B6)		
		lt a saa	
51	B6.1 Samples of materials	Item	
E 2	F:	ltom	
52	B6.2 Workmanship samples	Item	
5 2	F:	ltom	
53	B6.3 Shop drawings F: V: T:	Item	
54	B6.4 Compliance with manufacturer's instructions	Item	
54	·	пеш	
	F: V: T:		
	Comind To Continu Comment		
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	DEPOSITS AND FEES (B7)		
55	B7.1 Deposits and fees	Item	
	F: V: T:		
	TEMPORARY SERVICES (B8)		
56	B8.1 Water	Item	
	F: V: T:		
57	B8.2 Electricity	Item	
	F:	1,	
58	B8.3 Ablution and welfare facilities	Item	
59	F: V: T: B8.4 Communication facilities	Item	
39	F: V: T:	пеш	
	PRIME COST AMOUNTS(B9)		
60	B9.1 Responsibility for prime cost amounts	Item	
	F: V: T:	1.0.11	
	ATTENDANCE ON SUBCONTRACTORS (B10)		
61	B10.1 General attendance		
	The contractor shall at his own expense provide the following general attendance on the subcontractors:		
	Access to the site and places where the subcontract work is to be carried out, including the reasonable use of any temporary personnel hoists erected by the contractor		
	The provision of water and lighting and single phase electric power to a position within 50 metres of the place where the subcontract work is to be carried out but excluding water, fuel and power for commissioning of any installation		
	The provision of an area for the subcontractor to establish temporary office accommodation and workshops and for the storage of plant and materials		
	The use of erected scaffolding belonging to the contractor, in common with others having the like right, while it remains erected on the site		
	The use, at reasonable times by arrangement of the contractor's erected hoisting equipment	Item	
	F: V: T:		
62	B10.2 Special attendance		
		Item	
	F: V: T:		
	GENERAL (B11)		
63	B11.1 Protection of the works	Item	
	F: V: T:		
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64	B11.2 Protection/isolation of existing works and works occupied in sections	Item	
	F: V: T:		
65	B11.3 Security of the works	Item	
	F: V: T:	1,	
66	B11.4 Notice before covering work	Item	
67	F:		
	The contractor shall keep the site , structures, etc well watered during 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	Item	
	F: V: T:		
68	B11.6 Environmental disturbance	Item	
	F: V: T:		
69	B11.7 Works cleaning and clearing	Item	
70	F:	Item	
	F: V: T:		
71	B11.9 Overhand work	Item	
	F: V: T:		
72	B11.10 Tenant installations	Item	
73	F: V: T:	Item	
, 3	F: V: T:	пеш	
	SECTION C: SPECIFIC PRELIMINARIES		
	Section C contains specific preliminary items which apply to this contract except where N/A (Not Applicable) appears against an item		
	C1.0 CONTRACT DRAWINGS		
74	* Select relevant paragraph and delete whichever is not applicable depending on whether the contract is based on a bills of quantities or lump sum document		
	* The drawings issued with the tender documents do not comprise the complete set but serve as a guide only for tendering purposes and for indicating the scope of the work to enable the tenderer to acquaint himself with the nature and extent of the works and the manner in which they are to be executed		
	* A full set of drawings is issued with the tender documents indicating the full scope of the work to enable the tenderer to acquaint himself with the nature and extent of the works and the manner in which they are to be executed		
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75	Should any part of the drawings not be clearly understood by the tenderer he shall, before submitting his tender, obtain clarification in writing from the principal agent F:	Item		
	The document "Construction Works: Specifications: Particular Specification (PW371-B) Edition 2.2" is issued together with the drawings and shall be read in conjunction with the drawings and the bills of quantities / lump sum document F:	ltem		
76	Wherever a trade name for any product has been described in the bills of quantities / lump sum document, the tenderer's attention is drawn to the fact that any other product of equal quality may be used subject to the written approval of the principal agent being obtained prior to the closing date for submission of tenders If prior written approval for an alternative product is not obtained, the product			
	described shall be deemed to have been tendered for F:	Item		
77	Where imported items are listed in the tender documents, the tenderer shall provide all the information called for, failing which the price of any such item, materials or equipment shall be excluded from currency fluctuations. (refer to Schedule of Imported Materials and Equipment DPW-23(EC) to be completed by tenderer)			
	Notwithstanding any provisions elsewhere regarding the adjustment of contract prices, the price of any item, material or equipment listed in terms of this clause shall be excluded from the Contract Price Adjustment Provisions (if applicable) F:	Item		
	C5.0 VIEWING THE SITE IN SECURITY AREAS			Ì
78	The site is situated in a security area and the tenderer must arrange with the unit commander or other responsible officer to obtain permission to enter the site for tendering purposes	Item		
	F:			
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	C6.0 COMMENCEMENT OF WORKS IN SECURITY AREAS		
79	As the works falls within a security area the contractor must give the unit commander or other responsible officer notice before commencement of the works. Should the contractor fail to make such arrangements, admission to the site may be refused and any additional costs will be for the contractor's account	ltem	
	F: C7.0 ENTRANCE PERMITS TO SECURITY AREAS		
80	As the works falls within a security area the contractor shall obtain entrance permits for his personnel and workmen entering the area and shall comply with all regulations and instructions which may be issued from time to time regarding the protection of persons and property under the control of the Defence Force, Police or chief security officer	ltem	
	F: V: T:		
81	The principal agent may require the contractor to have his personnel and workmen, or a certain number of them, security classified		
	In the event of the principal agent requesting the removal of a person or persons from the works for security reasons, the contractor shall do so forthwith and shall thereafter ensure that such person or persons are denied access to the works and the site and/or to any document or information	ltom	
	relating to the works F:	Item	
82	In terms of article 119 of the Defence Act, 44 of 1957, it is prohibited to sketch or to take photographs of any military site or installation or any building or civil works thereon or to be in possession of a camera or other apparatus used for taking of photographs except when authorized thereto by or on behalf of the Minister		
	The same prohibition is also applicable to all correctional institutions in terms of article 44.1(e) of the Correctional Services Act 8 of 1959 F:	Item	
	C10.0 HIV/AIDS AWARENESS		
83	It is required of the contractor to thoroughly study the HIV/AIDS Specification (PW 1544) of the Department that must be read together with and is deemed to be incorporated under this Section of the bills of quantities / lump sum document. Provision for pricing of HIV/AIDS awareness is made under items C10.1 to C10.5 hereafter and it is explicitly pointed out that all requirements of the aforementioned specification are deemed to be priced hereunder, as the said items represent the only method of measurement and no additional items or extras to the contract in this regard shall be entertained		
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	The contractor must take note that compliance with the HIV/AIDS Specification is compulsory. In the event of partial or total non-compliance, the principal agent, notwithstanding the provisions of Clause A 25.0 of Section A or any other clause to the contrary, reserves the right to delay issuing any progress payment certificate until the contractor provides satisfactory proof of compliance. The contractor shall not be entitled to any compensation of whatsoever nature, including interest, due to such delay of			
	payment	Item		
84	F:			
	Selection, appointment, briefing and making available of an Awareness Champion including provision of all relevant services, all in accordance with the HIV/AIDS Specification	Item		
	F: V: T:			
85	C10.2 AWARENESS WORKSHOPS			
	Selection and appointment of a competent Service Provider approved by the principal agent, provision of a Service Provider Workshop Plan and a suitable venue, conducting of awareness workshops by means of traditional and/or modern multi-media techniques, including follow-up courses, making available all tuition material and performing assessment procedures, all in accordance with the HIV/AIDS Specification	Item		
	F: V: T:			
86	C10.3 POSTERS, BOOKLETS, VIDEOS, ETC.			
	Provision, displaying, maintaining and replacing when necessary of four plastic laminated posters, booklets and educational videos, etc. for the duration of the construction period, all in accordance with the HIV/AIDS Specification			
		Item		
	F: V: T:			
87	C10.4 ACCESS TO CONDOMS			
	Provision and maintenance of condom dispensers fixed in position, including male and female condoms, replenishing male and female condoms on a daily basis as required for the duration of the construction period, all in accordance with the HIV/AIDS Specification			
		Item		
88	F: V: T: T: T:			
	Monitoring HIV/AIDS awareness of workers, providing the principal agent with access to information including making available all reports, thoroughly completed and reflecting the correct information, for the duration of the construction period and close out, all in accordance with the HIV/AIDS Specification			
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		Item	
	F: V: T: C11.0 OCCUPATIONAL HEALTH AND SAFETY ACT		
89	The contractor shall comply with all the requirements as set out in the Construction Regulations, 2014 issued under the Occupational Health and Safety Act, 1993 (Act No 85 of 1993)		
	It is required of the contractor to thoroughly study the Health and Safety Specification that must be read together with and is deemed to be incorporated under this Section of the bills of quantities / lump sum document		
	The contractor must take note that compliance with the Occupational Health and Safety Act, Construction Regulations and Health and Safety Specification is compulsory. In the event of partial or total non-compliance, the principal agent, notwithstanding the provisions of Clause A25.0 of Section A or any other clause to the contrary, reserves the right to delay issuing any progress payment certificate until the contractor provides satisfactory proof of compliance. The contractor shall not be entitled to any compensation of whatsoever nature, including interest, due to such delay of payment		
	Provision for pricing of the Occupational Health and Safety Act, Construction Regulations and Health and Safety Specification is made under this clause and it is explicitly pointed out that all requirements of the aforementioned are deemed to be priced hereunder and no additional claims in this regard shall be entertained	ltem	
	F:		
90	The contractor shall comply with all the requirements as set out in the "Additional Specification SL: Employment and Training of Youth Workers on the Expanded Public Works Programme (EPWP) Infrastructure Projects: National Youth Service (NYS)" as attached to these bills of quantities / lump sum document		
	The contractor shall identify a minimum number of youth workers from a priority list, and shall employ them at the statutory labour rates for a minimum period and train them, all as per the aforementioned specification and as elsewhere measured in these bills of quantities / lump sum document		
	The contractor shall liaise and co-ordinate with the employer and the EPWP Training Service Provider with regard to the priority list, the selection of youth workers, and the employment and training of the identified youth workers		
	The contractor shall avail the services of an adequately qualified foreman specifically for the EPWP-NYS youth workers, to act as their construction supervisor. The foreman will be responsible for continually monitoring the progress of the youth workers and for addressing questions and issues that may arise from the youth workers		
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91	Separate items which will be subject to remeasurement have been included elsewhere in these bills of quantities / lump sum document to cover the direct costs associated with the employment and training of the youth workers. Any additional requirements in respect of the aforementioned specification are deemed to be priced hereunder and no additional claims in this regard shall be entertained F:	ltem		
	The contractor shall maintain daily records with regard to the workers employed and shall, on a monthly basis, submit a report to the principal agent in the prescribed format. Compulsory indicators such as the project budget, actual project expenditure, number of job opportunities created, demographic characteristics of workers employed, minimum daily wage rate, number of person-days of employment created and number of training person-days, shall be included in said report, all as defined in the "Guidelines for the Implementation of Labour-Intensive Infrastructure Projects under the Expanded Public Works Programme (EPWP)" Provision for pricing of compliance with the aforementioned is made under this clause and it is explicitly pointed out that all requirements in respect of the aforementioned are deemed to be priced hereunder and no additional			
	claims in this regard shall be entertained F:	Item		
92	C14 COMMUNITY LIAISON OFFICER Provide the amount of R75 000.00 (Seventy Five Thousand Rand) for the Community Liaison Officer (CLO) with salary of R5000.00 per month for a			
	period of Fifteen (15) months. F:	Item	75 000	00
	Category: Time R			
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SECTION NO. 2 PHASE 1



		Unit	Quantity	Rate	Amount
	SECTION NO. 2				
	PHASE 1				
	BILL NO. 1 ALTERATIONS (PROVISIONAL)				
	WORK GROUPS: Unless otherwise stated the work group for this Bill shall be WG102				
	Trade Preambles:				
	SUPPLEMENTARY PREAMBLES				
	For Trade Preambles refer to 'Model Preambles for Trades' (PW371A & PW371B) for the full descriptions of material to be used and work to be done in this Bill				
	Supplementary Preambles:				
	Prices are to include for carting away from site all materials not specifically mentioned as being stored on site for re-use or handed over to the Employer and all rubbish, debris, etc., arising from the alterations, etc., and for making good all work damaged or disturbed to the approval of the Principal Agent.				
	If angle grinders are used, a method of containing the dust must be utilised. Should the dust produced by the use of angle grinders, be deemed to be a nuisance by the Employer, their use will be prohibited.				
	MAKING GOOD OF FINISHES, ETC				
	Making good internal cement plaster				
1	Walls in patches.	m²	98		
2	Walls where 110mm brick walls removed	m²	15		
3	Walls where 220mm brick walls removed	m²	25		
4	Walls where 330mm brick walls removed.	m²	11		
	Making good external cement plaster				
5	Walls in patches.	m²	59		
	Making Good Existing Ironmongery:				
6	Allowance for servicing, reintstatement amd tabling of keys to existing ironmongery in Block E	Item			
7	Allowance for servicing, reintstatement amd tabling of keys to existing ironmongery in RESIDENCE BLOCK A	Item			
8	Allowance for servicing, reintstatement amd tabling of keys to existing ironmongery in RESIDENCE BLOCK B	Item			
				_	
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		Unit	Quantity	Rate	Amount
9	Making Good Existing Sanitaryware: Checking and commisioning existing sanitaryware.	Item			
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	Alterations (provisional) 34				



BILL NO. 1 ALTERATIONS (PROVIS COLLECTION	Brought Forward from Page	Page No 33 34	
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	Unit	Quantity	Rate	Amount
SECTION NO. 2				
PHASE 1				
BILL NO. 2				
CARPENTRY AND JOINERY				
WORK GROUPS: Unless otherwise stated the work group for this Bill shall be WG126				
TRADE PREAMBLES				
Trade Preambles:				
For Trade Preambles refer to 'Model Preambles for Trades' (PW371A & PW371B) for the full descriptions of material to be used and work to be done in this Bill				
SUPPLEMENTARY PREAMBLES				
Particle board:				
Particle board shall comply with the following specifications: a) SABS 1300 Particle board: exterior and flooring type b) SABS 1301 Particle board: interior type.				
Joinery:				
Descriptions of frames shall be deemed to include frames, transoms, mullions, rails, etc.				
Descriptions of hardwood joinery shall be deemed to include pelleting of bolt holes.				
Fixing:				
Items described as nailed shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete.				
Decorative laminate finish:				
Laminate finish shall be glued under pressure. Edge strips shall be butt jointed at junctions with adjacent similar finish.				
JOINERY SUNDRIES				
JOINERY FITTINGS				
Faced Boards				
Existing Rectengular shaped Kitchen Counter 01 with new 600mm wide Rusteburg granite counter top, colour Expresso (RESIDENCE BLOCK A) 900mm above the ground, with cupboards underneath constructed according to MDA Architect Police Residences Drawing number 25697.	No	1		
Consider to Collection			-	
Section No. 2 Bill No. 2			R	
Carpentry And Joinery				
36				



		Unit	Quantity	Rate	Amount
2	Existing L shaped Kitchen Counter 02 with new 800mm wide Rustenburg granite counter top, colour Expresso (RESIDENCE BLOCK A) 900mm above the ground, with cupboards underneath and 1314mm high cupboards 500mm above the counter top, constructed according to MDA Architect Police Residences Drawing number 25697.	No	1		
3	Existing L shaped Kitchen Counter 03 with new 600mm wide Rustenburg granite counter top, colour Expresso (RESIDENCE BLOCK A) 900mm above the ground, with drawers and cupboards underneath, 1200mm high cupboards 500mm above the counter top, and a 2600mm high food cupboard constructed according to MDA Architect Police Residences Drawing number 25697.	No	1		
4	Existing L shaped scullary Counter 04 with new 600mm wide Rusteburg granite counter top, colour Expresso (RESIDENCE BLOCK A) 900mm above the ground, with cupboards underneath and with double sink on top (elsewhere measured) constructed according to MDA Architect Police Residences Drawing number 25697.	No	1		
5	Existing L shaped Kitchen Counter 01 with new 800mm wide Rustenburg granite counter top, colour Expresso (RESIDENCE BLOCK B) 900mm above the ground, with cupboards underneath and 1314mm high cupboards 500mm above the counter top, constructed according to MDA Architect Police Residences Drawing number 25697.	No	1		
6	Existing Rectengular shaped Kitchen Counter 02 with new 600mm wide Rusteburg granite counter top, colour Expresso (RESIDENCE BLOCK B) 900mm above the ground, with cupboards underneath and double sink (elsewhere measured) constructed according to MDA Architect Police Residences Drawing number 25697.	No	1		
7	Exiting L shaped Bachelor flat Kitchen Counter 04 with new 600mm wide Rustenburg granite counter top, colour Expresso (RESIDENCE BLOCK B) 900mm above the ground, with cupboards underneath and single sink (elsewhere measured), constructed according to MDA Architect Police Residences Drawing number 25697.	No	1		
8	SKIRTINGS Wrought meranti 19 x 70mm Skirtings including 19mm quadrant bead, nailed	m	498		
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BILL NO. 2 CARPENTRY AND JOINE! COLLECTION	Brought Forward from Page	936 37	
Section No. 2 Bill No. 2 Carpentry And Joinery	Carried To Section Summary	R	
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		Unit	Quantity	Rate	Amount
	SECTION NO. 2				
	PHASE 1				
	BILL NO. 3				
	CEILINGS PARTITIONS AND ACCESS FLOORING				
	WORK GROUPS: Unless otherwise stated the work group for this Bill shall be WG129				
	TRADE PREAMBLES				
	<u>Trade Preambles:</u>				
	For Trade Preambles refer to 'Specification of Materials and Methods' (PW371A & PW371B) for the full descriptions of material to be used and work to be done in this Bill				
	SUPPLEMENTARY PREAMBLES				
	Proprietary items or materials				
	Proprietary items or materials where specified are to be of the brand specified - or other approved - by the Principal Agent.				
	Descriptions:				
	Items described as nailed shall be deemed to be fixed with hardened steel nails or pins or shot pinned to brickwork or concrete.				
	Items described as plugged shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 600mm centres, and where described as bolted the bolts have been given.				
	CEILING CONSTRUCTION, CORNICES, ETC.				
	NAILED-UP CEILINGS				
	6.5mm Gypsum Rhinoboard ceiling with taped joints between panels:				
1	Ceiling including 38 x 38mm S.A.P brandering at 450mm centres.	m²	54		
	SUSPENDED CEILINGS				
	1195 x 595 x 8mm PVC vinyl faced gypsum ceiling boards in 1200 x 600 Donn double stitched prepainted white T38 main tees and T38 cross inclusive of all grids, plates, holding down clips suspended on minimum 4mm diameter suspension rods, ceiling to be fitted to roof structure.				
2	Suspended Ceiling not exceeding 1m below trusses at				
	centre not exceeding 1200mm.	m²	48		
	Carried to Collection			R	
	Section No. 2				
	Bill No. 3				
	Ceilings Partitions And Access Flooring				
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		Unit	Quantity	Rate	Amount	
	6.8mm Gypsum rhinoboard bulkhead fixed to aluminium substructure, suspended on minimum 4mm diameter suspwnsion rods.					
3	Suspended Ceiling not exceeding 1m below trusses at centre not exceeding 1200mm.	m²	27			
4	37 x 24mm SM12 pre-painted white recessed shadow line cornice plugged and screwed to wall.	m	55			
5	Pelican System 42 x 46mm Basixx high density extruded polystyrene cornice	m	71			
	INSULATION					
6	102mm Thick cavity batt insulation to be installed over existing ceilings.	m²	54			
	Carried to Collection			R		
	Section No. 2 Bill No. 3					
	Ceilings Partitions And Access Flooring					
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BILL NO. 3 CEILINGS PARTITIONS AND ACCESS FLO COLLECTION	<u>DORING</u>	Page No	
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		Unit	Quantity	Rate	Amount
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	PHASE 1				
	BILL NO. 4				
	IRONMONGERY				
	WORK GROUPS: Unless otherwise stated the work group for this Bill shall be WG132				
	Trade Preambles:				
	For Trade Preambles refer to 'Model Preambles for Trades' (PW371A & PW371B) for the full descriptions of material to be used and work to be done in this Bill				
	SUPPLEMENTARY PREAMBLES				
	Finishes to ironmongery:				
	Where applicable finishes to ironmongery are indicated by suffixes in accordance with the following list: BS Satin bronze lacquered: CH Chromium plated: SC Satin chromium plated: SE Silver enamelled: GE Grey enamelled: AS Anodised silver: AB Anodised bronze: AG Anodised gold: ABL Anodised black: PB Polished brass: PL Polished and lacquered: PT Epoxy coated: Project Five Star 2006.				
	Master keying:				
	All En-Suite locks to be master keyed to existing master key reference available from "Dorma Kaba".				
	HANDLES, FLUSH PULLS, ETC				
	Dorma:				
1	DPH213 BTB 382 x 32mm Straight Tubular Pull handle (BTB fixing sets included)	Pairs	2		
2	DPH206 BTB 400 x 30mm offset tubular pull handle (BTB fixing sets included)	Pairs	4		
	SUNDRIES				
	Union:				
3	Single Action floor spring for aluminium "BTS75 SA LM-HO door HOLD OPEN - (Mech/Spindle/7510SS/7459/B36.1.2)	Sets	2		
4	H076 Howick heavy duty stainless steel spring clip	No	12		
5	DDS-NP-018 Floor Mounted Door Stop	No	55		
	Carried to Collection			R	
	Section No. 2				
	Bill No. 4				
	Ironmongery 42				
	42				II I



		Unit	Quantity	Rate	Amount
	BATHROOM FITTINGS				
	Hand towel Dispensers:				
6	Franke' wall mounted paper towel dispenser (code: BS600P 359790) size 115 x 290 x 438mm with a single piece deep drawn lid and cylinder lock with standard key.	No	2		
7	Franke' Perforated wall mounted waste container (code: BS610 359800) size 410 x 205 x 380mm with a 180degree radius front and perforated facia pattern.	No	2		
	Hand Dryer				
8	Franke hand free dryer (code HF 2400 HD) mounted to wall at 1560mm above FFL	No	2		
	Waste Bin				
9	Franke wall mounted waste container BS605 (product code: 359822)	No	2		
	Soap Dispensers:				
10	Franke' wall mounted liquid soap dispenser (code: BS619) overall size 200 x 130 x 85mm with a deep drawn lid and cylinder lock with standard key	No	6		
	Franke 'or equal approved				
11	600mm s.s towel rail bolted to wall (code: 359933).	No	6		
	ACCESS CONTROL DEVICES				
	Chubb:				
12	Baked enamel 'break glass' unit plugged to walls.	No	1		
	Carried to Collection			R	
	Section No. 2 Bill No. 4				
	Ironmongery				
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BILL NO. 4 IRONMONGERY COLLECTION	Brought Forward from Page	Page No 42 43	
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	Unit	Quantity	Rate	Amount
SECTION NO. 2				
PHASE 1				
BILL NO. 5 METALWORK				
WORK GROUPS: Unless otherwise stated the work group for this Bill shall be WG136				
<u>Trade Preambles:</u>				
For Trade Preambles refer to 'Specification of Materials and Methods' (PW371A & PW371B) for the full descriptions of material to be used and work to be done in this Bill				
SUPPLEMENTARY PREAMBLES				
Proprietary items or materials:				
Proprietary items or materials where specified are to be of the brand specified - or other approved - by 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 mortises in brickwork or concrete.				
Metalwork described as holed for bolt(s) shall be deemed to exclude the bolts unless otherwise described.				
Doors and windows shall comply with AAAMSA design criteria.				
Glazing shall comply with SAGGA regulations. Glass shall be of the type of glass as shown on the window and door schedules and drawings appended to these Bills of Quantities and as described in the Bills of Quantities. Glass thickness shall comply with SAGGA regulations irrespective of thicknesses shown on the schedules/drawings.				
Doors and windows shall be supplied with protective tape and plastic and shall be removed only once surrounding trades have been completed.				
For purpose made windows and doors, refer to drawings annexed to these Bills of Quantities.				
Carried to Collection			R	
Section No. 2				
Bill No. 5				
Metalwork				
45				



		Unit	Quantity	Rate	Amount	
	The following certificates shall be provided prior to commencement of site work: 1. A copy of the relevant AAAMSA Performance Test Certificate from the manufacturer/contractor supplying the architectural aluminium product. 2. A Certificate of Conformance confirming that anodising or powder coating has been processed in accordance with SANS 999 and SANS 1796 respectively1861 3. A powder guarantee of not less than 15 years issued by the powder manufacturer. The specific conditions contained in this guarantee shall form part of the powder coating process. 4. A Certificate of Conformance confirming that glazing has been installed in accordance with SANS 0137, ensuring that safety glazing materials have been installed in the mandatory areas and that each individual pane of safety glazing materials has been permanently marked. 5. A warranty from the manufacturer of the laminated safety glass and/or hermetically sealed glazing units guaranteeing the products against delamination and colour degradation for a period of not less than five years.					
	HOT DIPPED GALVANISED STEEL WINDOWS, DOORS, ETC					
1	Purpose made galvanised expanded mesh: Window screen mesh size 1240 x 1810mm high with 25 x 25 x 2mm square tube frame welded and fixed to 25 x 25 x 2mm bracket onto 100 x 100 x 3mm fixing plate chemically anchored into brickwork as per the window screen detail in the Architect's drawing	No	27			
2	Window screen mesh size 670 x 670mm high with 25 x 25 x 2mm square tube frame welded and fixed to 25 x 25 x 2mm bracket onto 100 x 100 x 3mm fixing plate chemically anchored into brickwork as per the window screen detail in the Architect's drawing ref no: MDA 208	No	6			
	Carried to Collection Section No. 2 Bill No. 5 Metalwork 46			R		_



		Unit	Quantity	Rate	Amount
	NATURAL ANODISED OR SIMILAR APPROVED ALUMINIUM SHOPFRONT SYSTEM: WG 140 Level G2 - Handguns up to and including .357 Magnum as well as 12 gauge shotgun firing buckshot with Natural Anodised aluminium extrusion by specialist frame and glazed with 38mm Bullet Resident Glazing. Aluminium sections, constructed and installed according to the guidelines of The Association of Architectural Aluminium Manufactures of South Africa (AAASA). Glazing is to be carried out in strict accordance with the SABS 0137/2000 Code of Practice: 'The Installation of Glazing in Buildings' and where required, safety glazing materials must conform to SABS 1263. Drawings of all sections and fixing details to be used to be submitted for approval and all dimensions are to be verified on site prior to manufacture. All shopfronts and windows need to be weather proofed and sealed where necessary and all aluminium is to be protected during installation and for the duration of construction work by removab Window type W10 size 2180 x 1210 fitted as per window schedule attached to these Bills of Quantities GALVANISED STEEL BALUSTRADES Welded balustrades to walkways 1500mm x 1050mm high hot dipped galvanised holosec frame unpainted with 40 x 10mm hot dipped galvanised sub-handrail at 150mm low, 40 x 10mm flat bar stiffener at vertical on 750mm c/c and 9 x 12mm sq. bars vertical equally spaced. All post and handrails including the bottom horizontal frame must be chemically fixed to concrete and walls by means of core drilling and epoxy	No	Quantity 1	Rate	Amount
	adhesive, to be installed by specialist.	m	10		
5	60mm Expansion anchor with loose bolt	No	6		
	Carried to Collection Section No. 2 Bill No. 5 Metalwork 47			R	



BILL NO. 5 METALWORK COLLECTION	Brought Forward from Page	Page No 45 46 47	
	Carried To Section Summary	R	
Section No. 2 Bill No. 5 Metalwork	48		



		Unit	Quantity	Rate	Amount
	SECTION NO. 2				
	PHASE 1				
	BILL NO. 6				
	<u>PLASTERING</u>				
	WORK GROUPS: Unless otherwise stated the work group for this Bill shall be WG142				
	Trade Preambles:				
	For Trade Preambles refer to 'Specification of Materials and Methods' (PW371A & PW371B) for the full descriptions of material to be used and work to be done in this Bill				
	SUPPLEMENTARY PREAMBLES				
	Proprietary items or materials:				
	Proprietary items or materials where specified are to be of the brand specified - or other approved - by the Principal Agent.				
	GRANO				
	Untinted grano on concrete:				
1	30mm Untinted grano steel trowelled on concrete floors.	m²	45		
	CORNER PROTECTORS, DIVIDING STRIPS, ETC				
	Corner protectors, dividing strips, etc.:				
2	3 x 57mm Flat section brass water bar.	m	52		
3	3 x 57mm Flat section brass dividing strips between				
	different floor finishes.	m	25		
	Carried To Section Summary			R	
	Section No. 2				
	Bill No. 6				
	Plastering 49				
l	73				II I



SECTION NO. 2 PHASE 1 BILL NO. 7 TILING WORK GROUPS: Unless otherwise stated the work group for this Bill shall be WG144			
PHASE 1 BILL NO. 7 TILING WORK GROUPS: Unless otherwise stated the work			
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BILL NO. 7 TILING WORK GROUPS: Unless otherwise stated the work			
TILING WORK GROUPS: Unless otherwise stated the work			
<u>Trade Preambles:</u>			
For Trade Preambles refer to 'Model Preambles for Trades' (PW371A & PW371B) for the full descriptions of material to be used and work to be done in this Bill			
SUPPLEMENTARY PREAMBLES			
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.			
PORCELAIN FLOOR COVERINGS, WALL LININGS, ETC.			
PORCELAIN FLOOR TILING			
600 x 600 x 12mm full bodied porcelain tiles laid on			
TAL Gold Star tile adhesive, grout to architect's choice. Allow the prime cost amount of R500-00 (Five Hundred Rand excluding VAT) net per square metre for tiles, supplied and delivered to site and add for taking delivery, storage and installation.			
1 On screeded floors. m ²	79		
2 100mm High skirting m	245		
300 x 300 x 8mm 'Salt and Pepper' full bodied porcelain tiles fixed with 'Tal Goldstar' rapid setting adhesive with straight joints in both directions to steel trowel plastered walls and flush pointed with 'Tal Grey Proflex' tile grout. Allow the prime cost amount of R500-00 (Five Hundred Rand excluding VAT) net per square metre for tiles, supplied and delivered to site and add for taking delivery, storage and installation.			
3 On floors and landings. m ²	47		
4 150mm High tile skirting m	54		
Carried to Collection		R	
Section No. 2			
Bill No. 7 Tiling			
50			



		Unit	Quantity	Rate	Amount
5 6	PORCELAIN WALL TILING 300 x 300 x 8mm 'Salt and Pepper' full bodied porcelain wall tiles fixed with 'Tal Goldstar' rapid setting adhesive with straight joints in both directions to steel trowel plastered walls and flush pointed with 'Tal Grey Proflex' tile grout. Allow the prime cost amount of R500-00 (Five Hundred Rand excluding VAT) net per square metre for tiles, supplied and delivered to site and add for taking delivery, storage and installation. On walls.	m²	87		
0		111-			
	NOSINGS, JOINT COVERS, PROTECTORS, ETC.				
7	Mtrim' or equal approved cover strips: Mtrim' ASSJ16R or equal approved structural movement joint cover size 38mm wide x 30mm deep fixed to concrete and screeded over including ridged infill.	m	44		
8	AMJ120 Kirk marketing 12mm alluminium movement joint.	m	35		
	Brass or equally approved:				
9	25 x 3mm Thick brass weather bar	m	14		
	M Trim' PVC round edge trim:				
10	-	m	14		
	Carried to Collection Section No. 2 Bill No. 7 Tiling 51			R	



BILL NO. 7 TILING COLLECTION	Brought Forward from Page	Page No 50 51	
Section No. 2 Bill No. 7	Carried To Section Summary	R	
Tiling	52		



	Unit	Quantity	Rate	Amount
SECTION NO. 2				
PHASE 1				
BILL NO. 8				
PLUMBING AND DRAINAGE (PROVISIONAL)				
WORK GROUPS: Unless otherwise stated the work group for this Bill shall be WG148				
<u>Trade Preambles</u>				
For Trade Preambles refer to 'Specification of Materials and Methods' (PW371A & PW371B) for the full descriptions of material to be used and work to be done in this Bill				
SUPPLEMENTARY PREAMBLES				
Polycop' polypropylene pipes:				
Polypropylene pipes 54mm diameter and under shall be seamless copper coloured class 16 pipes jointed with 'Fast-fuse' heat welded thermoplastic or brass compression fittings as designed for use with copper pipes as stated.				
Pipes shall be firmly fixed to walls etc. with coloured nylon snap-in pipe clips with provision for accommodating thermal movement and jointed and fixed strictly in accordance with the manufacturer's instructions.				
All pipe diameters are nominal external.				
Polylink' polypropylene pipes:				
Polypropylene pipes 63mm diameter and over shall be class 12 pipes jointed with cast iron 'Supraclamp' running joints.				
Fusion welded bends, once or twice mitred as necessary, and tees shall be factory manufactured.				
Fusion welded bends and tees shall include jointing to pipes with PVC rubber ring double X joint couplers.				
Branch tees shall include flanged and bolted joints to 'Polycop' branch pipes in addition and for brass compression male iron to copper straight couplers.				
Reducers shall include jointing to pipes with PVC rubber ring double Z joint couplers and reduces shall be of sufficient overall length to accommodate same.				
All pipes shall be jointed and fixed strictly in accordance with the manufacturer's instructions.				
All pipe diameters are nominal external.				
Carried to Collection Section No. 2 Bill No. 8			R	
Plumbing And Drainage (provisional) 53				



	Unit	Quantity	Rate	Amount
Communication in the contract of the contract				
Concrete pipes: Pipes shall be jointed with ogee joints with rubber collars				
or socket and spigot joints with rubber rings.				
Vitrified Clay Pipes etc.:				
Pipes shall rest on solid ground and, where necessary, pockets of sufficient size shall be cut around joints to enable the jointing to be properly performed or, alternatively, pipes shall be bedded full length on and including unreinforced concrete laid in a semi-dry state immediately before pipes are laid.				
uPVC pipes and fittings.				
Sewer and drainage pipes and fittings shall be jointed and sealed with butyl rubber rings.				
Soil, waste and vent pipes and fittings shall be solvent weld jointed.				
uPVC pressure pipes and fittings:				
Pipes for water supply shall be of the class stated.				
Pipes of 40mm diameter and smaller shall be plain ended with solvent welded uPVC loose sockets and fittings.				
Pipes of 50mm diameter and greater shall have sockets and spigots with push-in type integral rubber ring joints. Bends shall be uPVC and all other fittings shall be cast iron, all with similar push-in type joints.				
Copper pipes:				
Pipes shall be hard drawn and half-hard pipes of the class stated. Class 0 (thin walled hard drawn) pipes shall not be bent. Class 1 (thin walled half-hard), class 2 (half-hard) and class 3 (heavy walled half-hard) pipes shall only be bent with benders with inner and outer formers. Fittings to copper waste, vent and anti-syphon pipes, capillary solder fittings and compression fittings shall be 'Cobra Watertech' type. Capillary solder fittings shall comply with ISO 2016. Only compression fittings shall be used in walls or in ground.				
Fixing of pipes				
Unless specifically otherwise stated, descriptions of pipes shall be deemed to include for fixing to walls etc. casting in, building in or suspending not exceeding 1m below suspension level				
Lead pipes and traps:				
All soldered joints shall be wiped and brass unions shall be used for jointing lead to steel.				
Carried to Collection			R	
Section No. 2 Bill No. 8				
Plumbing And Drainage (provisional)				
54				



	Quantity	Rate	Amount
Reducing fittings:			
Where fittings have reducing ends or branches they are described as 'reducing'. In the case of pipes with diameters not exceeding 60mm only the largest end or branch size is given. Should the Contractor wish to use other fittings and bushes or reducers he may do so on the understanding that no claim in this regard will be entertained. In the case of pipes with diameters exceeding 60mm all sizes are given and no claim for extra bushes, reducers, etc. will be entertained.			
Wire gratings:			
Descriptions of gutter outlets etc. shall be deemed to include wire balloon gratings.			
Septic tanks:			
Descriptions of septic tanks shall be deemed to include excavation, bedding and jointing, concrete base slabs, jointing to drains and backfilling, compaction, etc. all in accordance with the manufacturer's instructions.			
Exposed concrete surfaces:			
Exposed surfaces of concrete storm water channels, cover slabs, inspection eye marker slabs, gulley tops, cleaning eye tops, catch pits, inspection chambers, etc. shall be finished smooth with plaster.			
Excavations:			
No claim for rock excavation will be entertained unless the Contractor has timeously notified the quantity surveyor thereof prior to backfilling.			
Soft rock' and 'hard rock' shall be as defined in 'Earthworks'.			
Laying, backfilling, bedding, etc. of pipes:			
Pipes shall be laid and bedded and trenches shall be carefully backfilled in accordance with manufacturers' instructions.			
Where no manufacturers' instructions exist pipes shall be laid in accordance with clauses 5.1 and 5.2 of each of the following: SABS 1200 L: Medium pressure pipelines LD: Sewers LE: Storm water drainage Pipe trenches etc. shall be backfilled in accordance with clause 3, 5.5, 5.6, 5.7 and 7 of SAB.			
Flush pans:			
Flush pans shall have straight or side outlets and 'P' or 'S' traps as necessary.			
Carried to Collection Section No. 2 Bill No. 8		R	
Plumbing And Drainage (provisional)			
55			



		Unit	Quantity	Rate	Amount
	Stainless steel begins sinks week troughs winds				
	Stainless steel basins, sinks, wash troughs, urinals, etc.:				
	Units shall have standard aprons on all exposed edges and tiling keys against walls where applicable.				
	Waste unions:				
	Descriptions of waste unions shall be deemed to include rubber or vulcanite plugs and chains fixed to fittings.				
	Steel sectional water tanks:				
	Tanks shall comply with SABS CKS 114.				
	<u>Densyl' petrolatum anti-corrosion tape as</u> manufactured by Denso SA (Pty) Ltd:				
	Pipes to be taped shall be coated with the appropriate primer and the tape shall be applied with minimum 15mm lap per spiral unless otherwise described.				
	Couplings and fittings to pipes shall be taped in strict accordance with the manufacturer's instructions including all mastic, tape, 'Layflat' sheeting, securing of same, etc.				
	Prices for wrapping of pipes shall include for all work as described to couplings in the length.				
	RAINWATER DISPOSAL				
	Watertite' pre painted external and internal with ColourTech G4 high performance non-fluorinated polymer modified long chain hydro-carbon paint				
4	aluminium: 75 x 100mm water tight seamless eaves gutters.		66		
1	•	m			
2	Extra over gutter for interior angle.	No	8		
3	Extra over gutter for exterior angle.	No	8		
4	Extra over 100 x 75mm eaves gutter for outlet for 80mm diameter pipe.	No	8		
5	80mm Diameter Rainwater pipes.	m	20		
6	Extra over rainwater pipe for bend.	No	8		
7	Extra over rainwater pipe for eaves offset 500mm projection.	No	4		
				_	
	Carried to Collection Section No. 2			R	
	Bill No. 8				
	Plumbing And Drainage (provisional)				
	56				



		Unit	Quantity	Rate	Amount
	SANITARY FITTINGS				
	Supply and fix the following sanitary fittings, geysers and equipment together with loose ancillary fittings supplied therewith, including unloading, storing, unpacking, hoisting or lowering as required, fixing and building into position, cutting all mortices				
	and chases as required for fixing and building in position, cutting, brackets, clamps, etc., and connecting up pipework and handing over in perfect working order at completion:				
	Vaal' or equal approved:				
8	White vitreous china 510 x 405mm round "HIBISCUS" basin (product code: 702303), with single tap hole.	No	4		
9	"Orchid" wall hung open rimmed white vitreous china close coupled 90-degree W.C pan (product code: 438600) complete with matching 6 litre push button top dual flush back inlet cisterncomplete with lid, fitments (product code: 4386DT)	No	4		
	Franke' - grade 304 (18/10) polished stainless steel or equal approved:				
10	Franke Nouveau NVN621' double bowl sink, size 1160 x 460mm (Product:811024), fixed to cupboard (cupboard elsewhere) with securing clips and sealed with silicone adhesive along edges.	No	1		
11	Franke Nouveau NVN621' double bowl sink, size 1160 x 460mm (Product:1990002), fixed to cupboard (cupboard elsewhere) with securing clips and sealed with silicone adhesive along edges.	No	2		
12	Franke Nouveau single bowl sink, size 800 x 460mm (Product:811023), fixed to cupboard (cupboard elsewhere) with securing clips and sealed with silicone adhesive along edges.	No	1		
	TAPS, VALVES, ETC.				
13	Franke ET 103 540 x 370 x 388mm deep mini stainless steel washthrough wall mounted wash trough.	No	2		
	Cobra-Watertech':				
14	15mm "Cobra 108" brass hose bib tap with hose union.	No	2		
15	Heritage Karoo single lever bath mixer nut (product code: KO-951 Hot and Cold water supply	No	5		
16	Combination bath filler outlet and overflow (product code: 030)	No	3		
	Carried to Collection			R	
	Section No. 2			K	
	Bill No. 8				
	Plumbing And Drainage (provisional)				
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		Unit	Quantity	Rate	Amount
17	Kwikot PMX-74 Prisma Under basin mixer	No	3		
18	Ditto, but 20mm ballcock.	No	10		
19	Ditto, but 25mm ballcock.	No	5		
20	15mm Type 'P-832 CP' angle regulating valve.	No	5		
21	15mm Type '350F CP' flexible connection.	No	6		
22	15mm Type '057 CP' cast brass extension piece.	No	6		
	WASTE UNIONS, TRAPS, ETC.				
23	40mm Float valve.	No	6		
	Marley':				
24	32 x 40mm 'Flexi trap' butyl rubber deep seal 'P' or 'S' trap jointed to waste outlet fitting and to PVC pipe including coupling clamps, etc.	No	18		
25	100 x 100 Easy drain PVC channel and 316 stainless steel grating complete with stop ends.	No	4		
26	40 x 40mm 'Flexi trap' butyl rubber deep seal 'P' or 'S' trap jointed to waste outlet fitting and to PVC pipe including coupling clamps, etc.	No	7		
	SANITARY PLUMBING				
	Unplasticised polyvinyl chloride (uPVC) pipes:				
27	40mm Pipes fixed to walls, etc.	m	8		
28	50mm Pipes fixed to walls, etc.	m	5		
29	110mm Pipes fixed to walls, etc.	m	10		
	Extra over uPVC pipes for:				
30	110mm Bend.	No	6		
31	110mm Pan connector	No	5		
32	50mm BSP Adaptor.	No	4		
33	110mm Junction.	No	6		
34	50mm Bend.	No	4		
35	40mm Bend.	No	4		
36	50 x 40mm Reducer.	No	2		
37	50mm Access bend.	No	4		
38	110mm Access reducing junction.	No	9		
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		Unit	Quantity	Rate	Amount
39	110mm Access rodding eye.	No	3		
40	110mm Access bend.	No	3		
41	50mm Access junction.	No	3		
42	110mm Access junction.	No	4		
43	110mm P-trap.	No	4		
	Testing:				
44	Allow for testing sanitary plumbing system.	Item			
	WATER SUPPLIES				
	Internal water supplies:				
	Holes, etc., are deemed to be included in the descriptions of the pipework.				
	Class 2 copper pipes:				
45	15mm Pipes fixed to walls, etc.	m	41		
46	Ditto, but 22mm pipes.	m	56		
47	Ditto, but 28mm pipes.	m	49		
48	Ditto, but 35mm pipes.	m	12		
49	15mm Pipes chased into walls, including 'Menlath 213' galvanised 'Mentex' plaster mesh fixed to brickwork.	m	33		
50	Ditto, but 22mm pipes.	m	22		
51	Ditto, but 28mm pipes.	m	20		
52	Ditto, but 35mm pipes.	m	7		
	Extra over class 2 copper pipes for copper to copper capillary fittings:				
53	15mm Pipe fittings.	No	15		
54	22mm Pipe fittings.	No	9		
55	28mm Pipe fittings.	No	6		
56	35mm Pipe fittings.	No	5		
	Extra over class 2 copper pipes for brass compression fittings:				
57	15mm Brass pipe fittings.	No	14		
58	22mm Brass pipe fittings.	No	6		
59	28mm Brass pipe fittings.	No	5		
	Carried to Collection			R	
	Section No. 2 Bill No. 8				
	Plumbing And Drainage (provisional)				
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		Unit	Quantity	Rate	Amount
60	Testing:	No	3		
61	Allow for testing water supply system.	Item			
	Carried to Collection			R	
	Section No. 2				
	Bill No. 8 Plumbing And Drainage (provisional)				
	60				



BILL NO. 8 PLUMBING AND DRAINAGE (PROVISIONAL) COLLECTION Brought Forward from Page	Page No 53 54 55 56 57 58 59 60	
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Bill No. 8		
Plumbing And Drainage (provisional)		
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		Unit	Quantity	Rate	Amount
	SECTION NO. 2				
	PHASE 1				
	BILL NO. 9				
	ELECTRICAL WORK (PROVISIONAL)				
	WORK GROUPS: Unless otherwise stated the work group for this Bill shall be WG160				
	DISTRIBUTION BOARDS etc.				
	Rates for distribution boards etc. are to include for busbars, jumpers, neutral bars, internal wiring and connections, circuit identification markers, control gear labels, circuit legend cards and working drawings				
	Switches, socket outlets, etc.				
	Rates for switches, sockets outlets, etc. are to include for screwing to outlet boxes, connecting up and cover plates				
	<u>Light fittings</u>				
	Rates for light fittings are to include for hanging, fixing and connecting and for lamp holders and fluorescent tubes and lamps of the type and wattage described				
	DISTRIBUTION BOARDS				
	Electrical DB's				
	Complete sipply, deliver and installation according to single line specifications (see single ine drawings) Including Surge Arrestors. Surge arrestors similar in quality as Danguard or as approved by engineer. (Drawing number: EE				
1	<u>10671-400-SLO-00)</u> DB - HOUSE 1 (EE10671-100-SDB-HOUSE1-00)	No	1		
	,				
2	DB - HOUSE 2 (EE10671-100-SDB-HOUSE2-00)	No	1		
3	DB - FLAT 1 (EE10671-100-SDB-FLAT1-00)	No	1		
	DB's for other services				
	Tele Data DB				
4	Flush mounted 400 x 400 x 150 DB with soft backing and lockable door	No	1		
	OUTLET BOXES, COVER PLATES,ETC				
	Boxes:				
5	100 x 50 x 50 galvanised build/cast-in	No	15		
6	100 x 100 x 50 galvanised build/cast-in	No	20		
	Carried to Collection			R	
	Section No. 2			IX	
	Bill No. 9				
	Electrical Work (provisional)				
	62				



		Unit	Quantity	Rate	Amount
	Covers:				
7	Round PVC Box fitted on Ceiling	No	32		
	CABLE TRUNKING, ETC				
	Trunking (Galvanized Steel)				
8	2 Tier power skirting Galvanized Steel complete with covers and all accessories	m	15		
9	3 Tier power skirting Galvanized Steel complete with covers and all accessories	m	5		
10	P8000 Galvanized trunking complete with all accessories and installation fittings	m	10		
11	P9000 Galvanized trunking complete with all accessories and installation fittings	m	8		
12	152mm Galvanised heavy duty cable tray including cover complete with accessories and installation fittings.	m	5		
	SOCKET OUTLETS AND LIGHT SWITCHES				
	Light switches:				
13	16 A 1 Lever 1 way switch complete with cover plate. Similar in quality or as approved by engineer.	No	20		
	Socket outlets:				
14	16 A Single SSO fitted with cover plate	No	4		
15	16 A Combo SSO (Single and Euro Port) fitted with cover plate	No	10		
16	16 A Combo SSO (Single and USB Port) fitted with cover plate	No	1		
17	16 A SSO fitted with cover plate mounted on power skirting	No	12		
18	16 A Euro SSO fitted with cover plate mounted on power skirting	No	9		
19	16 A dedicated SSO fitted with red cover plate mounted on power skirting	No	15		
20	5 A SSO light fitting round outlet fitted in ceiling space	No	12		
	Provision for other services				
21	RJ11 Telephone Data outlet complete on power skirting	No	38		
22	RJ45 Data Internet outlet complete on power skirting	No	38		
23	5V/3A USB outlet complete on power skirting	No	24		
	Carried to Collection			R	
	Section No. 2				
	Bill No. 9 Electrical Work (provisional)				
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		Unit	Quantity	Rate	Amount
	<u>Isolators</u>				
24	20 A Isolator switch complete in weatherproof box	No	2		
25	30 A Isolator switch complete in weatherproof box	No	2		
	LUMINAIRES				
	<u>Photocell</u>				
26	16A Photovoltaic (Day/Night) switch for exterior lighting	No	1		
	EARTHING AND LIGHTNING PROTECTION				
	<u>Earthing</u>				
27	Earth resistivity test to SABS Standards 10142	No	2		
28	Earthing as required at each DB/Kiosk to achieve max 1 Ohm	No	2		
29	Testing and commissioning of earthing installation	No	2		
	Lightning protection				
20	Supply and Install and Earthing and External Lightning Protection System with all required accessories, including a link to the electrical earth and links between the buildings to achieve equipotential bonding. Protection level 3, Down Conductor System. Complete lightning protection of all buildings in accordance with SABS IEC 61024-1-2:1998 specifications. Air termination system to be installed on tiled roof and on all parapits / exposed elements. Downconductor system to be installed within wall cavitiesor surface mounted and bonded to earth termination system. Roof Type: Metal sheeting AreaSize: 2100m2 Solid Circular Copper earth rods 8mm2 x 1m				
30		m	10		
31	Standard Copper Bare cable 4mm2	m	50		
32	Galvanized Bosal Conduit 20mm	m	25		
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BILL NO. 9 ELECTRICAL WORK (PROVISIONAL) COLLECTION	Brought Forward from Page	Page No 62 63 64	
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		Unit	Quantity	Rate	Amount
	SECTION NO. 2				
	PHASE 1				
	BILL NO. 10				
	MECHANICAL WORK (PROVISIONAL)				
	WORK GROUPS: Unless otherwise stated the work group for this Bill shall be WG170				
	<u>DuctWork</u>				
	Descriptions of ducts shall be deemed to include stiffeners, jointing materials, sealants, couplers in the running length and access/inspection panels in accordance with the specification				
	<u>Dumpers</u>				
	Descriptions of smoke and fire dampers shall be deemed to include fusible links, sleeves, frames, supports and access openings in ducts				
	Equipment				
	Outdoor Units Supply & Install on concrete Plinths				
	or mounted against wall, including fixtures				
	Indoor Units supply & install against the wall including fixtures				
1	WALL MOUNT SPLIT UNIT 12000BTU / 4kW	No	1		
	AIRCON ACCESSORIES				
2	Wired remote controller	No	1		
3	Drain Pump	No	1		
	Additional Gas				
4	R 410 gas	Kg	2		
	Water Pumps				
5	Install complete 0,4 kW Single Phase Domestic pump				
	system as per attached specification. Unit to be mounted				
	onto plinth and secured by galvanised cage.	No	2		
	Carried To Section Summary			R	
	Section No. 2				
	Bill No. 10 Mechanical Work (provisional)				
	66				
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		Unit	Quantity	Rate	Amount
	SECTION NO. 2				
	PHASE 1				
	BILL NO. 11				
	GLAZING				
	WORK GROUPS: Unless otherwise stated the work group for this Bill shall be WG150				
	<u>Trade Preambles</u>				
	For Trade Preambles refer to 'Specification of Materials and Methods' (PW371A & PW371B) for the full descriptions of material to be used and work to be done in this Bill				
	SUPPLEMENTARY PREAMBLES				
	Proprietary items or materials:				
	Proprietary items or materials where specified are to be of the brand specified - or other approved - by the Principal Agent.				
	Glazing code of practise conforms to SANS 10137.				
	Security and Safety glazing material conforms to SANS 1263 Part 2 & 3.				
	Powder coating 60 microns in accordance with SANS 1578 and 1796.				
	TOPS, SHELVES, DOORS, MIRRORS, ETC				
	6mm 'GG' quality polished silvered float glass copper backed mirrors with polished edges holed for and fixed with round rose chromium plated mirror screws with rubber buffers to plugs in brickwork or concrete:				
1	Mirror 600 x900mm high with four screws.	No	10		
	Carried To Section Summany			-	
	Carried To Section Summary Section No. 2 Bill No. 11 Glazing			R	
	67				



	Unit	Quantity	Rate	Amount
SECTION NO. 2 PHASE 1 BILL NO. 12 PAINTWORK WORK GROUPS: Unless otherwise stated the work group for this Bill shall be WG152 Trade Preambles: For Trade Preambles refer to 'Specification of Materials and Methods' (PW371A & PW371B) for the full descriptions of material to be used and work to be done in this Bill SUPPLEMENTARY PREAMBLES User Note The following four items, given as examples, have been set up to comply with the Munsell system (the 'extra over' option) as prescribed in the Standard System of Measuring Building Work and should be inserted at the end of each type of paint where applicable: Extra over paintwork to all areas, for paintwork in colours which have a value of 7 or less based on the Munsell system m² Extra over paintwork to gates, grilles, burglar screens, balustrades, etc., for paintwork in colours which have a value of 7 or less based on the Munsell system (both sides measured over the full flat area) m² Extra over paintwork to rails, bars, pipes, etc. not exceeding 300mm girth, for paintwork in colours which have a value of 7 or less based on the Munsell system m Extra over paintwork to skirting's, rails, etc. not exceeding 300mm girth for paintwork in colours which have a value of 7 or less based on the Munsell system m Extra over paintwork to skirting's, rails, etc. not exceeding 300mm girth for paintwork in colours which have a value of 7 or less based on the Munsell system m Extra over paintwork to skirting's, rails, etc. not exceeding 300mm girth for paintwork in colours which have a value of 7 or less based on the Munsell system m	Unit	Quantity	Rate	Amount
Carried to Collection Section No. 2 Bill No. 12 Paintwork 68			R	



	Unit	Quantity	Rate	Amount
Extra over paintwork to all areas, for paintwork in colours which have a value of 7 or less based on the Munsell system m² Extra over paintwork to gates, grilles, burglar screens, balustrades, etc., for paintwork in colours which have a value of 7 or less based on the Munsell system (both sides measured over the full flat area) m² Extra over paintwork to rails, bars, pipes, etc. not exceeding 300mm girth, for paintwork in colours which have a value of 7 or less based on the Munsell system m Extra over paintwork to skirting's, rails, etc. not exceeding 300mm girth for paintwork in colours which have a value of 7 or less based on the Munsell system m Note It has however become evident that application problems exist with the said Munsell system and until such time as the Standard System of Measuring Building Work is adjusted to overcome these problems users should determine from the relevant m manufacturer which of their colour groupings differ appreciably in price and adjust descriptions accordingly.				
PREPARATORY WORK TO EXISTING WORK				
Previously painted plastered surfaces Surfaces shall be thoroughly washed down and allowed to dry completely before any paint is applied. Blistered or peeling paint shall be completely removed and cracks shall be opened, filled with a suitable filler and finished smooth				
Previously painted metal surfaces				
Surfaces shall be thoroughly rubbed and cleaned down. Blistered or peeling paint shall be completely removed down to bare metal				
Previously painted wood surfaces				
Surfaces shall be thoroughly cleaned down. Blistered or peeling paint shall be completely removed and cracks and crevices shall be primed, filled with suitable filler and finished smooth				
Carried to Collection Section No. 2 Bill No. 12 Paintwork			R	
69				



		Unit	Quantity	Rate	Amount
	Project 5 Star:				
	Cleaning of unsound surfaces - plaster cracks and				
	holes, peeling paint, lichen and algae, dirt and				
	debris, greasy, chalky, and powdery surfaces. Dirty, grasy surfaces, as well as paint coatings that have				
	chalked, should be washed with a solution of				
	SUGAR SOAP, or a water - soluble degreaser.				
	SUPPLEMENTARY PREAMBLES				
	Proprietary items or materials:				
	Proprietary items or materials where specified are to be of the brand specified - or other approved - by the Principal Agent.				
	SABS Specifications:				
	Matt or eggshell decorative paint for interior works : SABS 515				
	High gloss enamel paint : SABS 630 Grade I				
	Oil gloss enamel paint : SABS 631				
	Primers for wood for external work : SABS 678 Type I				
	Primers for wood for internal work : SABS 678 Type III				
	Zink chromate primers for steel : SABS 679 Type I				
	Undercoats for paints (except emulsion paint) : SABS 681 Type I				
	Aluminium paint : SABS 682 Grade II				
	Roof paints : SABS 683 Type B (Oil) SABS 940 (Emulsion)				
	Structural steel paint : SABS 684 Type B				
	Wash primer (metal etch) : SABS 723				
	Varnish for interior use : SABS 887 Type I				
	Emulsion paints : SABS 1586				
	Colours, etc.:				
	Unless otherwise described all paintwork shall be deemed to have a colour value in excess of 7 on the Munsell system in accordance with SANS 1091				
	PAINTWORK ETC TO NEW WORK				
	ON INTERNAL FLOATED PLASTER SURFACES				
	One coat alkali resistant primer and two coats premium quality, fully washable and stain resistant water base paint on:				
1	Walls.	m²	140		
	Carried to Collection			R	
	Section No. 2				
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	Paintwork 70				
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		Unit	Quantity	Rate	Amount
	ON EXTERNAL FLOATED PLASTER SURFACES				
	One coat alkali resistant primer and two coats premium quality non drip acrylic emulsion paint on:				
2	Walls.	m²	57		
	ON FIBRE-CEMENT BOARD SURFACES				
	One coat alkali resistant primer and two coats premium quality, fully washable and stain resistant acrylic emulsion paint on:				
3	On exterior fascia's and barge boards.	m²	118		
	One coat universal undercoat and two coats Plascon Velvaglo polyurethane enamel paint:				
4	On interior sills.	m²	60		
5	On ceilings.	m²	81		
3	ON METAL SURFACES	""			
	One coat universal undercoat and two coats low				
	gloss water based enamel paint on galvanised steel:				
6	Windows (both sides measured).	m²	7		
	One coat primer for wood and two coats Plascon Velvaglo polyurethane I enamel paint on:				
7	Interior doors.	m²	25		
8	Exterior doors.	m²	12		
9	Exterior doors frames.	m²	5		
10	Interior doors frames.	m²	19		
	One coat primer for wood and two coats Plascon Velvaglo polyurethane I enamel paint on:				
11	19mm hardwood quadrant trim, not exceeding 300mm girth.	m	360		
	PAINTWORK, ETC TO PREVIOUSLY PAINTED WORK				
	ON INTERNAL FLOATED PLASTER SURFACES				
	One coat alkali resistant primer and two coats premium quality, fully washable and stain resistant water base paint on:				
12	Walls	m²	274		
	One coat premium quality, fully washable and stain resistant water base paint on:				
13	Walls	m²	958		
	Carried to Collection			R	
	Section No. 2				
	Bill No. 12				
	Paintwork 71				
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		Unit	Quantity	Rate	Amount	
14	ON EXTERNAL FLOATED PLASTER SURFACES One coat alkali resistant primer and two coats premium quality non drip acrylic emulsion paint on: Walls	m²	72			
	Carried to Collection Section No. 2 Bill No. 12 Paintwork 72			R		



			Amount	
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Paintwork				
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	PHASE 1		
	SECTION SUMMARY		
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SECTION NO. 3 PHASE 2



		Unit	Quantity	Rate	Amount
	SECTION NO. 3				
	PHASE 2				
	BILL NO. 1				
	ALTERATIONS (PROVISIONAL)				
	WORK GROUPS: Unless otherwise stated the work group for this Bill shall be WG102				
	Trade Preambles:				
	SUPPLEMENTARY PREAMBLES				
	For Trade Preambles refer to 'Model Preambles for Trades' (PW371A & PW371B) for the full descriptions of material to be used and work to be done in this Bill				
	Supplementary Preambles:				
	Prices are to include for carting away from site all materials not specifically mentioned as being stored on site for re-use or handed over to the Employer and all rubbish, debris, etc., arising from the alterations, etc., and for making good all work damaged or disturbed to the approval of the Principal Agent.				
	If angle grinders are used, a method of containing the dust must be utilised. Should the dust produced by the use of angle grinders, be deemed to be a nuisance by the Employer, their use will be prohibited.				
	REMOVAL OF EXISTING WORK				
1	Allow for watering the works by spraying to prevent any nuisance from dust, etc., and supply, erect and remove on completion all temporary dust screens, etc. required.	Item			
	Breaking up and removing reinforced concrete, including cutting off and removing reinforcement				
2	110mm Thick surface beds	m²	96		
3	Steps	m²	8		
4	Ramps	m²	12		
	Breaking down and removing brickwork etc.				
5	110mm Brick walls	m²	124		
6	220mm Brick walls	m²	64		
7	330mm Brick walls	m²	18		
	Carried to Collection			R	
	Section No. 3			r.	
	Bill No. 1				
	Alterations (provisional)				
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		Unit	Quantity	Rate	Amount
	Taking out and removing doors, windows, etc., including thresholds, sills, etc. (building up openings and making good finishes elsewhere)				
8	900 x 2125mm High Timber single door and frame	No	49		
9	1100 x 2125mm High Single steel cell door and frame.	No	12		
10	1500 x 2125mm High Timber double door and steel frame.	No	11		
11	Glazed steel window frames 1500 x 1100mm high from brick wall, not exceeding 2,5m2	No	8		
12	Glazed steel window frames 1000 x 1400mm high from brick wall, not exceeding 2,5m2	No	2		
13	Glazed steel window frames 700 x 1300mm high from brick wall, not exceeding 2,5m2	No	5		
14	5 Star window 1000 x 1200mm high from brick wall, not exceeding 2,5m2	No	2		
15	Glazed steel window frames 1200 x 1065mm high from brick wall, not exceeding 2,5m2	No	6		
16	Glazed steel window frames 600 x 800mm high from brick wall, not exceeding 2,5m2	No	4		
17	Glazed steel window frames 505 x 470mm high from brick wall, not exceeding 2,5m2	No	4		
18	Glazed timber window frames 1250 x 1000mm high from brick wall, not exceeding 2,5m2	No	1		
	Taking down and removing roofs, floors, panelling, ceilings, partitions, etc.				
19	Existing painted knock up ceiling.	m²	555		
20	Corrugated roof covering and timber damaged purlins	m²	873		
21	Existing tip of roof trusses to accommodate new roof pitch	m	285		
	Hacking up/off and removing ceramic tiles including removing mortar bed or adhesive from concrete or brickwork and preparing surfaces for new screed, plaster, tile finish, etc.				
22	Ceramic tiles including preparation of screed to receive new tiles.	m²	26		
23	Tile skirting's 100mm high	m²	5		
24	Tile to walls	m²	20		
	Carried to Collection Section No. 3 Bill No. 1 Alterations (provisional) 77			R	



		Unit	Quantity	Rate	Amount
<u>re</u> <u>b</u>	Hacking up/off and removing vinyl tiles including emoving mortar bed or adhesive from concrete or orickwork and preparing surfaces for new screed, plaster, tile finish, etc.				
ti	/inyl tiles including preparation of screed to receive new les.	m²	526		
	aking out and removing ironmongery				
	Mortice lockset from timber door	No	18		
	Door closer from timber door and frame	No	6		
28 T	oilet paper holder from wall	No	11		
	aking out and removing sundry joinery work, ittings, etc.				
29 T	imber skirting's	m	672		
	Fimber work stations completely size 22500 x 1300 x 950mm	No	1		
31 T	imber work bench size 15500 x 650 x 850mm	No	1		
<u>T</u>	aking out/off and removing sundry metalwork				
	Oouble security gates 1500 x 1500mm from existing 30mm wall.	No	2		
	Single security gates 900 x 1500mm from existing 10mm wall.	No	18		
34 E	Existing mesh window screens.	No	16		
35 E	Existing overhead screens size 600 x 1000mm	m²	6		
p p fi	Hacking up/off and removing granolithic, screeds, plaster, etc. from concrete or brickwork and preparing surfaces for new screed, plaster, tile inishes, etc.				
	Floor screed and prepare concrete floors to receive new creed	m²	177		
	nternal plaster from walls and prepare walls to receive lew plaster.	m²	615		
	external plaster from walls and prepare walls to receive lew plaster.	m²	64		
	Carried to Collection			R	
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	78				



Taking out and removing piping, sanitary fittings, etc., including cutting off as necessary, disconnecting piping from fittings and making good floor and wall finishes (making good tiling and paintwork elsewhere) 39 PVC steel piping not exceeding 50mm diameter m 260 40 Vitreous china wash hand basin, including short lengths of piping, etc. No 4 41 Vitreous china WC pan with cistern, including short lengths of piping, etc. No 4 42 Stainless steel wall sink and drainer, including short lengths of piping, etc. No 2 Taking out and removing glass and mirrors. 43 Mirror 450 x 600mm high from wall No 8 CUTTING THROUGH FLOORS AND CEILINGS Cutting through floors and ceilings:
etc., including cutting off as necessary, disconnecting piping from fittings and making good floor and wall finishes (making good tiling and paintwork elsewhere) 39 PVC steel piping not exceeding 50mm diameter m 260 40 Vitreous china wash hand basin, including short lengths of piping, etc. No 4 41 Vitreous china WC pan with cistern, including short lengths of piping, etc. No 4 42 Stainless steel wall sink and drainer, including short lengths of piping, etc. No 2 Taking out and removing glass and mirrors. 43 Mirror 450 x 600mm high from wall No 8 CUTTING THROUGH FLOORS AND CEILINGS Cutting through floors and ceilings:
etc., including cutting off as necessary, disconnecting piping from fittings and making good floor and wall finishes (making good tiling and paintwork elsewhere) 39 PVC steel piping not exceeding 50mm diameter m 260 40 Vitreous china wash hand basin, including short lengths of piping, etc. No 4 41 Vitreous china WC pan with cistern, including short lengths of piping, etc. No 4 42 Stainless steel wall sink and drainer, including short lengths of piping, etc. No 2 Taking out and removing glass and mirrors. 43 Mirror 450 x 600mm high from wall No 8 CUTTING THROUGH FLOORS AND CEILINGS Cutting through floors and ceilings:
PVC steel piping not exceeding 50mm diameter m 260 Vitreous china wash hand basin, including short lengths of piping, etc. No 4 Vitreous china WC pan with cistern, including short lengths of piping, etc. No 4 Stainless steel wall sink and drainer, including short lengths of piping, etc. No 2 Taking out and removing glass and mirrors. Mirror 450 x 600mm high from wall No 8 CUTTING THROUGH FLOORS AND CEILINGS Cutting through floors and ceilings:
Vitreous china wash hand basin, including short lengths of piping, etc. No 4 Vitreous china WC pan with cistern, including short lengths of piping, etc. No 4 Stainless steel wall sink and drainer, including short lengths of piping, etc. No 2 Taking out and removing glass and mirrors. Mirror 450 x 600mm high from wall CUTTING THROUGH FLOORS AND CEILINGS Cutting through floors and ceilings:
of piping, etc. No 4 Vitreous china WC pan with cistern, including short lengths of piping, etc. No 4 Stainless steel wall sink and drainer, including short lengths of piping, etc. No 2 Taking out and removing glass and mirrors. Mirror 450 x 600mm high from wall CUTTING THROUGH FLOORS AND CEILINGS Cutting through floors and ceilings:
lengths of piping, etc. No 4 Stainless steel wall sink and drainer, including short lengths of piping, etc. No 2 Taking out and removing glass and mirrors. Mirror 450 x 600mm high from wall CUTTING THROUGH FLOORS AND CEILINGS Cutting through floors and ceilings:
lengths of piping, etc. Taking out and removing glass and mirrors. Mirror 450 x 600mm high from wall CUTTING THROUGH FLOORS AND CEILINGS Cutting through floors and ceilings:
43 Mirror 450 x 600mm high from wall CUTTING THROUGH FLOORS AND CEILINGS Cutting through floors and ceilings:
CUTTING THROUGH FLOORS AND CEILINGS Cutting through floors and ceilings:
Cutting through floors and ceilings:
44 4 x 35mm Saw cut joint in top of 150mm thick concrete
surface bed to facilitate breaking up and removing panels (breaking up and removing concrete elsewhere measured).
45 Existing painted knock up ceiling for brick walls,
including making good on both sides of walls (new cornices elsewhere) m 32
Cutting through walls:
Saw cut to facilitate breaking up and removing some few bricks for electrical conduits and plumbing pipes (breaking up and removing walls elsewhere measured).
MAKING GOOD OF FINISHES, ETC
Making good internal cement plaster
47 Walls in patches. (Provisional) m ² 182
Walls where 110mm brick walls removed m ² 10
49 Walls where 220mm brick walls removed m ² 19
50 Walls where 330mm brick walls removed. m ² 11
Making good external cement plaster
51 Walls in patches. (Provisional) m ² 280
Walls where 230mm brick walls removed m ² 30
Carried to Collection R
Section No. 3 Bill No. 1
Alterations (provisional)
79



		Unit	Quantity	Rate	Amount
53	Walls where 385mm brick walls removed	m²	59		
	MAKING GOOD ROOF TRUSSES				
	Replacing broken members of roof trusses:				
54	Allowance for replacement of broken roof truss members where necessary, sized 38 x 114mm	m	315		
55	Allowance for replacement of broken roof truss members where necessary, sized 50 x 114mm	m	88		
56	Allowance for replacement of broken roof truss members where necessary, sized 38 x 76mm	m	185		
57	Allowance for replacement of broken roof truss members where necessary, sized 38 x 52mm	m	110		
	BUILDING UP OPENINGS				
	Brickwork in NFP bricks in class II mortar in building up openings				
58	110mm brick walls	m²	124		
59	220mm Brick walls	m²	64		
60	333mm Brick walls	m²	18		
	OPENINGS THROUGH EXISTING WALLS ETC				
	Altering openings				
61	Altering opening in one brick wall where 1000 x 1250mm high steel window removed to form opening for new aluminium windows by breaking out brickwork on both sides and bottom, including making good cement plaster on both sides and into reveals (new window and making good paintwork elsewhere)	No	19		
62	Altering opening for aluminium window size 1100 x 1220mm high overall by cutting out and removing concrete lintol over, solid brickwork at reveals for full hight of door, remove floor finish in opening, brick up opening as required 812mm below window cill and above insert concrete lintol over window opening, close up cavity at reveals and dampproofcourse, make good plaster both sides returned into reveals of opening, make good skirting on one side (new cills, new window and making good paintwork elsewhere)	No	4		
	Carried to Collection Section No. 3 Bill No. 1 Alterations (provisional)			R	
	80				



		Unit	Quantity	Rate	Amount
63	Breaking out and forming openings through brick walls for new aluminium windows, including concrete lintels over, dampproofcourse, making good cement plaster on both sides and into reveals (new window & paintwork elsewhere) Opening at 1100 x 1225mm high overall through 330mm brick wall. Breaking out for and forming openings through brick walls for new doors, remove floor finish in opening, making good cement plaster on both sides and into reveals, supply and insert cement concrete threshold finished with screed and floor finishes in opening (new lintol, door, door frame & paintwork elsewhere)	No	2		
64	Opening at 900 x 2125mm high overall through 330mm brick wall.	No	3		
65	Opening at 900 x 2125mm high overall through 230mm brick wall.	No	1		
66	Opening at 1800 x 2125mm high overall through 230mm brick wall.	No	1		
	Carried to Collection Section No. 3 Bill No. 1 Alterations (provisional)			R	



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	Unit	Quantity	Rate	Amount
SECTION NO. 3				
PHASE 2				
BILL NO. 2				
EARTHWORKS (PROVISIONAL)				
WORK GROUPS: Unless otherwise stated the work group for this Bill shall be WG104				
Trade Preambles:				
For Trade Preambles refer to 'Model Preambles for Trades' (PW371A & PW371B) for the full descriptions of material to be used and work to be done in this Bill				
SUPPLEMENTARY PREAMBLES				
Nature of ground:				
The proposed building site has boulders under a thin layer of imported reddish brown silt sand soil of about 300mm to 800mm depth.				
Excavation for working space in rock				
Notwithstanding clause 11 page 8 of the Standard System of Measuring Building Work, excavation for working space in rock will be measured in cubic metres to the extent executed and given as 'extra over' bulk excavation or trench and hole excavation as the case may be				
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 building site				
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 necessary multiple handling of material				
Existing services:				
There are a number of existing services within the site boundaries, some of these are shown on the drawings. This information is not exhaustive and does not relieve the contractor of the responsibility of locating all existing services prior to construction. There are existing water, storm water, telephone, communications and electrical services on the site. Work is to be carried out without any disruption to existing services, this includes instances where newly constructed services are to be connected to existing 'live' services.				
Corried to Collection				
Section No. 3 Bill No. 2			R	
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		Unit	Quantity	Rate	Amount
	Should the existing services be damaged due to the negligence of the contractor, the contractor shall be liable for the full cost of the repair.				
	EXCAVATION OTHER THAN BULK				
	Excavation in earth not exceeding 2m deep:				
1	Trenches.	m³	18		
	Risk of collapse of excavations other than bulk:				
2	Sides of trench and hole excavations not exceeding 1,5m deep.	m²	57		
	CARTING AWAY.				
	Extra over all excavations for loading, carting and dumping surplus excavated material (no allowance made for increase in bulk):				
3	Off site to a dumping site to be found by the Contractor.	m³	11		
	EARTH FILLING, ETC.				
	Filling with material from the excavations compacted to a density of at least 95% Mod. AASHTO maximum density:				
4	Backfilling to trenches.	m³	7		
	Filling with G6 approved material supplied and carted onto site by the Contractor, compacted to a density of at least 98% Mod. AASHTO maximum density:				
5	Under floors.	m³	12		
	Filling with G7 approved material supplied and carted onto site by the Contractor, compacted to a density of at least 98% Mod. AASHTO maximum density:				
6	Under floors.	m³	12		
	Coarse river sand filling supplied by the contractor				
7	Under floors etc.	m³	4		
	KEEPING EXCAVATIONS FREE OF WATER				
	Keeping excavations free of water:				
8	Keeping excavations free of all water other than subterranean water.	Item			
	Carried to Collection			R	
	Section No. 3 Bill No. 2				
	Earthworks (provisional)				
	84				



	Unit	Quantity	Rate	Amount
TESTS Prescribed density tests on filling:				
Modified AASHTO Density test.	No	12		
SOIL POISONING				
Approved brand of anti-termite soil poison applied by a Registered Pest Control company and guaranteed against termite infestation for ten years:				
Under floors, etc., including forming and poisoning shallow furrows against foundation walls, etc., filling in furrows and ramming.	m²	32		
To bottoms and sides of trenches, etc.	m²	86		
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SECTION NO. 3 PHASE 2 BILL NO. 3 CONCRETE. FORMWORK AND REINFORCEMENT WORK GROUPS: Unless otherwise stated the work group for this Bill shall be WG110 Trade Preambles: For Trade Preambles refer to 'Specification of Materials and Methods (PW371A & PW371B) for the full descriptions of material to be used and work to be done in this Bill SUPPLEMENTARY PREAMBLES 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 Architect. The testing shall be undertaken by an independent firm or institution nominated by the Contractor to the approval of the Architect. (Test cubes are measured separately). Breeze Concrete: Breeze concrete shall consist of twelve parts clean dry turnace ash, free from coal or other foreign matter, to one part cement (12:1), the salty graded up to particles which will pass a 16/5mm ring from a minimum which is screening are to be first mixed with the cement tinn a mortar and the ash added afterwards and thoroughly incorporated. Foam cement lightweight Concrete: Foam cement lightweight Concrete: Foam cement lightweight concrete is to have a density of 600kg/m3 for the top 50mm and 408kg/m3 for the remaining thickness. The minimum thickness at outlets, channels, etc. shall be 50mm. Celbeton Lightweight concrete is to have a density of 1000kg/m3 for the top 50mm and 408kg/m3 for the remaining thickness. The minimum thickness at outlets, channels, etc. shall be 50mm and 408kg/m3 for the remaining thickness. The minimum thickness at outlets, channels, etc. shall be 50mm. Carried to Collection Section No. 3 Bill No. 3 Concrete, Formwork And Reinforcement		Unit	Quantity	Rate	Amount
PHASE 2 BILL NO. 3 CONCRETE, FORMWORK AND REINFORCEMENT WORK GROUPS: Unless otherwise stated the work group for this Bill shall be W6110 Trade Preambles: For Trade Preambles: For Trade Preambles refer to 'Specification of Materials and Methods (PW3714 & PW371B) for the full descriptions of material to be used and work to be done in this Bill SUPPLEMENTARY PREAMBLES 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 Architect. The testing shall be undertaken by an independent firm or institution nominated by the Contractor to the approval of the Architect. (Test cubes are measured separately). Breeze Concrete: Breeze concretes shall consist of twelve parts clean dry lurnace ash, free from coal or other foreign matter, to one part cement (12.1), the ash graded up to particles which will pass a 16,5mm ing from a minimum which falls to pass a 4,75mm mesh. The finer materials from the screening are to be first mixed with the cement into a mortar and the ash added afterwards and thoroughly incorporated. Foam cement lightweight Concrete: Foam cement Lightweight Concrete: Foam cement Lightweight Concrete: Calbeton lightweight Concrete is to have a density of 600kg/m3 for the top 50mm and 500kg/m3 for the remaining thickness. The minimum thickness at outlets, channels, etc. shall be 50mm. Celbeton Lightweight Concrete is to have a density of 1000kg/m3 for the top 50mm and 400kg/m3 for the remaining thickness. The minimum thickness at outlets, channels, etc. shall be 50mm. Carried to Collection R Section No. 3 Bill No. 3 Concrete, Formwork And Reinforcement					
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Section No. 3 Bill No. 3 Concrete, Formwork And Reinforcement					
Section No. 3 Bill No. 3 Concrete, Formwork And Reinforcement	Carried to Collection			R	
Concrete, Formwork And Reinforcement					
	Bill No. 3				
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		Unit	Quantity	Rate	Amount
	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.				
	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 for design 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.				
	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.				
	UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES: WG 110				
	10 MPa/19mm Concrete:				
1	Surface blinding under footings and bases.	m³	4		
	REINFORCED CONCRETE PARTLY CAST AGAINST EXCAVATED SURFACES				
	30 MPa/19mm Concrete:				
2	Strip footings.	m³	7		
	REINFORCED CONCRETE				
	30 MPa/19mm Concrete:				
3	Surface bed	m³	4		
4	Suspended slab	m³	10		
	TEST BLOCKS				
	Test blocks:				
5	Making and testing set of three 150 x 150 x 150mm concrete strength test cubes.	Sets	21		
	Carried to Collection			R	
	Section No. 3				
	Bill No. 3 Concrete, Formwork And Reinforcement				
	88				



		Unit	Quantity	Rate	Amount
	FINISHING TOP SURFACE OF CONCRETE				
	Finishing top surfaces of concrete smooth with a steel trowel:				
6	Surface beds, slabs, etc.	m²	110		
	ROUGH FORMWORK (DEGREE OF ACCURACY II):				
	WG 111				
	Rough formwork to sides:				
7	Edges, risers, ends and reveals not exceeding 300mm high or wide.	m	113		
	Rough formwork to soffits:				
8	Slab propped up exceeding 1.5m and not exceeding 3.5m high.	m²	48		
	MOVEMENT JOINTS, ETC.				
	Isolation joints with 10mm "Jointex" by Sondor polyethalene joint filler with 10mm tear off strip between vertical concrete and brick surfaces:				
9	Not exceeding 300mm high to edges of surface beds.	m	173		
	REINFORCEMENT: WG 114 (PROVISIONAL)				
	High tensile steel reinforcement to structural concrete work:				
10	16mm Diameter bars.	Tonnes	0.10		
11	12mm Diameter bars.	Tonnes	0.50		
12	10mm Diameter bars.	Tonnes	0.30		
13	8mm Diameter bars.	Tonnes	0.20		
	Fabric reinforcement: WG 114				
14	Type 245 fabric reinforcement in concrete surface beds, etc.	m²	79		
	Carbon Fibre reinforcement: WG 114				
15	1.0m Apart in both directions, 100mm wide, 1,2mm thick uni-directional carbon fibre strips to approximately 3000mm high suspended slab	m²	230		
	Carried to Collection Section No. 3			R	
	Bill No. 3				
	Concrete, Formwork And Reinforcement				
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CONCRETE, FORMWORK AND REINFORCEMENT COLLECTION Page No Brought Forward from Page 87 88 89	
Carried To Section Summary R Section No. 3 Bill No. 3 Concrete, Formwork And Reinforcement 90	



		Unit	Quantity	Rate	Amount
	SECTION NO. 3				
	PHASE 2				
	BILL NO. 4				
	MASONRY				
	WORK GROUPS: Unless otherwise stated the work group for this Bill shall be WG116				
	<u>Trade Preambles:</u>				
	For Trade Preambles refer to 'Model Preambles for Trades' (PW371A & PW371B) for the full descriptions of material to be used and work to be done in this Bill				
	SUPPLEMENTARY PREAMBLES				
	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.				
	Hollow walls etc.:				
	Descriptions of hollow walls shall be deemed to include leaving every fifth perpend of the bottom course of the external skin open as a weep hole.				
	Bagged and sealed walls				
	Walls in two skins described as 'bagged and sealed' shall be deemed to include having the outer face of the inner skin bagged with 1:6 cement and sand mixture and sealed with two coats bitumen emulsion waterproofing coating				
	Face bricks:				
	Bricks shall be ordered timeously to obtain uniformity in size and colour.				
	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 IN FOUNDATIONS (PROVISIONAL) (DEGREE OF ACCURACY II)				
	Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar:				
1	110mm Brick walls.	m²	6		
2	220mm Brick walls.	m²	10		
3	330mm Brick walls.	m²	3		
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	Carried to Collection Section No. 3			R	
	Bill No. 4				
	Masonry				
	91				



		Unit	Quantity	Rate	Amount
	BRICKWORK IN SUPERSTRUCTURE				
	Brickwork of NFP bricks in class II mortar:				
4	Mass brick work to piers	m³	17		
5	110mm Brick walls.	m²	104		
6	220mm Brick walls.	m²	48		
7	330mm Brick walls.	m²	15		
8	220mm Fire walls.	m²	35		
	BRICKWORK SUNDRIES				
	Brickwork reinforcement:				
9	75mm Wide reinforcement built in horizontally in foundations (Provisional).	m	135		
10	150mm Wide reinforcement built in horizontally in foundations (Provisional).	m	127		
11	75mm Wide reinforcement built in horizontal in superstructure.	m	906		
12	150mm Wide reinforcement built in horizontal in superstructure.	m	488		
	Prestressed fabricated lintels:				
13	110 x 75mm Lintels in lengths not exceeding 3m.	m	272		
	Joint forming material in movement joints				
14	10mm Expanded polystyrene (density 33kg per m3) 230mm wide with one tear-off strip, built in vertically through brick walls	m	72		
	FACE BRICKWORK				
	External Facebrick:				
	Allow the prime-cost amount of R7 500-00 (Seven Thousand Five Hundred Rand excluding VAT) net per thousand for external face bricks, supplied and delivered to site and add for taking delivery, storage, building in and pointing with square recessed horizontal and vertical joints waste and profit:				
15	Extra over brickwork for face brickwork in superstructure.	m²	26		
16	Extra over brickwork for brick on edge 230mm wide cill set sloping and slightly projecting, pointing on face	m	170		
17	Fair raking and cutting	m	180		
	Carried to Collection Section No. 3 Bill No. 4 Masonry			R	
	92				



FIBRE-CEMENT WINDOW SILLS Natural grey window sills in single lengths not exceeding 3.6m, bedded in class I mortar including fixing lungs screwed to underside with self tapping screws: 18 15 x 150mm Wide sills set flat and slightly projecting. m 60 15 x 230mm Wide sills set flat and slightly projecting. m 59 Carried to Collection Section No. 3 Bill No. 4 Masonry 93			Unit	Quantity	Rate	Amount	
exceeding 3.6m. bedded in class I mortar including fixing lungs screwed to underside with self tapping screws: 18 15 x 150mm Wide sills set flat and slightly projecting. m 60 15 x 230mm Wide sills set flat and slightly projecting. m 59 Carried to Collection Section No. 3 Bill No. 4 Masonry		Natural grey window sills in single lengths not					
19 15 x 190mm Wide sills set flat and slightly projecting. m 60 m 59 m 60 m 59 m 60 m 59 m 60 m 60 m 60 m 60 m 60 m 60 m 60 m 6		exceeding 3.6m, bedded in class I mortar including fixing lungs screwed to underside with self tapping					
20 15 x 230mm Wide sills set flat and slightly projecting. m 59 Carried to Collection Section No. 3 Bill No. 4 Masonry	18	15 x 150mm Wide sills set flat and slightly projecting.	m	72			
Carried to Collection Section No. 3 Bill No. 4 Masonry	19	15 x 190mm Wide sills set flat and slightly projecting.	m	60			
Section No. 3 Bill No. 4 Masonry	20	15 x 230mm Wide sills set flat and slightly projecting.	m	59			
Section No. 3 Bill No. 4 Masonry							
Section No. 3 Bill No. 4 Masonry							
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		Unit	Quantity	Rate	Amount	
	SECTION NO. 3					
	PHASE 2					
	BILL NO. 5					
	WATERPROOFING					
	WORK GROUPS: Unless otherwise stated the work group for this Bill shall be WG120					
	Trade Preambles:					
	For Trade Preambles refer to 'Model Preambles for Trades' (PW371A & PW371B) for the full descriptions of material to be used and work to be done in this Bill					
	DAMPPROOFING OF WALLS AND FLOORS					
	One layer of 375 micron Consol Plastics Brikgrip DPC embossed damp proof course (SANS 952-1985 type B):					
1	In walls.	m²	12			
	One layer of 250 micron Consol Plastics Brikgrip					
	waterproof sheeting sealed at laps with Gunplas Pressure Sensitive Tape:					
2	Under surface beds.	m²	29			
	LIQUID WATERPROOFING					
	Prepare and brush to remove all loose contaminants, apply bituminous paint one.					
3	Walls in foundations	m²	63			
	JOINT SEALANTS ETC					
	Polyurethane sealing compound including backing cord, bond breaker, primer, etc.					
4	10 x 10mm In expansion joints including raking out expansion joint filler as necessary.	m	71			
5	10 x 10mm In saw cut joints in floors.	m	165			
	Clear silicone sealant:					
6	In waterproofing joints between concrete vanity tops, plaster and stainless steel sanitary fittings.	m	59			
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	Section No. 3					
	Bill No. 5 Waterproofing					
	95					
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SECTION NO. 3 PHASE 2 BILL NO. 6 ROOF COVERINGS WORK GROUPS: Unless otherwise stated the work group for this Bill shall be WG124 Trade Preambles: For Trade			Unit	Quantity	Rate	Amount
PHASE 2 BILL NO. 6 ROOF COVERINGS WORK GROUPS: Unless otherwise stated the work group for this Bill shall be WG124 Trade Preambles: For Trade Preambles: For Trade Preambles refer to 'Specification of Materials and Methods (PW371A & PW371B) for the full descriptions of material to be used and work to be done in this Bill SUPPLEMENTARY PREAMBLES Proprietary items or materials Proprietary items or materials Proprietary items or materials Proprietary items or materials Proprietary items or materials ROOF COVERINGS, ETC. PROFILED METAL SHEETING AND ACCESSORIES 0.58mm Brownbulit 2275 Prepainted factory coated finished galvanised Cliplok concealed sheeting in continuous lengths roof sheeting fixed to timber purlins in strict accordance with manufacturers specifications: 1 Roof covering with pitch not exceeding 25 degrees. 0.58mm Thick A2200 prepainted factory coated finished daylavinised Cliplok concealed sheeting in continuous lengths roof sheeting: Ridge capping to suit roof profile. 1 Roof covering with pitch not exceeding 25 degrees. 9.58mm Thick A2200 prepainted factory coated finished flashings and accessories including finish to match roof sheeting: Ridge capping to suit roof profile. 1 Hip capping to suit roof profile. 2 Ridge capping to suit roof profile. 3 Hip capping to suit roof profile. 4 Valley capping to suit roof profile. 5 Headwall flashing 375mm girth and two times bent along girth. ROOF INSULATION. WG:122 Sisalation 42° or similar approved heavy industrial grade aluminium foil based insulation. 6 Insulation laid taut over purlins (at approximately 750mm centres) or over battens (at approximately 345mm centres) or over battens (at approximately 345mm centres) or over battens (at approximately 345mm centres) and fixed concurrent with roof covering including galvanised steel straining wires, laps, etc. Carried to Collection 8 Roof Coverings						
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BILL NO. 6 ROOF COVERINGS WORK GROUPS: Unless otherwise stated the work group for this Bill shall be WG124 Trade Preambles: For Trade Preambles refer to 'Specification of Materials and Methods' (PW3714 & PW371B) for the full descriptions of material to be used and work to be done in this Bill SUPPLEMENTARY PREAMBLES Proprietary items or materials Proprietary items or be done Items or materials Proprietary items or be done Items or materials Proprietary items or be done Items or materials		SECTION NO. 3				
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WORK GROUPS: Unless otherwise stated the work group for this Bill shall be WG124 Trade Preambles: For Trade Preamb		BILL NO. 6				
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Headwall flashing 375mm girth and two times bent along girth. ROOF INSULATION. WG:122 Sisalation 420' or similar approved heavy industrial grade aluminium foil based insulation. Insulation laid taut over purlins (at approximately 750mm centres) or over battens (at approximately 345mm centres) and fixed concurrent with roof covering including galvanised steel straining wires, laps, etc. Carried to Collection Section No. 3 Bill No. 6 Roof Coverings	3	Hip capping to suit roof profile.	m	53		
girth. ROOF INSULATION. WG:122 Sisalation 420' or similar approved heavy industrial grade aluminium foil based insulation. Insulation laid taut over purlins (at approximately 750mm centres) or over battens (at approximately 345mm centres) and fixed concurrent with roof covering including galvanised steel straining wires, laps, etc. Carried to Collection Section No. 3 Bill No. 6 Roof Coverings	4	Valley capping to suit roof profile.	m	15		
ROOF INSULATION. WG:122 Sisalation 420' or similar approved heavy industrial grade aluminium foil based insulation. Insulation laid taut over purlins (at approximately 750mm centres) or over battens (at approximately 345mm centres) and fixed concurrent with roof covering including galvanised steel straining wires, laps, etc. Carried to Collection Section No. 3 Bill No. 6 Roof Coverings	5	· · · · · · · · · · · · · · · · · · ·	m	43		
Sisalation 420' or similar approved heavy industrial grade aluminium foil based insulation. Insulation laid taut over purlins (at approximately 750mm centres) or over battens (at approximately 345mm centres) and fixed concurrent with roof covering including galvanised steel straining wires, laps, etc. Carried to Collection Section No. 3 Bill No. 6 Roof Coverings						
centres) or over battens (at approximately 345mm centres) and fixed concurrent with roof covering including galvanised steel straining wires, laps, etc. Carried to Collection Section No. 3 Bill No. 6 Roof Coverings		Sisalation 420' or similar approved heavy industrial				
Section No. 3 Bill No. 6 Roof Coverings	6	Insulation laid taut over purlins (at approximately 750mm centres) or over battens (at approximately 345mm centres) and fixed concurrent with roof covering	m²	1 559		
Section No. 3 Bill No. 6 Roof Coverings		Corried to Collection			ъ	
Bill No. 6 Roof Coverings					R	
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		Unit	Quantity	Rate	Amount
7	113mm Thick cellulose fibre Insulation laid taut between trusses and fixed concurrent with roof covering including galvanised steel straining wires, laps, etc.	m²	1 346		
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PHASE 2				
BILL NO. 7 CARPENTRY AND JOINERY				
WORK GROUPS: Unless otherwise stated the work group for this Bill shall be WG126				
TRADE PREAMBLES				
Trade Preambles:				
For Trade Preambles refer to 'Model Preambles for Trades' (PW371A & PW371B) for the full descriptions of material to be used and work to be done in this Bill				
SUPPLEMENTARY PREAMBLES				
Particle board:				
Particle board shall comply with the following specifications: a) SABS 1300 Particle board: exterior and flooring type b) SABS 1301 Particle board: interior type.				
<u>Joinery:</u>				
Descriptions of frames shall be deemed to include frames, transoms, mullions, rails, etc.				
Descriptions of hardwood joinery shall be deemed to include pelleting of bolt holes.				
Fixing:				
Items described as nailed shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete.				
Decorative laminate finish:				
Laminate finish shall be glued under pressure. Edge strips shall be butt jointed at junctions with adjacent similar finish.				
PREFABRICATED ROOF TRUSSES ETC				
Prefabricated timber roof construction complete including purlins, runners, bracing hips, valleys, cleats, purlins, etc., supplied and fixed complete:				
Preamble note:				
Trusses are at approximately maximum 1173mm centres.				
Roof coverings are 'Global Roofing Solutions 762' 0,58mm thick light industrial Z200 spelter galvanised steel sheeting with double-sided aluminium foil insulation.				
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Carpentry And Joinery				
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		Unit	Quantity	Rate	Amount
	References given in descriptions refer to the respective roofs detailed on the architect's/engineer's drawings accompanying these Bills of Quantities for tender purposes.				
	The contractor will be required to provide a certificate of approval signed by a registered Professional Engineer that the trusses have been designed, manufactured and installed in accordance with the relevant SABS specifications.				
	ROOF CONSTRUCTION				
	Sawn softwood grade 4				
1	38 x 114mm Wall plates	m	219		
2	50 x 152mm Sawn timber	m	184		
3	76 x 50mm Longitudinal bracing	m	242		
4	76 x 50mm Cross bracing	m	395		
5	50 x 76mm Purlins	m	414		
	EAVES, VERGES, ETC				
	Medium density plain fibre cement boards:				
6	12 x 225mm Fibre cement fascia boards.	m	297		
7	12 x 225mm Fibre cement barge boards.	m	38		
8	6mm Fibre cement eaves soffit covering	m²	183		
	FRAMED DOORS ETC. (CPAP Work Group No 126)				
	Wrought meranti doors:				
9	44mm FLB door, size 813 x 2032mm high, measured as door type D08 in the MDA 308 Joubertina Police Complex door schedule attached to these bills of quantities.	No	3		
10	44mm FLB door, size 1400 x 2032mm high, measured as door type D10 in the MDA 308 Joubertina Police Complex door schedule attached to these bills of quantities.	No			
	·	No	2		
	HARDWOOD DOORS Hardwood doors				
11	44mm thick solid core flush door, edged with 10mm				
11	hardwood faced with tempered smooth face hardwood for panting, size 813 x 2032mm high, measured as door type D04 in the MDA 308 Joubertina Police Complex door schedule attached to these bills of quantities.	No	18		
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	Carpentry And Joinery				
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		Unit	Quantity	Rate	Amount
12	44mm thick solid core flush door, edged with 10mm hardwood faced with tempered smooth face hardwood for panting, size 813 x 2032mm high, measured as door type D05 in the MDA 308 Joubertina Police Complex door schedule attached to these bills of quantities.	No	5		
13	44mm thick solid core flush door, edged with 10mm hardwood faced with tempered smooth face hardwood for panting, size 813 x 2032mm high, measured as door type D06 in the MDA 308 Joubertina Police Complex door schedule attached to these bills of quantities.	No	1		
14	44mm thick solid core flush door, edged with 10mm hardwood faced with tempered smooth face hardwood for panting, size 813 x 2032mm high, measured as door type D07 in the MDA 308 Joubertina Police Complex door schedule attached to these bills of quantities.	No	3		
	FRAMED FRAMES ETC				
	Wrought meranti:				
15	75 x 100mm Rebated frames plugged.	m	298		
16	19mm hardwood quadrant trim of door frame	m	596		
	JOINERY FITTINGS				
	Faced Boards				
17	L shaped CSC Behind Counter 01 with 900mm wide Rusteburg granite counter top (BLOCK A) 900mm above the ground, 30mm thick with 300mm down stand at counter top edges onto 230mm internal brickwork and 38mm - GB rated bullet resistant glazed and frame partition on top (elsewhere measured) with open shelfs underneath, constructed according to MDA Architect Police Complex Drawing number 25697.	No	1		
18	L shaped CSC Behind Counter 02 with 750mm wide Rusteburg granite counter top (BLOCK A) 750mm above the ground, 30mm thick with 300mm down stand at counter top edges onto 75mm diameter powder coat mild steel support posts with open drawers underneath, constructed according to MDA Architect Police Complex Drawing number 25697.	No	1		
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		Unit	Quantity	Rate	Amount
19	Rectangular shaped Interview Cubicle Counter 03a and 03b with 700mm wide laminated saligna counter top (BLOCK A) 750mm above the ground, 30mm thick with square edge detail, 90mm drywall partition by contractor, with skimmed and painted finish extruded aluminium end capsto protect wall edges, and aluminium glazed partition on top (elsewhere measured) no cupboards underneath, constructed according to MDA Architect Police Complex Drawing number 25697.	No	1		
20	Rectengular shaped Parade Room/ CSC Staff Canteen Counter 04 with 600mm wide Rusteburg granite counter top, colour Cannero (BLOCK A) 900mm above the ground, with open shelfs, drawers and cupboards underneath, with single sink on top (elsewhere measured) constructed according to MDA Architect Police Complex Drawing number 25697.	No	1		
21	L shaped Kitchen Counter 05 with 605mm wide Rusteburg granite counter top, colour Cannero (BLOCK A) 900mm above the ground, with open shelfs, drawers and cupboards underneath, with single sink on top (elsewhere measured) constructed according to MDA Architect Police Complex Drawing number 25697.	No	1		
22	U shaped Prison Kitchen Counter 06 with 600mm wide Rusteburg granite counter top, colour Cannero (BLOCK B) 900mm above the ground, with open shelfs, drawers and cupboards underneath, with double sink on top (elsewhere measured) constructed according to MDA Architect Police Complex Drawing number 25697.	No	1		
23	U shaped Kitchen Counter 07 with 600mm wide Rusteburg granite counter top, colour Cannero (BLOCK E) 900mm above the ground, with open shelfs, drawers and cupboards underneath, with single sink on top (elsewhere measured) constructed according to MDA Architect Police Complex Drawing number 25697.	No	1		
24	50 x 25mm Hardwood timber slat fixed to 37 x 22 x 4mm galvanised gallow brackets bolted to wall at maximum 400mm centres, constructed according to MDA Architect Police Complex Drawing number 25697 Complex (typical bench detail). SKIRTINGS	m	3		
25	Wrought meranti 19 x 70mm Skirtings including 19mm quadrant bead, nailed	m	574		
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SECTION NO. 3				
PHASE 2				
BILL NO. 8				
CEILINGS PARTITIONS AND ACCESS FLOORING				
WORK GROUPS: Unless otherwise stated the work group for this Bill shall be WG129				
TRADE PREAMBLES				
Trade Preambles:				
For Trade Preambles refer to 'Specification of Materials and Methods' (PW371A & PW371B) for the full descriptions of material to be used and work to be done in this Bill				
SUPPLEMENTARY PREAMBLES				
Proprietary items or materials				
Proprietary items or materials where specified are to be of the brand specified - or other approved - by the Principal Agent.				
Descriptions:				
Items described as nailed shall be deemed to be fixed with hardened steel nails or pins or shot pinned to brickwork or concrete.				
Items described as plugged shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 600mm centres, and where described as bolted the bolts have been given.				
CEILING CONSTRUCTION, CORNICES, ETC.				
SUSPENDED CEILINGS				
1195 x 595 x 8mm PVC vinyl faced gypsum ceiling boards in 1200 x 600 Donn double stitched prepainted white T38 main tees and T38 cross inclusive of all grids, plates, holding down clips suspended on minimum 4mm diameter suspension rods, ceiling to be fitted to roof structure, through existing ceiling boards.				
1 Suspended Ceiling not exceeding 1m below trusses.	m²	556		
6.8mm Gypsum rhinoboard bulkhead fixed to aluminium substructure, suspended on minimum 4mm diameter suspension rods.				
2 Suspended Ceiling not exceeding 1m below trusses.	m²	40		
3 37 x 24mm SM12 pre-painted white recessed shadow line cornice plugged and screwed to wall.	m	736		
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		Unit	Quantity	Rate	Amount	
4	INSULATION 102mm Thick cavity batt insulation to be installed over existing ceilings.	m²	160			
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PHASE 2	1					
BILL NO	<u>. 9</u>					
IRONMO	NGERY					
	ROUPS: Unless otherwise stated the work r this Bill shall be WG132					
Trade Pr	eambles:					
Trades' (e Preambles refer to 'Model Preambles for PW371A & PW371B) for the full descriptions of to be used and work to be done in this Bill					
SUPPLE	MENTARY PREAMBLES					
Finishes	to ironmongery:					
by suffixed bronze land chromium enamelle AG Anod brass: P	oplicable finishes to ironmongery are indicated es in accordance with the following list: BS Satin cquered: CH Chromium plated: SC Satin plated: SE Silver enamelled: GE Grey d: AS Anodised silver: AB Anodised bronze: ised gold: ABL Anodised black: PB Polished L Polished and lacquered: PT Epoxy coated: ive Star 2006.					
Master k						
All En-Su	ite locks to be master keyed to existing master ence available from "Dorma Kaba".					
HINGES, BOLTS,	FLOOR SPRING HINGES, BOLTS, PANIC ETC.					
<u>Union:</u>						
	m 1040 100mm sinkless Hinge, centre pin with alignment grooving for easy fitment.	Pairs	31			
Aluminium pin, anod	m Alufab 2040 200mm sinkeless Hinges, centre ised.	No	31			
102 x 75 SS-009)	x 3mm two ball bearing butt hinge. (DBB-	Pairs	40			
EN-SUIT	<u>E LOCKS</u>					
<u>Union:</u>						
116.5H x	S Cylinder sash lock, case dimension (mm) 78D. Forend dimensions (mm) 168H x 22w. 57mm, centres 61mm.	No	43			
(mm) 38I	SS-008 Bathroom Deadlock, case dimensions H x 76D. Forend dimensions (mm) 78H x sackset 55mm	No	3			
	Coming the College's			_		
Section N	Carried to Collection			R		
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		Unit	Quantity	Rate	Amount
6	D037D SS Cylinder deadlock, case dimensions (mm) 116.5H x 78D.Forend dimensions (mm) 168H x 22W. Backset 57mm	No	2		
7	D038R NP Rebate conversion kit for euro progile locks D036S, D037D.	No	2		
8	1450 ISEO 1450.00.55 55mm backset single long throw 2 pin profile cylinder gate lock.	No	11		
9	66mm five pin Euro-profile double cylinder "DDC1006600 GMK" grand master keyed	No	26		
10	66mm five pin Euro-profile double cylinder "DDC106601 MK" master keyed	No	19		
11	66mm five pin Euro-profile double cylinder "DDC 056601KD" key to differ	No	3		
12	66mm five pin Euro-profile knob cylinder "DKC106601 MK" master keyed	No	23		
13	66mm five pin Euro-profile knob cylinder "DKC056601 KD" key to differ	No	5		
14	66mm Euro-profile Bathroom/Privacy cylinder "DBC006601" master keyed	No	6		
15	Bathroom WC indicator "DWC-005" (red and white) and turn knob.	Sets	2		
16	Disabled WC indicator "DWC-006" (red and white) and turn knob for physically impaired.	Sets	1		
17	PHA5 S DD Five point locking panic bar - Double door - Door leaf 1000mm wide 2270mm high (2101, 2201, 2104, 2104, 2202, 2202, 2204, 2204)	Sets	2		
18	PHA3 S SD Three point locking panic bar - Single door - Door leaf 1000mm wide 2270mm high (2101, 2104, 2104, 2202, 2204)	Sets	1		
19	DCE-002 S.S Round cylinder escutcheon.	Pairs	2		
20	DPL1000 MK 50mm Padlock - Master Keyed	No	1		
21	ISEO 50mm Padlock (5Pin) with stainless steel shackle.	No	1		
22	994 S.A. Sliding system galvanised 600mm drop bolt.	No	1		
23	M1519As Alufab 150mm Anodised alum flush bolts.	No	4		
24	KEEP S.A. Sliding system locking keep to suit bolt specified and prepared to accept separate padlock.	No	1		
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		Unit	Quantity	Rate	Amount
25	401SC HALCAST doorstop and holder.	No	1		
	HANDLES, FLUSH PULLS, ETC				
	Dorma:				
26	CB30 Cyl S.C Lever handle on plate with cylinder cutout	Sets	43		
27	DPH210 BTB 300 x 30mm straight tubular Pull handle (BTB fixing sets included)	Pairs	3		
28	DPH209 BTB 200 x 22mm straight tubular Pull handle (BTB fixing sets included)	Pairs	2		
29	DPH213 BTB 382 x 32mm Straight Tubular Pull handle (BTB fixing sets included)	Pairs	2		
30	DPH206 BTB 400 x 30mm offset tubular pull handle (BTB fixing sets included)	Pairs	4		
31	DPH301B 325 x 25mm Straight tubular pull handle flange fixing	No	2		
32	DPH209 BT 200 x 22mm Straight tubular pull handle BT	No	3		
	PUSH PLATES AND KICKING PLATES				
	Stainless steel push and kick plates:				
33	300 x (width of door) x 1.2mm thick grand 430 stailess steel kick plate " DKP-430- SF 300". Stainless steel kick plate to have 12 countersunk holes for screw fixing. (List price calculated on 813mm wide door)	No	40		
34	200 x (width of door) x 1.2mm thick grand 430 stailess steel kick plate " DKP-430- SF 200". Stainless steel kick plate to have 12 countersunk holes for screw fixing. (List price calculated on 813mm wide door)	No	2		
35	DPP-430-BL-GF 150 x 300 x 1.2mm thick Grade 430 stainless steel plate. Stainless steel to be glued fixed.	No	1		
36	DPP-430-BL-GF 150 x 300 x 1.2mm thick Grade 430 stainless steel plate. Stainless steel to to have 6 countersunk holes for screw fixing.	N			
	Ç	No	1		
37	DPS -SS-032 Dust Proof Strike	No	2		
	DOOR CLOSERS				
	Union or equal approved:				
38	TS73V EN 2-4 Regular Arm NON HOLD OPEN Door Closer-Adjustable strength, Hydraulic speed control. Pull side fixing EN2 750-850, EN3 850-950, EN4 950-1100	No	6		
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		Unit	Quantity	Rate	Amount
39	TS73V DC + Regular Arm Bracket EN 2-4 Parallel Arm DELAYED ACTION Door closer. Pull side fixing EN2 750 - 850, EN3 850- 950, EN4 950 -1100	Sets	1		
40	TS73V DC HO EN 2-4 Open Arm DELAYED ACTION Door closer. Pull side fixing EN2 750 - 850, EN3 850- 950, EN4 950 -1100	Sets	1		
41	TS73V PA + Parallel Arm Bracket EN 2-4 Parallel Arm NON HOLD OPEN Door closer-Adjustable Strength, Hydraulic Speed Control. Push side fitting (parallel arm bracket included) En2 750 - 850, EN3 850- 950, EN4 950 -1100	Sets	1		
	LETTERS, NAMEPLATES, ETC.				
	<u>Union:</u>				
42	Engraved Fire Escape indicator plates code AL8021/8022.	No	4		
43	Fire Escape door signage AL5066-ASE 15/16.	No	4		
44	150 x 150mm "DSS - 131 F" FEMALE sign	No	2		
45	150 x 150mm "DSS-130 M" MALE sign	No	2		
46	150 x 150mm "DSS-132 M/F" MALE/FEMALE sign	No	1		
47	150 x 150mm "DSS-133 P" DISABLED PERSONS sign	No	1		
48	150 x 150mm "DSS-135 TC" TEA CUP sign	No	2		
49	150 x 150mm "DSS-138 C" CLEANER sign	No	1		
50	Sign Type 5 - 150 x 150mm single sided prohibitory "NO SMOKING" signage with red pictogram on white background.	No	3		
51	Sign Type 6 - 150 x 150mm single sided warning "ELECTRIC SHOCK HAZARD" signage with yellow and black pictogram on white background.	No	2		
	SAPS STAR SIGNAGE				
52	1100mm x 1100mm cast aluminium SAPS Emblem, backing plate out aluminium sprayed blue, cast aluminium star mounted on top of backing to the entrance of police building where it is visible to the public as per the Minimum Standards Specification for Signage at FSD Stations.	Na			
	at F3D Stations.	No	1		
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		Unit	Quantity	Rate	Amount
	DIRECTIONAL SIGNAGE				
53	600mm x 2400mm direction signage to the public of the location of the Police Station, done according to the municipality regulation.	No	3		
54	450mm x 1800mm Parking signage for Police Station, done according to the municipality regulation.	No	2		
55	1mm Chromadek Sheet size 2450mm x 1220mm OUT DOOR police signage face mounted to the fame size 50mm x 25mm square tube frame all around, 25mm square tube support frames inside frames to have grey primer coat and sprayed blue, including 50mm x 50mm x 1600mm high square tube steel poles as per Minimum Standards Specification for Signage at FSD Stations.				
		No	1		
56	1mm Chromadek Sheet size 1850mm x 925mm OUT DOOR BATHO PELE police signage face mounted to the fame size 50mm x 25mm square tube frame all around, 25mm square tube support frames inside frames to have grey primer coat and sprayed blue, including 50mm x 50mm x 1600mm high square tube steel poles as per Minimum Standards Specification for Signage at FSD Stations.	No	1		
	EXTERIOR SIGNAGE				
57	DIRECTORY WELCOME SIGN size 600mm x 1600mm Vista System single sided, aluminium single sign holder extrusion (clear anodize), clear cover with silicon seal (glossy/non-glare), Metal (Aluminium) end caps (clear anodize) as per Minimum Standards Specification for Signage at FSD Stations.	No	1		
58	600mm x 800mm Wall mounted BUILDING SIGNS as per Minimum Standards Specification for Signage at FSD Stations.	No	11		
	STATION PLAQUE				
59		No	1		
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		Unit	Quantity	Rate	Amount
60	INTERIOR SIGNAGE Suspended Sign COMMUNITY SERVICE CENTRE size 150mm x 600mm Vista System double sided, aluminium single sign holder extrusion (clear anodize), clear cover (glossy/non-glare), Stainless steel cables, Plastic (ABS) end caps (grey), Handing plastic element for suspended signs, cable clamps as per Minimum Standards Specification for Signage at FSD Stations.	No	1		
61	Wall Bracket Projecting Sign COMMUNITY SERVICE SAFE size 150mm x 300mm Vista System double sided, aluminium single sign holder extrusion (clear anodize), clear cover (glossy/non-glare), Plastic (ABS) end caps (grey), Black steel base as per Minimum Standards Specification for Signage at FSD Stations.	No	2		
62	Wall Bracket Toilet Sign TOILETS size 200mm x 200mm Vista System double sided, aluminium single sign holder extrusion (clear anodize), clear cover (glossy/non-glare), Plastic (ABS) end caps (grey), Black steel base as per Minimum Standards Specification for Signage at FSD Stations.	No	5		
63	DIRECTORY size 600mm x 800mm Vista System single sided, aluminium single sign holder extrusion (clear anodize), clear cover (glossy/non-glare), Metal (Aluminium) end caps (clear anodize) as per Minimum Standards Specification for Signage at FSD Stations.	No	11		
	SUNDRIES Union:				
64	DDS-NP-018 Floor Mounted Door Stop	No	32		
65	DDH-SS-020 Wall buffer	No	6		
66	Single Action floor spring for aluminium "BTS75 SA LM-HO door HOLD OPEN - (Mech/Spindle/7510SS/7459/B36.1.2)	Sets	2		
67	H076 Howick heavy duty stainless steel spring clip	No	12		
68	DHC-SS-031B Coat hook with rubber buffer	No	7		
69	DHC-SS-030A Hat & Coat Hook	No	1		
70	Galvanised Barret Bolt, 150mm long fitted to bottom of inactive doorleaf.	No	4		
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		Unit	Quantity	Rate	Amount
71	166 Halstead 200mm SC on Brass Cabin Hook and eye with 100 x 100 x 75mm Chamfered wrot meranti block	No	7		
72	Paper Roll Dispensers: Franke' lockable toilet roll holder (product code: STRX 671,2) plugged to wall. Hand towel Dispensers:	No	9		
73		No	5		
74	Franke' Perforated wall mounted waste container (code: BS610 359800) size 410 x 205 x 380mm with a 180degree radius front and perforated facia pattern.	No	4		
75	Hand Dryer Franke hand free dryer (code HF 2400 HD) mounted to wall at 1560mm above FFL	No	8		
76	Waste Bin Franke wall mounted waste container BS605 (product code: 359822)	No	10		
77	Soap Dispensers: Franke' wall mounted liquid soap dispenser (code: BS619) overall size 200 x 130 x 85mm with a deep drawn lid and cylinder lock with standard key	No	7		
78	Franke 'or equal approved 1 x Franke CNTXBR 750x260 stainless steel disable grab rail mounted at 800mm above FFL (code: 359912).	No	1		
79	1 x Franke CNTX700A stainless steel angle disable grab rail mounted at 800mm above FFL (code: 359877).	No	1		
80	600mm s.s towel rail bolted to wall (code: 359933).	No	13		
81	ACCESS CONTROL DEVICES Chubb: Baked enamel 'break glass' unit plugged to walls.	No	1		
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	Unit	Quantity	Rate	Amount
SECTION NO. 3				
PHASE 2				
BILL NO. 10				
<u>METALWORK</u>				
WORK GROUPS: Unless otherwise stated the work group for this Bill shall be WG136				
Trade Preambles:				
For Trade Preambles refer to 'Specification of Materials and Methods' (PW371A & PW371B) for the full descriptions of material to be used and work to be done in this Bill				
SUPPLEMENTARY PREAMBLES				
Proprietary items or materials:				
Proprietary items or materials where specified are to be of the brand specified - or other approved - by 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 mortises in brickwork or concrete.				
Metalwork described as holed for bolt(s) shall be deemed to exclude the bolts unless otherwise described.				
Doors and windows shall comply with AAAMSA design criteria.				
Glazing shall comply with SAGGA regulations. Glass shall be of the type of glass as shown on the window and door schedules and drawings appended to these Bills of Quantities and as described in the Bills of Quantities. Glass thickness shall comply with SAGGA regulations irrespective of thicknesses shown on the schedules/drawings.				
Doors and windows shall be supplied with protective tape and plastic and shall be removed only once surrounding trades have been completed.				
For purpose made windows and doors, refer to drawings annexed to these Bills of Quantities.				
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		Unit	Quantity	Rate	Amount
	The following certificates shall be provided prior to commencement of site work: 1. A copy of the relevant AAAMSA Performance Test Certificate from the manufacturer/contractor supplying the architectural aluminium product. 2. A Certificate of Conformance confirming that anodising or powder coating has been processed in accordance with SANS 999 and SANS 1796 respectively1861 3. A powder guarantee of not less than 15 years issued by the powder manufacturer. The specific conditions contained in this guarantee shall form part of the powder coating process. 4. A Certificate of Conformance confirming that glazing has been installed in accordance with SANS 0137, ensuring that safety glazing materials have been installed in the mandatory areas and that each individual pane of safety glazing materials has been permanently marked. 5. A warranty from the manufacturer of the laminated safety glass and/or hermetically sealed glazing units guaranteeing the products against delamination and colour degradation for a period of not less than five years.				
	WELDED GALVANISED SCREENS, GATES, ETC				
	Hot Dipped Galvanised Screens and gates to brickwork:				
1	Single gate size 900 x 2125mm high overall of 50 x 50 x 3mm thick galvanised m.s post frame and 70 x 30 x 3mm hollow section horizontal middle cross rails, and 2 x 5mm flat welded at hinge positions with 12 x 12mm galvanised m.s solid bars welded at 100mm centres, with two purpose made hinge welded to 150 x 150 x 10mm anchor plate bolted to wall with M10 bolts and 50 x 5mm flat welded to sliding bar forming handle, installed complete as as per G01 in gate schedule attached to these bills of quantities.	No	10		
2	Double swing gate size 1800 x 1955mm high overall with arch top door size 400mm high consisting of 50 x 50 x 3mm thick galvanised m.s post frame and 70 x 30 x 3mm hollow section horizontal middle cross rails, and 2 x 5mm flat welded at hinge positions with 12 x 12mm m.s solid bars welded at 94mm centres, with two purpose made hinge welded to 150 x 150 x 10mm anchor plate bolted to wall with M10 bolts and 50 x 5mm flat welded to sliding bar forming handle, installed complete as per G02 in gate schedule attached to these bills of quantities.				
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		Unit	Quantity	Rate	Amount
3	Double swing gate size 1800 x 2125mm high of 50 x 50 x 3mm thick galvanised m.s post frame and 70 x 30 x 3mm hollow section horizontal middle cross rails, and 2 x 5mm flat welded at hinge positions with 12 x 12mm m.s solid bars welded at 94mm centres, with two purpose made hinge welded to 150 x 150 x 10mm anchor plate bolted to wall with M10 bolts and 50 x 5mm flat welded to sliding bar forming handle, installed complete as per G03 in gate schedule attached to these bills of quantities.	No	1		
4	1018 x 2020mm High steel grille gate as per type T3 in South African Police Service Project 5 Star drawings POL 2006/D1 attached to these bill of quantities	No	9		
	HOT DIPPED GALVANISED STEEL WINDOWS, DOORS, ETC				
	Purpose made galvanised expanded mesh:				
5	Window screen mesh size 1240 x 1810mm high with 25 x 25 x 2mm square tube frame welded and fixed to 25 x 25 x 2mm bracket onto 100 x 100 x 3mm fixing plate chemically anchored into brickwork as per the window screen detail in the Architect's drawing	No	41		
6	Window screen mesh size 670 x 670mm high with 25 x 25 x 2mm square tube frame welded and fixed to 25 x 25 x 2mm bracket onto 100 x 100 x 3mm fixing plate chemically anchored into brickwork as per the window screen detail in the Architect's drawing ref no: MDA 208	No	12		
	ALUMINIUM LOUVRE/ GRILLE UNITS: WG 140				
	Grille units fixed to meranti doors:				
7	Aluminium grille size 400 x 360mm high as per door schedule attached to these bills of quantities.	No	18		
	STEEL STRONGROOM DOORS, VENTILATORS, ETC				
	Strong room doors etc. suitable for 230mm walls fixed to brickwork:				
8	Mutual Safe 120mm thick DS2 10mm strong room door inclusive of galvanised mild steel frame as supplied with door by manufactured specialist and 8 40mm diameter bolts, 7 lever security key lock as per D01 in door schedule attached to these bill of quantities	No	4		
	Solid steel cell doors etc. suitable for 230mm walls fixed to brickwork:				
9	1018 x 2020mm High cell door as per type T2 in South African Police Service Project 5 Star drawings POL 2006/D1 attached to these bill of quantities	No	6		
	Carried to Collection			R	
	Section No. 3 Bill No. 10				
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1		Unit	Quantity	Rate	Amount
	NATURAL ANODISED ALUMINIUM OR SIMILAR APPROVE WINDOWS, DOORS, ETC: WG 140				
	Aluminium windows glazed with 6,38mm low E laminated safety glass, including 20 x 3mm flat bar burglar proofing at 250mm centres fixed with blind rivets. Aluminium sections, constructed and				
	installed according to the guidelines of The Association of Architectural Aluminium Manufactures of South Africa (AAASA). Glazing is to be carried out in strict accordance with the SABS 0137/2000 Code of Practice: 'The Installation of				
	Glazing in Buildings' and where required, safety glazing materials must conform to SABS 1263. Drawings of all sections and fixing details to be used to be submitted for approval and all dimensions are				
	to be verified on site prior to manufacture. All shopfronts and windows need to be weather proofed and sealed where necessary and all aluminium is to be protected during installation and for the duration of construction work by removable PVC tape.:				
	Purpose made aluminium window, etc.:				
10	Window type W01 size 505 x 550mm high with opening left top and bottom side sash fitted with clear pane as per the Police Complex window schedule attached to these bills of quantities.	No	3		
11	Window type W02 size 1200 x 1105mm high with opening left top and bottom side sash fitted with clear pane as per the Police Complex window schedule attached to these bills of quantities.	No	3		
12	Window type W03 size 1140 x 1105mm high with opening left top and bottom side sash fitted with clear pane as per the Police Complex window schedule attached to these bills of quantities.	No	1		
13	·				
14	·	No No	3		
15	Window type W08 size 1080 x 2125mm high with opening left top and bottom side sash fitted with clear pane as per the Police Complex window schedule attached to these bills of quantities.	No	1		
				_	
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		Unit	Quantity	Rate	Amount
16	Aluminium windows glazed with 6,38mm HPR laminated safety glass, including 20 x 3mm flat bar burglar proofing at 250mm centres fixed with blind rivets. Aluminium sections, constructed and installed according to the guidelines of The Association of Architectural Aluminium Manufactures of South Africa (AAASA). Glazing is to be carried out in strict accordance with the SABS 0137/2000 Code of Practice: 'The Installation of Glazing in Buildings' and where required, safety glazing materials must conform to SABS 1263. Drawings of all sections and fixing details to be used to be submitted for approval and all dimensions are to be verified on site prior to manufacture. All shopfronts and windows need to be weather proofed and sealed where necessary and all aluminium is to be protected during installation and for the duration of construction work by removable PVC tape.: Window type W06 size 935 x 1300mm high fitted with clear pane as per the Police Complex window schedule				
	NATURAL ANODISED OR SIMILAR APPROVED ALUMINIUM SHOPFRONT SYSTEM: WG 140 Level G2 - Handguns up to and including .357 Magnum as well as 12 gauge shotgun firing buckshot with Natural Anodised aluminium extrusion by specialist frame and glazed with 38mm Bullet Resident Glazing. Aluminium sections, constructed and installed according to the guidelines of The Association of Architectural Aluminium Manufactures of South Africa (AAASA). Glazing is to be carried out in strict accordance with the SABS 0137/2000 Code of Practice: 'The Installation of Glazing in Buildings' and where required, safety glazing materials must conform to SABS 1263. Drawings of all sections and fixing details to be used to be submitted for approval and	No	2		
17	all dimensions are to be verified on site prior to manufacture. All shopfronts and windows need to be weather proofed and sealed where necessary and all aluminium is to be protected during installation and for the duration of construction work by removable PVC tape.: Window type W05 size 6345 x 1400mm high fitted with laminated pane and laminated safety pane at the bottom as per the window schedule attached to these bills of quantities. Carried to Collection Section No. 3 Bill No. 10 Metalwork	No	1	R	



		Unit	Quantity	Rate	Amount
	Purpose made aluminium door, etc.:				
18	Double door type D02 size 1200 x 2125mm high fitted with safety laminated pane as per the Police Complex door schedule attached to these bills of quantities.	No	6		
19	Door type D03 size 900 x 2125mm high fitted with safety laminated pane as per the Police Complex door schedule attached to these bills of quantities.	No	27		
20	Door type D09 size 900 x 2125mm high fitted with safety laminated pane as per the Police Complex door schedule attached to these bills of quantities.	No	1		
	Level G2 - Handguns up to and including .357 Magnum as well as 12 gauge shotgun firing buckshot with Natural Anodised aluminium extrusion by specialist frame and glazed with 38mm Bullet Resident Glazing.				
21	Door type D03 size 900 x 2125mm high fitted with safety laminated pane as per the Police Complex door schedule	No	1		
	GALVANISED STEEL BALUSTRADES				
	Welded balustrades to walkways				
22	1500mm x 1050mm high hot dipped galvanised holosec frame unpainted with 40 x 10mm hot dipped galvanised sub-handrail at 150mm low, 40 x 10mm flat bar stiffener at vertical on 750mm c/c and 9 x 12mm sq. bars vertical equally spaced. All post and handrails including the bottom horizontal frame must be chemically fixed to concrete and walls by means of core drilling and epoxy adhesive, to be installed by specialist.	m	22		
23	60mm Expansion anchor with loose bolt	No	10		
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	Metalwork				
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		Unit	Quantity	Rate	Amount
	SECTION NO. 3				
	PHASE 2				
	BILL NO. 11 PLASTERING				
	WORK GROUPS: Unless otherwise stated the work group for this Bill shall be WG142				
	Trade Preambles:				
	For Trade Preambles refer to 'Specification of Materials and Methods' (PW371A & PW371B) for the full descriptions of material to be used and work to be done in this Bill				
	SUPPLEMENTARY PREAMBLES				
	Proprietary items or materials:				
	Proprietary items or materials where specified are to be of the brand specified - or other approved - by the Principal Agent.				
	SCREEDS				
	Screeds on concrete:				
1	25mm Thick 3:1 cement screeds steel trowelled on concrete floors.	m²	543		
2	25mm Thick self-levelling screed on concrete floors.	m²	140		
	GRANO				
	Untinted grano on concrete:				
3	30mm Untinted grano steel trowelled on concrete floors.	m²	155		
	EPOXY				
	Heavy duty chemical resistant antimicrobial treated polyurethane resin floor to a smooth finish and seal all in strict accordance with the manufacturers instruction.				
4	4mm Thick on floors and landings.	m²	140		
	INTERNAL PLASTER				
	Cement plaster on brickwork:				
5	On walls.	m²	615		
6	On narrow widths.	m²	35		
	Cement plaster on concrete:				
7	On concrete ceilings.	m²	194		
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	Plastering				
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		Unit	Quantity	Rate	Amount
	EXTERNAL PLASTER				
	Cement plaster on brickwork: On walls.	?	64		
8		m²	64		
9	On narrow widths.	m²	9		
	CORNER PROTECTORS, DIVIDING STRIPS, ETC				
	Corner protectors, dividing strips, etc.:				
10	3 x 57mm Flat section brass water bar.	m	140		
11	3 x 57mm Flat section brass dividing strips between different floor finishes.	m	32		
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PHASE 2				
BILL NO. 12 TILING				
WORK GROUPS: Unless otherwise stated the work group for this Bill shall be WG144				
<u>Trade Preambles:</u>				
For Trade Preambles refer to 'Model Preambles for Trades' (PW371A & PW371B) for the full descriptions of material to be used and work to be done in this Bill				
SUPPLEMENTARY PREAMBLES				
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.				
PORCELAIN FLOOR COVERINGS, WALL LININGS,				
ETC.				
PORCELAIN FLOOR TILING				
600 x 600 x 12mm full bodied porcelain tiles laid on TAL Gold Star tile adhesive, grout to architect's choice. Allow the prime cost amount of R500-00 (Five Hundred Rand excluding VAT) net per square metre for tiles, supplied and delivered to site and add for taking delivery, storage and installation.				
On screeded floors.	m²	543		
100mm High skirting	m	574		
300 x 300 x 8mm 'Salt and Pepper' full bodied porcelain tiles fixed with 'Tal Goldstar' rapid setting adhesive with straight joints in both directions to steel trowel plastered walls and flush pointed with 'Tal Grey Proflex' tile grout. Allow the prime cost amount of R500-00 (Five Hundred Rand excluding VAT) net per square metre for tiles, supplied and delivered to site and add for taking delivery, storage and installation.				
On floors and landings.	m²	57		
150mm High tile skirting	m	67		
Carried to Collection Section No. 3 Bill No. 12 Tiling			R	
125				



		Unit	Quantity	Rate	Amount
5	PORCELAIN WALL TILING 300 x 300 x 8mm 'Salt and Pepper' full bodied porcelain wall tiles fixed with 'Tal Goldstar' rapid setting adhesive with straight joints in both directions to steel trowel plastered walls and flush pointed with 'Tal Grey Proflex' tile grout. Allow the prime cost amount of R500-00 (Five Hundred Rand excluding VAT) net per square metre for tiles, supplied and delivered to site and add for taking delivery, storage and installation. On walls.	m²	31		
6	On narrow widths.	m²	8		
	NOSINGS, JOINT COVERS, PROTECTORS, ETC.				
7	Mtrim' or equal approved cover strips: Mtrim' ASSJ16R or equal approved structural movement joint cover size 38mm wide x 30mm deep fixed to concrete and screeded over including ridged infill.	m	110		
8	AMJ120 Kirk marketing 12mm alluminium movement joint.	m	28		
	Brass or equally approved:				
9	25 x 3mm thick brass weather bar	m	10		
	M Trim' PVC round edge trim:				
10	M Trim' PVC round edge trim 7mm high (code PRE070) with 'White' (code 01) colour finish to suit tiling 6 to 8mm thick, fixed with adhesive to external wall corners.	m	21		
	Carried to Collection Section No. 3 Bill No. 12 Tiling			R	



BILL NO. 12 TILING COLLECTION	Brought Forward from Page	Page No 125 126	
	Carried To Section Summary	R	
Section No. 3 Bill No. 12 Tiling			
	127		



SECTION NO. 3 PHASE 2 BILL NO. 13 PLUMBING AND DRAINAGE (PROVISIONAL) WORK GROUPS: Unless otherwise stated the work group for this Bill shall be WG148 Trade Preambles refer to 'Specification of Materials and Methods' (PW371A & PW371B) for the full descriptions of material to be used and work to be done in this Bill SUPPLEMENTARY PREAMBLES Polycop' polypropylene pipes: Polypropylene pipes 54mm diameter and under shall be seamless copper coloured class 16 pipes jointed with 'Fast-tuse' heat welded thermoplastic or brass compression littings as designed for use with copper pipes as stated. Pipes shall be firmly fixed to walls etc. with coloured nylon snap-in pipe clips with provision for accommodating thermal movement and jointed and fixed strictly in accordance with the manufacturer's instructions. All pipe diameters are nominal external. Polytink' polytropylene pipes S3mm diameter and over shall be class 12 pipes jointed with cast iron 'Supraclamp' running joints. Fusion welded bends once or twice mitred as necessary, and tees shall include flanged and bolted joints to 'Polycop' branch pipes in addition and for brass compression male iron to copper straight couplers. Branch tees shall include flanged and bolted joints to 'Polycop' branch pipes in addition and for brass compression male iron to copper straight couplers. Reducers shall include flanged and tolted joints to 'Polycop' branch pipes in addition and for brass compression male iron to copper straight couplers. Reducers shall include flanged and tolted joints to 'Polycop' branch pipes in addition and for brass compression male iron to copper straight couplers. Reducers shall include flanged and fixed strictly in accordance with the manufacturer's instructions. All pipe shall be jointed and fixed strictly in accordance with the manufacturer's instructions. All pipe diameters are nominal external.		Unit	Quantity	Rate	Amount	
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Carried to Collection Section No. 3 Bill No. 13 Plumbing And Drainage (provisional)						
Section No. 3 Bill No. 13 Plumbing And Drainage (provisional)	All pipe diameters are nominal external.					
Section No. 3 Bill No. 13 Plumbing And Drainage (provisional)						
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Bill No. 13 Plumbing And Drainage (provisional)				R		
Plumbing And Drainage (provisional)						
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	Unit	Quantity	Rate	Amount
Concrete pipes:				
Pipes shall be jointed with ogee joints with rubber collars or socket and spigot joints with rubber rings.				
Vitrified Clay Pipes etc.:				
Pipes shall rest on solid ground and, where necessary, pockets of sufficient size shall be cut around joints to enable the jointing to be properly performed or, alternatively, pipes shall be bedded full length on and including unreinforced concrete laid in a semi-dry state immediately before pipes are laid.				
uPVC pipes and fittings.				
Sewer and drainage pipes and fittings shall be jointed and sealed with butyl rubber rings.				
Soil, waste and vent pipes and fittings shall be solvent weld jointed.				
uPVC pressure pipes and fittings:				
Pipes for water supply shall be of the class stated.				
Pipes of 40mm diameter and smaller shall be plain ended with solvent welded uPVC loose sockets and fittings.				
Pipes of 50mm diameter and greater shall have sockets and spigots with push-in type integral rubber ring joints. Bends shall be uPVC and all other fittings shall be cast iron, all with similar push-in type joints.				
Copper pipes:				
Pipes shall be hard drawn and half-hard pipes of the class stated. Class 0 (thin walled hard drawn) pipes shall not be bent. Class 1 (thin walled half-hard), class 2 (half-hard) and class 3 (heavy walled half-hard) pipes shall only be bent with benders with inner and outer formers. Fittings to copper waste, vent and anti-syphon pipes, capillary solder fittings and compression fittings shall be Cobra Watertech' type. Capillary solder fittings shall comply with ISO 2016. Only compression fittings shall be used in walls or in ground.				
Fixing of pipes				
Unless specifically otherwise stated, descriptions of pipes shall be deemed to include for fixing to walls etc. casting in, building in or suspending not exceeding 1m below suspension level				
Lead pipes and traps:				
All soldered joints shall be wiped and brass unions shall be used for jointing lead to steel.				
Carried to Collection			R	
Section No. 3				
Bill No. 13 Plumbing And Drainage (provisional)				
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	Unit	Quantity	Rate	Amount
Reducing fittings:				
Where fittings have reducing ends or branches they are described as 'reducing'. In the case of pipes with diameters not exceeding 60mm only the largest end or branch size is given. Should the Contractor wish to use other fittings and bushes or reducers he may do so on the understanding that no claim in this regard will be entertained. In the case of pipes with diameters exceeding 60mm all sizes are given and no claim for extra bushes, reducers, etc. will be entertained.				
Wire gratings:				
Descriptions of gutter outlets etc. shall be deemed to include wire balloon gratings.				
Septic tanks:				
Descriptions of septic tanks shall be deemed to include excavation, bedding and jointing, concrete base slabs, jointing to drains and backfilling, compaction, etc. all in accordance with the manufacturer's instructions.				
Exposed concrete surfaces:				
Exposed surfaces of concrete storm water channels, cover slabs, inspection eye marker slabs, gulley tops, cleaning eye tops, catch pits, inspection chambers, etc. shall be finished smooth with plaster.				
Excavations:				
No claim for rock excavation will be entertained unless the Contractor has timeously notified the quantity surveyor thereof prior to backfilling.				
Soft rock' and 'hard rock' shall be as defined in 'Earthworks'.				
Laying, backfilling, bedding, etc. of pipes:				
Pipes shall be laid and bedded and trenches shall be carefully backfilled in accordance with manufacturers' instructions.				
Where no manufacturers' instructions exist pipes shall be laid in accordance with clauses 5.1 and 5.2 of each of the following: SABS 1200 L: Medium pressure pipelines LD: Sewers LE: Storm water drainage Pipe trenches etc. shall be backfilled in accordance with clause 3, 5.5, 5.6, 5.7 and 7 of SAB.				
Flush pans:				
Flush pans shall have straight or side outlets and 'P' or 'S' traps as necessary.				
Carried to Collection Section No. 3 Bill No. 13			R	
Plumbing And Drainage (provisional)				
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Stainless steel basins, sinks, wash troughs, urinals, etc.: Units shall have standard aprons on all exposed edges and tiling keys against walls where applicable. Wasto unions: Descriptions of waste unions shall be deemed to include rubber or vulcanite plugs and chains fixed to fittings. Steel sectional water tanks; Tanks shall comply with SABS CKS 114. Densy' pertotatum anti-corrosion tape as manufactured by Denso SA (Pty) Ltd; Pipes to be taped shall be coated with the appropriate primer and the tape shall be applied with minimum 15mm lap per spiral unless otherwise described. Couplings and fittings to pipes shall be laped in strict accordance with the manufacturer's instructions including all mastic, tape, 'Layflat' sheeting, securing of same, etc. Pricas for wrapping of pipes shall include for all work as described to couplings in the length. RAINWATER DISPOSAL Watertiti's pre painted external and internal with ColourTech G4 high performance non-fluorinated polymer modified long chain hydro-carbon paint aluminium. 1 75 x 100mm water tight seamless eaves gutters. Extra over gutter for stopped end. No 8 Extra over gutter for stopped end. No 12 Extra over gutter for interior angle. Extra over gutter for interior angle. No 24 Extra over gutter for interior angle. No 25 Extra over gutter for exterior angle. No 26 80mm Diameter Rainwater pipes. Mo 42 80mm Diameter Rainwater pipes. Carried to Collection No 42 8tra over rainwater pipe for eaves offset 500mm no Projection. Carried to Collection Section No. 3 Bill No. 13 Plumbing And Drainage (provisional)			Unit	Quantity	Rate	Amount
Line Line						
Line Line						
Units shall have standard aprons on all exposed edges and diling keys against walls where applicable. Waste unions: Descriptions of waste unions shall be deemed to include rubber or vulcanite plugs and chains fixed to fittings. Steel sectional water tanks: Tanks shall comply with SABS CKS 114. Densyl' petrolatum anti-corrosion tape as manufactured by Denso SA (Pty Ltd: Pipes to be taped shall be coated with the appropriate primer and the tape shall be applied with minimum 15mm lap per spiral unless otherwise described. Couplings and fittings to pipes shall be taped in strict accordance with the manufacturer's instructions including all mastic, tape, Layflat' sheeting, securing of same, etc. Prices for wrapping of pipes shall include for all work as described to couplings in the length. RAINWATER DISPOSAL Watertite' pre painted external and internal with ColourTech G4 high performance non-fluorinated polymer modified long chain hydro-carbon paint aluminium: 175 x 100mm water tight seamless eaves gutters. Extra over gutter for stopped end. 8 Extra over gutter for interior angle. Extra over gutter for exterior angle. Extra over gutter for exterior angle. Sextra over gutter for exterior angle. No 42 8 80mm Diameter Rainwater pipes. M 96 Extra over rainwater pipe for bend. R 24 Extra over rainwater pipe for bend. Extra over rainwater pipe for eaves offset 500mm projection. Carried to Collection Section No. 3 Bill No. 13 Plumbing And Drainage (provisional)						
Waste unions: Descriptions of waste unions shall be deemed to include rubber or vulcanite plugs and chains fixed to fittings. Steel sectional water tanks: Tanks shall comply with SABS CKS 114. Densyl' petrolatum anti-corrosion tape as manufactured by Denso SA (Pty) Ltd: Pipes to be taped shall be coated with the appropriate primer and the tape shall be applied with minimum 15mm lap per spiral unless otherwise described. Couplings and fittings to pipes shall be taped in strict accordance with the manufacturer's instructions including all mastic, tape, "Layflat' sheeting, securing of same, etc. Prices for wrapping of pipes shall include for all work as described to couplings in the length. RAINWATER DISPOSAL Watertite' pre painted external and internal with ColourTech G4 high performance non-fluorinated polymer modified long chain hydro-carbon paint aluminium: 1 75 x 100mm water tight seamless eaves gutters. m 297 Extra over gutter for stopped end. No 8 Extra over gutter for interior angle. No 12 Extra over gutter for exterior angle. No 21 Extra over 100 x 75mm eaves gutter for outlet for 80mm diameter pipe. 80mm Diameter Rainwater pipes. m 96 Extra over rainwater pipe for bend. Rought Start over rainwater pipe for eaves offset 500mm No 42 Extra over rainwater pipe for bend. Carried to Collection Section No. 3 Bill No. 13 Plumbing And Drainage (provisional)		Units shall have standard aprons on all exposed edges				
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manufactured by Denso SA (Pty) Ltd: Pipes to be taped shall be coated with the appropriate primer and the tape shall be applied with minimum 15mm lap per spiral unless otherwise described. Couplings and fittings to pipes shall be taped in strict accordance with the manufacturer's instructions including all mastic, tape, "Layflat' sheeting, securing of same, etc. Prices for wrapping of pipes shall include for all work as described to couplings in the length. RAINWATER DISPOSAL Watertite' pre painted external and internal with ColourTepre painted external and internal with ColourTepre painted external and internal with aluminium: 1 75 x 100mm water tight seamless eaves gutters. m 297		Tanks shall comply with SABS CKS 114.				
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accordance with the manufacturer's instructions including all mastic, tape, "Layflat' sheeting, securing of same, etc. Prices for wrapping of pipes shall include for all work as described to couplings in the length. RAINWATER DISPOSAL Watertite' pre painted external and internal with ColourTech G4 high performance non-fluorinated polymer modified long chain hydro-carbon paint aluminium: 1 75 x 100mm water tight seamless eaves gutters. Extra over gutter for stopped end. No Extra over gutter for interior angle. No 12 Extra over gutter for exterior angle. No 21 Extra over 100 x 75mm eaves gutter for outlet for 80mm diameter pipe. No 42 8 80mm Diameter Rainwater pipes. Extra over rainwater pipe for bend. No 42 Extra over rainwater pipe for eaves offset 500mm projection. Carried to Collection Section No. 3 Bill No. 13 Plumbing And Drainage (provisional)		primer and the tape shall be applied with minimum				
described to couplings in the length. RAINWATER DISPOSAL Watertite' pre painted external and internal with ColourTech G4 high performance non-fluorinated polymer modified long chain hydro-carbon paint aluminium: 1 75 x 100mm water tight seamless eaves gutters. Extra over gutter for stopped end. Extra over gutter for interior angle. Extra over gutter for exterior angle. No 12 Extra over 100 x 75mm eaves gutter for outlet for 80mm diameter pipe. 80mm Diameter Rainwater pipes. Extra over rainwater pipe for bend. Extra over rainwater pipe for eaves offset 500mm projection. Carried to Collection Section No. 3 Bill No. 13 Plumbing And Drainage (provisional)		accordance with the manufacturer's instructions including all mastic, tape, 'Layflat' sheeting, securing of				
Watertite' pre painted external and internal with ColourTech G4 high performance non-fluorinated polymer modified long chain hydro-carbon paint aluminium: 1 75 x 100mm water tight seamless eaves gutters. Extra over gutter for stopped end. Extra over gutter for interior angle. Extra over gutter for exterior angle. Extra over 100 x 75mm eaves gutter for outlet for 80mm diameter pipe. 80mm Diameter Rainwater pipes. m 96 Extra over rainwater pipe for bend. Extra over rainwater pipe for eaves offset 500mm projection. Carried to Collection Section No. 3 Bill No. 13 Plumbing And Drainage (provisional)						
ColourTech G4 high performance non-fluorinated polymer modified long chain hydro-carbon paint aluminium: 1 75 x 100mm water tight seamless eaves gutters. m 297 2 Extra over gutter for stopped end. No 12 4 Extra over gutter for exterior angle. No 21 5 Extra over 100 x 75mm eaves gutter for outlet for 80mm diameter pipe. No 42 6 80mm Diameter Rainwater pipes. m 96 7 Extra over rainwater pipe for bend. No 42 8 Extra over rainwater pipe for eaves offset 500mm projection. No 4 Carried to Collection R R Section No. 3 Bill No. 13 Plumbing And Drainage (provisional)		RAINWATER DISPOSAL				
T5 x 100mm water tight seamless eaves gutters. Extra over gutter for stopped end. Extra over gutter for interior angle. Extra over gutter for exterior angle. Extra over 100 x 75mm eaves gutter for outlet for 80mm diameter pipe. 80mm Diameter Rainwater pipes. m 96 Extra over rainwater pipe for bend. Extra over rainwater pipe for eaves offset 500mm projection. Carried to Collection Section No. 3 Bill No. 13 Plumbing And Drainage (provisional)		ColourTech G4 high performance non-fluorinated polymer modified long chain hydro-carbon paint				
Extra over gutter for interior angle. No 12 Extra over gutter for exterior angle. Extra over 100 x 75mm eaves gutter for outlet for 80mm diameter pipe. No 42 80mm Diameter Rainwater pipes. m 96 Extra over rainwater pipe for bend. No 42 Extra over rainwater pipe for eaves offset 500mm projection. Carried to Collection Section No. 3 Bill No. 13 Plumbing And Drainage (provisional)	1		m	297		
Extra over gutter for exterior angle. Extra over 100 x 75mm eaves gutter for outlet for 80mm diameter pipe. No 42 80mm Diameter Rainwater pipes. Extra over rainwater pipe for bend. Extra over rainwater pipe for eaves offset 500mm projection. No 42 Extra over rainwater pipe for eaves offset 500mm projection. R Carried to Collection Section No. 3 Bill No. 13 Plumbing And Drainage (provisional)	2	Extra over gutter for stopped end.	No	8		
Extra over 100 x 75mm eaves gutter for outlet for 80mm diameter pipe. 80mm Diameter Rainwater pipes. Extra over rainwater pipe for bend. Extra over rainwater pipe for eaves offset 500mm projection. No Carried to Collection Section No. 3 Bill No. 13 Plumbing And Drainage (provisional)	3	Extra over gutter for interior angle.	No	12		
diameter pipe. 80mm Diameter Rainwater pipes. Extra over rainwater pipe for bend. Extra over rainwater pipe for eaves offset 500mm projection. No Carried to Collection Section No. 3 Bill No. 13 Plumbing And Drainage (provisional)	4	Extra over gutter for exterior angle.	No	21		
6 80mm Diameter Rainwater pipes. m 96 7 Extra over rainwater pipe for bend. No 42 8 Extra over rainwater pipe for eaves offset 500mm projection. No 4 Carried to Collection Section No. 3 Bill No. 13 Plumbing And Drainage (provisional)	5		No	42		
Extra over rainwater pipe for bend. Extra over rainwater pipe for eaves offset 500mm projection. No 42 R Carried to Collection Section No. 3 Bill No. 13 Plumbing And Drainage (provisional)	6					
Extra over rainwater pipe for eaves offset 500mm projection. Carried to Collection Section No. 3 Bill No. 13 Plumbing And Drainage (provisional)						
Carried to Collection Section No. 3 Bill No. 13 Plumbing And Drainage (provisional)			140	72		
Section No. 3 Bill No. 13 Plumbing And Drainage (provisional)	0		No	4		
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		Section No. 3 Bill No. 13			K	
		131				



		Unit	Quantity	Rate	Amount
	SANITARY FITTINGS Supply and fix the following sanitary fittings, geysers and equipment together with loose ancillary fittings supplied therewith, including unloading, storing, unpacking, hoisting or lowering as required, fixing and building into position, cutting all mortices and chases as required for fixing and building in position, cutting, brackets, clamps, etc., and connecting up pipework and handing over in perfect working order at completion:				
	Vaal' or equal approved:				
9	White porcelain "Concorde 630" lavatory basin (product code 702400) bolted to the wall with 2 x 10mm bolts (8448Z0)	No	10		
10	Macnel (or eqaul approved) vitreous china pacific wall hung bowl back inlet urinal with top inlet fittings, and 38mm C.P domical grating and tail pipe (product code: SKUv203839vand SKU 201910).	No	2		
11	Lecico Vitreous Chine elements floor mounted WC with ceramic cistern and Dutton mechanism and assciated parts (product code: ELESTLLS0NOSBE), with Macnel Triumph Solid wood particle moisture proof white lacquered tolet seat.	No	10		
	Franke' - grade 304 (18/10) polished stainless steel or equal approved:				
12	Franke Nouveau NVN621' double bowl sink, size 1160 x 460mm (Product:811024), fixed to cupboard (cupboard elsewhere) with securing clips and sealed with silicone adhesive along edges.	No	3		
13	Franke Nouveau NVN621' double bowl sink, size 1160 x 460mm (Product:1990002), fixed to cupboard (cupboard elsewhere) with securing clips and sealed with silicone adhesive along edges.	No	1		
14	455mm Dia SS Prep Bowl constructed as per South African Police Service Project 5 Star specification attached to this BOQ.	No	6		
15	Franke 0,9mm Grade 302 18/10 stainless steel WC Pan installed as per South African Police Service Project 5 Star Specification attached to this BOQ	No	6		
	TAPS, VALVES, ETC. Cobra-Watertech':				
16	15mm "Cobra 108" brass hose bib tap with hose union.	No	4		
	Carried to Collection Section No. 3 Bill No. 13			R	
	Plumbing And Drainage (provisional) 132				



17 Chrome plated vandal resistant fixed showerhead (product code: KP2.6) 18 15mm 'Star 106-CP' pillar taps. No 12 19 Kwikot PMX-74 Prisma Under basin mixer No 9 20 Ditto, but 20mm ballcock. No 17 21 15mm Type '9-832 CP' angle regulating valve. No 18 23 15mm Type '9-832 CP' angle regulating valve. No 16 40mm Floe' Flexible connection. No 12 40mm Float valve. WASTE UNIONS. TRAPS. ETC. Marley: 28 32 x 40mm Flexi trap' butyl rubber deep seal 'P' or 'S' trap jointed to waste outlet fitting and to PVC pipe including coupling clamps, etc. 10 x 40mm Flexi trap' butyl rubber deep seal 'P' or 'S' trap jointed to waste outlet fitting and to PVC pipe including coupling clamps, etc. No 11 29 Ditto, but combination trap. ELECTRIC WATER HEATER 10 L Hydro Boiler wall mounted Epoxy white Service of Electric Gyser including fixtures. Replacement of thermostat and alement for 200L Electric Gyser including the test. SANITARY PLUMBING Unplasticised polyvinyl chloride (uPVC) pipes: 40mm Pipes fixed to walls, etc. m 35 50mm Pipes fixed to walls, etc. Carried to Collection Section No. 3 Bill No. 13 Plumbing And Drainage (provisional)			Unit	Quantity	Rate	Amount
(product code: KP2.6)						
(product code: RP2.6)						
19 Kwikot PMX-74 Prisma Under basin mixer 10 Ditto, but 20mm ballcock. 10 Ditto, but 25mm ballcock. 11 Ditto, but 25mm ballcock. 12 Ditto, but 25mm ballcock. 13 Smm Type 'P-832 CP' angle regulating valve. 14 No 15mm Type '9-832 CP' angle regulating valve. 15mm Type '957 CP' flexible connection. 15mm Type '057 CP' cast brass extension piece. 15mm Type '057 CP' cast brass extension piece. 15mm Type '057 CP' cast brass extension piece. 15mm Type '057 CP' cast brass extension piece. 15mm Type '057 CP' cast brass extension piece. 15mm Type '057 CP' cast brass extension piece. 15mm Type '057 CP' cast brass extension piece. 15mm Type '057 CP' cast brass extension piece. 15mm Type '057 CP' cast brass extension piece. 15mm Type '057 CP' cast brass extension piece. 15mm Type '057 CP' cast brass extension piece. 15mm Type '057 CP' cast brass extension piece. 15mm Type '057 CP' cast brass extension piece. 15mm Type '057 CP' cast brass extension piece. 15mm Type '057 CP' cast brass extension piece. 15mm Type '057 CP' cast brass extension piece. 15mm Type '057 CP' cast brass extension piece. 15mm Type Type Type Type Type Type Type Type	17		No	1		
Ditto, but 20mm ballcock.	18	15mm 'Star 106-CP' pillar taps.	No	12		
21 Ditto, but 25mm ballcock. 22 15mm Type 'P-832 CP' angle regulating valve. 23 15mm Type '350F CP' flexible connection. 24 15mm Type '057 CP' cast brass extension piece. 25 40mm Float valve. 26 32 x 40mm Float valve. 27 WASTE UNIONS, TRAPS, ETC. Marley: 28 32 x 40mm 'Flexi trap' butyl rubber deep seal 'P' or 'S' trap jointed to waste outlet fitting and to PVC pipe including coupling clamps, etc. 27 100 x 100 Easy drain PVC channel and 316 stainless steel grating complete with stop ends. 28 40 x 40mm 'Flexi trap' butyl rubber deep seal 'P' or 'S' trap jointed to waste outlet fitting and to PVC pipe including coupling clamps, etc. 29 Ditto, but combination trap. 20 Ditto, but combination trap. 21 ELECTRIC WATER HEATER 22 10 L Hydro Boiler wall mounted Epoxy white 23 Service of Electric Gyser including fixtures. 31 Replacement of thermostat and element for 200L Electric Geyser including the test. 24 40 mm Pipes fixed to walls, etc. 25 Mom Pipes fixed to walls, etc. 26 mm Pipes fixed to walls, etc. 27 mm Pipes fixed to walls, etc. 28 mm Pipes fixed to walls, etc. 29 Dittom Didney fixed to walls, etc. 20 Carried to Collection 20 Section No. 3 21 Bill No. 13 22 Plumbing And Drainage (provisional)	19	Kwikot PMX-74 Prisma Under basin mixer	No	9		
15mm Type 'P-832 CP' angle regulating valve. 15mm Type '350F CP' flexible connection. 15	20	Ditto, but 20mm ballcock.	No	8		
15mm Type '350F CP' flexible connection. No 12 15mm Type '057 CP' cast brass extension piece. No 6 40mm Float valve. WASTE UNIONS. TRAPS. ETC. Marley': 32 x 40mm 'Flexi trap' butyl rubber deep seal 'P' or 'S' trap jointed to waste outlet fitting and to PVC pipe including coupling clamps, etc. No 11 27 100 x 100 Easy drain PVC channel and 316 stainless steel grating complete with stop ends. No 1 28 40 x 40mm 'Flexi trap' butyl rubber deep seal 'P' or 'S' trap jointed to waste outlet fitting and to PVC pipe including coupling clamps, etc. No 4 29 Ditto, but combination trap. No 2 ELECTRIC WATER HEATER 10L Hydro Boiler wall mounted Epoxy white Service of Electric Gyser including fixtures. Replacement of thermostat and element for 200L Electric Geyser including the test. SANITARY PLUMBING Unplasticised polyvinyl chloride (uPVC) pipes: 32 40mm Pipes fixed to walls, etc. m 35 50mm Pipes fixed to walls, etc. m 65 34 110mm Pipes fixed to walls, etc. Extra over uPVC pipes for: 35 110mm Bend. No 26	21	Ditto, but 25mm ballcock.	No	17		
24 15mm Type '057 CP' cast brass extension piece. No 6 25 40mm Float valve. WASTE UNIONS. TRAPS. ETC. Marley': 26 32 x 40mm 'Flexi trap' butyl rubber deep seal 'P' or 'S' trap jointed to waste outlet fitting and to PVC pipe including coupling clamps, etc. No 11 27 100 x 100 Easy drain PVC channel and 316 stainless steel grating complete with stop ends. No 1 28 40 x 40mm 'Flexi trap' butyl rubber deep seal 'P' or 'S' trap jointed to waste outlet fitting and to PVC pipe including coupling clamps, etc. No 4 29 Ditto, but combination trap. No 2 ELECTRIC WATER HEATER 30 10L Hydro Boiler wall mounted Epoxy white No 5 Service of Electric Gyser including fixtures. No 4 Explacement of thermostat and element for 200L Electric Geyser including the test. No 4 SANITARY PLUMBING Unplasticised polyvinyl chloride (uPVC) pipes: 32 40mm Pipes fixed to walls, etc. m 35 35 50mm Pipes fixed to walls, etc. m 83 Extra over uPVC pipes for: 35 110mm Bend. No 26 Carried to Collection R Section No. 3 Bill No. 13 Plumbing And Drainage (provisional)	22	15mm Type 'P-832 CP' angle regulating valve.	No	8		
40mm Float valve. WASTE UNIONS, TRAPS, ETC. Marley: 32 x 40mm 'Flexi trap' butyl rubber deep seal 'P' or 'S' trap jointed to waste outlet fitting and to PVC pipe including coupling clamps, etc. 7 100 x 100 Easy drain PVC channel and 316 stainless steel grating complete with stop ends. 8 40 x 40mm 'Flexi trap' butyl rubber deep seal 'P' or 'S' trap jointed to waste outlet fitting and to PVC pipe including coupling clamps, etc. 9 Ditto, but combination trap. ELECTRIC WATER HEATER 101 Hydro Boiler wall mounted Epoxy white Service of Electric Gyser including fixtures. Replacement of thermostat and element for 200L Electric Geyser including the test. No 4 SANITARY PLUMBING Unplasticised polyvinyl chloride (uPVC) pipes: 40mm Pipes fixed to walls, etc. m 35 50mm Pipes fixed to walls, etc. m 83 Extra over uPVC pipes for: 110mm Bend. Carried to Collection Section No. 3 Bill No. 13 Plumbing And Drainage (provisional)	23	15mm Type '350F CP' flexible connection.	No	12		
WASTE UNIONS, TRAPS, ETC. Marley': 32 x 40mm 'Flexi trap' butyl rubber deep seal 'P' or 'S' trap jointed to waste outlet fitting and to PVC pipe including coupling clamps, etc. 7 100 x 100 Easy drain PVC channel and 316 stainless steel grating complete with stop ends. 8 40 x 40mm 'Flexi trap' butyl rubber deep seal 'P' or 'S' trap jointed to waste outlet fitting and to PVC pipe including coupling clamps, etc. 9 Ditto, but combination trap. ELECTRIC WATER HEATER 10L Hydro Boiler wall mounted Epoxy white Service of Electric Gyser including fixtures. Replacement of thermostat and element for 200L Electric Geyser including the test. No 4 SANITARY PLUMBING Unplasticised polyvinyl chloride (uPVC) pipes: 40mm Pipes fixed to walls, etc. m 35 50mm Pipes fixed to walls, etc. m 65 110mm Pipes fixed to walls, etc. Extra over uPVC pipes for: 110mm Bend. Carried to Collection Section No. 3 Bill No. 13 Plumbing And Drainage (provisional)	24	15mm Type '057 CP' cast brass extension piece.	No	6		
Marley': 32 x 40mm 'Flexi trap' butyl rubber deep seal 'P' or 'S' trap jointed to waste outlet fitting and to PVC pipe including coupling clamps, etc. 7 100 x 100 Easy drain PVC channel and 316 stainless steel grating complete with stop ends. 8 40 x 40mm 'Flexi trap' butyl rubber deep seal 'P' or 'S' trap jointed to waste outlet fitting and to PVC pipe including coupling clamps, etc. 9 Ditto, but combination trap. 10 L Hydro Boiler wall mounted Epoxy white 10 L Hydro Boiler wall mounted Epoxy white 11 Service of Electric Gyser including fixtures. 12 Replacement of thermostat and element for 200L Electric Geyser including the test. 13 Replacement of thermostat and element for 200L Electric Geyser including the test. 14 A0mm Pipes fixed to walls, etc. 15 Mm Pipes fixed to walls, etc. 16 Mm Pipes fixed to walls, etc. 17 Mm Pipes fixed to walls, etc. 18 Extra over uPVC pipes for: 18 Extra over uPVC pipes for: 19 Carried to Collection 10 Section No. 3 10 Bill No. 13 11 Plumbing And Drainage (provisional)	25	40mm Float valve.	No	6		
Marley': 32 x 40mm 'Flexi trap' butyl rubber deep seal 'P' or 'S' trap jointed to waste outlet fitting and to PVC pipe including coupling clamps, etc. 7 100 x 100 Easy drain PVC channel and 316 stainless steel grating complete with stop ends. 8 40 x 40mm 'Flexi trap' butyl rubber deep seal 'P' or 'S' trap jointed to waste outlet fitting and to PVC pipe including coupling clamps, etc. 9 Ditto, but combination trap. 10 L Hydro Boiler wall mounted Epoxy white 10 L Hydro Boiler wall mounted Epoxy white 11 Service of Electric Gyser including fixtures. 12 Replacement of thermostat and element for 200L Electric Geyser including the test. 13 Replacement of thermostat and element for 200L Electric Geyser including the test. 14 A0mm Pipes fixed to walls, etc. 15 Mm Pipes fixed to walls, etc. 16 Mm Pipes fixed to walls, etc. 17 Mm Pipes fixed to walls, etc. 18 Extra over uPVC pipes for: 18 Extra over uPVC pipes for: 19 Carried to Collection 10 Section No. 3 10 Bill No. 13 11 Plumbing And Drainage (provisional)		WASTE UNIONS. TRAPS. ETC.				
trap jointed to waste outlet fitting and to PVC pipe including coupling clamps, etc. 100 x 100 Easy drain PVC channel and 316 stainless steel grating complete with stop ends. 8 40 x 40mm 'Flexi trap' butly rubber deep seal 'P' or 'S' trap jointed to waste outlet fitting and to PVC pipe including coupling clamps, etc. 9 Ditto, but combination trap. 8 ELECTRIC WATER HEATER 10L Hydro Boiler wall mounted Epoxy white 8 Service of Electric Gyser including fixtures. 10 Replacement of thermostat and element for 200L Electric Geyser including the test. 8 SANITARY PLUMBING Unplasticised polyvinyl chloride (uPVC) pipes: 2 40mm Pipes fixed to walls, etc. 3 50mm Pipes fixed to walls, etc. 4 110mm Pipes fixed to walls, etc. Extra over uPVC pipes for: 110mm Bend. Carried to Collection Section No. 3 Bill No. 13 Plumbing And Drainage (provisional)						
100 x 100 Easy drain PVC channel and 316 stainless steel grating complete with stop ends. 100 x 40mm 'Flexi trap' butyl rubber deep seal 'P' or 'S' trap jointed to waste outlet fitting and to PVC pipe including coupling clamps, etc. 101 Ditto, but combination trap. 102 ELECTRIC WATER HEATER 103 10L Hydro Boiler wall mounted Epoxy white Service of Electric Gyser including fixtures. 105 Replacement of thermostat and element for 200L Electric Geyser including the test. SANITARY PLUMBING Unplasticised polyvinyl chloride (uPVC) pipes: 40mm Pipes fixed to walls, etc. 31 Somm Pipes fixed to walls, etc. 32 Momm Pipes fixed to walls, etc. 33 Somm Pipes fixed to walls, etc. 410mm Pipes fixed to walls, etc. 52 Extra over uPVC pipes for: 110mm Bend. Carried to Collection Section No. 3 Bill No. 13 Plumbing And Drainage (provisional)	26	trap jointed to waste outlet fitting and to PVC pipe	No	11		
steel grating complete with stop ends. 40 x 40mm 'Flexi trap' butyl rubber deep seal 'P' or 'S' trap jointed to waste outlet fitting and to PVC pipe including coupling clamps, etc. No 4 29 Ditto, but combination trap. ELECTRIC WATER HEATER 30 10L Hydro Boiler wall mounted Epoxy white No 5 Service of Electric Gyser including fixtures. 31 Replacement of thermostat and element for 200L Electric Geyser including the test. No 4 SANITARY PLUMBING Unplasticised polyvinyl chloride (uPVC) pipes: 32 40mm Pipes fixed to walls, etc. m 35 33 50mm Pipes fixed to walls, etc. m 65 34 110mm Pipes fixed to walls, etc. m 83 Extra over uPVC pipes for: 35 110mm Bend. No 26	27		140			
trap jointed to waste outlet fitting and to PVC pipe including coupling clamps, etc. Ditto, but combination trap. ELECTRIC WATER HEATER 10L Hydro Boiler wall mounted Epoxy white Service of Electric Gyser including fixtures. Replacement of thermostat and element for 200L Electric Geyser including the test. No SANITARY PLUMBING Unplasticised polyvinyl chloride (uPVC) pipes: 40mm Pipes fixed to walls, etc. m 35 50mm Pipes fixed to walls, etc. m 65 110mm Pipes fixed to walls, etc. Extra over uPVC pipes for: 110mm Bend. No Carried to Collection Section No. 3 Bill No. 13 Plumbing And Drainage (provisional)	21		No	1		
Ditto, but combination trap. ELECTRIC WATER HEATER 30 10L Hydro Boiler wall mounted Epoxy white No 5 Service of Electric Gyser including fixtures. Replacement of thermostat and element for 200L Electric Geyser including the test. No 4 SANITARY PLUMBING Unplasticised polyvinyl chloride (uPVC) pipes: 32 40mm Pipes fixed to walls, etc. m 35 35 50mm Pipes fixed to walls, etc. m 65 34 110mm Pipes fixed to walls, etc. m 83 Extra over uPVC pipes for: 35 110mm Bend. No 26	28	trap jointed to waste outlet fitting and to PVC pipe	NI-			
ELECTRIC WATER HEATER 30 10L Hydro Boiler wall mounted Epoxy white Service of Electric Gyser including fixtures. 31 Replacement of thermostat and element for 200L Electric Geyser including the test. SANITARY PLUMBING Unplasticised polyvinyl chloride (uPVC) pipes: 32 40mm Pipes fixed to walls, etc. 33 50mm Pipes fixed to walls, etc. 34 110mm Pipes fixed to walls, etc. Extra over uPVC pipes for: 35 110mm Bend. Carried to Collection Section No. 3 Bill No. 13 Plumbing And Drainage (provisional)						
30 10L Hydro Boiler wall mounted Epoxy white Service of Electric Gyser including fixtures. 31 Replacement of thermostat and element for 200L Electric Geyser including the test. SANITARY PLUMBING Unplasticised polyvinyl chloride (uPVC) pipes: 32 40mm Pipes fixed to walls, etc. 33 50mm Pipes fixed to walls, etc. m 65 34 110mm Pipes fixed to walls, etc. Extra over uPVC pipes for: 35 110mm Bend. No 26 Carried to Collection Section No. 3 Bill No. 13 Plumbing And Drainage (provisional)	29	·	No	2		
Service of Electric Gyser including fixtures. Replacement of thermostat and element for 200L Electric Geyser including the test. No 4 SANITARY PLUMBING Unplasticised polyvinyl chloride (uPVC) pipes: 40mm Pipes fixed to walls, etc. 50mm Pipes fixed to walls, etc. m 65 110mm Pipes fixed to walls, etc. Extra over uPVC pipes for: 110mm Bend. No 26 Carried to Collection Section No. 3 Bill No. 13 Plumbing And Drainage (provisional)	20		NI.			
Replacement of thermostat and element for 200L Electric Geyser including the test. SANITARY PLUMBING Unplasticised polyvinyl chloride (uPVC) pipes: 40mm Pipes fixed to walls, etc. 50mm Pipes fixed to walls, etc. m 65 110mm Pipes fixed to walls, etc. m 83 Extra over uPVC pipes for: 110mm Bend. No 26 Carried to Collection Section No. 3 Bill No. 13 Plumbing And Drainage (provisional)	30		NO	5		
Electric Geyser including the test. SANITARY PLUMBING Unplasticised polyvinyl chloride (uPVC) pipes: 32 40mm Pipes fixed to walls, etc. 35 50mm Pipes fixed to walls, etc. 36 110mm Pipes fixed to walls, etc. Extra over uPVC pipes for: 36 110mm Bend. Carried to Collection Section No. 3 Bill No. 13 Plumbing And Drainage (provisional)	21					
Unplasticised polyvinyl chloride (uPVC) pipes: 40mm Pipes fixed to walls, etc. m 35 50mm Pipes fixed to walls, etc. m 65 110mm Pipes fixed to walls, etc. m 83 Extra over uPVC pipes for: 110mm Bend. No 26 Carried to Collection Section No. 3 Bill No. 13 Plumbing And Drainage (provisional)	31		No	4		
32 40mm Pipes fixed to walls, etc. 33 50mm Pipes fixed to walls, etc. 34 110mm Pipes fixed to walls, etc. Extra over uPVC pipes for: 110mm Bend. Carried to Collection Section No. 3 Bill No. 13 Plumbing And Drainage (provisional)		SANITARY PLUMBING				
33 50mm Pipes fixed to walls, etc. 34 110mm Pipes fixed to walls, etc. Extra over uPVC pipes for: 110mm Bend. No Carried to Collection Section No. 3 Bill No. 13 Plumbing And Drainage (provisional)		Unplasticised polyvinyl chloride (uPVC) pipes:				
34 110mm Pipes fixed to walls, etc. Extra over uPVC pipes for: 110mm Bend. No Carried to Collection Section No. 3 Bill No. 13 Plumbing And Drainage (provisional)	32	40mm Pipes fixed to walls, etc.	m	35		
Extra over uPVC pipes for: 110mm Bend. Carried to Collection Section No. 3 Bill No. 13 Plumbing And Drainage (provisional)	33	50mm Pipes fixed to walls, etc.	m	65		
35 110mm Bend. Carried to Collection Section No. 3 Bill No. 13 Plumbing And Drainage (provisional)	34	110mm Pipes fixed to walls, etc.	m	83		
Carried to Collection Section No. 3 Bill No. 13 Plumbing And Drainage (provisional)		Extra over uPVC pipes for:				
Section No. 3 Bill No. 13 Plumbing And Drainage (provisional)	35	110mm Bend.	No	26		
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Plumbing And Drainage (provisional)						
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		Unit	Quantity	Rate	Amount
36	110mm Pan connector	No	20		
37	50mm BSP Adaptor.	No	23		
38	110mm Junction.	No	24		
39	50mm Bend.	No	20		
40	40mm Bend.	No	15		
41	50 x 40mm Reducer.	No	10		
42	50mm Access bend.	No	17		
43	110mm Access reducing junction.	No	9		
44	110mm Access rodding eye.	No	22		
45	110mm Access bend.	No	22		
46	50mm Access junction.	No	13		
47	110mm Access junction.	No	18		
48	110mm P-trap.	No	16		
49	110mm Two-way vent valve.	No	18		
	Testing:				
50	Allow for testing sanitary plumbing system.	Item			
	WATER SUPPLIES				
	Internal water supplies:				
	Holes, etc., are deemed to be included in the descriptions of the pipework.				
	Class 2 copper pipes:				
51	15mm Pipes fixed to walls, etc.	m	66		
52	Ditto, but 22mm pipes.	m	185		
53	Ditto, but 28mm pipes.	m	162		
54	Ditto, but 35mm pipes.	m	95		
55	15mm Pipes chased into walls, including 'Menlath 213' galvanised 'Mentex' plaster mesh fixed to brickwork.	m	102		
56	Ditto, but 22mm pipes.	m	66		
57	Ditto, but 28mm pipes.	m	43		
58	Ditto, but 35mm pipes.	m	38		
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		Unit	Quantity	Rate	Amount
	Extra over class 2 copper pipes for copper to copper capillary fittings:				
59	15mm Pipe fittings.	No	50		
60	22mm Pipe fittings.	No	15		
61	28mm Pipe fittings.	No	20		
62	35mm Pipe fittings.	No	15		
	Extra over class 2 copper pipes for brass				
	compression fittings:				
63	15mm Brass pipe fittings.	No	45		
64	22mm Brass pipe fittings.	No	20		
65	28mm Brass pipe fittings.	No	15		
66	35mm Brass pipe fittings.	No	10		
	<u>Testing:</u>				
67	Allow for testing water supply system.	Item			
	FIRE APPLIANCES, ETC.				
60	Fire hose reels, etc.:	No	18		
68	4.5kg Fire extinguisher Dry Chemical Powder	No			
69	9kg Fire extinguisher Dry Chemical Powder	No	18		
70	30m Hose reel	No	13		
71	Wall mounted Hose reel steel pipe (32mm)	m	130		
72	Class 1 wall mounted standpipe	m	262		
73	Double booster Fire Hydrant	No	3		
74	Underground Fire Hydrant PVC pipe (75mm)	m	120		
75	Excavation on earth for fire hydrant pipe not exceeding 2m deep, including backfilling and compacting				
	((minimum depth of 600mm).	m³	32		
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		Unit	Quantity	Rate	Amount
	SECTION NO. 3				
	PHASE 2				
	BILL NO. 14 ELECTRICAL WORK (PROVISIONAL)				
	WORK GROUPS: Unless otherwise stated the work group for this Bill shall be WG160				
	DISTRIBUTION BOARDS etc.				
	Rates for distribution boards etc. are to include for busbars, jumpers, neutral bars, internal wiring and connections, circuit identification markers, control gear labels, circuit legend cards and working drawings				
	Switches, socket outlets, etc.				
	Rates for switches, sockets outlets, etc. are to include for screwing to outlet boxes, connecting up and cover plates				
	<u>Light fittings</u>				
	Rates for light fittings are to include for hanging, fixing and connecting and for lamp holders and fluorescent tubes and lamps of the type and wattage described				
	DISTRIBUTION BOARDS				
	Electrical DB's				
	Complete supply, deliver and installation according to single line specifications (see single line drawings) Including Surge Arrestors. Surge arrestors similar in quality as Denguard or as approved by engineer.(Drawing number: EE 10671-400-SL0-00)				
1	MAIN DB (EE10671-100-MDB-A1-00)	No	1		
2	SDB - A1 (EE10671-100-SDB-A1-00)	No	1		
3	SDB - A2 (EE10671-100-SDB-A2-00)	No	1		
4	SDB - VF (EE10671-100-SDB-VF-00)	No	1		
5	SDB - SERVER (EE10671-100-SDB-SERVER-00)	No	1		
6	SDB - CELLS (EE10671-100-SDB-CELLS-00)	No	1		
7	SDB-C13 (EE10671-100-SDB-C13-00)	No	1		
8	SDB-D (EE10671-100-SDB-D-00)	No	1		
9	SDB-E1 (EE10671-100-SDB-E1-00)	No	1		
10	SDB-E2 (EE10671-100-SDB-E2-00)	No	1		
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		Unit	Quantity	Rate	Amount
11	DB - HOUSE1 (EE10671-100-SDB-HOUSE1-00)	No	1		
12	DB - HOUSE2 (EE10671-100-SDB-HOUSE2-00)	No	1		
13	DB - FLAT1 (EE10671-100-SDB-FLAT1-00)	No	1		
	DB's for other services				
	Tele Data DB				
14	Flush mounted 400 x 400 x 150 DB with soft backing and lockable door	No	5		
	CABLES				
	Supply LV (1000V) cable laid in trenches not exceeding 1m deep, including excavations and backfilling				
	All LV cables - PVC/PVC/SWA/PVC				
15	70 mm ² x 4c with 50 mm ² BCE	m	60		
16	35 mm ² x 4c with 25 mm ² BCE	m	200		
17	25 mm ² x 4c with 16 mm ² BCE	m	370		
18	16 mm ² x 4c with 10 mm ² BCE	m	390		
19	10 mm ² x 4c with 10 mm ² BCE	m	200		
20	6 mm ² x 4c with 4 mm ² BCE	m	141		
21	25 mm² x 3 Core	m	120		
22	16 mm² x 3 Core	m	112		
23	10 mm² x 3 Core	m	120		
	Cable Terminations and prescribed running joints				
24	70 mm ² x 4c with 50 mm ² BCE	No	2		
25	35 mm ² x 4c with 25 mm ² BCE	No	2		
26	25 mm ² x 4c with 16 mm ² BCE	No	6		
27	16 mm² x 4c with 10 mm² BCE	No	10		
28	10 mm² x 4c with 10 mm² BCE	No	4		
29	6 mm ² x 4c with 4 mm ² BCE	No	10		
30	25 mm² x 3 Core	No	2		
31	16 mm² x 3 Core	No	4		
32	10 mm² x 3 Core	No	2		
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		Unit	Quantity	Rate	Amount
	CONDUCTORS				
	Wiring - PVC insulated copper wire of the following sizes:				
33	2,5 mm2	m	7 730		
34	4 mm2	m	150		
	BCE - Bare Copper Earth Wire				
35	2,5 mm2	m	3 865		
36	4 mm2	m	75		
	Decommission of Existing Generator				
37	Disconnect and removal of old cables and circuit breakers from Eskom, existing generator, Main DB and Sub DB's.	Item			
	DRAW WIRES				
38	16 swg galvanised	m	802		
	CONDUIT				
	SABS Approved PVC, Galvanized or Bosal conduit, complete with all couplings, saddles etc.				
	(On surface, chased, build- and cast-in)				
39	20 mm dia PVC	m	661		
40	Flexible Sprague 20mm PVC	m	136		
41	25 mm dia PVC	m	149		
	OUTLET BOXES, COVER PLATES,ETC				
	Boxes:				
42	100 x 50 x 50 galvanised build/cast-in	No	129		
43	100 x 100 x 50 galvanised build/cast-in	No	132		
	Covers:				
44	Round PVC Box fitted on Ceiling	No	357		
	CABLE TRUNKING, ETC				
	Trunking (Galvanized Steel)				
45	2 Tier power skirting Galvanized Steel complete with covers and all accessories	m	590		
46	3 Tier power skirting Galvanized Steel complete with covers and all accessories	m	50		
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		Unit	Quantity	Rate	Amount
47	P8000 Galvanized trunking complete with all accessories and installation fittings	m	260		
48	P9000 Galvanized trunking complete with all accessories and installation fittings	m	260		
49	152mm Galvanised heavy duty cable tray including cover complete with accessories and installation fittings.	m	63		
	SOCKET OUTLETS AND LIGHT SWITCHES				
	Light switches:				
50	16 A 1 Lever 1 way switch complete with cover plate. Similar in quality or as approved by engineer.	No	117		
	Socket outlets:				
51	16 A Single SSO fitted with cover plate	No	13		
52	16 A Combo SSO (Single and Euro Port) fitted with cover plate	No	106		
53	16 A Combo SSO (Single and USB Port) fitted with cover plate	No	1		
54	16 A SSO fitted with cover plate mounted on power skirting	No	66		
55	16 A Euro SSO fitted with cover plate mounted on power skirting	No	66		
56	16 A dedicated SSO fitted with red cover plate mounted on power skirting	No	131		
57	5 A SSO light fitting round outlet fitted in ceiling space	No	228		
	Provision for other services				
58	RJ11 Telephone Data outlet complete on power skirting	No	64		
59	RJ45 Data Internet outlet complete on power skirting	No	64		
60	5V/3A USB outlet complete on power skirting	No	82		
	<u>Isolators</u>				
61	20 A Isolator switch complete in weatherproof box	No	12		
	30 A Isolator switch complete in weatherproof box				
62	30 A Isolator switch complete in weatherproof box	No	10		
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		Unit	Quantity	Rate	Amount
	<u>LUMINAIRES</u>				
	<u>Luminaires - Attached Light Schedule</u> <u>Supply and install aluminium fittings</u>				
63					
	4000K Similar				
	in quality as Genlux Alena LED Linear or as approved by engineer.	No	22		
64	48W LED panel 1200 x 600mm Recessed fitting 4000K				
	Similar in quality as BEKA BULKHEAD SERIES 42 or as approved by engineer.				
	approved by engineer.	No	158		
65	58W LED panel 1500mm flameproof 4000K				
	Similar in quality as BEKA LED VAPOURLINE or as approved by engineer.				
	approved by originating	No	6		
66	20W LED Aluminium bulkhead 4000K				
	Similar in quality as BEKA BULKHEAD SERIES 30 or as approved by engineer.	No	52		
67	20W LED Tamperproof bulkhead 4000K		02		
01	Similar in quality as BEKA BULKHEAD SERIES 30 or as				
	approved by engineer.	No	12		
68	20W LED Aluminium rectengular 4000K Similar in quality as BEKA BULKHEAD SERIES 40 or as				
	approved by engineer.	No	6		
69	100W LED floodlight wall mount				
	Similar in quality as BEKA LEDFLOOD or as approved by engineer.				
		No	24		
70	20W LED flush Downlight 4000K				
	Similar in quality as LEDWISE CL22-Dish170 or as approved by engineer.				
		No	36		
71	BLUE POLICE LIGHT LED 35 W with pole Similar in quality as BEKA ZELA or as approved by engineer.	No	1		
	Photocell	140			
72	16A Photovoltaic (Day/Night) switch for exterior lighting	No	7		
	EARTHING AND LIGHTNING PROTECTION				
	Earthing				
73	Earth resistivity test to SABS Standards 10142	No	13		
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		Unit	Quantity	Rate	Amount
74	Earthing as required at each DB/Kiosk to achieve max 1 Ohm	No	13		
75	Testing and commissioning of earthing installation	No	13		
	Lightning protection				
	Supply and Install and Earthing and External Lightning Protection System with all required accessories, including a link to the electrical earth and links between the buildings to achieve equipotential bonding. Protection level 3, Down Conductor System. Complete lightning protection of all buildings in accordance with SABS IEC 61024-1-2:1998 specifications.				
	Air termination system to be installed on tiled roof				
	and on all parapits / exposed elements. Downconductor system to be installed within wall cavitiesor surface mounted and bonded to earth termination system.				
	Roof Type: Metal sheeting				
	AreaSize: 2100m2				
76	Solid Circular Copper earth rods 8mm2 x 1m	m	55		
77	Standard Copper Bare cable 4mm2	m	435		
78	Galvanized Bosal Conduit 20mm	m	194		
	CABLE TRENCHES				
	Excavation of cable trench including backfill and compacting (see details)				
	(all excavations should be to a minimum depth of				
70	600mm) Extra over trench excavations in earth for excavation in				
79	soft rock	m³	350		
80	Extra over trench excavations in earth for intermediate	3			
	soil requiring the use of pneumatic tools	m³	20		
81	Extra over trench excavations in earth for excavation in Hard rock requiring blasting	m³	20		
	SLEEVES, HOLES, ETC.				
	uPVC Sleeves:				
82	Pipes not exceeding 100mm external diameter laid in trenches (trenches elsewhere).	m	116		
83		No	15		
	elsewhere)	No	15		
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		Unit	Quantity	Rate	Amount
84	Pipes exceeding 100mm and not exceeding 200mm external diameter laid in trenches (trenches elsewhere)	m	68		
85	110mm Diameter slow bend laid in trenches (trenches elsewhere)	No	12		
86	280 x 280 x 180mm Electrical weatherproof PVC box.	No	20		
	<u>Miscellaneous</u>				
87	Cable marker tape 320 mm wide	m	30		
88	Cordoning off trenches	m	30		
	MISCELLANEOUS				
	Complete supply, deliver and installation according to specifications and drawings, and all equipment necessary to operate in good working order made in accordance with SABS.				
	Electrical Manhole				
89	Manhole	No	10		
	Stanby Diesel Generator				
	Complete supply, deliver, installation nd comissioning according to specifications.				
90	60 kVA Three Phase Diesel Generator	No	1		
	UPS System				
91	5 kVA UPS including battery backup pack for server room	No	1		
	Access Control				
92	18 Zone Walk Through Metal Detector	No	1		
93	Biometric access control	No	1		
94	Magnetic lock	No	2		
95	Door Closer	No	1		
96	Gate Closer	No	1		
97	Door Monitor	No	1		
98	2 way wireless waterproof intercom system for the gate	No	1		
99	Including Gate opening or lock function	No	1		
100	18 Inch screen Gate monitor	No	1		
101	Sliding vehicle Gate monitor operator kit - Steel rack - 500kg including sensors	No	1		
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		Unit	Quantity	Rate	Amount
102	VERT-X linear swing gate motor Operator kit - 250kg with sensors, including 20 x remote controllers, daily operations Max 250, Rugged die-cast aluminium construction CCTV System	No	6		
	A Digital IP CCTV system with recording storage of Three (3) Weeks Including Mounting Accessories				
	HIKVISION or similar				
103	32 Channel Network Video Recorder 256Mbps, up to 8MP	No	1		
104	Power Supply with Fuse Box	No	1		
105	4MP Bullet IP Camera with Night Vision, Max. Resolution 3840 X 2160. IR Range up to 80m, IP67	No	17		
106	4MP Dome IP Camera, Max. Resolution 3840 X 2160, IR Range up to 30m, IP67	No	12		
107	50 Inch CCTV Monitor Screen	No	1		
108	Cat.6 Cable	m	1 000		
109	6M Galvanized cctv camera Pole with mounting bracket	No	1		
	EXISITING ELECTRICAL COMPONENTS				
	Removal of Existing Redundant Electrical Components				
110	Remove all Existing Redundant Electrical Material. Cables, Conduits, light fittings, Power Skirting and Socket Outlets.	Item			
111	Carefully remove existing 15kVA generator, which is to be handed back to the client, situated approximately				
	200km away from site.	Item			
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		Unit	Quantity	Rate	Amount
	1				
	SECTION NO. 3				
	PHASE 2				
	BILL NO. 15				
	MECHANICAL WORK (PROVISIONAL)				
	WORK GROUPS: Unless otherwise stated the work group for this Bill shall be WG170				
	<u>DuctWork</u>				
	Descriptions of ducts shall be deemed to include stiffeners, jointing materials, sealants, couplers in the running length and access/inspection panels in accordance with the specification				
	<u>Dumpers</u>				
	Descriptions of smoke and fire dampers shall be deemed to include fusible links, sleeves, frames, supports and access openings in ducts				
	DUCTWORK, ETC				
	0.3 galvanised sheet metal, low pressure ducting Suspended not exceeding 1m below steel roof trusses including supports				
1	Main supply low pressure ducting as per drawing (ME 304102-100-HVAC-00)	m²	6		
	0.3 galvanised sheet metal, low pressure ducting Suspended not exceeding 1m below steel roof trusses including supports				
2	250mm Diameter	m	10		
3	350mm Diameter	m	6		
4	450mm Diameter	m	10		
	Extra over galvanised sheet metal low pressure				
	ducting for				
	350mm Diameter ducting				
5	Stopped end	No	1		
	350mm Diameter ducting				
6	Reducer, radius bedn, square bend, transformation, spigot, branch or tee	No	1		
	450mm Diameter ducting				
7	Reducer, radius bedn, square bend, transformation, spigot, branch or tee	No	1		
	Carried to Collection			R	
	Section No. 3 Bill No. 15				
	Mechanical Work (provisional)				
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		Unit	Quantity	Rate	Amount	
	Insulated flexible ducting					
8	250mm Diameter ducting not exceeding 1.5m girth, including connections to ducting or equipment	m	30			
	<u>Ducting Insulation</u>					
	External installation					
9	25mm Thick insulation	m²	10			
	<u>Diffusers, Grilles, Etc.</u>					
	Natural anodised aluminium door grilles					
10	400 x 200mm Door grille	No	9			
	"Rickard" powder coated aluminium supply diffusers					
11	600 x 600mm Constant volume ceiling mounted air terminal with 250mm inlet	No	6			
	"Europair" powder coated aluminium extract, transfer and return air grilles					
12	600 x 1200mm Ceiling mounted return air grille	No	1			
	"Trox" natural anodised aluminium weather louvres					
13	300 x 300mm High weather louvre with wire mesh screen, mounted in opening in concrete or brickwork	No	1			
	PLATFORM LIFT					
	Complete supply, deliver and installation according to specifications:					
14	250kg Capacity, size 850 x 850 x 710mm Curved stair wheelchair platform lift, built for going up 8 x 160mm risers to a landing size 3030 x 1515mm on plan, then up 8 x 160mm risers to first floor landing, with battery backup, with powder coted aluminium twin rail, similar in quality as SUPRA or as approved by engineer.	No	1			
	Faurina	110	•			
	Equipment Outdoor Units Supply & Install on constate Blinths					
	Outdoor Units Supply & Install on concrete Plinths or mounted against wall, including fixtures					
15	Complete unit for duct system 36000BTU / 11kW Unit	No	1			
	Indoor Units supply & install against the wall including fixtures					
16	WALL MOUNT FRESH AIR FAN (24 liters/second) including On/Off Controller similar in quality as Donkin Punto Filo MF100 or as approved by engineer	No	2			
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		Unit	Quantity	Rate	Amount
17	WALL MOUNT SPLIT UNIT 12000BTU / 4kW	No	7		
18	COMPLETE CEILING MOUNT 4 WAY CASSETTE UNIT 30000BUT/9kW	No	1		
	AIRCON ACCESSORIES				
19	Wired remote controller	No	9		
20	Drain Pump	No	7		
	Additional Gas				
21	R 410 gas	Kg	2		
	Existing Redundant Components				
22	Removal of existing redundant mechanical material	Item			
	Water Pumps				
23	Install complete 0,4 kW Single Phase Domestic pump system as per attached specification. Unit to be mounted onto plinth and secured by galvanised cage.	No	3		
	FIRE DETECTION SYSTEM				
	Supply, install, test, commission and provide 12 month guarantee for Fire detection in accordance with SANS Regulations. Unit shall be supplied with all equipment necessary to operate in good working order made in accordance with SABS. As per drawing specification.				
24	Smoke Detector	No	67		
25	Manual Break glass unit	No	19		
26	Siren ceiling mounted	No	8		
27	Fire Alarm panel	No	3		
	SERVER ROOM FIRE SUPPRESSION SYSTEM				
28	Supply, install, test, commission and provide 12 month guarantee for Fire suppression system in accordance with SANS Regulations. Unit shall be a fixed pipe system which is a clean agent (FM 200) and shall be complete with analogue addressable gas control units and alarms in the gas areas. Unit shall be supplied with all equipment necessary to operate in good working order made in accordance with SABS. Server room floor area = 21m²; Height = 2.8m.	No	1		
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		Unit	Quantity	Rate	Amount
	SECTION NO. 3				
	PHASE 2				
	BILL NO. 16				
	<u>GLAZING</u>				
	WORK GROUPS: Unless otherwise stated the work group for this Bill shall be WG150				
	<u>Trade Preambles</u>				
	For Trade Preambles refer to 'Specification of Materials and Methods' (PW371A & PW371B) for the full descriptions of material to be used and work to be done in this Bill				
	SUPPLEMENTARY PREAMBLES				
	Proprietary items or materials:				
	Proprietary items or materials where specified are to be of the brand specified - or other approved - by the Principal Agent.				
	Glazing code of practise conforms to SANS 10137.				
	Security and Safety glazing material conforms to SANS 1263 Part 2 & 3.				
	Powder coating 60 microns in accordance with SANS 1578 and 1796.				
	GLAZING TO WOOD WITH PINNED ON BEADS.				
	53mm Bullet Resistant Glass (BRG) - AK47 in full vision clear safety glass:				
1	Panes exceeding 2m2 but not exceeding 4m2.	m²	2		
2	Panes exceeding 4m2 but not exceeding 6m2.	m²	2		
3	Panes exceeding 6m2 but not exceeding 8m2.	m²	3		
	TOPS, SHELVES, DOORS, MIRRORS, ETC				
	6mm 'GG' quality polished silvered float glass copper backed mirrors with polished edges holed for and fixed with round rose chromium plated mirror screws with rubber buffers to plugs in brickwork or concrete:				
4	Mirror 600 x900mm high with four screws.	No	16		
	Carried To Section Summary			R	
	Section No. 3				
	Bill No. 16				
	Glazing				
	150				



	Unit	Quantity	Rate	Amount
SECTION NO. 3 PHASE 2 BILL NO. 17 PAINTWORK WORK GROUPS: Unless otherwise stated the work group for this Bill shall be WG152 Trade Preambles: For Trade Preambles refer to 'Specification of Materials and Methods' (PW371A & PW371B) for the full descriptions of material to be used and work to be done in this Bill SUPPLEMENTARY PREAMBLES User Note The following four items, given as examples, have been set up to comply with the Munsell system (the 'extra over' option) as prescribed in the Standard System of Measuring Building Work and should be inserted at the end of each type of paint where applicable: Extra over paintwork to all areas, for paintwork in colours which have a value of 7 or less based on the Munsell system m² Extra over paintwork to gates, grilles, burglar screens, ballustrades, etc., for paintwork in colours which have a value of 7 or less based on the Munsell system (both sides measured over the full flat area) m² Extra over paintwork to rails, bars, pipes, etc. not exceeding 300mm girth, for paintwork in colours which have a value of 7 or less based on the Munsell system m Extra over paintwork to skirting's, rails, etc. not exceeding 300mm girth for paintwork in colours which have a value of 7 or less based on the Munsell system m Extra over paintwork to skirting's, rails, etc. not exceeding 300mm girth for paintwork in colours which have a value of 7 or less based on the Munsell system m	Unit	Quantity	Rate	Amount
Carried to Collection Section No. 3 Bill No. 17 Paintwork 151			R	



	Unit	Quantity	Rate	Amount
Extra over paintwork to all areas, for paintwork in colours which have a value of 7 or less based on the Munsell system m² Extra over paintwork to gates, grilles, burglar screens, balustrades, etc., for paintwork in colours which have a value of 7 or less based on the Munsell system (both sides measured over the full flat area) m² Extra over paintwork to rails, bars, pipes, etc. not exceeding 300mm girth, for paintwork in colours which have a value of 7 or less based on the Munsell system m Extra over paintwork to skirting's, rails, etc. not exceeding 300mm girth for paintwork in colours which have a value of 7 or less based on the Munsell system m Note It has however become evident that application problems exist with the said Munsell system and until such time as the Standard System of Measuring Building Work is adjusted to overcome these problems users should determine from the relevant m manufacturer which of their colour groupings differ appreciably in price and adjust descriptions accordingly.				
PREPARATORY WORK TO EXISTING WORK				
Previously painted plastered surfaces				
Surfaces shall be thoroughly washed down and allowed to dry completely before any paint is applied. Blistered or peeling paint shall be completely removed and cracks shall be opened, filled with a suitable filler and finished smooth				
Previously painted metal surfaces				
Surfaces shall be thoroughly rubbed and cleaned down. Blistered or peeling paint shall be completely removed down to bare metal				
Previously painted wood surfaces				
Surfaces shall be thoroughly cleaned down. Blistered or peeling paint shall be completely removed and cracks and crevices shall be primed, filled with suitable filler and finished smooth				
Carried to Collection Section No. 3			R	
Bill No. 17 Paintwork				
152				



	Unit	Quantity	Rate	Amount
Project 5 Star:				
Cleaning of unsound surfaces - plaster cracks and holes, peeling paint, lichen and algae, dirt and debris, greasy, chalky, and powdery surfaces. Dirty, grasy surfaces, as well as paint coatings that have chalked, should be washed with a solution of SUGAR SOAP, or a water - soluble degreaser.				
SUPPLEMENTARY PREAMBLES				
Proprietary items or materials:				
Proprietary items or materials where specified are to be of the brand specified - or other approved - by the Principal Agent.				
SABS Specifications:				
Matt or eggshell decorative paint for interior works : SABS 515				
High gloss enamel paint : SABS 630 Grade I				
Oil gloss enamel paint : SABS 631				
Primers for wood for external work : SABS 678 Type I				
Primers for wood for internal work : SABS 678 Type III				
Zink chromate primers for steel : SABS 679 Type I				
Undercoats for paints (except emulsion paint) : SABS 681 Type I				
Aluminium paint : SABS 682 Grade II				
Roof paints : SABS 683 Type B (Oil) SABS 940 (Emulsion)				
Structural steel paint : SABS 684 Type B				
Wash primer (metal etch) : SABS 723				
Varnish for interior use : SABS 887 Type I				
Emulsion paints : SABS 1586				
Colours, etc.:				
Unless otherwise described all paintwork shall be deemed to have a colour value in excess of 7 on the Munsell system in accordance with SANS 1091				
PAINTWORK ETC TO NEW WORK				
ON INTERNAL FLOATED PLASTER SURFACES				
One coat alkali resistant primer and two coats premium quality, fully washable and stain resistant				
water base paint on:				
1 Walls.	m²	1 384		
Carried to Collection			R	
Section No. 3				
Bill No. 17				
Paintwork				
153				



		Unit	Quantity	Rate	Amount
	ON EXTERNAL FLOATED PLASTER SURFACES				
	One coat alkali resistant primer and two coats premium quality non drip acrylic emulsion paint on:				
2	Walls.	m²	462		
	ON FIBRE-CEMENT BOARD SURFACES				
	One coat alkali resistant primer and two coats				
	premium quality, fully washable and stain resistant acrylic emulsion paint on:				
3	On exterior fascia's and barge boards.	m²	186		
	One coat universal undercoat and two coats Plascon				
	Velvaglo polyurethane enamel paint:				
4	On interior sills.	m²	174		
	ON METAL SURFACES				
	One coat universal undercoat and two coats low gloss water based enamel paint on galvanised steel:				
5	Cell Door gates (both sides measured).	m²	46		
6	Cell Door Frames.	m²	14		
7	Windows (both sides measured).	m²	19		
	ON WOOD SURFACES				
	Stop, sand down, prepare and apply three coats 'Timbercare Rystix' or equal approved stained sealer				
	on: Members of roof trusses, etc.	m²	92		
8		m²	83		
9	Purlins, rails, etc., not exceeding 300 mm girth.	m	101		
	One coat primer for wood and two coats Plascon Velvaglo polyurethane I enamel paint on:				
10	Interior doors.	m²	43		
11	Exterior doors.	m²	21		
12	Exterior doors frames.	m²	12		
13	Interior doors frames.	m²	34		
	One coat primer for wood and two coats Plascon Velvaglo polyurethane I enamel paint on:				
14	19mm hardwood quadrant trim, not exceeding 300mm				
	girth.	m	590		
	Carried to Collection Section No. 3			R	
	Bill No. 17				
	Paintwork				
	154				



		Unit	Quantity	Rate	Amount
	PAINTWORK, ETC TO PREVIOUSLY PAINTED WORK				
	ON INTERNAL FLOATED PLASTER SURFACES				
	One coat alkali resistant primer and two coats premium quality, fully washable and stain resistant water base paint on:				
15		m²	1 546		
	ON EXTERNAL FLOATED PLASTER SURFACES				
	One coat alkali resistant primer and two coats				
	premium quality non drip acrylic emulsion paint on:				
16	Walls	m²	355		
	ON METAL SURFACES				
	One coat universal undercoat and two coats low gloss water based enamel paint on galvanised steel:				
17	Steel gates (both sides measured).	m²	198		
18	Internal & External Fixed Screen (both sides measured).	m²	26		
19	Rails, bars, pipes, etc. not exceeding 300mm girth	m	195		
	ON WOOD SURFACES				
	Stop, sand down, prepare and apply three coats 'Timbercare Rystix' or equal approved stained sealer on:				
20	Members of roof trusses, etc.	m²	5		
21	Purlins, rails, etc., not exceeding 300 mm girth	m	6		
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	Comind to Callanting			-	
	Carried to Collection Section No. 3			R	
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SECTION NO. 4 EXTERNAL WORKS (PROVISIONAL)



SECTION NO. 4 EXTERNAL WORKS (PROVISIONAL) BILL NO. 1 DEMOLITIONS. SITE CLEARANCE AND BULK. EARTHWORKS WORK GROUPS: Unless otherwise stated the work group for this Bill shall be W6104 Trade Preambles: For Trade Preambles: For Trade Preambles refer to 'Specification of Materials and Methods' (PW371A & PW371B) for the full descriptions of material to be used and work to be done in this Bill SUPPLEMENTARY PREAMBLES Where items in this Bill are identical to those in the previous Bills, the descriptions have been shortened, and the full descriptions have been shortened, and the full descriptions have been shortened, and the full descriptions have been shortened, and the full descriptions have been shortened, and the full descriptions have been shortened, and the full descriptions have been shortened, and the full descriptions have been shortened, and the full descriptions have been shortened, and the full descriptions have been shortened, and the full description has been carried out on the site by the engineer and the report is annexed to these Bills of Quantities. Demolition: Descriptions of demolitions give a rough guide only as to the scope of the work. Tenderers are therefore advised to visit the site before submitting a tender and to acquaint themselves with the nature and extent of the work to be done and the value of recoverable materials which are not to be re-used or handed over to the Employer. Unless otherwise stated, loose furniture, kitchen and other equipment, apparatus, machinery, etc. shall remain the property of the Employer and the removal thereof does not fall within the scope of this Contract. The Contractor shall completely demolish the buildings etc. in a careful, skilful, practical and safe manner down to 150mm below ground level. Demolitions shall include breaking up and removing: all floors and surface beds; all external screen walks, steps, ramps, aprons, surface water channels, rainwater sumps, guildeys, etc. attached to the building to be de molished; all services, manholes, etc. in gr		Unit	Quantity	Rate	Amount
point not less than 1m beyond the perimeter of the building including plugging off ends of all remaining pipes, drains, etc., filling in holes where necessary and ramming and levelling to ground level Carried to Collection Section No. 4 Bill No. 1 Demolitions, Site Clearance And Bulk Earthworks	EXTERNAL WORKS (PROVISIONAL) BILL NO. 1 DEMOLITIONS. SITE CLEARANCE AND BULK EARTHWORKS WORK GROUPS: Unless otherwise stated the work group for this Bill shall be WG104 Trade Preambles: For Trade Preambles refer to 'Specification of Materials and Methods' (PW371A & PW371B) for the full descriptions of material to be used and work to be done in this Bill SUPPLEMENTARY PREAMBLES Where items in this Bill are identical to those in the previous Bills, the descriptions have been shortened, and the full descriptions in the Trades concerned are to be referred to for the full meaning and intent of each item Nature of ground: A soils investigation has been carried out on the site by the engineer and the report is annexed to these Bills of Quantities. Demolition: Descriptions of demolitions give a rough guide only as to the scope of the work. Tenderers are therefore advised to visit the site before submitting a tender and to acquaint themselves with the nature and extent of the work to be done and the value of recoverable materials which are not to be re-used or handed over to the Employer. Unless otherwise stated, loose furniture, kitchen and other equipment, apparatus, machinery, etc. shall remain the property of the Employer and the removal thereof does not fall within the scope of this Contract. The Contractor shall completely demolish the buildings etc. in a careful, skilful, practical and safe manner down to 150mm below ground level. Demolitions shall include breaking up and removing: all floors and surface beds; all external screen walls, steps, ramps, aprons, surface water channels, rainwater	Unit	Quantity	Rate	Amount
Section No. 4 Bill No. 1 Demolitions, Site Clearance And Bulk Earthworks	floors and surface beds; all external screen walls, steps, ramps, aprons, surface water channels, rainwater sumps, gulley's, etc. attached to the building to be de molished; all services, manholes, etc. in ground to a point not less than 1m beyond the perimeter of the building including plugging off ends of all remaining pipes, drains, etc., filling in holes where necessary and ramming and levelling to ground level				
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		Unit	Quantity	Rate	Amount
	DEMOLITIONS				
	Demolish and remove:				
1	Existing security fence approximately 2.1m high	m	301		
2	Demolish existing covered parking	No	8		
3	Existing concrete walkways, aprons, etc.	m²	123		
4	Existing asphalt driveways, parking, etc.	m²	427		
5	Existing paving walkways, driveways, parking, etc.	m²	222		
	Relocation of Buildings and Utilities				
6	Carefully remove existing container elsewhere to be identified by the client.	No	1		
	Break up and remove:				
7	Unreinforced concrete steps, etc.	m²	76		
8	125mm Thick unreinforced concrete surface beds, paving, etc.	m²	172		
	Take down and remove:				
9	Existing concrete tables, benches and braai stands.	No	6		
	Carried to Collection Section No. 4			R	
	Bill No. 1				
	Demolitions, Site Clearance And Bulk Earthworks				
	160				



	Unit	Quantity	Rate	Amount
Making good of finishes, etc. APPLICATION PROCEDURE FOR PRODUCT AS A RIGID WATERPROOFING BARRIER				
REQUIREMENTS: Proposed waterproofing system for internal of underground brick septic tank, where there is negative pressure at Joubertina Police Station. SURFACE PREPARATION:				
The surface to be treated must be clean and have an open capillary system to ensure maximum bonding.				
2. Water Requirements: A two-part product consisting of 25kg powder and 2 litres of binder to be used. Potable water requirements depending upon the method of application are as follows:				
Trowel Application: 25kg Powder plus 2 litres binder and add 1 to 1,5 litres of potable water. 1 Kit will yield 4,5m² in a single coat at 3mm thick.				
3. Mixing: Use a mortar mixer (with moving blades) or heavy duty drill and paddle mixer. Pre-wet all tools and mixer before mixing and pour out excess water. Add the recommended quantity of potable water and/or liquid to the mixer as detailed in section 3 above.				
The dry powder must be added slowly while mixing. Never add more water to bring back the consistency after the material has begun to stiffen.				
4. Priming: The surface must be damp, but not pooled.				
5. Application:				
Carried to Collection Section No. 4 Bill No. 1 Demolitions, Site Clearance And Bulk Earthworks			R	
161				



		Unit	Quantity	Rate	Amount
	Product can be either brush or trowel applied. The total application thickness should be a minimum of 3mm with no pinholes or voids. The first coat must be textured whilst still plastic to form a key and must also be damp on the surface prior to application of the second coat. The first coat must not be damaged during the application of the second coat, i.e. must have completely hardened (approximately 4 to 8 hours).				
	Trowel Application (for maximum protection and smooth finish): First a scraper coat is applied for maximum adhesion to the substrate, working from the bottom up. Ensure that all cavities in the substrate are filled in order to exclude any trapped air. The minimum thickness of 3mm should then be applied in one application. Note: In applications where protecting against water pressure (including ground water) it is recommended that the finished thickness of product is a minimum of 3mm. A product thickness of 3mm gives a yield per kit of approximately 4,5m².				
10	line at nearest manhole, approximately 10m away, suck and dislodge existing sewerage and remove all sediments from existing septic tank size 7000 x 4000 x				
11	3000mm high. Seal off incoming line to septic tank and plug incoming line at nearest manhole, approximately 10m away, suck and dislodge existing sewerage and remove all sediments from existing septic tank size 3050 x 2090 x 2685mm high.	No No	2		
	Carried to Collection Section No. 4 Bill No. 1 Demolitions, Site Clearance And Bulk Earthworks 162			R	



		Unit	Quantity	Rate	Amount
12	Clean and prepare all concrete surfaces, allow for engineer to inspect, fill and seal cracks with penetron inject and finish off with Peneseal FH Sealer.	m²	210		
13	Clean and prepare all brickwork surfaces, allow for engineer to inspect, fill and seal cracks with Pro-struct 618LV from Stoncor, then apply two coats of Stonkote 681 water-based epoxy coating	m²	210		
	SITE CLEARANCE, ETC	•••	2.0		
	Site clearance:				
14	Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc.	m²	1 195		
15	Stripping average 150mm thick layer of top soil and stockpiling on site.	m²	1 195		
	REMOVAL OF TREES, ETC				
	Cutting down and removing, grubbing up roots and filling in holes:				
16	Tree exceeding 1000mm and not exceeding 1500mm girth.	No	2		
17	Tree exceeding 2500mm and not exceeding 3000mm girth.	No	1		
18	Tree exceeding 3500mm and not exceeding 4000mm girth.	No	2		
	BULK EXCAVATION				
	Open face excavation in earth over sloping site:				
19	Open face excavation.	m³	133		
	Extra over bulk excavation in earth for excavation in:				
20	Soft rock.	m³	13		
21	Hard rock.	m³	7		
	Risk of collapse of bulk excavations:				
22	Sides of bulk excavations not exceeding 1,5m deep.	m²	58		
23	Sides of bulk excavations exceeding 1,5m deep.	m²	22		
	EXCAVATION OTHER THAN BULK				
	Excavation in earth not exceeding 2m deep:				
24	V-shaped earth drains.	m³	145		
	Carried to Collection Section No. 4			R	
	Bill No. 1				
	Demolitions, Site Clearance And Bulk Earthworks 163				
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		Unit	Quantity	Rate	Amount
	Extra over excavations other than bulk in earth for				
	excavation in:				
25	Soft rock.	m³	15		
26	Hard rock.	m³	7		
	CARTING AWAY				
	Extra over all excavations for loading, carting and dumping surplus excavated material (no allowance made for increase in bulk):				
27	Off site to a dumping site to be found by the Contractor.	m³	181		
	EARTH FILLING, ETC				
	Selected filling with material from the excavations compacted to a density of at least 93% Mod. AASHTO maximum density:				
28	Over site in platforms.	m³	42		
29	Under floors, steps, paving's, channels etc.	m³	36		
30	V-shaped storm water berms.	m³	19		
	Surface Preparation:				
31	Trim and level off surface of ground (excavated or filled under this Contract) to receive concrete surface beds, etc. including excavating or filling, ripping and scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density.	m²	697		
	KEEPING EXCAVATIONS FREE OF WATER				
	Keeping excavations free of water:				
32	Keeping excavations free of all water other than subterranean water.	Item			
	<u>TESTS</u>				
	Prescribed density tests on filling:				
33	Modified AASHTO Density test.	No	20		
	<u>GRASSING</u>				
	Maintenance Period:				
34	Maintenance of grassed and ground covered areas for a period of 3 months (total area approximately 450m2) including regularly weeding and irrigating as necessary.	Item			
	Carried to Collection Section No. 4			R	
	Section No. 4 Bill No. 1				
	Demolitions, Site Clearance And Bulk Earthworks 164				



		Unit	Quantity	Rate	Amount	
	Grassing of roots in rows at 500mm centres both ways:					
35	Buffalo grass over site, berms and embankments etc.	m²	450			
	Ground preparation:					
36	Cultivation and preparation of areas to be planted.	m²	450			
	Topsoil, compost, lime and fertilizer:					
37	Topsoil obtained from prescribed stock piles on site in plant beds, grassed areas and holes for trees, shrubs, etc.	m ³	125			
		m³	135			
38	Topsoil supplied by the Contractor in plant beds, grassed areas and holes for trees, shrubs, etc.	m³	270			
39	Fertilize garden soil with 3:2:1 super phosphate spread at a rate of 1kg/10m2 including working evenly into top 20mm depth of soil.	m²	450			
	Carried to Collection			R		_
	Section No. 4			N.		_
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		Unit	Quantity	Rate	Amount
	SECTION NO. 4				
	EXTERNAL WORKS (PROVISIONAL)				
	BILL NO. 2 PARKING, WALKWAYS AND COURT YARD				
	TRADE PREAMBLES				
	For Trade Preambles refer to 'Specification of Materials and Methods' (PW371A & PW371B) for the full descriptions of material to be used and work to be done in this Bill.				
	SUPPLEMENTARY PREAMBLES				
	Where items in this Bill are identical to those in the previous Bills, the descriptions have been shortened, and the full descriptions in the Trades concerned are to be referred to for the full meaning and intent each item.				
	<u>EARTHWORKS</u>				
	EXCAVATION OTHER THAN BULK (WG:104)				
	Excavation in earth not exceeding 2m deep:				
1	Reduced levels under floors paving's etc.	m³	532		
2	Trenches and holes.	m³	58		
	Extra over excavations other than bulk in earth for excavation in: (WG:104)				
3	Soft rock.	m³	59		
4	Hard rock.	m³	30		
	Risk of collapse of excavations other than bulk:				
5	Sides of trench and hole excavations not exceeding 1,5m deep.	m²	226		
	CARTING AWAY (CPAP Work Group No 104)				
	Extra over all excavations for loading, carting and dumping surplus excavated material (no allowance made for increase in bulk):				
6	Off site to a dumping site to be found by the Contractor.	m³	365		
	EARTH FILLING, ETC (CPAP Work Group No 104)				
	Filling with material from the excavations compacted to a density of at least 90% Mod. AASHTO maximum density:				
7	Rip and recompact 150mm layer of existing material under floors, paving's, etc.	m²	2 373		
	Carried to Collection			R	
	Section No. 4			IX	
	Bill No. 2				
	Parking, Walkways And Court Yard				
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		Unit	Quantity	Rate	Amount
8	Backfilling to trenches, holes, etc.	m³	225		
	Filling with approved G5 material in accordance with SABS 1200 DM supplied and carted on to site by the Contractor, compacted to 95% Mod AASHTO density:				
9	Under floors, paving's, etc.	m³	279		
10	Backfilling to trenches, holes, etc.	m³	28		
	Filling with approved G7 material in accordance with SABS 1200 DM supplied and carted on to site by the Contractor, compacted to 95% Mod AASHTO density:				
11	Under floors, paving's, etc.	m³	79		
	Coarse river sand filling compacted to 95% Mod. AASHTO maximum density:				
12	Under floors, paving's, etc.	m³	129		
	KEEPING EXCAVATIONS FREE OF WATER (WG:104)				
	Keeping excavations free of water:				
13	Keeping excavations free of all water other than subterranean water.	Item			
	<u>TESTS</u>				
	Prescribed density tests on filling:				
14	Modified AASHTO Density test.	No	45		
	SOIL POISONING(WG:104)				
15	Chlordane Heptachloraldrin or other approved brand of soil poison to comply with SABS 0124 applied by a Registered Pest Control company and guaranteed for ten years: Under floors, etc., including forming and poisoning				
	shallow furrows against foundation walls, etc., filling in furrows and ramming.	m²	2 373		
	UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES (WG:110)				
	25MPa/19mm Concrete:				
16	Strip footings.	m³	20		
17	Concreate bases	m³	54		
	Carried to Collection			R	
	Section No. 4 Bill No. 2				
	Parking, Walkways And Court Yard				
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		Unit	Quantity	Rate	Amount
	REINFORCED CONCRETE (WG: 110)				
	30MPa/19mm Concrete:				
18	Apron, covered walkways, etc.	m³	71		
19	Paving's, court yard, etc. cast in panels on waterproofing.	m³	43		
20	Ramps cast in panels on waterproofing.	m³	36		
21	Staircase cast in panels on waterproofing.	m³	5		
	TEST BLOCKS				
	Tests blocks:				
22	Making and testing set of three 150 x 150 x 150mm concrete strength test cubes.	Sets	33		
	FINISHING TOP SURFACE OF CONCRETE (WG:104)				
	Finishing top surfaces of concrete smooth with a wood float:				
23	Paving to falls.	m²	394		
24	Ramps to falls.	m²	80		
	FORMWORK (WG:111)				
	ROUGH FORMWORK (DEGREE OF ACCURACY II)				
	Rough Formwork to sides:				
25	Edges, risers, ends and reveals exceeding 300mm high.	m	156		
	SMOOTH FORMWORK (DEGREE OF ACCURACY II)				
	Smooth Formwork to sides:				
26	Edges, risers, ends and reveals not exceeding 300mm high.	m	750		
	MOVEMENT JOINTS, ETC				
	Saw-cut joints:				
27	3 x 37mm Saw-cut joints in top of concrete with the top reamed 18mm deep x 6mm wide.	m	112		
	Expansion joints with 8mm jointex or softboard, 15mm diameter backing strip and sealent gunned into place, between vertical concrete and brick surfaces:				
28	Not exceeding 300mm high to edges of concrete.	m	350		
	Carried to Collection			R	
	Section No. 4				
	Bill No. 2 Parking, Walkways And Court Yard				
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		Unit	Quantity	Rate	Amount
	REINFORCEMENT (WG:114)				
	Fabric reinforcement:				
29	Type 193 fabric reinforcement in concrete surface beds, slabs, etc.	m²	474		
	PRECAST CONCRETE (WG: 112)				
	Kerbs:				
30	Precast concrete kerb (SABS Figure 4) bedded, jointed and laid complete including Class B concrete haunching.	m	638		
31	Precast concrete kerb (SABS Figure 4) circular on plan not exceeding 4m radius formed with 330mm lengths of straight kerb bedded, jointed and laid complete including				
	Class B concrete haunching.	m	205		
32	Precast concrete transition kerb (SABS Figure 4) bedded, jointed and laid complete including Class B concrete haunching.	m	47		
33	Precast concrete tinlet kerb (SABS Figure 4) bedded, jointed and laid complete including Class B concrete haunching.	m	38		
	BOND AND INTERLOCKING CONCRETE BLOCK PAVERS				
	Paving of 60mm thicknatural grey interlocking concrete paving units Class 35 (Type S-A) including dry filler river sand swept and vibrated into joints, including treatment with with weed killer, all laid on subgrade (elsewhere measured) conforming to SABS 1200D degree of accuracy:				
34	Paving in herringbone bond to, side walks, pathways, roads and parking to falls	m²	2 350		
	Galvanised Mild Steel balustrading:				
35	1050mm high balustrades consisting of 40 x 40mm Hot dipped galvanized holosec frame, with 40cvx 10mm flat bar stiffners,etc all according to balustrade detail drawing no. 1807-S-GEN-T-005 attached to these bill of				
	quantities.	m	35		
	DAMPPROOFING OF WALLS AND FLOORS				
	One layer of 250 micron Consol Plastics Gunplas Black waterproof sheeting sealed at laps with Gunplas Pressure Sensitive Tape:				
36	Under surface beds.	m²	474		
	Carried to Collection			R	
	Section No. 4			1	
	Bill No. 2				
	Parking, Walkways And Court Yard				
	170				



		Unit	Quantity	Rate	Amount
	SEALING STRIPS, JOINT SEALANTS, ETC				
	Sikaflex Pro 2 HP' or equal approved polysulphide				
	sealing compound including backing cord, bond breaker, primer, etc.:				
37	6 x 6mm In saw cut joints in floors.	m	350		
	ROOF COVERING				
	0,58mm Brownbuilt Z275 Prepainted factory coated finished galvanised Cliplok concealed sheeting in continuous lengths roof sheeting fixed to timber purlins in strict accordance with manufacturers				
	specifications:				
38	Roof covering with pitch not exceeding 25 degrees.	m²	204		
	GALVANISED STRUCTURAL STEEL				
	Welded columns in single lengths with flat base, cap, bearer and connection plates, bolted to concrete:				
39	160 x 82 x 12,315kg/m I-section columns not exceeding 13m	Tonnes	0.46		
40		TOTTIES	0.40		
40	76 x 2.5 x 4.53kg/m Circullar hollow section columns not exceeding 13m $$	Tonnes	0.18		
	Welded beams in single lengths with flat base, cap, bearer and connection plates, bolted to steel columns:				
41	160 x 82 x 12,315kg/m I-section beams not exceeding 13m	Tonnes	1.00		
	Purlins and bracers bolted to steel:				
42	150 x 150 x 20 x 2.5mm Thick cold-formed lipped channel purlins.	Tonnes	1.17		
43	63 x 2.5 x 3.73kg/m Circullar hollow section bracer.	Tonnes	0.25		
44	60 x 60 x 4mm Thick Grade 350W angle bracer.	Tonnes	1.00		
	PAINTWORK				
	ON SMOOTH CONCRETE				
	Prepare surfaces and remove all loose material, uncured cement and builder's plaster with hydrochloric acid, fill holes and cracks with 'Polycell Mendall 90' flexible crackfiller, and apply two coats premium quality driveway and floor enamel' paint:				
45	On exterior demarcation lines 100mm wide.	m	150		
				_	
	Carried to Collection Section No. 4			R	
	Bill No. 2				
	Parking, Walkways And Court Yard				
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			Unit	Quantity	Rate	Amount	
46	"STOP" sign.		No	2			
	"PARAPLEGIC PICTOGRAM" sign.		No	3			
	Ç						
		Carried to Collection			R		
	Section No. 4 Bill No. 2						
	Parking, Walkways And Court Yard	470					
		172					



BILL NO. 2 PARKING, WALKWAYS AND COURT YARD COLLECTION Brought Forward from Page Carried To Section Summary	Page No 167 168 169 170 171 172	
Carried To Section Summary Section No. 4	R	
Bill No. 2 Parking, Walkways And Court Yard		
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SECTION NO. 4 EXTERNAL WORKS (PROVISIONAL) BILL NO. 3 SEWER RETICULATION WORK GROUPS: Unless otherwise stated the work group for this Bill shall be WG145 Trade Preambles: For Trade Preambles refer to 'Specification of Materials and Methods' (PW371A & PW371B) for the full descriptions of material to be used and work to be done in this Bill SUPPLEMENTARY PREAMBLES Where items in this Bill are identical to those in the previous Bills, the descriptions have been shortened, and the full descriptions in the Trades concerned are to be referred to for the full meaning and intent of each item UPVC pipes and fittings. Sewer and drainage pipes and fittings shall be jointed and sealed with butyl rubber rings. Soil, waste and vent pipes and fittings shall be solvent weld jointed, Witrifled clay pipes etc.: Pipes shall rest on soild ground and, where necessary, pockets of sufficient size shall be cut around joints to enable the jointing to be properly performed or, alternatively, pipes shall be bedded full length on and including unreinforced concrete laid in a semi-dry state immediately before pipes are laid. Excavations: No claim for rock excavation will be entertained unless the Contractor has timeously notified the quantity surveyor thereof prior to backfilling. Soft rock' and 'bard rock' shall be as defined in 'Earthworks'. Laving, backfilling, bedding, etc. of pipes Pipes shall be laid and bedded and trenches shall be carefully backfilled in accordance with manufacturers' instructions. Carried to Collection Section No. 4 Bill No. 3 Sewer Reticulation		Unit	Quantity	Rate	Amount
EXTERNAL WORKS (PROVISIONAL) BILL NO.3 SEWER RETICULATION WORK GROUPS: Unless otherwise stated the work group for this Bill shall be WG148 Trade Preambles: For Trade Preambles refer to 'Specification of Materials and Methods' (PW371A & PW371B) for the full descriptions of material to be used and work to be done in this Bill SUPPLEMENTARY PREAMBLES Where items in this Bill are identical to those in the previous Bills, the descriptions have been shortened, and the full descriptions in the Trades concerned are to be referred to for the full meaning and intent of each item UPVC pipes and fittings. Sewer and drainage pipes and fittings shall be jointed and sealed with butyl rubber rings. Soil, waste and vent pipes and fittings shall be solvent weld jointed. Vitrified clay pipes etc.: Vitrified clay pipes etc.: Vitrified clay pipes atc.: Vitrified clay pipes atc.: In pipes shall rest on solid ground and, where necessary, pockets of sufficient size shall be cut around joints to enable the jointing to be property performed or, alternatively, pipes shall be bedded full length on and including unreinforced concrete laid in a semi-dry state immediately before pipes are laid. Excavations: No claim for rock excavation will be entertained unless the Contractor has timeously notified the quantity surveyor thereof prior to backfilling. Soft rock and 'hard rock' shall be as defined in Earthworks'. Laying, backfilling, bedding, etc. of pipes Pipes shall be laid and bedded and trenches shall be carefully backfilled in accordance with manufacturers' instructions.					
WORK GROUPS: Unless otherwise stated the work group for this Bill shall be WG146 Trade Preambles: For Trade Preambles refer to 'Specification of Materials and Methods' (PW3714 & PW371B) for the full descriptions of material to be used and work to be done in this Bill in this Bill are identical to those in the previous Bills, the descriptions have been shortened, and the full descriptions in the Trades concerned are to be referred to for the full meaning and intent of each item uPVC pipes and fittings. Sewer and drainage pipes and fittings shall be jointed and sealed with butyl rubber rings. Soil, waste and vent pipes and fittings shall be solvent weld jointed. Vitrified clay pipes etc.: Pipes shall rest on solid ground and, where necessary, pockets of sufficient size shall be cut around joints to enable the jointing to be properly performed or, alternatively, pipes shall be bedded full length on and including unreinforced concrete laid in a semi-dry state immediately before pipes are laid. Excavations: No claim for rock excavation will be entertained unless the Contractor has timeously notified the quantity surveyor thereof prior to backfilling. Soft rock' and 'hard rock' shall be as defined in 'Earthworks'. Laying, backfilling, bedding, etc. of pipes Pipes shall be laid and bedded and trenches shall be carefully backfilled in accordance with manufacturers' instructions.	EXTERNAL WORKS (PROVISIONAL) BILL NO. 3				
Trade Preambles: For Trade Preambles refer to 'Specification of Materials and Methods' (PW371A & PW371B) for the full descriptions of material to be used and work to be done in this Bill SUPPLEMENTARY PREAMBLES Where items in this Bill are identical to those in the previous Bills, the descriptions have been shortened, and the full descriptions in the Trades concerned are to be referred to for the full meaning and intent of each item uPVC pipes and fittings. Sewer and drainage pipes and fittings shall be jointed and sealed with butly rubber rings. Soil, waste and vent pipes and fittings shall be solvent weld jointed. Vitrified clay pipes etc.: Pipes shall rest on solid ground and, where necessary, pockets of sufficient size shall be cut around joints to enable the jointing to be properly performed or, alternatively, pipes shall be bedded full length on and including unreinforced concrete laid in a semi-dry state immediately before pipes are laid. Excavations: No claim for rock excavation will be entertained unless the Contractor has timeously notified the quantity surveyor thereof prior to backfilling. Soft rock' and 'hard rock' shall be as defined in 'Earthworks'. Laving, backfilling, bedding, etc. of pipes Pipes shall be laid and bedded and trenches shall be carefully backfilled in accordance with manufacturers' instructions.					
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Sewer and drainage pipes and fittings shall be jointed and sealed with butyl rubber rings. Soil, waste and vent pipes and fittings shall be solvent weld jointed. Vitrified clay pipes etc.: Pipes shall rest on solid ground and, where necessary, pockets of sufficient size shall be cut around joints to enable the jointing to be properly performed or, alternatively, pipes shall be bedded full length on and including unreinforced concrete laid in a semi-dry state immediately before pipes are laid. Excavations: No claim for rock excavation will be entertained unless the Contractor has timeously notified the quantity surveyor thereof prior to backfilling. Soft rock' and 'hard rock' shall be as defined in 'Earthworks'. Laying, backfilling, bedding, etc. of pipes Pipes shall be laid and bedded and trenches shall be carefully backfilled in accordance with manufacturers' instructions. Carried to Collection R Carried to Collection R Bill No. 3	previous Bills, the descriptions have been shortened, and the full descriptions in the Trades concerned are to				
and sealed with butyl rubber rings. Soil, waste and vent pipes and fittings shall be solvent weld jointed. Vitrified clay pipes etc.: Pipes shall rest on solid ground and, where necessary, pockets of sufficient size shall be cut around joints to enable the jointing to be properly performed or, alternatively, pipes shall be bedded full length on and including unreinforced concrete laid in a semi-dry state immediately before pipes are laid. Excavations: No claim for rock excavation will be entertained unless the Contractor has timeously notified the quantity surveyor thereof prior to backfilling. Soft rock' and 'hard rock' shall be as defined in 'Earthworks'. Laying, backfilling, bedding, etc. of pipes Pipes shall be laid and bedded and trenches shall be carefully backfilled in accordance with manufacturers' instructions. Carried to Collection R Carried to Collection R Bill No. 3	uPVC pipes and fittings.				
Witrified clay pipes etc.: Pipes shall rest on solid ground and, where necessary, pockets of sufficient size shall be cut around joints to enable the jointing to be properly performed or, alternatively, pipes shall be bedded full length on and including unreinforced concrete laid in a semi-dry state immediately before pipes are laid. Excavations: No claim for rock excavation will be entertained unless the Contractor has timeously notified the quantity surveyor thereof prior to backfilling. Soft rock' and 'hard rock' shall be as defined in 'Earthworks'. Laying, backfilling, bedding, etc. of pipes Pipes shall be laid and bedded and trenches shall be carefully backfilled in accordance with manufacturers' instructions. Carried to Collection R Section No. 4 Bill No. 3					
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Excavations: No claim for rock excavation will be entertained unless the Contractor has timeously notified the quantity surveyor thereof prior to backfilling. Soft rock' and 'hard rock' shall be as defined in 'Earthworks'. Laying, backfilling, bedding, etc. of pipes Pipes shall be laid and bedded and trenches shall be carefully backfilled in accordance with manufacturers' instructions. Carried to Collection R Section No. 4 Bill No. 3	pockets of sufficient size shall be cut around joints to enable the jointing to be properly performed or, alternatively, pipes shall be bedded full length on and including unreinforced concrete laid in a semi-dry state				
the Contractor has timeously notified the quantity surveyor thereof prior to backfilling. Soft rock' and 'hard rock' shall be as defined in 'Earthworks'. Laying, backfilling, bedding, etc. of pipes Pipes shall be laid and bedded and trenches shall be carefully backfilled in accordance with manufacturers' instructions. Carried to Collection R Section No. 4 Bill No. 3					
Earthworks'. Laying, backfilling, bedding, etc. of pipes Pipes shall be laid and bedded and trenches shall be carefully backfilled in accordance with manufacturers' instructions. Carried to Collection Section No. 4 Bill No. 3	the Contractor has timeously notified the quantity				
Pipes shall be laid and bedded and trenches shall be carefully backfilled in accordance with manufacturers' instructions. Carried to Collection Section No. 4 Bill No. 3					
Carried to Collection Section No. 4 Bill No. 3	Laying, backfilling, bedding, etc. of pipes				
Section No. 4 Bill No. 3	carefully backfilled in accordance with manufacturers'				
Section No. 4 Bill No. 3					
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		Unit	Quantity	Rate	Amount
	Extra over all excavations for loading, carting and dumping surplus excavated material (no allowance made for increase in bulk):				
	Where no manufacturers' instructions exist pipes shall be laid in accordance with clauses 5.1 and 5.2 of each of the following: SABS 1200 L: Medium pressure pipelines LD: Sewers LE: Storm water drainage Pipe trenches etc. shall be backfilled in accordance with clause 3, 5.5, 5.6, 5.7 and 7 of SABS 1200 DB: Earthworks (Pipe trenches) Clause 5.7.2 will only be applicable if authorised by the Engineer in writing.				
	Pipes shall be bedded in accordance with clauses 3.1 to 3.4.1, 5.1 to 5.3 and 7 of SABS 1200LB: Bedding (Pipes). Unless otherwise described bedding of rigid pipes shall be class B bedding.				
	Descriptions of pipes laid in trenches:				
	Descriptions of pipes laid in trenches shall be deemed to include for carting away all surplus excavated material to a dumping site located by the contractor.				
	Descriptions of catch pits, junction boxes, manholes, etc.:				
	Descriptions of catch pits, junction boxes, manholes, etc., shall be deemed to include for compaction, disposal of surplus excavated material to a dumping site located by the contractor, risk of collapse and keeping excavations free from water.				
	SOIL DRAINAGE				
	uPVC Class 34 pipes:				
1	160mm Pipes vertically or ramped to cleaning eyes etc. (no excavation).	m	5		
2	110mm Pipes vertically or ramped to cleaning eyes etc. (no excavation).	m	6		
3	160mm Pipes laid in and including trenches not exceeding 1m deep.	m	195		
4	110mm Pipes laid in and including trenches not exceeding 1m deep.	m	18		
	Extra over uPVC Class 34 pipes for fittings:				
5	160mm Bend.	No	5		
6	110mm Bend.	No	2		
7	160mm Junction.	No	3		
8	110mm Junction.	No	4		
	Carried to Collection			R	
	Section No. 4				
	Bill No. 3				
	Sewer Reticulation 175				
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		Unit	Quantity	Rate	Amount
9	160mm Reducing junction.	No	1		
10	110mm Reducing junction.	No	3		
11	160mm Access bend.	No	2		
12	110mm Access bend.	No	3		
13	160mm Access junction.	No	1		
	Manholes:				
14	1000mm Diameter precast concrete manhole, formed of 250 -500mm high precast concrete units to suit the manhole depth, exceeding 1000mm and not exceeding 1500mm deep inside, complete including precast concrete base unit, benching, precast concrete reducing roof slab, precast reinforced concrete spacers and 620mm pre-cast concrete medium duty manhole cover with frame	No	6		
15	1000mm Diameter precast concrete manhole, formed of 250 -500mm high precast concrete units to suit the manhole depth, exceeding 1500mm and not exceeding 2000mm deep inside, complete including precast concrete base unit, benching, precast concrete reducing roof slab, precast reinforced concrete spacers and 620mm pre-cast concrete medium duty manhole cover with frame	No	7		
16	Lifting key for manhole cover.	No	1		
	SUNDRIES				
	Sundries:				
17	Extra over excavation in earth for pipe trenches, chambers, etc. for excavation in soft rock.	m³	19		
18	Extra over excavation in earth for pipe trenches, chambers, etc. for excavation in hard rock.	m³	19		
19	Extra over backfilling to pipe trenches, chambers, etc. with G7 material in accordance to SABS 1200 DM for compaction to 95% Mod AASHTO density.	m³	37		
20	Concrete encasing to 110mm vertical bend.	No	6		
21	300 x 300 x 100mm Precast concrete inspection eye marker slab set in ground.	No	7		
	Carried to Collection			R	
	Section No. 4 Bill No. 3				
	Sewer Reticulation				
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		Unit	Quantity	Rate	Amount	
22	100mm Cast iron 'ABC' 45 degree cleaning eye, including 400 x 400 x 200mm thick 20Mpa (19mm stone) concrete encasing, including all necessary excavation, backfill, formwork and finishing concrete smooth with a steel float, etc.	No	6			
	TESTING					
23	<u>Testing:</u> Testing drainage pipe system.	Item				
	Connection Fees:					
24		ltem				
	Carried to Collection Section No. 4			R		
	Bill No. 3					
	Sewer Reticulation 177					
- 1	!				1	



BILL NO. 3 SEWER RETICULATION COLLECTION Brought Forward from P.	Page No age 174 175 176 177	
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Section No. 4 Bill No. 3 Sewer Reticulation 178		



	Unit	Quantity	Rate	Amount
SECTION NO. 4				
EXTERNAL WORKS (PROVISIONAL)				
BILL NO. 4				
WATER RETICULATION				
WORK GROUPS: Unless otherwise stated the work group for this Bill shall be WG148				
Trade Preambles:				
For Trade Preambles refer to 'Specification of Materials and Methods' (PW371A & PW371B) for the full descriptions of material to be used and work to be done in this Bill				
SUPPLEMENTARY PREAMBLES				
Where items in this Bill are identical to those in the previous Bills, the descriptions have been shortened, and the full descriptions in the Trades concerned are to be referred to for the full meaning and intent of each item				
uPVC pressure pipes and fittings:				
Pipes for water supply shall be of the class stated.				
Pipes of 40mm diameter and smaller shall be plain ended with solvent welded uPVC loose sockets and fittings.				
Pipes of 50mm diameter and greater shall have sockets and spigots with push-in type integral rubber ring joints. Bends shall be uPVC and all other fittings shall be cast iron, all with similar push-in type joints.				
Pipes shall be hard drawn and half-hard pipes of the class stated. Class 0 (thin walled hard drawn) pipes shall not be bent. Class 1 (thin walled half-hard), class 2 (half-hard) and class 3 (heavy walled half-hard) pipes shall only be bent with benders with inner and outer formers. Fittings to copper waste, vent and anti-syphon pipes, capillary solder fittings and compression fittings shall be 'Cobra Watertech' type. Capillary solder fittings shall comply with ISO 2016. Only compression fittings shall be used in walls or in ground.				
<u>Descriptions of catch pits, junction boxes,</u> manholes, etc.:				
Descriptions of catch pits, junction boxes, manholes, etc., shall be deemed to include for compaction, disposal of surplus excavated material to a dumping site located by the contractor, risk of collapse and keeping excavations free from water.				
Carried to Collection Section No. 4 Bill No. 4			R	
Water Reticulation				
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	Unit	Quantity	Rate	Amount
Thrust Blocks:				
Thrust blocks for pressure pipes to be formed of Class B concrete shaped for fittings with notching's of suitable size to take fittings and with sinking's and flanges of short collar detachable joints of suitable size to allow for removing of coupling when necessary including necessary formwork, excavation, etc.				
Laying, backfilling, bedding, etc. of pipes				
Pipes shall be laid and bedded and trenches shall be carefully backfilled in accordance with manufacturers' instructions.				
Pipes shall be bedded in accordance with clauses 3.1 to 3.4.1, 5.1 to 5.3 and 7 of SABS 1200LB: Bedding (Pipes). Unless otherwise described bedding of rigid pipes shall be class B bedding.				
Where no manufacturers' instructions exist pipes shall be laid in accordance with clauses 5.1 and 5.2 of each of the following: SABS 1200 L: Medium pressure pipelines LD: Sewers LE: Storm water drainage Pipe trenches etc. shall be backfilled in accordance with clause 3, 5.5, 5.6, 5.7 and 7 of SAB.				
Descriptions of pipes laid in trenches:				
Descriptions of pipes laid in trenches shall be deemed to include for carting away all surplus excavated material to a dumping site located by the contractor.				
Soft rock' and 'hard rock' shall be as defined in 'Earthworks'.				
No claim for rock excavation will be entertained unless the Contractor has timeously notified the quantity surveyor thereof prior to backfilling.				
Reducing fittings:				
Where fittings have reducing ends or branches they are described as 'reducing'. In the case of pipes with diameters not exceeding 60mm only the largest end or branch size is given. Should the Contractor wish to use other fittings and bushes or reducers he may do so on the understanding that no claim in this regard will be entertained. In the case of pipes with diameters exceeding 60mm all sizes are given and no claim for extra bushes, reducers, etc. will be entertained.				
WATER SUPPLIES IN GROUND				
PN 12.5 PE 100 HDPE pipes:				
1 40mm Pipes laid in and including trenches.	m	115		
Carried to Collection			R	
Section No. 4 Bill No. 4			K	
Water Reticulation				
180				



Class 12 uPVC: 110mm diameter Pipes laid in and including trenches. Clas 16 uPVC: 160mm diameter Pipes laid in and including trenches. Extra over Class 6 pipes for 'Jaswic' polypropylene compression fittings: 4 40mm gms flange No 4 40mm flange to hdpe adaptor No 5 40mm Hdpe compression bend Extra over class 12 uPVC pipe fittings including bolts gaskets etc.: 110mm Straight coupler. No 110mm Reducing bush. No 110mm Reducing bush. No 110mm Female adapter. No 120 110mm Male adapter. No 121 110mm Male adapter. No 120 110mm Long screw connector. Extra over class 16 uPVC pipe fittings includin bolts. gaskets, etc: 14 160mm Reducing bush No 15 160mm Saddle tee. No 16 160mm Equal tee. No 17 160mm Bend No 2 160mm Inange to UPVC adapter No 2 160mm Long screw connector No 1 1 10mm Long screw connector No 1 1 10mm Reducing bush No 1 1 10mm Saddle tee. No 1 1 10mm Reducing bush No 2 1 10mm Reducing bush No 3 1 10mm Saddle tee. No 1 1 10mm Reducing bush No 1 1 10mm Reducing bush No 1 1 10mm Reducing bush No 1 1 10mm Reducing bush No 1 1 10mm Reducing bush No 2 1 10mm Reducing bush No 3 1 10mm Reducing bush No 4 1 10mm Reducing bush No 5 1 10mm Reducing bush No 6 2 1 10mm Reducing bush No 7 1 10mm Reducing bush No 8 1 10mm Reducing bush No 9 2 1 10mm Reducing bush No 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			Unit	Quantity	Rate	Amount
2						
2						
Clas 16 uPVC: 160mm diameter Pipes laid in and including trenches. m 125 Extra over Class 6 pipes for 'Jaswic' polypropylene compression fittings: No 4 4 40mm gms flange No 4 5 40mm Flange to hdpe adaptor No 3 6 40mm Hdpe compression bend No 2 Extra over class 12 uPVC pipe fittings including bolts gaskets etc.: No 2 7 110mm Straight coupler. No 1 8 110mm Reducing bush. No 1 9 110mm Tee. No 1 10 110mm Elbow. No 4 11 110mm Female adapter. No 2 12 110mm Male adapter. No 2 13 110mm Long screw connector. No 1 Extra over class 16 uPVC pipe fittings includin bolts, gaskets, etc; No 1 14 160mm Reducing bush No 3 15 160mm Saddle tee. No 1 16 160mm Equal tee. No 2 17 160mm Bend No 2 160mm Long screw connector No						
160mm diameter Pipes laid in and including trenches. Extra over Class 6 pipes for 'Jaswic' polypropylene compression fittings: 40mm gms flange	2	,	m	65		
Extra over Class 6 pipes for 'Jaswic' polypropylene compression fittings: No 4 4 40mm gms flange No 4 5 40mm Flange to hdpe adaptor No 3 6 40mm Hdpe compression bend No 2 Extra over class 12 uPVC pipe fittings including bolts gaskets etc.: No 2 7 110mm Straight coupler. No 1 8 110mm Reducing bush. No 1 9 110mm Tee. No 1 10 110mm Elbow. No 4 11 110mm Female adapter. No 2 12 110mm Male adapter. No 2 13 110mm Long screw connector. No 1 Extra over class 16 uPVC pipe fittings includin bolts, gaskets, etc: 1 14 160mm Reducing bush No 3 15 160mm Saddle tee. No 1 16 160mm Equal tee. No 2 17 160mm Bend No 2 18 160mm Flange to UPVC adapter No 2 19 160mm Long screw connector No 1 Thrust blocks:		·				
Compression fittings:	3	,	m	125		
4 40mm gms flange No 4 5 40mm Flange to hdpe adaptor No 3 6 40mm Hdpe compression bend No 2 Extra over class 12 uPVC pipe fittings including bolts gaskets etc.: 7 110mm Straight coupler. No 2 8 110mm Reducing bush. No 1 9 110mm Tee. No 1 10 110mm Elbow. No 4 11 110mm Female adapter. No 2 12 110mm Male adapter. No 2 13 110mm Long screw connector. No 1 Extra over class 16 uPVC pipe fittings includin bolts, gaskets, etc: No 1 14 160mm Reducing bush No 3 15 160mm Reducing bush No 2 16 160mm Equal tee. No 2 16 160mm Equal tee. No 2 16 160mm Flange to UPVC adapter No 2 19 160mm Long screw connector No 1 Thrust blocks: 1						
6 40mm Hdpe compression bend No 2 Extra over class 12 uPVC pipe fittings including bolts gaskets etc.: 7 110mm Straight coupler. No 2 8 110mm Reducing bush. No 1 9 110mm Tee. No 1 10 110mm Elbow. No 4 11 110mm Female adapter. No 2 12 110mm Male adapter. No 2 13 110mm Long screw connector. No 1 Extra over class 16 uPVC pipe fittings includin bolts, gaskets, etc: 14 160mm Reducing bush No 3 15 160mm Saddle tee. No 1 16 160mm Equal tee. No 2 17 160mm Bend No 2 18 160mm Flange to UPVC adapter No 2 19 160mm Long screw connector No 1 Thrust blocks: 1 1 21 Thrust blocks at end caps as per deatil drawing Drawing No. 1807-C-WAT-T-013 attached to these bill of	4		No	4		
Extra over class 12 uPVC pipe fittings including bolts gaskets etc.: No 2 7 110mm Straight coupler. No 1 8 110mm Reducing bush. No 1 9 110mm Tee. No 1 10 110mm Elbow. No 4 11 110mm Female adapter. No 2 12 110mm Male adapter. No 2 13 110mm Long screw connector. No 1 Extra over class 16 uPVC pipe fittings includin bolts, gaskets, etc: No 1 14 160mm Reducing bush No 3 15 160mm Saddle tee. No 1 16 160mm Equal tee. No 2 17 160mm Bend No 2 18 160mm Flange to UPVC adapter No 2 19 160mm gms Flange No 2 20 160mm Long screw connector No 1 Thrust blocks: 1 1 21 Thrust blocks at end caps as per deatil drawing Drawing No. 1807-C-WAT-T-013 attached to these bill of 1	5	40mm Flange to hdpe adaptor	No	3		
bolts gaskets etc.: No 2 7 110mm Straight coupler. No 2 8 110mm Reducing bush. No 1 9 110mm Tee. No 1 10 110mm Elbow. No 4 11 110mm Female adapter. No 2 12 110mm Male adapter. No 2 13 110mm Long screw connector. No 1 Extra over class 16 uPVC pipe fittings includin bolts, gaskets, etc: No 1 14 160mm Reducing bush No 3 15 160mm Saddle tee. No 1 16 160mm Equal tee. No 2 17 160mm Bend No 2 18 160mm Flange to UPVC adapter No 2 19 160mm gms Flange No 2 20 160mm Long screw connector No 1 Thrust blocks: 1 1 21 Thrust blocks at end caps as per deatil drawing Drawing No. 1807-C-WAT-T-013 attached to these bill of 1	6	40mm Hdpe compression bend	No	2		
7 110mm Straight coupler. No 2 8 110mm Reducing bush. No 1 9 110mm Tee. No 1 10 110mm Elbow. No 4 11 110mm Female adapter. No 2 12 110mm Male adapter. No 2 13 110mm Long screw connector. No 1 Extra over class 16 uPVC pipe fittings includin bolts, gaskets, etc: No 1 14 160mm Reducing bush No 3 15 160mm Saddle tee. No 1 16 160mm Equal tee. No 2 17 160mm Bend No 2 18 160mm Flange to UPVC adapter No 2 19 160mm Long screw connector No 1 Thrust blocks: 1 1 21 Thrust blocks at end caps as per deatil drawing Drawing No. 1807-C-WAT-T-013 attached to these bill of No 1						
9 110mm Tee.	7		No	2		
9 110mm Tee.	8	110mm Reducing bush.	No	1		
10 110mm Elbow. No 4 11 110mm Female adapter. No 2 12 110mm Male adapter. No 2 13 110mm Long screw connector. No 1 Extra over class 16 uPVC pipe fittings includin bolts, gaskets, etc: 14 160mm Reducing bush No 3 15 160mm Saddle tee. No 1 16 160mm Equal tee. No 2 17 160mm Bend No 2 18 160mm Flange to UPVC adapter No 2 19 160mm gms Flange No 2 20 160mm Long screw connector No 1 Thrust blocks: 21 Thrust blocks at end caps as per deatil drawing Drawing No. 1807-C-WAT-T-013 attached to these bill of		-		1		
11 110mm Female adapter. No 2 12 110mm Male adapter. No 2 13 110mm Long screw connector. No 1 Extra over class 16 uPVC pipe fittings includin bolts, gaskets, etc: 14 160mm Reducing bush No 3 15 160mm Saddle tee. No 1 16 160mm Equal tee. No 2 17 160mm Bend No 2 18 160mm Flange to UPVC adapter No 2 19 160mm gms Flange No 2 20 160mm Long screw connector No 1 Thrust blocks: 21 Thrust blocks at end caps as per deatil drawing Drawing No. 1807-C-WAT-T-013 attached to these bill of				4		
12 110mm Male adapter. No 2 13 110mm Long screw connector. No 1 Extra over class 16 uPVC pipe fittings includin bolts, gaskets, etc: 1 160mm Reducing bush No 3 15 160mm Saddle tee. No 1 16 160mm Equal tee. No 2 17 160mm Bend No 2 18 160mm Flange to UPVC adapter No 2 19 160mm gms Flange No 2 20 160mm Long screw connector No 1 Thrust blocks: Thrust blocks at end caps as per deatil drawing Drawing No. 1807-C-WAT-T-013 attached to these bill of No 1						
13 110mm Long screw connector. Extra over class 16 uPVC pipe fittings includin bolts, gaskets, etc: 14 160mm Reducing bush 15 160mm Saddle tee. 16 160mm Equal tee. 17 160mm Bend 18 160mm Flange to UPVC adapter 19 160mm gms Flange 20 160mm Long screw connector 21 Thrust blocks: 21 Thrust blocks at end caps as per deatil drawing Drawing No. 1807-C-WAT-T-013 attached to these bill of		·				
Extra over class 16 uPVC pipe fittings includin bolts, gaskets, etc: 14 160mm Reducing bush No 3 15 160mm Saddle tee. No 1 16 160mm Equal tee. No 2 17 160mm Bend No 2 18 160mm Flange to UPVC adapter No 2 19 160mm gms Flange No 2 20 160mm Long screw connector Thrust blocks: 21 Thrust blocks at end caps as per deatil drawing Drawing No. 1807-C-WAT-T-013 attached to these bill of		·				
gaskets, etc: 14 160mm Reducing bush No 3 15 160mm Saddle tee. No 1 16 160mm Equal tee. No 2 17 160mm Bend No 2 18 160mm Flange to UPVC adapter No 2 19 160mm gms Flange No 2 20 160mm Long screw connector No 1 Thrust blocks: Thrust blocks at end caps as per deatil drawing Drawing No. 1807-C-WAT-T-013 attached to these bill of No 1	13		INO	1		
15 160mm Saddle tee. No 1 16 160mm Equal tee. No 2 17 160mm Bend No 2 18 160mm Flange to UPVC adapter No 2 19 160mm gms Flange No 2 20 160mm Long screw connector Thrust blocks: 21 Thrust blocks at end caps as per deatil drawing Drawing No. 1807-C-WAT-T-013 attached to these bill of						
16 160mm Equal tee. No 2 17 160mm Bend No 2 18 160mm Flange to UPVC adapter No 2 19 160mm gms Flange No 2 20 160mm Long screw connector Thrust blocks: 21 Thrust blocks at end caps as per deatil drawing Drawing No. 1807-C-WAT-T-013 attached to these bill of	14	160mm Reducing bush	No	3		
17 160mm Bend No 2 18 160mm Flange to UPVC adapter No 2 19 160mm gms Flange No 2 20 160mm Long screw connector No 1 Thrust blocks: 21 Thrust blocks at end caps as per deatil drawing Drawing No. 1807-C-WAT-T-013 attached to these bill of	15	160mm Saddle tee.	No	1		
18 160mm Flange to UPVC adapter 19 160mm gms Flange No 2 20 160mm Long screw connector Thrust blocks: Thrust blocks at end caps as per deatil drawing Drawing No. 1807-C-WAT-T-013 attached to these bill of	16	160mm Equal tee.	No	2		
19 160mm gms Flange No 2 20 160mm Long screw connector No 1 Thrust blocks: Thrust blocks at end caps as per deatil drawing Drawing No. 1807-C-WAT-T-013 attached to these bill of	17	160mm Bend	No	2		
20 160mm Long screw connector No 1 Thrust blocks: Thrust blocks at end caps as per deatil drawing Drawing No. 1807-C-WAT-T-013 attached to these bill of	18	160mm Flange to UPVC adapter	No	2		
Thrust blocks: Thrust blocks at end caps as per deatil drawing Drawing No. 1807-C-WAT-T-013 attached to these bill of	19	160mm gms Flange	No	2		
Thrust blocks at end caps as per deatil drawing Drawing No. 1807-C-WAT-T-013 attached to these bill of	20	160mm Long screw connector	No	1		
No. 1807-C-WAT-T-013 attached to these bill of		Thrust blocks:				
	21	No. 1807-C-WAT-T-013 attached to these bill of	No	3		
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Bill No. 4 Water Reticulation						
water Reticulation 181						



		Unit	Quantity	Rate	Amount
22	Thrust blocks at Tee junctions as per deatil drawing Drawing No. 1807-C-WAT-T-013 attached to these bill of quantities	No	4		
23	Thrust blocks at Reducers as per deatil drawing Drawing No. 1807-C-WAT-T-013 attached to these bill of quantities	No	1		
	Sundry fittings:				
24	50mm Isolating Gate valve.	No	9		
25	110mm Gate valve.	No	15		
	Sundries:				
26	Extra over excavation in earth for pipe trenches, chambers, etc. for excavation in soft rock.	m³	18		
27	Extra over excavation in earth for pipe trenches, chambers, etc. for excavation in hard rock.	m³	14		
28	Extra over backfilling to pipe trenches, chambers, etc. with G5 material in accordance to SABS 1200 DM for compaction to 95% Mod AASHTO density.	m³	125		
29	Unreinforced concrete in thrust blocks in trenches at bends, tees, etc. including extra excavation, formwork, etc.	m³	1		
30	660 x 660mm Cast iron stopcock box including brick chamber below 1000mm deep internally.	No	14		
	Water Meter Chamber				
31	25Mpa/19mm concrete base slab.	m³	1		
32	25Mpa/19mm concrete cover slab.	m³	1		
33	Type 245 fabric reinforcement in concrete base slab	m²	4		
34	Type 617 fabric reinforcement in concrete base slab	m²	3		
	Brickwork of NFP bricks in class II mortar:				
35	One brick wall	m²	6		
36	Type 9B lockable polymer concrete cover and frame SANS 1882-2003.	No	1		
37	20mm Diameter expansion bolts.	No	8		
38	Franke Aqua 205mm or equal approved self closing bib tap.	No	8		
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	Section No. 4				
	Bill No. 4 Water Reticulation				
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		Unit	Quantity	Rate	Amount
	Sundry fittings:				
39	110mm Diameter flange adapter pipe	No	10		
40	110mm Diameter puddle flange	No	6		
41	Viking johnson dismantling joint both ends flanged to SABS 1123 - 1600/3	No	3		
42	Gate valve with handwheel and anti-clockwise closing to SABS 664. Both ends flanged to SABS 1123 - 1600/3	No	4		
43	Non-return valve both ends flanged to SABS 1123 - 1600/3	No	3		
44	Water meter both ends flanged to SABS 1123 - 1600/3	No	3		
45	Steel strainer both ends flanged serviced from the top to SABS 1123 - 1600/3	No	3		
	Municipal Connection:				
46	Municipal connection for the upgrading of the water meter at the Police Complex.	No	1		
47	Municipal connection for the upgrading of the water meter at the Police Residence A.	No	1		
48	Municipal connection for the upgrading of the water meter at the Police Residence B.	No	1		
	Testing:				
49	Testing water pipe system.	Item			
	Carried to Collection			R	
	Section No. 4				
	Bill No. 4				
	Water Reticulation 183				
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Section No. 4 Bill No. 4 Water Reticulation 184		



	Unit	Quantity	Rate	Amount
SECTION NO. 4				
EXTERNAL WORKS (PROVISIONAL)				
BILL NO. 5				
STORMWATER DRAINAGE				
WORK GROUPS: Unless otherwise stated the work group for this Bill shall be WG146				
<u>Trade Preambles:</u>				
For Trade Preambles refer to 'Specification of Materials and Methods' (PW371A & PW371B) for the full descriptions of material to be used and work to be done in this Bill				
SUPPLEMENTARY PREAMBLES				
Where item in this Bill are identical to those in the previous Bills, the descriptions have been shortened, and the full descriptions in the Trades concerned are to be referred to for the full meaning and intent of each item.				
Concrete pipes:				
Pipes shall be jointed with ogee joints with rubber collars or socket and spigot joints with rubber rings.				
Exposed concrete surfaces:				
Exposed surfaces of concrete storm water channels, cover slabs, inspection eye marker slabs, gulley tops, cleaning eye tops, catch pits, inspection chambers, etc. shall be finished smooth with plaster.				
Excavations:				
No claim for rock excavation will be entertained unless the Contractor has timeously notified the quantity surveyor thereof prior to backfilling.				
Soft rock' and 'hard rock' shall be as defined in 'Earthworks'.				
Laying, backfilling, bedding, etc. of pipes				
Pipes shall be laid and bedded and trenches shall be carefully backfilled in accordance with manufacturers' instructions.				
Where no manufacturers' instructions exist pipes shall be laid in accordance with clauses 5.1 and 5.2 of each of the following: SABS 1200 L: Medium pressure pipelines LD: Sewers LE: Storm water drainage Pipe trenches etc. shall be backfilled in accordance with clause 3, 5.5, 5.6, 5.7 and 7 of SABS 1200 DB: Earthworks (Pipe trenches) Clause 5.7.2 will only be applicable if authorised by the Engineer in writing.				
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Bill No. 5				
Stormwater Drainage				
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		Unit	Quantity	Rate	Amount
	Pipes shall be bedded in accordance with clauses 3.1 to 3.4.1, 5.1 to 5.3 and 7 of SABS 1200LB: Bedding (Pipes). Unless otherwise described bedding of rigid pipes shall be class B bedding.				
	Descriptions of pipes laid in trenches:				
	Descriptions of pipes laid in trenches shall be deemed to include for carting away all surplus excavated material to a dumping site located by the contractor. Note minimum width of trench is 500mm on either side of pipe.				
	Descriptions of catch pits, junction boxes, manholes, etc.:				
	Descriptions of catch pits, junction boxes, manholes, etc., shall be deemed to include for compaction, disposal of surplus excavated material to a dumping site located by the contractor, risk of collapse and keeping excavations free from water.				
	SITE CLEARENCE, ETC				
	Site clearance.				
1	Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc.	m²	376		
2	Stripping average 150mm thick layer of top soil and stockpiling on site.	m²	376		
	STORMWATER CHANNELS				
	In-Situ concrete (25Mpa) open storm water channels having V - Shaped water way formed in top, finished smooth on all exposed surfaces (3:1) untinted cement plaster trowelled smooth and with angles rounded, cast suitable lengths in alternate panels, including all formwork, moulds, shallow excavation, 150mm G7 filling and ramming, type 193 fabric reinforcement, laying to falls, bedding and pointing (3:1) cement mortar:				
3	Channel size 700mm wide x 200mm thick overall with a 700mm wide x 177mm deep V - Channel waterway	m	227		
4	Channel size1500mm wide x 250m thick overall with a 1500mm wide x 477mm deep V - Channel waterway	m	263		
5	Channel size700mm wide x 250m thick overall with a 700mm wide x 300mm deep U - Channel waterway	m	88		
	Excavations (WG: 104):				
6	Excavation in earth not exceeding 2m deep stormwater pipes	m³	217		
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	Bill No. 5				
	Stormwater Drainage				
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		Unit	Quantity	Rate	Amount
	Extra over excavations other than bulk in earth for excavation in:				
7	Soft rock.	m³	22		
8	Hard rock.	m³	11		
	EXSISTING SERVICES THAT INTERESECT OR ADJOIN AT PIPE TRENCH				
	Services that intersect at trench				
9	Electrical and Telecommunication cables	No	10		
10	Sewer and Water lines	No	15		
	Services that adjoin at trench				
11	Electrical and Telecommunication cables	No	30		
12	Sewer and Water lines	No	20		
	<u>PIPES</u>				
	Precast Class B concrete pipe Type SC and Class 100D				
13	450mm diameter pipe	m	97		
14	300mm diameter pipe	m	120		
	uPVC pipes:				
15	110mm Diameter uPVC drainex pipe or similar approved incased in 19mm stone, with A2 bidim non-woven geotex or similar approved blanket complete as per stormwater details drawing no. 1807-C-SW-T-010	m	165		
16	110mm Diameter cast iron rodding eye includind concrete incasing complete as per stormwater details drawing no. 1807-C-SW-T-010	No	17		
	CATCH PITS				
	Manholes:				
17	2190 x 1240mm manhole, formed of 220mm brickwork, factory made precast cover slab and ring sections, etc, with maximum depth of 3.0m complete as per stormwater details drawing no. 1807-C-SW-T-010	No	1		
18	1440 x 1140mm manhole, formed of 220mm brickwork, in-situ reinforced concrete ring beams, etc, with maximum depth of 3.0m complete as per stormwater				
	details drawing no. 1807-C-SW-T-010	No	1		
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		Unit	Quantity	Rate	Amount
19	1620 v 1590mm manhola, formed of 220mm brickwork				
19	1620 x 1580mm manhole, formed of 220mm brickwork, in-situ reinforced concrete ring beams, etc, with maximum depth of 3.0m complete as per stormwater details drawing no. 1807-C-SW-T-009	No	1		
	Gratings, covers, etc.:				
20	Basaans Du Plessis product no. 2886 medium duty grating and frame.	No	2		
21	Basaans Du Plessis product no. 2898 medium duty grating and frame.	No	1		
22	Basaans Du Plessis product no. 2210 Type 2A H/D circular manhole cover and frame.	No	1		
	Concrete Benching				
23	Benching in prescribed mix 20 MPa concrete with granolithic rendering	m	88		
24	Allow for supply and installation of prefabricated silt trap in a chamber including downstream pipework.	No	1		
	MOVEMENT JOINTS				
0.5	Inside joint sealer consisting of 2 x 12mm Butyl Mastic sealing strips installed in accordance to maufacturers specification, chaulk smooth on inside with 1:3 ement/sand grout. Outside seal of 2 Layers of 150mm wide 0.3mm thick LDPE self adhesive tape. Butyl Rubber Prime coat applied in accordance with manufacturers specification:		405		
25	10mm Joints not exceeding 300mm wide. (Provisional)	m	165		
	GABIONS AND STONE PITCHING (WG: 146)				
	Surface preparation for bedding of stone pitched drain				
26	Cavities filled with approved excavated material or rock	m²	68		
	<u>Pitching</u>				
27	150mm thick Stone Pitching for Trapezoidal Drain	m²	84		
28	For Drains Outfall Aprons	m²	32		
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	Stormwater Drainage 188				



		Unit	Quantity	Rate	Amount
29	with MC 30 SP and apply two coat surface treatment comprimising a first layer of 13.2mm aggregate, spread at a ratre of 0,009m3/m2 covered with a coat of cationic Grafe 65 spray at a rate of 0.82 l/m2, the second layer of 6,7mm aggregate, spread at a rate of 0,005 m3/m2 covered with a coat of cationic Grafe 65 spray at a rate of 0.98 l/m2 all in accordance with SANS 1200 M and SANS 1200 MG	m² m	150 25		
	<u>TESTING</u>				
31	Testing Storm water Drainage System	Item			
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		Unit	Quantity	Rate	Amount
	SECTION NO. 4				
	EXTERNAL WORKS (PROVISIONAL)				
	BILL NO. 6				
	RETAINING WALLS				
	EXCAVATION OTHER THAN BULK (WG: 104)				
	Excavation in earth not exceeding 2m deep:				
1	Trenches. (LI)	m³	36		
	Extra over excavations other than bulk in earth for				
	excavation in:				
2	Soft rock.	m³	4		
3	Hard rock.	m³	2		
	Risk of collapse of excavations other than bulk:				
4	Sides of trench and hole excavations not exceeding	2	0.5		
	1,5m deep.	m²	95		
5	Sides of trench and hole excavations exceeding 1,5m deep.	m²	25		
	CARTING AWAY				
	Extra over all excavations for loading, carting and				
	dumping surplus excavated material (no allowance made for increase in bulk):				
6	Off site to a dumping site to be found by the Contractor.	m³	30		
	EARTH FILLING, ETC				
	Filling with material from the excavations compacted				
	to a density of at least 95% Mod. AASHTO maximum density:				
7	Backfilling to trenches, holes, etc. (LI)	m³	5		
	Filling with G5 material in accordance with SABS				
	1200 DM, material supplied and carted onto site by				
	the Contractor, compacted to a density of at least 98% Mod. AASHTO maximum density:				
8	Behind retaining walls.	m³	39		
	KEEPING EXCAVATIONS FREE OF WATER				
	Keeping excavations free of water:				
9	Keeping excavations free of all water other than				
	subterranean water.	Item			
	Carried to Collection			R	
	Section No. 4				
	Bill No. 6				
	Retaining Walls				
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		Unit	Quantity	Rate	Amount
	<u>TESTS</u>				
	Prescribed density tests on filling:				
10	Modified AASHTO Density test.	No	8		
	UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES (WG: 110)				
	20MPa/19mm Concrete:				
11	Surface blinding under footings and bases.	m³	2		
	REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES				
	25MPa/19mm Concrete:				
12	Strip footings.	m³	15		
	REINFORCED CONCRETE (WG: 114)				
	25MPa/19mm Concrete:				
13	Filling to cavity walls.	m³	5		
	TEST BLOCKS				
	Test blocks:				
14	Making and testing set of three 150 x 150 x 150mm concrete strength test cubes.	Sets	8		
	REINFORCEMENT (WG: 114)				
	Mild tensile steel reinforcement to structural concrete work:				
15	8mm Diameter bars.	Tonnes	0.80		
	High tensile steel reinforcement to structural concrete work:				
16	8mm Diameter bars.	Tonnes	0.85		
	Fabric reinforcement:				
17	Type 245 fabric reinforcement in concrete walls.	m²	40		
	BRICKWORK (WG:118)				
	Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar:				
18	340mm Hollow walls of two half brick skins (no wire ties).	m²	50		
	BRICKWORK SUNDRIES				
	Brickwork reinforcement:				
19	75mm Wide reinforcement built in horizontally.	m	1 170		
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	Section No. 4				
	Bill No. 6				
	Retaining Walls				
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		Unit	Quantity	Rate	Amount
20	FACE BRICKWORK Allow the prime cost amount of R7100-00 (Seven Thousand, One Hundred Rand excluding VAT) net per thousand for external face bricks, supplied and delivered to site and add for taking delivery, storage, building in and pointing with square recessed horizontal and vertical joints waste and profit: Extra over brickwork for face brickwork in foundations.	m2	20		
20		m²	30		
21	Fair cutting and fitting around pipe not exceeding 100mm diameter.	No	25		
	Carried to Collection Section No. 4 Bill No. 6 Retaining Walls			R	



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		Unit	Quantity	Rate	Amount
	SECTION NO. 4				
	EXTERNAL WORKS (PROVISIONAL)				
	BILL NO. 7				
	RAINWATER TANKS AND STANDS				
	TRADE PREAMBLES				
	Trade Preambles:				
	For Trade Preambles refer to 'Specification of Materials and Methods' (PW371A) for the full descriptions of material to be used and work to be done in this Bill				
	SUPPLEMENTARY PREAMBLES				
	Where items in this Bill are identical to those in the previous Bills, the descriptions have been shortened, and the full descriptions in the Trades concerned are to be referred to for the full meaning and intent of each item				
	EXCAVATION OTHER THAN BULK				
	Excavate in earth not exceeding 2 m deep:				
1	Trenches.	m³	18		
	Extra over excavations other than bulk in earth for excavation in:				
2	Soft rock.	m³	1		
3	Hard rock.	m³	1		
	Risk of collapse of excavations other than bulk:				
4	Sides of trench and hole excavations not exceeding 1,5m deep.	m²	60		
	CARTING AWAY				
	Extra over all excavations for loading, carting and dumping surplus excavated material (no allowance made for increase in bulk):				
5	Off site to a dumping site to be found by the Contractor.	m³	8		
	EARTH FILLING, ETC				
	Filling with material from the excavations compacted to a density of at least 96% Mod. AASHTO maximum density:				
6	Backfilling to trenches, holes, etc.	m³	9		
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	Section No. 4				
	Bill No. 7 Rainwater Tanks And Stands				
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		Unit	Quantity	Rate	Amount
7	Filling with approved G7 material in accordance with SABS 1200 MF supplied and carted onto site by the Contractor, compacted to a density of at least 96% Mod. AASHTO maximum density: Under floors, paving's, etc. Surface Preparation: Trim and level off surface of ground (excavated or filled	m³	4		
0	under this contract) to receive concrete surface beds, including excavating or filling not exceeding 150mm deep, ripping and scarifying as necessary and compacting the whole area for a depth of 150mm to a density of at least 96% Mod. AASHTO maximum density, part to falls. KEEPING EXCAVATIONS FREE OF WATER	m²	16		
	Keeping excavations free of water:				
9	Keeping excavations free of all water other than subterranean water.	Item			
	<u>TESTS</u>				
	Prescribed density tests on filling:				
10	Modified AASHTO Density test.	No	8		
	UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES				
	10Mpa/19mm Concrete:				
11	Surface blinding under footings and bases.	m³	1		
	REINFORCED CONCRETE				
	20Mpa/19mm Concrete:				
12	Surface beds cast on waterproofing.	m³	4		
	REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES				
	25Mpa/19mm Concrete:				
13	Strip footings.	m³	14		
	TEST BLOCKS				
	Test blocks:				
14	Making and testing set of three 150 x 150 x 150mm concrete strength test cubes.	Sets	12		
	Carried to Collection Section No. 4 Bill No. 7 Rainwater Tanks And Stands			R	
	196				



		Unit	Quantity	Rate	Amount
	FINISHING TOP SURFACE OF CONCRETE				
	Finishing top surfaces of concrete smooth with a				
	wood float:				
15	Surface beds, slabs, etc.	m²	40		
	REINFORCEMENT				
	Fabric reinforcement:				
16	Type 245 fabric reinforcement in concrete surface beds, slabs, etc.	m²	40		
	BRICKWORK				
	Brickwork of NFP bricks in class II mortar:				
17	One brick wall.	m²	45		
	BRICKWORK SUNDRIES				
	Brickwork reinforcement:				
18	150mm Wide reinforcement built in horizontally in foundations	m	118		
		111	110		
	Allow the prime and the sum of B7 500 00 (Seven				
	Allow the prime cost amount of R7 500-00 (Seven Thousand Five Hundred Rand excluding VAT) net				
	per thousand for external face bricks, supplied and delivered to site and add for taking delivery, storage,				
	building in and pointing with square recessed				
	horizontal and vertical joints waste and profit:				
19	Extra over ordinary brickwork for face brickwork.	m²	31		
	DAMPROOFING TO WALLS AND FLOORS				
	One layer of 375 micron brikgrip DPC embossed damp proof course:				
20	In walls.	m²	20		
	One layer of 250 micron gunplas black waterproof sheeting sealed at laps with gunplas pressure				
	sensitive Tape:				
21	Under surface beds.	m²	40		
	One layer of 250 micron gunplas black waterproof sheeting sealed at laps with gunplas pressure				
	sensitive Tape:				
22					
	water tank and surface bed, including circular cutting etc.	No	8		
	Carried to Collection			R	
	Section No. 4				
	Bill No. 7				
	Rainwater Tanks And Stands 197				
	191				



		Unit	Quantity	Rate	Amount
	<u>METALWORK</u>				
	SUNDRY GALVANIZED STEELWORK				
	Sundry galvanised steelwork:				
23	Bolts.	Kg	11		
24	40 x 2.0mm Hoop iron strap 6400mm long, in four equal sections, wrapped around tank, one end of each section once bent and once holed for bolts, (bolts elsewhere measured) bolted to post (post elsewhere measured), the other end twice holed for pop rivets for adjustable keep (adjustable keep elsewhere measured)	No	8		
25	Adjustable latch and keep 'Moss Express Part No. 491976' or equal approved pop riveted to hoop iron strap (hoop iron strap elsewhere measured)	No	0		
		No	8		
	TANKS, ETC				
26	<u>Tanks:</u> 5 000 Litre 'Beige' plastic seamless water storage tank complete fixing lugs and setting in position on concrete tank stand (elsewhere measured).	N.			
		No	8		
27	Hole through top of tank lid for 100 x 100mm pipe.	No	8		
	Carried to Collection Section No. 4			R	
	Bill No. 7				
	Rainwater Tanks And Stands 198				



BILL NO. 7 RAINWATER TANKS AND STANDS COLLECTION	Brought Forward from Page	Page No 195 196 197 198	
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Bill No. 7 Rainwater Tanks And Stands			
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		Unit	Quantity	Rate	Amount
	SECTION NO. 4				
	EXTERNAL WORKS (PROVISIONAL)				
	BILL NO. 8				
	ELEVATED TANK STAND AND TANK				
	TRADE PREAMBLES				
	Trade Preambles:				
	For Trade Preambles refer to 'Specification of Materials and Methods' (PW371A & PW371B) for the full descriptions of material to be used and work to be done in this Bill				
	SUPPLEMENTARY PREAMBLES				
	Where items in this Bill are identical to those in the previous Bills, the descriptions have been shortened, and the full descriptions in the Trades concerned are to be referred to for the full meaning and intent of each item				
	SITE CLEARENCE., ETC				
	Site Clearence				
1	Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc.	m²	50		
	EXCAVATION OTHER THAN BULK				
	Excavate in earth not exceeding 2 m deep:				
2	Holes (LI).	m³	20		
	Extra over excavations other than bulk in earth for excavation in:				
3	Soft rock.	m³	8		
4	Hard rock.	m³	5		
	Risk of collapse of excavations other than bulk:				
5	Sides of trench and hole excavations not exceeding 1,5m deep.	m²	48		
	CARTING AWAY				
	Extra over all excavations for loading, carting and dumping surplus excavated material (no allowance made for increase in bulk):				
6	Off site to a dumping site to be found by the Contractor.	m³	19		
	Carried to Collection			R	
	Section No. 4				
	Bill No. 8 Elevated Tank Stand And Tank				
	200				
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		Unit	Quantity	Rate	Amount
	EARTH FILLING, ETC				
	Filling with approved G5 material in accordance with SABS 1200 MF supplied and carted onto site by the Contractor, compacted to a density of at least 97% Mod. AASHTO maximum density:				
7	Under floors, pavings, etc.	m³	9		
	Surface Preparation:				
8	Trim and level off surface of ground (excavated or filled under this contract) to receive concrete surface beds, including excavating or filling not exceeding 150mm deep, ripping and scarifying as necessary and compacting the whole area for a depth of 150mm to a density of at least 96% Mod. AASHTO maximum density, part to falls.	m²	25		
	KEEPING EXCAVATIONS FREE OF WATER (CPAP Work Group No 104)				
	Keeping excavations free of water:				
9	Keeping excavations free of all water other than subterranean water.	Item			
	UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES				
	15Mpa/19mm Concrete:				
10	Surface blinding under footings and bases.	m³	3		
	30Mpa/19mm Concrete:				
11	Bases.	m³	13		
	FINISHING TOP SURFACE OF CONCRETE				
	Finishing top surfaces of concrete smooth with a wood float:				
12	Bases, surface beds, slabs, etc.	m²	25		
	REINFORCEMENT				
	High tensile steel reinforcement to structural concrete work:				
13	16mm Diameter bars.	Tonnes	0.14		
	MEDIUM PRESSURE PIPELINES				
	Supply, lay and fix hot dip galvanised (HDGS) pipe complete with couplings for the following diameters:				
14	50mm galvanised steel pipes	m	35.00		
15	80mm galvanised steel pipes	m	100		
	Carried to Collection			R	
	Section No. 4 Bill No. 8				
	Elevated Tank Stand And Tank				
	201				



		Unit	Quantity	Rate	Amount
16	100mm galvanised steel pipes	m	35.00		
17	Extra over 50mm diameter galvanised steel pipes for 50mm fittings	No	2		
18	Extra over 80mm diameter galvanised steel pipes for 80mm fittings	No	6		
19	Extra over 100mm diameter galvanised steel pipes for 100mm fittings	No	3.00		
	ANCHOR THRUST BLOCKS AND PEDISTALS				
	Anchor/thrust blocks and pedestals:				
20	80mm Diameter thrust block	No	3		
21	50mm Diameter thrust block	No	1		
22	100mm Diameter thrust block	No	1		
	VALVE CHAMBERS				
	Valve chambers. Rate to include formwork and all other necessary work required to complete these chambers:				
23	Outlet chamber	No	1		
24	Inlet chamber	No	1		
25	Overflow and scour chamber	No	1		
26	Overflow and scour channel	m	2		
	LIGHTNING PROTECTION				
27	Design, supply and installation of lightning protection system to comply with applicable legal requirements	Item			
	<u>METALWORK</u>				
	GALVANISED SUNDRY METALWORK				
	Bolts:				
28	Install cast in-situ M20 HD bolts c/w base plates to Reinforced Concrete Stub Columns.	No	16		
	Carried to Collection			R	
	Section No. 4				
	Bill No. 8				
	Elevated Tank Stand And Tank 202				
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		Unit	Quantity	Rate	Amount
29	TANKS, ETC Tanks: Supply and install a 32 kL hot dip galvanized (70 micron) ABECO or similar approved steel tank (L = 2.44m, Breadth =3.66m, Depth = 3.66m), sterilized, with 4.5 mm panel thickness, 10m high support structure (stand), walkway around tank and landing. platform and complete with the following appertances: Level indicator, leveldex level control valve complete with 90° flanged cast iron bend, flanged scour outlet of size 80 mm Ø, flanged over flow outlet of size 80 mm Ø, flanged inlet of size 80 mm Ø, flanged outlet of size 50 mm Ø, inside and outside access ladder, lockable access manhole	No	1		
	<u>PAINTWORK</u>				
	ON METAL				
	Prepare surfaces and remove all loose material, dust, grease, salts and contamination with aquasolve degreaser, rinse and apply one coat galvogrip metal primer, apply one coat universal undercoat and one coat high gloss enamel paint on galvanised steel or aluminium:				
30	Members of lattice columns and beams.	m²	20		
31	Rails, bars, pipes, etc. not exceeding 300mm girth.	m	20		
	Carried to Collection Section No. 4 Bill No. 8			R	
	Elevated Tank Stand And Tank 203				



BILL NO. 8 ELEVATED TANK STAND AND TO COLLECTION	FANK Brought Forward from Page	200 201 202 203	
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		Unit	Quantity	Rate	Amount
	SECTION NO. 4				
	EXTERNAL WORKS (PROVISIONAL)				
	BILL NO. 9				
	FENCING				
	For Trade Preambles refer to 'Specification of Materials and Methods' (PW371A) for the full descriptions of material to be used and work to be done in this Bill				
	TRADE PREAMBLES				
	SUPPLEMENTARY PREAMBLES				
	Where items in this Bill are identical to those in the previous Bills, the descriptions have been shortened, and the full descriptions in the Trades concerned are to be referred to for the full meaning and intent of each item				
	GALVANISED STEEL GATES, SCREENS, ETC				
	Excavations:				
1	Allow for clearing site for a width of 1m where fencing runs are to be erected including removing trees, shrubs, etc not exceeding 200mm girth, grubbing up roots and roughly levelling. (Labour Intensive).	m	505		
2	Excavation in earth not exceeding 2m deep for trenches and holes. (Labour Intensive).	m³	93		
3	Extra over excavations for carting away surplus material to a dumping site located by the contractor. (Labour Intensive).	m³	17		
4	Extra over excavations for Filling with material from the excavations compacted to a density of at least 90% Mod. AASHTO maximum density to trenches and holes.	m³	76		
5	20 Mpa Concrete cast against excavated material for footings. (Labour Intensive).	m³	17		
	ClearVu Fencing System or Equally Approved				
6	ClearVu panel size 3000 x 3000mm high comprising of 4mm high tensile wires at 76.2mm x 12.7mm Aperture size, standard line galvanised,then Marine Fusion Bond coated, complete with ClearVu mesh panel design of 4 x 50mm deep V formation horizontal recessed bends and 2 x 75mm flanges along sides, fixed with single bolt comb clamps and tech-bolts mechanically galvanised, fixed to 85mm - 45mm taper post (post elsewhere measured)	No	168		
	Carried to Collection			R	
	Section No. 4 Bill No. 9			K	
	Fencing				
	205				



		Unit	Quantity	Rate	Amount	
7	ClearVu panel topping of 100mm high galvanised "shark tooth" type spike rails bolted to 50mm wide ClearVu mesh flange bent along top of fence.	m	505			
8	85mm - 45mm Taper post 2700mm long with UV stabilised polymer end cap on top, supplied 12mm base pin, bedded in 400 x 400 x 600mm deep of 15Mpa concrete pad foundation (Concrete elsewhere measured)	No	170			
9	ClearVu pedestrian swinging gate, size 1500mm long x 3150mm high	No	1			
10	ClearVu vehicle sliding gate, size 3000mm long x 3150mm high	No	2			
	Carried to Collection Section No. 4 Bill No. 9 Fencing			R		
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BILL NO. 9 FENCING COLLECTION	Brought Forward from Page	Page No 205 206	
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		Unit	Quantity	Rate	Amount
	SECTION NO. 4				
	EXTERNAL WORKS (PROVISIONAL)				
	BILL NO. 10				
	FLAG POLES				
	WORK GROUPS: Unless otherwise stated the work				
	group for this Bill shall be WG104				
	<u>Trade Preambles:</u>				
	For Trade Preambles refer to 'Specification of Materials and Methods' (PW371A & PW371B) for the full descriptions of material to be used and work to be done in this Bill				
	SUPPLEMENTARY PREAMBLES				
	Where items in this Bill are identical to those in the previous Bills, the descriptions have been shortened, and the full descriptions in the Trades concerned are to be referred to for the full meaning and intent of each item				
	<u>EARTHWORKS</u>				
	Excavation in earth not exceeding 2m deep:				
1	Holes.	m³	1		
	Risk of collapse of excavations other than bulk:				
2	Sides of trench and hole excavations not exceeding 1,5m deep.	m²	1		
	CARTING AWAY				
	Extra over all excavations for loading, carting and dumping surplus excavated material (no allowance made for increase in bulk):				
3	Off site to a dumping site to be found by the Contractor.	m³	1		
	KEEPING EXCAVATIONS FREE OF WATER				
	Keeping excavations free of water:				
4	Keeping excavations free of all water other than subterranean water.	Item			
	UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES (WG: 110)				
	25MPa/19mm Concrete:				
5	Bases	m³	1		
	Carried to Collection			R	
	Section No. 4				
	Bill No. 10				
	Flag Poles 208				
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		Unit	Quantity	Rate	Amount
6	ALUMINIUM FLAGPOLE: WG 140 12m Aluminium: 12m Aluminium flagpole supported by swivel base consisting of 2 base tubes of 101mmdiameter, 1.2m high welded to a base plate size: 450 x 450mm with gussets bolted with M20 stainless steel anchor bolts to the incased concrete. Bolted top and bottom with M16 stainless steel bolts and situated between the two base tubes in the flagstaff	No	2		
	Carried to Collection Section No. 4 Bill No. 10 Flag Poles			R	



BILL NO. 10 FLAG POLES COLLECTION	Brought Forward from Page	Page No 208 209	
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	EXTERNAL WORKS (PROVISIONAL)		
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SECTION NO. 5 EPWP



		Unit	Quantity	Rate	Amount	
	SECTION NO. 5					
	EPWP					
	BILL NO. 1					
	EPWP (PROVISIONAL)					
	EMPLOYMENT AND TRAINING OF LABOUR ON THE EPWP-NYS INFRASTRUCTURE PROJECTS					
	PREAMBLES					
	Tenderers are advised to study the Additional Specification SL: Employment and Training of Labour on the Expanded Public Works Programme (EPWP) Infrastructure Projects: National Youth Service, as bound elsewhere in the Bills of Quantities, and then price this Bill accordingly					
	TRAINING OF YOUTH WORKERS					
	(TARGET: 25 YOUTH WORKERS)					
	Life skills development and Technical training:					
1	Life Skills development training for youth workers for an					
	average of 5 days (ref. SL 11.01.01) Provisional - Rate inclusive of UIF	Prov Sum			43 750	00
2	Technical Skills and training for youth workers for an average of 45 days (ref. SL 11.01.02) Provisional - Rate is inclusive of UIF	Prov Sum			427 500	00
	The above item is only applicable if DoL does not fund the Technical Training PRIOR to site handover.					
3	Payment reduction due to not meeting the target as in SL 11.01.02	Trainee s			RATE ONLY	
	TRAVELLING AND ACCOMMODATION DURING OFF- SITE TRAINING:					
	Life skills training for 5 days (ref. SL 11.02.01)					
4	.01 Travelling (based on R100 / day return trip/facilitator.)	No	1			
5	.02 Accommodation (based on 5 nights / week and R 400 / facilitator / night)	No	1			
	Carried to Collection Section No. 5			R		
	Bill No. 1					
	Epwp (provisional)					
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		Unit	Quantity	Rate	Amount
	Technical training for 45 days (ref. SL 11.02.02):				
6	.01 Travelling (based on R100 / day return trip/facilitators/learners.)	No	3		
7	.02 Accommodation (based on 5 nights / week and R 300 / facilitator (x3) / 39 nights)	No	3		
	Tests for medical fitness.				
8	.01 Provision of General Medical Practitioner or Clinic to examine EPWP youth workers on medical fitness before appointment.	No	25		
9	Profit (ref. SL 11.05.02)	Item			
10	Attendance (ref. SL 11.05.02)	Item			
	ALTERNATIVE WORKERS FOR THE PERIOD OF OFF-SITE TRAINING:				
11	Life skills training for 5 days (ref. SL 11.03.01)	Days	0		
12	Life skills training for 5 days (ref. SL 11.02.01)	Days	0		
	EMPLOYMENT OF YOUTH WORKERS				
13	Employment of youth workers (off-site/theoretical training: Life Skills & Technical)	Days	1 250		
14	Employment of youth workers (on - site training)	Man Weeks	225		
	The unit of measurement shall be the number of youth workers at the MINMEC labour rates multiplied by the period employed in months and the rate tendered shall include full compensation for all costs associated with the employment of youth workers and for complying with the conditions of contract. The cost for the training shall be excluded from this item. This item is based on max of 12 months appointment for youth workers				
15	Profit on Item 2	Item			
16	Attendance on Item 2	Item			
	PROVISION OF EPWP BRANDED OVERALLS & T- SHIRT/GOLF SHIRTS TO YOUTH WORKERS				
17	Supply 2 x EPWP/NYS branded overalls, safety shoes, 1 x hard hats, 2 x to youth workers (ref. SL 11.05.01)	No	25		
18	Profit on Item (ref. SL 11.05.02)	Item			
19	Attendance on Item (ref. SL 11.05.02)	Item			
	Carried to Collection Section No. 5 Bill No. 1 Epwp (provisional)			R	
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PROVISION OF SMALL TOOLS FOR YOUTH WORKERS 20 Supply of small tools to youth workers. Specification to be supplied by the EPWP-NYS Service Provider for the respective trades. (ref. St. 11.06.01) 21 Profit on item (ref. St. 11.06.02) 22 Attendance on item (ref. St. 11.06.02) APPOINTMENT OF YOUTH TEAM LEADER 23 Appointment of Youth Service and Training Providers, Contractor to laise with service providers throughout the contract (ref. St. 11.07) 24 Liaison with Service and Training Providers, Contractor to laise with service providers throughout the contract of the contract of the service providers throughout the contract of the service providers throughout the contract of the service providers throughout the contract of the service providers throughout the contract of laise with service providers throughout the contract of laise with service providers throughout the contract of laise with service providers. PROVISION OF CATERING FOR EXIT WORKSHOP 25 Sourcing of Catering company for provision of meals during NYS exit workshop Carried to Collection Section No. 5 Bill No. 1 Epwp (provisional)			Unit	Quantity	Rate	Amount
WORKERS Supply of small tools to youth workers. Specification to be supplied by the EPWP-NYS Service Provider for the respective trades, (ref. St. 11.06.01) 1 Profit on item (ref. St. 11.06.02) 22 Attendance on item (ref. St. 11.06.02) APPOINTMENT OF YOUTH TEAM LEADER 23 Appointment of Youth Team Leaders for the duration of the contract (ref. St. 11.07) 4 Liaison with Service and Training Providers, Contractor to liaise with service providers throughout the contracual period(ref. St. 11.08) PROVISION OF CATERING FOR EXIT WORKSHOP Sourcing of Catering company for provision of meals during NYS exit workshop Carried to Collection Section No. 5 Bill No. 1 Epwp (provisional)		PROVISION OF SMALL TOOLS FOR YOUTH				
be supplied by the EPWP-NYS Service Provider for the respective trades. (ref. St. 11.06.01) Profit on item (ref. St. 11.06.02) Altendance on item (ref. St. 11.06.02) APPOINTMENT OF YOUTH TEAM LEADER Appointment of Youth Team Leader/s for the duration of the contract (ref. St. 11.07) Liaison with Service and Training Providers, Contractor to liaise with service providers throughout the contracual period(ref. St. 11.08) PROVISION OF CATERING FOR EXIT WORKSHOP Sourcing of Catering company for provision of meals during NYS exit workshop Carried to Collection Section No. 5 Bill No. 1 Epwp (provisional)						
Attendance on item (ref. SL 11.06.02) APPOINTMENT OF YOUTH TEAM LEADER Appointment of Youth Team Leader/s for the duration of the contract (ref. SL 11.07) Liaison with Service and Training Providers, Contractor to liaise with service providers throughout the contracual period(ref. SL 11.08) PROVISION OF CATERING FOR EXIT WORKSHOP Sourcing of Catering company for provision of meals during NYS exit workshop Carried to Collection Section No. 5 Bill No. 1 Epwp (provisional)	20	be supplied by the EPWP-NYS Service Provider for the	No	25		
APPOINTMENT OF YOUTH TEAM LEADER Appointment of Youth Team Leader/s for the duration of the contract (ref. SL 11.07) Liaison with Service and Training Providers, Contractor to liaise with service providers throughout the contracual period(ref. SL 11.08) PROVISION OF CATERING FOR EXIT WORKSHOP Sourcing of Catering company for provision of meals during NYS exit workshop Carried to Collection Section No. 5 Bill No. 1 Epwp (provisional)	21	Profit on item (ref. SL 11.06.02)	Item			
Appointment of Youth Team Leader/s for the duration of the contract (fef. St. 11.07) Appointment of Youth Team Leader/s for the duration of the contract (fef. St. 11.07) Liaison with Service and Training Providers, Contractor to liaise with service providers throughout the contractual period(ref. St. 11.08) PROVISION OF CATERING FOR EXIT WORKSHOP Sourcing of Catering company for provision of meals during NYS exit workshop No 25 Carried to Collection Section No. 5 Bill No. 1 Epwp (provisional)	22	Attendance on item (ref. SL 11.06.02)	Item			
the contract (ref. SL 11.07) No 1 Liaison with Service and Training Providers, Contractor to liaise with service providers throughout the contractual period(ref. SL 11.08) PROVISION OF CATERING FOR EXIT WORKSHOP Sourcing of Catering company for provision of meals during NYS exit workshop Carried to Collection Section No. 5 Bill No. 1 Epwp (provisional)		APPOINTMENT OF YOUTH TEAM LEADER				
Contractor to liaise with service providers throughout the contracual period(ref. SL 11.08) PROVISION OF CATERING FOR EXIT WORKSHOP Sourcing of Catering company for provision of meals during NYS exit workshop Carried to Collection Section No. 5 Bill No. 1 Epwp (provisional)	23	Appointment of Youth Team Leader/s for the duration of the contract (ref. SL 11.07)	No	1		
Sourcing of Catering company for provision of meals during NYS exit workshop Carried to Collection Section No. 5 Bill No. 1 Epwp (provisional)	24	Contractor to liaise with service providers throughout the	Hours	0		
Sourcing of Catering company for provision of meals during NYS exit workshop Carried to Collection Section No. 5 Bill No. 1 Epwp (provisional)		PROVISION OF CATERING FOR EXIT WORKSHOP				
Section No. 5 Bill No. 1 Epwp (provisional)	25	Sourcing of Catering company for provision of meals	No	25		
Section No. 5 Bill No. 1 Epwp (provisional)						
Section No. 5 Bill No. 1 Epwp (provisional)						
Section No. 5 Bill No. 1 Epwp (provisional)						
Section No. 5 Bill No. 1 Epwp (provisional)						
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SECTION NO. 6 PROVISIONAL SUMS

1



	Unit	Quantity	Rate	Amount
SECTION NO. 6				
PROVISIONAL SUMS				
BILL NO. 1				
PROVISIONAL SUMS				
The following Selected Sub-Contract amounts are for work to be carried out by selected sub-contractors in terms of clause 15 of the Principal Building Agreement:				
SUPPLEMENTARY PREAMBLES				
General				
Prime cost amounts and provisional sums are net. Prime cost amounts include for delivery to site of all articles concerned Provisional sums are for material and equipment supplied and installed complete by firms of specialists				
Profit				
Where stated, the contractor may allow for profit if required				
General attendance on nominated/selected subcontractors				
The item 'Attendance' which follows each provisional sum for nominated/selected subcontractors' work, shall be deemed to cover all the contractor's costs incurred in providing free of charge to the nominated/selected subcontractors, the following:				
1 The services as set out in clause B9.1 of the Preliminaries 2 Making good in all trades and cleaning down and removal of rubbish on completion				
Special attendance on nominated/selected subcontractors				
Where stated special attendance will be described in detail in the Schedule for Variables in the Preliminaries for the services as set out in clause B9.2				
Builder's work				
Builder's work in connection with specialist services is given elsewhere in these bills of quantities				
Allow for the following provisional amounts which may be utilised or omitted in full or in part, at the discretion of the Engineer				
Allowances				
Allow for accommodation for a period of 2 months	Item			40 000 00
Carried to Collection			R	
Section No. 6				
Bill No. 1				
Provisional Sums				
219				1



		Unit	Quantity	Rate	Amount
2	Profit on above item	Item			
3	Attendance on ditto	Item			
4	AllowanCe for furniture removal, from storage back to houses	Item			20 000 00
5	Profit on above item.	Item			
6	Attendance on ditto	Item			
7	Allow for furniture storage continers for a period of 2 months	Item			30 000 00
8	Profit on above item	Item			
9	Attendance on ditto	Item			
10	Allow for IT Installations	Item			550 000 00
11	Profit on above item.	Item			
12	Attendance on ditto.	Item			
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SECTION NO. 7

ALLOWANCE FOR CONTRACT PARTCIPATION GOALS



		Unit	Quantity	Rate	Amount
	SECTION NO. 7				
	ALLOWANCE FOR CONTRACT PARTCIPATION GOALS				
	BILL NO. 1 CPG's (PROVISIONAL)				
	CONTRACT PARTICIPATION GOAL				
	Note to tenderers: As CPGs may not provide any bidder a competitive advantage. Provisional amounts and fixed percentages for profit and attendance have been provided. Only the provisional amount will be adjusted once the awarded tender amount and/or the beneficiaries have been appointed, and the final values have been ascertained.				
	MINIMUM TARGETED ENTERPRISE DEVELOPMENT				
1	A provisional amount has been allowed for in the execution of this project as described in PG-01.1 (EC) / PG-01.2 (EC) SCOPE OF WORKS C3.7.5. The provisional amount allowed is for the appointment of training coordinator, mentor, training service providers and training of the beneficiary enterprises including monitoring and monthly reporting.	Prov Sum			510 000 00
	Allowers of an arefit all including of appointed agets to				
2	Allowance for profit all inclusive of associated costs to the contractor for implementation.	%	5		
3	Allowance for attendance all inclusive of associated costs to the contractor for implementation.	%	5		
	MINIMUM TARGETED SKILLS DEVELOPMENT GOALS				
4	A provisional amount has been allowed for the Minimum Targeted Development CPG in the execution of this project as described in PG-01.1 (EC) / PG-01.2 (EC) SCOPE OF WORKS C3.7.6.				
	stipends payable to the beneficiaries				
	appointment of training coordinator				
	appointment of mentor (where applicable)				
	appointment of training service providers				
	other additional costs as per table 3 of the Standard				
	monitoring and monthly reporting	Prov			115 000 00
		Sum			
	Carried to Collection			R	
	Section No. 7				
	Bill No. 1				
	Cpg's (provisional)				
	224				



5 Allowance for profit all inclusive of associated costs to the contractor for implementation. 6 Allowance for attendance all inclusive of associated costs to the contractor for implementation. NATIONAL YOUTH SERVICE TRAINING AND DEVELOPMENT PROGRAMME The programme shall be implemented in terms of the Implementation of the National Youth Service Programme under the Expanded Public Works (EPWP) and shall be priced in the CPG section of the Bills of Quantities Provision has been made within the Contract Participation Goal section in the Bill of Quantities for the National Youth Service Programme CPG in the Service in the Bill of Quantities of the Service in CPG in the Section of the Bills of Quantities of the Service in CPG in the Section of the Bills of Quantities of the Service in CPG in the Section of the Bill of Quantities of the Service in CPG in the Section of the Bill of Quantities of the Service in CPG in the Section of the Bill of Quantities of the Service in CPG in the Section of the Bill of Quantities of the Service in CPG in the Section of the Bill of Quantities of the Service in CPG in the Section of the Bill of Quantities of the Section of the Service in CPG in the Section of the Bill of Quantities of the Section of t			Unit	Quantity	Rate	Amount
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Section No. 7 Bill No. 1 Cpg's (provisional)	9		%	5		
Section No. 7 Bill No. 1 Cpg's (provisional)						
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Section No. 7 Bill No. 1 Cpg's (provisional)						
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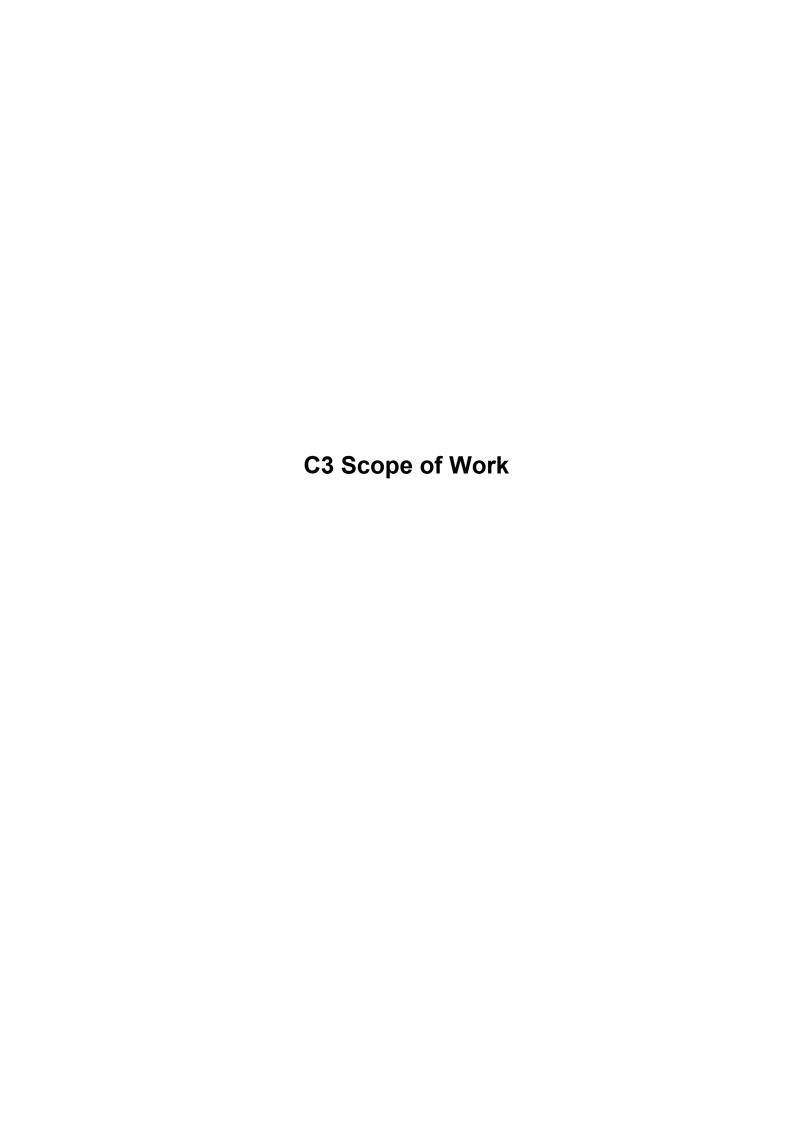


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	SubTotal excluding Value Added Tax ADD VAT @ 15%:		_
	LESS: CREDIT FOR MATERIALS Credit for materials arising from demolitions and materials on site.		
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Tender no.:PE25/2022

WCS no.: 051840

PG-01.2 (EC) SCOPE OF WORKS – JBCC 2000 PRINCIPAL BUILDING AGREEMENT (Edition 6.2 of May 2018)

Project title:	Joubertina Police Station ERF 1200: Repairs & Maintenance of Electrical, Mechanical, Civil & Structural Elements to the Complex: Completion of Contract 1.				
Tender / Quotation no:	PE25/2022	Reference no:	19/2/4/2/2/6417/24		

C3. Scope of Works

C3.1 EXTENT OF THE WORKS

Building Work:

- 1. Main Administration Building
 - Replace existing roof covering and repair roof structure
 - Replace rainwater goods
 - Replace all steel and timber windows with new aluminium windows
 - Repair and repaint internal and external plaster, doors and frames
 - Upgrade of Electrical and Mechanical fittings
 - Upgrade of internal floor finishes
 - Upgrade and replace ironmongery
 - Replace all sanitary fittings
 - Remove and revamp all existing Joinery

2. Cell Block

- Replace existing roof and repair roof structure
- Replace rainwater goods
- Replace all steel and timber windows with new aluminium windows
- Repair and repaint internal and external plaster, doors and frames
- Upgrade of Electrical and Mechanical fittings
- · Upgrade of internal floor finishes
- Upgrade and replace ironmongery

3. Docket Store

- Replace existing roof covering and repair roof structure
- Replace rainwater goods
- Replace all steel and timber windows with new aluminium windows
- Repair and repaint internal and external plaster, doors and frames
- Upgrade of Electrical and Mechanical fittings
- Upgrade of internal floor finishes
- Upgrade and replace ironmongery
- Replace all sanitary fittings
- Remove and revamp all existing Joinery

4. Tyre Store Completion of the following

- Repaint internal and external plaster, doors and frames
- 5. Detective Unit Completion of the following
 - Repaint internal and external plaster, doors and frames
 - Upgrade of Electrical and Mechanical fittings
 - Upgrade of internal floor finishes
 - Upgrade and replace ironmongery
 - Replace all sanitary fittings
 - Remove and revamp all existing Joinery
- 6. SAPS Residence A Completion of the following
 - · Repaint internal and external plaster, doors and frames



PG-01.2 (EC): Scope of Works - JBCC (JBCC 2000- Edition 6.2 of May 2018)

- Upgrade of Electrical and Mechanical fittings
- Upgrade of internal floor finishes
- Upgrade and replace ironmongery
- Replace all sanitary fittings
- Remove and revamp all existing Joinery
- Revamp existing kitchens, bedrooms, bathrooms and toilets

7. SAPS Residence B Completion of the following

- Repaint internal and external plaster, doors and frames
- Upgrade of Electrical and Mechanical fittings
- Upgrade of internal floor finishes
- Upgrade and replace ironmongery
- Replace all sanitary fittings
- Remove and revamp all existing Joinery
- Revamp existing kitchens, bedrooms, bathrooms and toilets

External Works Completion:

Removal and replacement of existing walkways, pathways, parking and court yards. Complete removal and replacement of existing security fence with 2.4m high clearVu fence. Upgrading storm water channels and storm water drainage pipes, Replace 8 x 5kl rainwater harvesting tanks and stands. New 32kl elevated water tank. Upgrading sewer reticulation. Upgrading water supply and installing new fire ring main. Upgrading flag poles. Bulk earthworks and new landscaping.

C3.2 **ORDER OF THE WORKS**

- The works are to be phased in 4 distinct phases.
- Decanting will be facilitated by using the existing buildings.
- Site works phasing to be consistent with building phasing and maintaining permanent
- Refer to phasing diagram MDA 308 300

C3.3 **BUILDINGS OCCUPIED**

All of the buildings on the site have varied occupancy levels. The decanting plan / phasing plan will facilitate moving of staff during the construction phase to free up buildings for the works.

C3.4 **ACCESS**

Access to the site will be from a temporary entry point at the Southern Boundary of the site. This access will only be used by the contractor and is off of Kerk Straat

No access will be allowed onto the precinct by construction vehicles from the main gate at Olivier Street.

STANDARD MINIMUM REQUIREMENTS C3.5

In terms of section 5(2) of the Construction Industry Development Board Act, 2000 (Act no. 38 of 2000) (the Act), the Construction Industry Development Board is empowered to establish and promote best practice standards, Standard Requirements and Guidelines which includes the following but not limited to:

C3.5.1 cidb Best Practice: Green Building Certification, No. 34158 Government Gazette, 1 April 2011

C3.5.2 cidb Standard for Developing Skills through Infrastructure Contracts, No. 36760 Government Gazette, 23 August 2013

Any reference to words "Bid" or Bidder" herein and/or in any other documentation shall be construed to have the same meaning as the words "Tender" or "Tenderer". Page 2 of 21

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PG-01.2 (EC): Scope of Works – JBCC (JBCC 2000- Edition 6.2 of May 2018)

- C3.5.3 cidb Standard for Indirect Targeting for Enterprise Development through Construction Works Contracts, No 36190 Government Gazette, 25 February 2013
- C3.5.4 Preferential Procurement Policy Framework Act, 2000: Preferential Procurement Regulations, 2017, No. 40553 Government Gazette, 20 January 2017
- C3.5.5 cidb Standard for Contract Participation Goals for Targeting Enterprises and Labour through Construction Works Contracts, No. 41237 Government Gazette, 10 November 2017
- C3.5.6 cidb Standard for Minimum Requirements for Engaging Contractors and Sub-Contractors on Construction Works Contracts, No. 41237 Government Gazette, 10 November 2017
- C3.5.7 cidb Standard for Minimum Requirements for Engaging Contractors and Sub- Contractors on Construction Works Contracts, No. 42021 Government Gazette, 9 November 2018
- C3.5.8 cidb Standard for Developing Skills through Infrastructure Contracts, No. 43495 Government Gazette, 3 July 2020

C3.6 CONTRACT PARTICIPATION GOALS AND CIDB BUILD PROGRAMME

The contractor shall achieve in the performance of the contract the following Contract Participation Goals (CPGs) as specified below. Provision for pricing of compliance with the achieving the CPGs is made in the Contract Participation Goal Section of the Bills of Quantities and it is explicitly pointed out that all requirements in respect of the aforementioned are deemed to be priced thereunder and no additional claims in this regard shall be entertained:

C3.6.1 Minimum Thirty Percent (25%) Mandatory Sub-contracting Contract Participation Goal

MINIMUM THIRTY PERCENT (25%) MANDATORY SUBCONTRACTING TO SMMES: IMPLEMENTATION OF PREFERENCIAL PROCUREMENT RGULATIONS 2017

25% Mandatory subcontracting is "applicable" to this project.

It is the requirement of the employer that the contractor enhances the use of local Small, Micro and Medium Enterprises (SMME's) in executing this contract, irrespective whether the thirty percent (30%) Participation Goal is applicable or not.

The thirty percent (25%) mandatory Sub-contracting shall be achieved in the execution of the contract in accordance with the Preferential Procurement Policy Framework Act, 2000: Preferential Procurement Regulations, 2017 as published in the Government Gazette Notice No. 40553 of 20 January 2017.

- (a) SMME's involvement of at least 25% Twenty Five Percent of the tender amount at the time of tender to be sourced from within 5km radius of the project site with the intention to maximize use of local SMMEs within Joubertina in Ko-Kamma Local Municipality, in Sarah Baartman District in the Easter Cape
- (b) SMME's involvement of at least **R510 000.00 (Five Hundred and Ten Thousand)** of the Tender Value to be sourced from within **5km** radius of the project site.

Bidders are cautioned not to under-price items earmarked to be executed by SMMEs as adjustment to too low rates will not be entertained by the Employer.

Bidders to sub-contract a minimum of thirty percent (25%) of the tender amount including VAT at the time of tender (All inclusive, Including VAT), to any one or more of the following categories:



PG-01.2 (EC): Scope of Works – JBCC (JBCC 2000- Edition 6.2 of May 2018)

- a. An EME or QSE
- b. An EME or QSE which is at least 51% owned by black people
- c. An EME or QSE which is at least 51% owned by black people who are youth
- d. An EME or QSE which is at least 51% owned by black people who are women
- e. An EME or QSE which is at least 51% owned by black people with disabilities
- f. An EME or QSE which is at least 51% owned by black people living in rural or underdeveloped areas or townships
- g. A co-operative which is at least 51% owned by black people
- h. An EME or QSE which is at least 51% owned by black people who are Military veterans
- i. More than one of the categories referred to in paragraphs (a) to (h).

Bidders to refer to the CSD for a list of prospective sub-contractors provided with the tender. The bidder may to refer to the CSD website should the list provided be insufficient.

Bidders must ensure that the sub-contractors conform to the following:

- a. Possess relevant accreditation where applicable;
- b. Be registered with relevant bodies (CIDB, various Councils, etc.) where applicable;
- c. Possess necessary capabilities to deliver the sub-contracted work;
- d. Meet the requirements in terms of the stipulated designated groups; and
- e. Geographical located at the place where the project will be delivered. Geographical location must be determined using the following criteria:
 - · Relevant Ward. If not available;
 - Relevant neighbouring Wards. If not available;
 - Relevant Local Municipality. If not available;
 - Relevant District Municipality. If not available;
 - Relevant Metro. If not available;
 - Relevant Province. If not available;
 - Relevant Neighbouring Province. And If not available;
 - Anywhere within the borders of South Africa .

It is the bidder's responsibility to source alternative SMMEs should the parties with whom agreements were entered into at the time of tendering either no longer exist or do not perform or render work of an acceptable standard, subject to the approval by the Employer. Failure to achieve the **minimum twenty five percent (25%)** SMME participation based on the tender amount including VAT, will result in a **R5000/day** penalty on the amount of work on which there is no compliance (Excluding VAT), unless the contractor can prove to the Employer's satisfaction that the non-achievement was beyond his/her control.

The bidder shall submit monthly reports in terms of monthly achievement and accumulative targets achieved including audited supporting documentation to the Employer's Representative.

C3.6.2 Minimum Targeted Local Material Manufacturer Contract Participation Goal

The Minimum Targeted Local Building Material Manufacturers CPG is "not applicable" to this project.

It is the requirement of the employer that the contractor enhances the use of local Small, Micro and Medium Enterprise Local Material Manufacturers (SMME's) in executing this contract, irrespective whether a minimum percentage Participation Goals is applicable or not.

The Minimum Targeted Local Manufacturers of Material Contract Participation Goal, in accordance with the cidb Standard for Contract Participation Goals for Targeting Enterprises and Labour through Construction Works Contracts as published in the Government Gazette Notice No. 41237 of 10 November 2017, as amended in cidb Best Practice Project Assessment Scheme Notice No. 43726 of 18 September 2020.



PG-01.2 (EC): Scope of Works – JBCC (JBCC 2000- Edition 6.2 of May 2018)

A Targeted Local Material Manufacturer is a targeted enterprise that operates or maintains a factory or establishment that produces on its premises materials or goods required by the principal contractor for the performance of the contract.

Note: Adapted from SANS 10845-7:2015, definition 2.13

Preference shall be given to the Targeted Local Material Manufacturer where feasible in **insert** applicable Ward/s, Municipal District, Town, City, Province, and provided that:

- (a) Such materials comply in all respects with the specific requirements of PW371 and SANS specifications,
- (b) The non-availability of such materials shall not adversely affect the desired progress of the specific works,
- (c) The use of such suppliers shall not constitute grounds for any claim for increased cost in respect thereof,
- (d) Materials of at least **insert applicable percentage**, **both in words and figures** of the total value of materials purchased excluding VAT to be sourced from within **insert applicable kilometerskm** radius of the project site.
- (e) Material of at least **insert applicable percentage**, **both in words and figures** of the total value of materials purchased excluding VAT to be sourced from within **insert applicable kilometerskm** radius of the project site.

Failure to achieve the minimum **insert applicable percentage**, **both in words and figures** Targeted Local Material Manufacturer participation expressed as a percentage of the original tender amount, excluding allowances and VAT, will result in a **insert applicable percentage**, **both in words and figures** penalty of the prorate targeted value of materials not complied with unless the contractor can prove to the Employer's satisfaction that the non-achievement was beyond his/her control.

The bidder shall submit monthly reports in terms of monthly achievement and accumulative targets achieved including audited supporting documentation to the Employer's Representative.

C3.6.3 Minimum Targeted Local Building Material Suppliers Contract Participation Goal

The Minimum Targeted Local Building Material Suppliers CPG is "not applicable" to this project.

It is the requirement of the employer that the contractor enhances the use of local Small, Micro and Medium Enterprise Local Material Suppliers (SMME's) in executing this contract, irrespective whether a minimum percentage Participation Goals is applicable or not.

The Minimum Targeted Local Manufacturers of Material Contract Participation Goal shall be achieved in accordance with the cidb Standard for Contract Participation Goals for Targeting Enterprises and Labour through Construction Works Contracts as published in the Government Gazette Notice No. 41237 of 10 November 2017, as amended in cidb Best Practice Project Assessment Scheme Notice No. 43726 of 18 September 2020 – Condition of Contract..

A targeted supplier is a targeted enterprise that

- a) owns, operates or maintains a store, warehouse or other establishment in which goods are bought, kept in stock and regularly sold to wholesalers, retailers or the public in the usual course of business; and
- b) engages, as its principal business and in its own name, in the purchase and sale of goods. Note: Adapted from SANS 10845-7:2015, definition 2.14

Preference shall be given to the local material suppliers where feasible in the **insert applicable Ward/s, Municipal District, Town, City, Province**, and provided that:

- (a) Such materials comply in all respects with the specific requirements of PW371 and SANS specifications,
- (b) The none availability of such materials shall not adversely affect the desired progress of the specific works,
- (c) The use of such suppliers shall not constitute grounds for any claim for increased cost in respect thereof,



PG-01.2 (EC): Scope of Works – JBCC (JBCC 2000- Edition 6.2 of May 2018)

- Materials of at least insert applicable percentage, both in words and figures of the total (d) value of materials purchased excluding VAT to be sourced from within insert applicable kilometerskm of the project site,
- Material of at least insert applicable percentage, both in words and figures of the total (e) value of materials purchased excluding VAT to be sourced from within insert applicable kilometerskm of the project site.

Failure to achieve the minimum insert applicable percentage, both in words and figures Targeted Local Material Manufacturer participation expressed as a percentage of the original tender amount. excluding allowances and VAT, will result in a insert applicable percentage, both in words and figures penalty of the prorate targeted value of materials not complied with, unless the contractor can prove to the Employer's satisfaction that the non-achievement was beyond his/her control.

The bidder shall submit monthly reports in terms of monthly achievement and accumulative targets achieved including audited supporting documentation to the Employer's Representative.

C3.6.4 Minimum Targeted Local Labour Skills Development Contract Participation Goal

The Minimum Targeted Local Labour Skills Development CPG is "applicable" to this project.

It is the requirement of the employer that the contractor enhances the use of local labour in executing this contract. This is required to be done through the use of both traditional building techniques and labour-intensive construction techniques careful and considered construction planning and implemented in the project irrespective whether a minimum percentage Participation Goal is applicable or not.

The Minimum Targeted Local Skills Development Contract Participation Goal shall be achieved in accordance with the cidb Standard for Contract Participation Goals for Targeting Enterprises and Labour through Construction Works Contracts as published in the Government Gazette Notice No. 41237 of 10 November 2017, as amended in cidb Best Practice Project Assessment Scheme Notice No. 43726 of 18 September 2020 - Condition of Contract..

Targeted labour: individuals who:

- are employed by the principal contractor, sub-contractor or targeted enterprises in the a) performance of the contract;
- are defined as the target group in the targeting data; and
- permanently reside in the target area or who are recognized as being residents of the target area on the basis of identification and association with and recognition by the residents of the target area.

Adapted from SANS 10845-7:2015, definition 2.12

Targeting of labour by skills categories is only permissible within categories of semi-skilled and unskilled labour.

Contract participation goals for semi-skilled and unskilled labour shall be limited to on-the-job training to targeted labour to enable such labour to master the basic work techniques required to undertake the work in accordance with the requirements of the contract and in a manner that does not compromise worker health and safety. In the case of targeted labour, the certification of records shall be in accordance with SANS 10845-8.

Beneficiaries will be sourced from the Kou-Kamma Local Municipality, Sara Baartman, Joubertina, Eastern Cape for the full duration of the Construction Period, employed by either the principal contractor, sub-contractors or targeted enterprises. The total number of working days to complete the Works amount to 300 working days. The minimum CPG participation for Targeted Local Labour Skills Development is 5% (Five Percent), expressed as a percentage of the total number of working days required to complete the Works. The contractor shall attain or exceed the CPG in the performance of the contract. Failure to achieve the minimum Targeted Local Labour Skills Development CPG will result in a payment reduction of R5 000 (Excluding VAT), per working day

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which training has not been provided to the workforce in attendance, unless the contractor can prove to the Employer's satisfaction that the non-achievement was beyond his/her control.

The bidder shall submit monthly reports in terms of monthly achievement and accumulative targets achieved including audited supporting documentation to the Employer's Representative.

C3.6.5 CIDB BUILD PROGRAMME: Minimum Targeted Enterprise Development Contract Participation Goal

The Minimum Targeted Enterprise Development Contract Participation Goal is "applicable" to this project.

The aim of this best practice standard for indirect targeting for enterprise development in accordance with the Standard for Indirect Targeting for Enterprise Development (published in Government Gazette 36190 of 25 February 2013), as amended in cidb Best Practice Project Assessment Scheme Notice No. 43726 of 18 September 2020 — Condition of Contract. is to promote enterprise development by providing for a minimum contract participation goal (CPG) of **five percent (5%)** of the contract amount as defined in the Standard (Tender amount, excluding allowances and VAT on selected contracts to be undertaken by joint-venture partners or to be sub-contracted to developing contractors that are also to be beneficiaries of enterprise development support from the main contractor.

The bidder shall submit monthly reports in terms of monthly achievement and accumulative targets achieved including audited supporting documentation to the Employer's Representative.

The lead partner or main contractor shall dedicate a **minimum five percent (5%)** of the tender value at the time of award, excluding allowances and VAT, to provide developmental support to targeted subcontractor or joint venture partner applicable to contracts in Grades 1 to 6, General Building and Civil Engineering contracts. Preference will be given to General Building Enterprises.

The contractor shall attain or exceed the enterprise development goal in the performance of the contract. Failing to achieve the Participation Goal will result in A) a thirty percent (30%) penalty of the value not achieved, excluding VAT, unless the contractor can prove to the Employer's satisfaction that the non-achievement was beyond his/her control.

C3.6.5.1 Criteria

The main or lead partner of the successful bidder shall:

- (a) There must be a needs analysis for indirect targeting and development or skill standard and should be development in at least any two developmental areas namely;
 - Administrative and cost control systems
 - · construction management systems and plans
 - planning, tendering and programming
 - · business; technical; procurement skills
 - legal compliance
 - credit rating/history; financial loan capacity/history
 - · contractual knowledge
- (b) The above needs analysis shall be mutually agreed upon between contractor and targeted enterprise
- (c) The contractor shall appoint an enterprise development coordinator to:
 - perform needs analysis on the targeted enterprise to identify developmental goals
 - develop a project specific enterprise development plan to improve the targeted enterprise/s performance in the identified developmental areas
 - provide internal mentorship support to improve the targeted enterprise/s performance



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- monitor and submit to the employer's representative a monthly enterprise development report thereby reporting on the progress of the agreed development areas with the targeted enterprise/s
- submit a project completion report to the Employer's representative for each targeted enterprise.

C3.6.5.2 <u>Management</u>

The contractor shall provide a competent person/s to provide internal mentorship to the Targeted Enterprise/s in the two agreed developmental areas.

C3.6.5.3 Competence Criteria for an Enterprise Development Co-ordinator

The enterprise development co-ordinator shall have the following competencies:

- Minimum experience of 5 years in the construction industry at Managerial level as a Site Agent, Contracts Manager, Site Manager, Construction Manager, Business Development Manager or Enterprise Development Manager.
- Minimum experience of 2 years in training and development in Building or Construction; and
- National Diploma or B Degree in the Built Environment or Business Management

C3.6.5.4 Format of Communications

The contractor shall submit to the Employer's Representative:

- Project interim reports in the specified format (ED105P) detailing interim values of the CPG that
 was achieved together with an assessment of the enterprise development support provided
 should be tabled and discussed at least monthly at progress meetings between employer's
 representative and the contractor;
- Project completion report in the specified format (ED101P) to the Employer's Representative for acceptance within 15 days of achieving practical completion. The report shall include the value of the CPG that was certified in accordance with the contract, cidb registration numbers of each and every targeted enterprise, and the value of the subcontracted works or of the joint venture entered into; and the participation parameter
- Enterprise development declaration (ED104P).

C3.6.5.5 The Key Personal

The contractor shall appoint an Enterprise Development Co-ordinator and a competent person/s to provide internal mentorship.

C3.6.5.6 Management Meetings

The contractor shall report to the Employer's Representative on the implementation and progress of the targeted enterprise development and CPG at monthly progress site meetings.

C3.6.5.7 Forms for contract administration

The contractor shall submit to the Employer's Representative the following proformas:



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- Form ED 105P Project Interim Report
- Form ED 104P Enterprise Development Declaration
- Form ED 101P Project Completion Report

C3.6.5.8 Records

The contractor shall:

- keep records of the targeted enterprise development
- keep records of the payments made to the targeted enterprises in relation to the CPG.
- ensure all the documentation required in terms of the Standard is provided with each monthly progress payment certificate and according to a prescribed format where applicable.

C3.6.5.9 Payment Certificates

The contractor shall:

- achieve the measurable CPG and providing enterprise development support to the targeted enterprise/s as per the Standard.
- submit payment certificates to the Employer Representative at intervals determined in the Contract.

C3.6.5.10 Compliance requirements

Non-compliance with the Best Practice Project Assessment Scheme

The wording of regulation 27A of the cidb regulations makes provision for the Board to enforce the cidb code of conduct in the event of clients being found to be in breach of the best practice project assessment scheme.

- Not including the requirements of the cidb standards in the conditions of tender
- Not registering the award of contract on the cidb Register of Projects (RoP)
- Not reporting practical completion on the cidb Register of Projects (RoP)

3.6.6 CIDB BUILD PROGRAMME: Minimum Targeted Contract Skills Development Goal (CSDG)

The Minimum Targeted Contract Skills Development CPG is "applicable" to this project.

The contractor shall achieve or exceed in the performance of the contract the Contract Skills Development Goal (CSDG) established in the Standard for Developing Skills through Infrastructure Contracts (published in Government Gazette No 43495 of 3 July 2020, as amended in cidb Best Practice Project Assessment Scheme Notice No. 43726 of 18 September 2020 – Condition of Contract.

Failing to achieve the targeted Contract Skills Development Goal will result in A) a thirty percent (30%) penalty of the value of the portion not achieved, excluding VAT, and B) the issuing of completion certificates only after the completion certificate of achieving the skills development goal, counter-signed by the relevant individuals has been submitted, unless the contractor can prove to the Employer's satisfaction that the non-achievement was beyond his/her control.

The contractor shall apportion the learners in the different construction activities based on the scope of work. The cost of accommodating learners will be determined by using Table 3 in the Standard and this cost will be used to determine the value in Rand and will be added to the provision for training as provided for in the Preliminary and General section in the Bill of Quantities/Pricing schedules/Activity schedule.



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C3.6.6.1 Methodology

The contractor shall achieve the measurable contract skills development goal by providing opportunities to learners requiring structured workplace learning using one or a combination of any of the following in relation to work directly related to the contract or order:

Method 1: structured workplace learning opportunities for learners towards the attainment of a part or a full occupational qualification;

Method 2: structured workplace learning opportunities for apprentices or other artisan learners towards the attainment of a trade qualification leading to a listed trade (GG No. 35625, 31 August 2012) subject to at least sixty percent (60%) of the artisan learners being holders of public TVET college qualifications;

Method 3: work integrated learning opportunities for University of Technology Comprehensive University students completing their national diplomas;

Method 4: structured workplace learning opportunities for candidates towards registration in a professional category by a statutory council listed in Table 1 above.

The contract skills participation goals, expressed in Rand, shall not be less than the contract amount multiplied by a percentage (%) factor given in Table 2 in the Standard for the applicable class of construction works.

Table 2: Contracting skills development goals for different classes of engineering and construction works contracts

	ruction works as identified in terms of Regulation 25 struction Industry Regulations 2004	Construction skills development goal
Designation	Designation Description	
CE	Civil Engineering	0.25
CE and GB	Civil engineering and General Building	0.375
EE	Electrical Engineering works (buildings)	0.25
EP	Electrical Engineering works (infrastructure)	0.25
GB	General Building	0.5
ME	Mechanical Engineering works	0.25
SB	Specialist	0.25

The contractor shall apportion the learners in the different construction activities based on the scope of work. The cost of accommodating learners will be determined by using Table 3 in the Standard and this cost will be used to determine the value in Rand and will be added to the provision for training as provided for in the Preliminary and General section in the Bill of Quantities/Pricing schedules/Activity schedule.

Table 3: Notional Cost of Training per Headcount

Source: cidb Standard for Skills Development

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Type of Training	Provision for stipends Provisions		Provisions for	Total costs	
Opportunity	(Unemployed learners only)	for mentorship	additional costs*	Unemployed learners	Employed learners
Method 1					
Occupational qualification	R7 000	R0	R9 000	R16 000	R9 000
Method 2					
TVET College graduates	R14 000	R0	R9 000	R23 000	N/A
Apprenticeship	R14 000	R0	R12 000	R26 000	R12 000
Method 3	-				
P1 and P2 learners	R24 000	R20 000	R4 500	R48 500	N/A
Method 4					
Candidates with a 3 year diploma	R37 000	R20 000	R4 500	R61 500	R20 000
Candidates with 4 year qualification	R47 000	R20 000	R4 500	R71 500	R20 000

Note: the required CPG will be recalculated based on the awarded tender amount and "Contract amount" once the beneficiaries have been appointed and actual costs are known. The notional cost of providing training opportunities will increase by CPI on an annual basis based on April CPI. Should the rates increase after bid award or during construction the rates will be adjusted as a remeasuarble item.

- (a) The successful contractor may employ part/full occupational qualification learners, trade qualification learners, work integrated learners or candidates directly or through a Skills Development Agency (SDA), (A1 List of cidb accredited SDAs).
- (b) The successful contractor must employ at least sixty percent (60%) of the learners from an FET / TVET college should the contractor select to have part/full occupational qualification learners and trade qualification learners contributing to the CSDG.
- (c) The successful contractor shall employ at least 5% (Five percent) from eligible part/full occupational qualification learners, trade qualification learners, work integrated learners or candidates in the employment of the employer.
- (d) The successful contractor shall ensure that no single method shall contribute more than seventy five percent (75%) of the CSDG for the contract.
- (e) The successful contractor may only place thirty three percent (33%) employed employees or that of his subcontractors contributing to the CSDG.
- (f) The contractor shall employ at least sixty percent (60%) of the learners from a Public FET / TVET college should the contractor select to have trade qualification learners (Method 2) contributing to the CSDG.
- (g) One of the objectives of the project is to train 1 professional candidates within the built environment.

C3.6.6.2 Management

- (a) The successful contractor must keep site records regarding the full occupational qualification learners', candidates' progress, site attendance, hours worked and other relevant information as required by the Standard.
- (b) The successful contractor shall provide the required number of appropriately qualified mentors to the maximum number of full occupational qualification learners, trade qualification learners, work integrated learners in the proportion as specified in the Standard.



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- (c) The successful contractor shall provide a supervisor to manage the training of the part/full occupational qualification learners, candidates.
- (d) The successful contractor shall submit to the employer's representative a baseline training plan in the specified format (Pro-forma A2) for the part/full occupational qualification candidates within 30 days of start of the contract.
- (e) The successful contractor shall submit to the employer's representative project interim report in the specified format (Pro-forma A3) on the progress of each of part/full occupational qualification candidate every three months.
- (f) The successful contractor shall submit to the employer's representative the names and particulars in the specified format (Pro-forma A4) of the supervisor, mentors for the part/full occupational qualification learner candidates within 30 days of start of the contract.
- (g) The successful contractor shall keep a daily record of all the part/full occupational qualification learners, trade qualification learners, work integrated learners, candidates on site and their daily activities and shall be made available to the employer's representative on request.
- (h) The successful contractor shall submit to the employer's representative the reports on the progress and status of the part/full occupational qualification learners, trade qualification learners, work integrated learners or candidates with the monthly invoice for the payment certificate.
- (i) The successful contractor shall have health and safety inductions for all part/full occupational qualification learners, trade qualification learners, work integrated learners or candidates.
- (j) The successful contractor shall conduct entry and exit medical tests of all part/full occupational qualification learners, trade qualification learners, work integrated learners or.
- (k) The successful contractor shall provide personal protective equipment (PPE) to all part/full occupational qualification learners, trade qualification learners, work integrated learners or candidates at the start of their employment on site.
- (I) Based on the agreed skills methods the contractor may employ part/full Occupational Qualification Learners and /or Trade Qualification Learners and/or Work Integrated Learners and/or Candidates directly or through a Skills Development Agency (SDA), training provider or skills development facilitator (Form A1 List of cidb accredited SDAs). The contractor shall ensure that no more than one Method shall be applied to any individual concurrently in the calculation of the CSDG for the contract.

C3.6.7 NATIONAL YOUTH SERVICE TRAINING AND DEVELOPMENT PROGRAMME (NYS)

The National Youth Service Training and Development Programme is "applicable" to this project.

The programme shall be implemented in terms of the Implementation of the National Youth Service Programme under the Expanded Public Works (EPWP) and shall be priced in the CPG section of the Bills of Quantities. Monthly reports are to be submitted to the Employer's Representative.

Failure by the contractors to achieve the specified number to be trained in the NYS section of the CPG section within the Bills of quantities will result in a Payment reduction as per bill of quantities per person, excluding VAT, unless the contractor can prove to the Employer's satisfaction that the non-achievement was beyond his/her control.

C3.6.8 LABOUR-INTENSIVE WORKS

Labour Intensive Works is "appliacble" to this project.



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Where labour intensive work is specified in the Bill of Qualities and specified by "LI" the contractor must price for and include in rates. Contractors are expected to use their initiative to identify additional activities that can be done labour-intensively to comply with the set minimum labour intensity target. Allowance must be made for submitting monthly reports illustrating the value of the works executed under Labour Intensive Works.

Failure by the contractor to achieve the specified value of the Labour Intensive Participation Goal as stipulated within the Bills of quantities will result in a **thirty percent (30%)** penalty of the value of the works not done by means of labour intensive methods, excluding VAT, unless the contractor can prove to the Employer's satisfaction that the non-achievement was beyond his/her control.

Employer's objectives:

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

Labour-intensive works:

Labour-intensive works shall be constructed/maintained using local workers who are temporarily employed in terms of the scope of work.

Labour-intensive competencies of supervisory and management staff:

Contractors shall only engage supervisory and management staff in labour-intensive works that have completed the skills programme including Foremen/ Supervisors at NQF level 4 "National Certificate: Supervision of Civil Engineering Construction Processes" and Site Agent/ Manager at NQF level 5 "Manage Labour-Intensive Construction Processes" or equivalent QCTO qualifications (See Appendix C) at NQF outlined in Table 1

C3.6.8.1 GENERIC LABOUR-INTENSIVE SPECIFICATION

Contractors are referred to the Guidelines for the Implementation of Labour-intensive Infrastructure Projects under the Expanded Publics Works Programme (EPWP) for the generic labour-intensive specification applicable to the contract.

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

- trenches having a depth of less than 1.5 metres
- stormwater drainage
- roads
- sidewalks and non-motorised transport infrastructure
- water and sanitation

Precedence

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

Hand excavateable material

Hand excavateable material is:

a) granular materials:

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

b) cohesive materials:

i) whose consistency when profiled may in terms of table 2 be classified as very soft, soft, firm, stiff and stiff / very stiff; or



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ii) where the material is a gravel having a maximum particle size of 10mm and contains no cobbles or isolated boulders, no more than 8 blows of a dynamic cone penetrometer is required to penetrate 100mm;

Note

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

Table 2: Consistency of materials when profiled					
GRANULAR MATERIALS		COHESIVE MATERIALS			
CONSISTENCY	DESCRIPTION	CONSISTENCY	DESCRIPTION		
Very loose	Crumbles very easily when scraped with a geological pick.	Very soft	Geological pick head can easily be pushed in as far as the shaft of the handle.		
Loose	Small resistance to penetration by sharp end of a geological pick.	Soft	Easily dented by thumb; sharp end of a geological pick can be pushed in 30-40 mm; can be moulded by fingers with some pressure.		
Medium dense	Considerable resistance to penetration by sharp end of a geological pick.	Firm	Indented by thumb with effort; sharp end of geological pick can be pushed in up to 10 mm; very difficult to mould with fingers; can just be penetrated with an ordinary hand spade.		
Dense	Very high resistance to penetration by the sharp end of a geological pick; requires many blows for excavation.	Stiff	Can be indented by thumb-nail; slight indentation produced by pushing geological pick point into soil; cannot be moulded by fingers.		
Very dense	High resistance to repeated blows of a geological pick.	Very stiff	Indented by thumb-nail with difficulty; slight indentation produced by blow of a geological pick point.		

Trench excavation

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

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

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

a) to 90% Mod AASHTO;

b) such that in excess of 5 blows of a dynamic come penetrometer (DCP) is required to penetrate 100 mm of the backfill, provided that backfill does not comprise more than 10% gravel of size less than 10mm and contains no isolated boulders, or



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c) such that the density of the compacted trench backfill is not less than that of the surrounding undisturbed soil when tested comparatively with a DCP.

Excavation

All excavateable material including topsoil classified as hand excavateable shall be excavated by hand. Harder material may be loosened by mechanical means prior to excavation by hand. Any material which presents the possibility of danger or injury to workers shall not be excavated by hand.

Clearing and grubbing

Grass and bushes shall be cleared by hand.

All shaping shall be undertaken by hand.

Loading

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

Haul

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

Offloading

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

Spreading

All material shall be spread by hand.

Compaction

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

Grassing

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

Stone pitching and rubble concrete masonry

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

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

Grout shall be mixed and placed by hand.

Manufactured Elements

Elements manufactured or supplied by the Contractor, such as manhole rings and cover slabs, precast concrete planks and pipes, masonry units and edge beams shall not individually, have a mass of more than 320kg. Where the mass of an element exceeds 55 kg, consideration should be given to the size of the element relative to its total mass related to the number of workers who would be needed to lift such mass

Submission of Accrual Reports C3.7

The Contractor shall submit accrual reports to the client representative at the end of March and September each year for the duration of the Service Contract period from the date of appointment up to and including project closeout. This is to ensure that PMTE complies with the accounting framework GRAP, which requires that PMTE disclose all its accruals as at the end of each reporting date.

C3.8 Submission of Monthly Local Material Utilisation Report (Local Content)

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The contractors shall be responsible for record keeping, documenting and submission of monthly local material utilization report with supporting documentation to the Employer's representative within 7 working days of the beginning of the successive month, in terms of DTI&C designated industry/sector/sub-sector schedule as per the PA36 and Annexures C attached to the tender document. The final percentage achievement to be reconciled upon completion of the project and form part of the final account. Failure by the contractors to achieve the specified percentage of local content per designated industry/sector/sub-sector as listed will result in a thirty percent thirty percent (30%) penalty of the value not achieved, excluding VAT, unless the contractor can prove to the Employer's satisfaction that the non-achievement was beyond his/her control.



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Examples of calculating CPGs and related penalties

CPGs values are based on the Tender Amount at the time of the award. Determining the actual values is based either on the Tender Amount including allowances and Vat or the Tender Amount at the time of award excluding allowances and VAT, where <u>Allowances</u> include the following:

- Provisional amounts
- CPG allowances
- Nominated and/or selected subcontractors
- Contract price adjustment (Not provided for within the B of Q by NDPWI)
- Contingency amounts (Not provided for within the B of Q by NDPWI)

CPG values in the CPG Bill of Quantities Section will be recalculated based on the "Tender Amount" or the "Contract Amount" which ever applicable and the provisional amounts adjusted accordingly. Sanctions (penalties) are applicable to all CPGs where the contractor fails to achieve the minimum specified requirements, unless the contractor can prove to the Employer's satisfaction that the non-achievement was beyond his/her control. No penalties will be applied should the CPG value, based on the original "Tender Amount" or the "Contract Amount", has been achieved.

1.1. 30% SMME mandatory subcontracting CPG

When applicable, a minimum of 30% of the total tender amount at the time of award, including all allowances and VAT are to be subcontracted to SMMEs.

CPG calculation example:

"Tender Amount" = R150 mil CPG 30% subcontracting value = R45 Mil

Calculation of penalty:

Percentage penalty applicable = 5% as specified in the Scope of Works (PG01.2) CPG Achieved = R30 Mil (R15 Mil shortfall)
Penalty = R15 Mil x 5% = R750 000 Excl. VAT

1.2 Targeted Local Building Material Manufacturers CPG

When applicable, the CPG is expressed as a percentage of the "Contract Amount", i.e. the Tender Amount at the time of award excluding allowances and VAT.

CPG calculation example:

"Tender Amount" = R150 Mil all inclusive of allowances and VAT

"Contract Amount" = R130 Mil (Tender Amount at the time of award excluding allowances and VAT)

CPG to be achieved = 5% as specified in the Scope of Works (PG01.2)

CPG target value = R130 Mil x 5% = R 6.5 Mil (Value of material to be purchased from local manufacturers, excluding VAT)

Calculation of penalty:

Percentage penalty applicable = 10% as specified in the Scope of Works (PG01.2)

CPG target value = R6,5 Mil excluding VAT

CPG Achieved = R5,5 Mil (R1 Mil shortfall) excluding VAT

Penalty = R1 Mil x 10% = R100 000 excluding VAT

1.3 Targeted Local Building Material Suppliers CPG

When applicable, the CPG is expressed as a percentage of the "Contract Amount", i.e. the Tender Amount at the time of award excluding allowances and VAT.

CPG calculation example:

"Tender Amount" = R150 Mil all inclusive of allowances and VAT

"Contract Amount" = R130 Mil (Tender Amount at the time of award excluding allowances and VAT)

Any reference to words "Bid" or Bidder" herein and/or in any other documentation shall be construed to have the same meaning as the words "Tender" or "Tenderer". Page 17 of 21

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CPG to be achieved = 5% as specified in the Scope of Works (PG01.2)

CPG target value = R130 Mil x 5% = R 6,5 Mil (Value of material to be purchased from local suppliers, excluding VAT)

Calculation of penalty:

Percentage penalty applicable = 20% as specified in the Scope of Works (PG01.2) CPG target value = R6,5 Mil excluding VAT

CPG Achieved = R5,5 Mil (R1 Mil shortfall) excluding VAT

Penalty = R1 Mil x 20% = R200 000 excluding VAT

1.4 Targeted Local Labour Skills Development CPG

When applicable, the CPG is expressed as a percentage of the total number working days required to complete the Works.

CPG calculation example:

"Tender Amount" = R150 Mil all inclusive of allowances and VAT

"Contract amount" = R130 Mil (Tender Amount at the time of award excluding allowances and VAT) Number of working days required to complete the Works based on the construction period = 600 days CPG percentage participation to be achieved = 30% as specified in the Scope of Works (PG01.2) Required number of working days training to be provided = 180 days (600 x 30%)

Calculation of penalty:

Payment reduction = R 5 000 per day for not providing training as specified in the Scope of Works (PG01.2) CPG = 600 working days x 30% = 180 working days training to be provided CPG Achieved = 160 days (20 days shortfall where no training was provided) Penalty = 20 days x R5 000 payment reduction per day= R100 000 excluding VAT

1.5 National Youth Service Programme (NYS) CPG

When applicable, a separate NYS Bill of Quantities will be included in the tender documentation will indicate the number of beneficiaries to be trained.

Calculation of penalty:

Payment reduction per person not trained as stipulated in the NYS Bill of Quantities = R 2 500 per person. Total number of NYS Beneficiaries as stipulated in the NYS Bill of Quantities = 25 Total Number of NYS beneficiaries trained = 20 (shortfall of 5 beneficiaries) Penalty = 5 x R2 500 = R12 500 Excl. VAT

1.6 **Labour Intensive Works CPG**

When applicable, the work to be done by way of Labour intensive methods are specified in the Bills of Quantities with a "LI".

CPG calculation example:

"Tender Amount" = R150 Mil all inclusive of allowances and VAT

"Contract Amount" = R130 Mil (Tender Amount at the time of award excluding allowances and VAT) CPG value = R10 Mil (Total value of labour-intensive works specified in the Bills of Quantities)

Calculation of penalty:

CPG value = R10 Mil

Percentage penalty applicable = 30% as specified in the Scope of Works (PG01.2)

CPG Achieved = 9 Mil (R1 Mil shortfall)

Penalty = R1 Mil x 30% = R300 000 Excl. VAT

1.7 **Cidb BUILD Programme: Enterprise Development**

When applicable, the Enterprise Development CPG expressed as a percentage of the "Contract amount" =

Any reference to words "Bid" or Bidder" herein and/or in any other documentation shall be construed to have the same meaning as the words "Tender" or "Tenderer". Page 18 of 21

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Tender amount at the time of award excluding allowances and VAT. Failure to achieve the minimum Targeted Local Labour Skills Development CPG will result in a payment reduction of an amount specified in the Scope of Works (PG01.2) per working day where training was not provided.

The monetary value of training to be provided is stipulated in the CPG BoQ section. The number of beneficiaries to be trained is dependent on the "Contract Amount" as well the number of beneficiaries appointed which will generally resort under the Grade 1 and 2 cidb categories. The provisional amount will therefore be adjusted in terms of the "contract Amount", the number of beneficiaries to be trained and the actual cost for providing the training.

Part 1: Calculation of 5% CPG example:

"Tender Amount" = R150 Mil all inclusive of allowances and VAT

"Contract Amount" = R130 Mil (Tender Amount at the time of award excluding allowances and VAT) CPG percentage participation to be achieved = 5% as specified in the Scope of Works (PG01.2) CPG value = R6,5 Mil (Value of work to be subcontracted to emerging enterprises)

Calculation of penalty

Percentage penalty applicable = 30% as specified in the Scope of Works (PG01.2)

CPG Minimum 5% = R6,5 Mil

Achieved = R5,5 Mil (Only subcontracted work to the value of R5,5 Mil, i.e. R1 Mil shortfall)

Penalty = R1 Mil x 30% = R300 000 Excl. VAT

Part 2: Calculations in terms of training to be done:

The number of enterprises to be developed is subject to the contract amount and the apportionment of the work as per Example 1 below.

Number of enterprises to be trained = 6 x 1 GB subcontractors

Total cost for training = R 1 660 000

Calculation of penalty

Total number of enterprises to be trained = 6

Total number trained = 4 (2 Shortfall)

Training cost per beneficiary = R1 660 000 / 6 = R 276 666,67 per beneficiary

Penalty = R 276 666,67 x 2 x 30% = R166 000 Excl. VAT

B of Q Item	Description	Unit	Rate	Quantity	Amount (R)
5	Enterprise Development				
5.1	Enterprise Development of Targeted Enterprise or JV partners				
5.1.1	Appointment of training co-ordinator	Per Quarter	45 000	8	360 000
5.1.2	Appointment of Mentor /Training Service provider	Per Quarter	135 000	8	1 080 000
5.1.3	Needs Analysis and Enterprise Development Plan per Targeted Enterprise	No.	5 000	6	30 000
5.1.4	Monitoring and Interim reporting per targeted enterprise	Per Quarter	20 000	8	160 000
5.1.5	Project Completion report per Targeted Enterprise	No.	5 000	6	30 000
	Provisional Sum to be carried over to CPG bill of quantities				1 660 000

"Contract amount" Tender amount excl. allowances and VAT, CPG Monetary value (5%) to be subcontracted to beneficiaries for training 130 000 000

No of enterprises based on the CPG value 6 Grade 1 / 2 GB/CE,ETC.

Contract period (months) 24

Note: Rates to be determined by PQS and adjusted to accepted quotation amounts

1.8 Cidb BUILD Programme: Skills Development (Principal contractor including subcontractors and consultants)

When applicable, the contract skills development participation goals, expressed in Rand, shall be no less than the "contract amount" multiplied by a percentage (%) factor for the applicable class of

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Version: 2022/07



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construction works.

The monetary value of training to be provided is stipulated in the CPG BoQ section. The number of beneficiaries to be trained is dependent on the "Contract Amount" as well the number of beneficiaries appointed which will generally resort under the Grade 1 and 2 cidb categories. The provisional amount will therefore be adjusted in terms of the "Contract Amount", the number of beneficiaries to be trained from which *Method* and the actual cost for providing the training.

CPG Calculation

Table 2: Contracting skills development goals for different classes of engineering and construction works contracts

Source: cidb Standard for Developing Skills through Infrastructure Contracts as published in the Government Gazette Notice No. 43495 of 3 July 2020 (Page 7)

Class of constr Industry Regul	Construction skills development goal (CSDG) (%)	
Designation	Description	
CE	Civil Engineering	0.25
CE and GB	Civil engineering and General Building	0.375
EE	Electrical Engineering works (buildings)	0.25
EP	Electrical Engineering works (infrastructure)	0.25
GB	General Building	0.5
ME	Mechanical Engineering works	0.25
SB	Specialist	0.25

[&]quot;Contract amount" = Tender amount at the time of award excluding allowances and expenses, and VAT

Contractor CPG:

CPG calculation

CPG calculation example:

"Tender Amount" = R150 Mil for GB, all inclusive of allowances and VAT

"Contract Amount" = R130 Mil (Tender Amount at the time of award excluding allowances and VAT)

Factor for GB = 0,5% (as per Table 2 above)

CPG in R value = R130 Mil x 0,5% = R650 000 i.e. total cost of training to amount to R650 000

Calculation of penalty:

Percentage penalty applicable = 30% as specified in the Scope of Works (PG01.2)

CPG value = R650 000

Achieved = R550 000 = R100 000 Shortfall

Penalty = R100 000 x 30% = R30 000 Excl. VAT

Calculations based on "Contract Amount" after b5d award and aafter bid award and appointment of beneficiaries

Actual CPG training requirement value after award upon selecting method/s of training and appointment of beneficiaries = R676 000 (Table 4 below) and the provisional amount allowed for to be adjusted accordingly. The new monetary value of training required will then form the basis for determining penalties applicable. No penalties will be applied should the CPG value, based on the "Contract Amount" be achieved.

Table 4: Notional cost recalculation upon appointment of beneficiaries.

Source: cidb Standard for Developing Skills through Infrastructure Contracts as published in the Government Gazette Notice No. 43495 of 3 July 2020 (Page 10)

Skills Types	Number of learners	Notional Cost <i>I</i> Learner <i>I</i> Quarter	Notional cost / learner / year	Total Notional Cost over 12 months Contract
Method 2: Workplace learning opportunities, with unemployed TVET graduates	2	R23 000	R92 000	R184 000

[&]quot;Contract amount" x factor from Table 3 above.



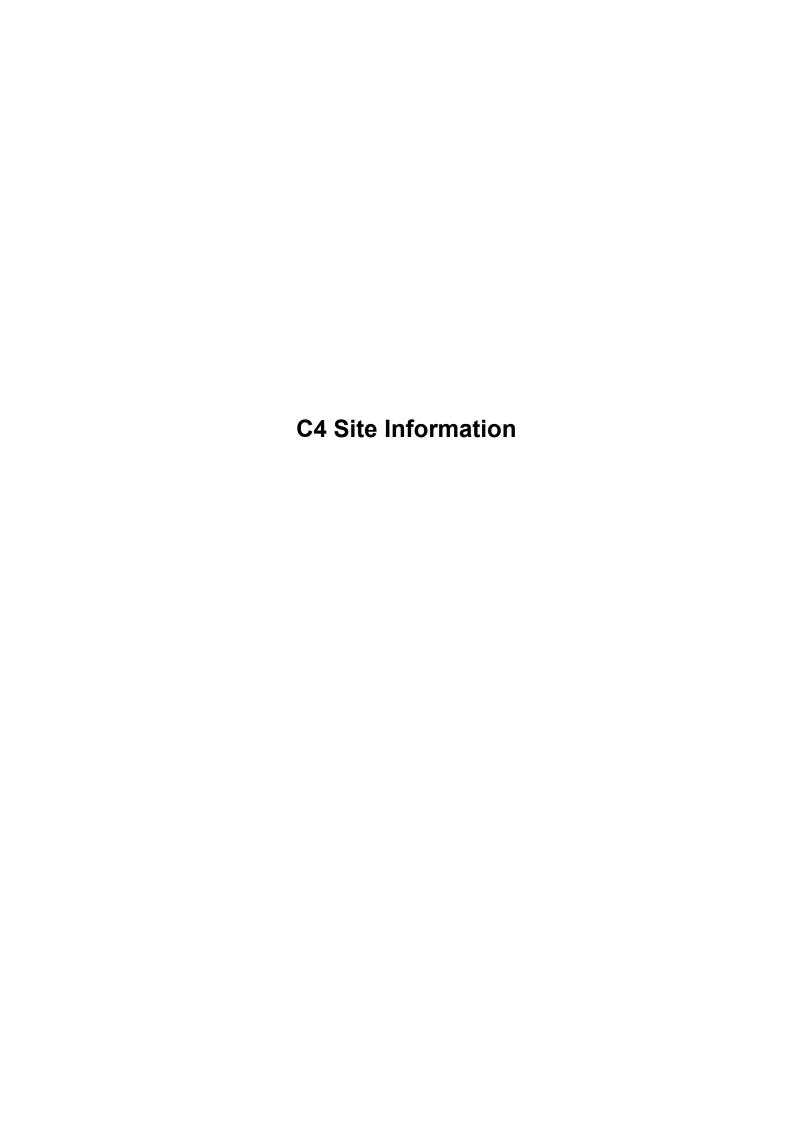
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Method 3: Candidacy for an unemployed learner with a 3-year qualification	2	R61 500	R246 000	R492 000
Total	4			R676 000

Note: the required CPG will be recalculated based on the awarded Tender amount and "Contract Amount" once the beneficiaries have been appointed and actual costs are known

Note: The notional cost of providing training opportunities will increase by CPI on an annual basis based on April CPI as published by Stats SA. The rates will be adjusted as an adjustment to the provisional amounts should the rates increase after bid award or during the construction period







PG-03.2 (EC) SITE INFORMATION – JBCC 2000 PRINCIPAL BUILDING AGREEMENT (EDITION 6.2 OF MAY 2018)

Project title:	Joubertina Police Station ERF 1200: Repairs & Maintenance of Electrical, Mechanical, Civil & Structural Elements to the Complex: Completion of Contract 1.				
Tender no:	PE25/2022	WCS no:	051843	Reference no:	19/2/4/2/2/6417/24

C4 Site Information

1. GENERAL

The Standard for Uniformity in Construction Procurement published in terms of the Construction Industry Development Board (CIDB) Act, 2000 (Act no. 38 of 2000), the Standardized Construction Procurement Documents for Engineering and Construction Works as issued by the CIDB and any other relevant documentation pertaining thereto must be studied and all principles in this regard must be applied to all procurement documentation, practices and procedures.

2. Site Information

The project only calls for upgrading and renovations. A formal geotechnical investigation was done, and the trial hole positions, and soil conditions was tabled in the Geotechnical report. From known information the water table is deep and excavation for footings and foundations for new walls and tank stand will not be problematic.

The area is calcrete and no loose sand is expected. Foundations where applicable will be average 600mm deep and footing sizes 750x250 for 230mm walls and 450x230 for 110mm internal walls. 125mm Thick reinforced surface beds on compacted fill where new foundations and new walls are required.

The setting out is indicated on the drawings.

The site is located in Joubertina.

The works comprise of renovations to the existing SAPS precinct at Joubertina SAPS. All existing buildings are constructed with brick and mortar with Metal roof sheets and one Building having asbestos roof sheets.

All buildings are existing and scope of works includes:

- Internal demolition of brickwork, alterations to existing ablution layout
- Upgrade / replacement to internal finishes, ceilings and fittings
- Removal of asbestos roof sheets and steel roof sheets installation of new roof sheets.
- new perimeter fencing
- new bulk earthworks, paving and access roads
- upgrade of the sewer reticulation
- upgrade of water storage tower

The health and safety specification clearly outlines the process for removal of the asbestos. The SAPS precinct will remain in operation for the full duration of the contract

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